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GRADUATE

Select from more than 120 graduate degree programs that will challenge, inspire and prepare you to achieve your highest academic and professional goals. DU graduate programs combine rigorous study with critical thinking, collaboration and applied learning experiences that will enable you to expand your skills, deepen your expertise and apply your knowledge to benefit you and the world.

About the University of Denver

The University of Denver

Founded in 1864, the University of Denver is an independent coeducational institution located in a residential neighborhood eight miles southeast of downtown Denver. Colleges, schools and divisions of the University include the following:

- Colorado Women’s College
- Daniel Felix Ritchie School of Engineering and Computer Science
- Daniels College of Business
- Divisions of Arts, Humanities and Social Sciences
- Division of Natural Sciences and Mathematics
- Josef Korbel School of International Studies
- Graduate School of Professional Psychology
- Graduate School of Social Work
- Morgridge College of Education
- Sturm College of Law
- University College

Students

University of Denver students come from all 50 states, in addition to the District of Columbia and Territory of Guam, and from 76 different countries. Enrollment is approximately 11,800: 5,500 undergraduates and 6,300 graduate students.

University Governance and Organization

Administration

Rebecca Chopp, PhD
Chancellor

Gregg Kvistad, PhD
Provost and Executive Vice Chancellor

E. LaBrent Chrite, PhD
Dean, Daniels College of Business

Christopher Hill, MS
Dean, Josef Korbel School of International Studies

J.B. Holston, MBA
Dean, Daniel Felix Ritchie School of Engineering and Computer Science

Andrei Kutateladze, PhD
Dean, Division of Natural Sciences and Mathematics

Michael Levine-Clark, MS
Dean, University Libraries

Amanda Moore McBride, PhD
Dean, Graduate School of Social Work
Michael McGuire, MLS
Dean, University College

Daniel McIntosh, PhD
Dean, Divisions of Arts, Humanities and Social Sciences

Linda Grace Olson, PhD
Interim Dean, Colorado Women's College

Karen S. Riley, PhD
Dean, Morgridge College of Education

Shelly Smith-Acuña, PhD
Dean, Graduate School of Professional Psychology

Bruce P. Smith, JD
Dean, Sturm College of Law

Board of Trustees
Douglas G. Scrivner
Chair
Office of Graduate Studies

The Office of Graduate Studies (OGS) provides leadership and support for graduate education and advocates on behalf of graduate students and programs at the University of Denver. Under the direction of the Associate Provost for Graduate Studies, the OGS partners with deans, academic units and University governance to ensure excellence and integrity in educational programs and curricula. The OGS facilitates the development of new degree programs at the graduate level, oversees processes to ensure the quality of graduate and credential programs, acts as an advisory resource to programs initiating or transforming their academic programs, and ensures the University is in compliance with all federal, state, and university policies related to graduate education. On behalf of the Provost and working in consultation with the Graduate Council, the office is responsible for the authorship and oversight of graduate policy.
Graduate Council

The Associate Provost and the Graduate Council are charged with the responsibility of reviewing, formulating, and implementing policy concerning graduate education.

Composition

Council membership includes the Associate Provost for Graduate Studies, all of the academic deans from units with graduate programs, an elected faculty representative from each division, two elected representatives from the Faculty Senate and two representatives of the Graduate Student Government (GSG).

Administrators such as the Registrar, the Dean of the Library, the Vice Chancellor for University Technology Services, the Chair of the Undergraduate Council, the Associate Provost for Research and the Vice Provost for Internationalization serve ex officio and participate in the Committee’s proceedings as voting members.

Responsibilities

The Graduate Council shall oversee the configuration of graduate degree and certificate programs, monitor the degree to which these programs further the University’s mission, avoid unwarranted program duplication, and establish, monitor and maintain academic standards across the graduate curricula. The Council shall recommend policies including, but not limited to, the structure and quality of the graduate curricula; procedures concerning graduate student appeals; and policies governing the initiation and termination of graduate degree programs.

Academic Units

Graduate Studies at the University of Denver includes programs in the following academic units:

- Arts and Humanities Division
- Morgridge College of Education
- Daniels College of Business
- DU-Illiff Joint PhD Program
- Josef Korbel School of International Studies
- Graduate School of Professional Psychology
- Graduate School of Social Work
- Graduate Tax Program
- Natural Sciences and Mathematics Division
- Daniel Felix Ritchie School of Engineering and Computer Science
- Social Sciences Division
- Sturm College of Law
- University College

Equal Opportunity and Non-Discrimination Policy

The University of Denver is an Equal Opportunity Institution. It is the policy of the University not to discriminate in the admission of students, in the provision of services, or in employment on the basis of race, ethnicity, color, religion, sex, national origin, age, marital status, veteran status, sexual orientation, gender identity, gender expression, genetic information, or disability. The University prohibits all discrimination, harassment and retaliation, and complies with all applicable federal, state and local laws, regulations and Executive Orders.

Inquiries concerning allegations of discrimination based on any of the above factors may be referred to the Equal Opportunity and Title IX Offices:

University of Denver
Equal Opportunity and Title IX Offices
Mary Reed Building, Room 422
2199 S. University Blvd.
Denver, CO 80208
Phone: 303-871-7436
Fax: 303-871-3656

For more information, please call the above number or see the website at http://www.du.edu/deo/. You also may contact the Equal Opportunity and Title IX Offices with concerns regarding determinations of religious or disability accommodations and/or issues about access.
Accreditation

Institutional Accreditation

The University of Denver is accredited by the Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools, one of six regional accrediting bodies recognized by the U.S. Department of Education. DU is authorized to offer post-secondary education in the state of Colorado by the Colorado Department of Higher Education.

Higher Learning Commission
230 South LaSalle Street, Suite 7-500
Chicago, IL 60604-1413
312-263-0456
800-621-7440
www.ncahlc.org (http://www.ncahlc.org)

Colorado Department of Higher Education
1560 Broadway, Suite 1600
Denver, CO 80203
303-866-2723
http://highered.colorado.gov

Specialized Accreditation

Individual academic programs undergo periodic review by accreditation or certification bodies in their field.

- Accrediting Board for Engineering and Technology
- American Bar Association
- American Chemical Society
- American Library Association
- American Psychological Association
- Association to Advance Collegiate Schools of Business International
- Colorado Department of Education
- Council on Social Work Education
- National Association of Schools of Arts and Design
- National Association of School Psychologists
- National Association of Schools of Music

Dual Degree Programs

Dual Undergraduate-Graduate Degree Programs (p. 14)

Flexible Dual Degree Programs (p. 34)

Formal Dual Graduate Degrees (p. 35)

Dual Undergraduate-Graduate Degree Programs

DUAL UNDERGRADUATE-GRADUATE DEGREE PROGRAMS

A Dual Undergraduate-Graduate Degree Program is an institutionally approved program in which a DU undergraduate student begins taking classes toward a graduate degree program prior to earning a baccalaureate degree. Both degrees must be earned within five years of matriculation into the undergraduate degree program. Students pursuing a dual degree with a Juris Doctorate must earn both degrees within six years.

The programs may reduce a limited number of both undergraduate and graduate credit hours toward both degrees.

The amount of the credit hour reduction is variable across programs. To be admitted, a student’s academic progress must demonstrate that the requirements of the program can be completed within the set time-frame.

Undergraduates still need to meet all normal core, major, minor and total credit hour requirements of their respective majors and minors before receiving the undergraduate degree. Graduate coursework is usually taken during the undergraduate “senior” year. Students should be admitted to the dual undergraduate-graduate program before taking graduate courses since undergraduate students generally may not take graduate courses. Usually, no more than 30 hours of electives may be used in the senior year to begin the graduate/professional program. Only graduate credit may be counted
for the graduate degree. The total number of credit hours required varies by department. All requirements of the graduate or professional program need to be completed before receiving the advanced degree.

• For students enrolled in a dual degree program, the University will award the undergraduate degree at the time it is earned.

• As a dual-degree student, you are considered an undergraduate until you have fulfilled your undergraduate degree requirements, and should file your FAFSA (http://www.fafsa.ed.gov) and CSS PROFILE (https://profileonline.collegeboard.com/prf) as an undergrad. Once you complete your undergraduate degree requirements, you are considered a graduate student. Federal loan eligibility will increase for most students because of the higher graduate student borrowing maximum and scholarship merit based aid will be decided and awarded by their graduate unit. If you have specific questions about how your financial aid may be affected, please contact the graduate academic program or the Office of Financial Aid for information. Dual undergraduate-graduate students who matriculated into the undergraduate degree 2012 and earlier will continue to receive the undergraduate financial aid award level in the 5th year. In addition, Boettcher and Daniels Fund scholars in a dual undergraduate-graduate degree will continue to receive the undergraduate financial aid award level in the 5th year.

• Upon completion of the undergraduate degree federal loan eligibility will actually increase for most students because of the higher graduate student borrowing maximum.

• A student who chooses not to continue on for the graduate degree may count the graduate courses, if approved as relevant by the advisor, toward the undergraduate degree. (Students should visit the appropriate college or school for opt-out options and requirements).

• Students enrolled in the dual undergraduate-graduate program who have been awarded the BA/BS degree, completed all required coursework and are working on a thesis may be eligible to enroll in graduate continuous enrollment.

Dual Undergraduate-Graduate Admission and Records Procedures

The following must be followed consistently and accurately:

• Students are admitted to dual undergraduate-graduate degree programs by the graduate admission unit. The graduate unit follows all normal admission procedures and the student must meet all admission criteria for the graduate program other than receipt of the baccalaureate degree. Students should be admitted to the dual undergraduate-graduate program as early as practical for financial aid and other reasons. They must be admitted to the dual undergraduate-graduate program no later than the end of their tenth full-time quarter of the undergraduate degree (i.e., by the first quarter of the senior year).

• The effective term for admission should be the term in which the student is permitted to take graduate courses. For example, if the student’s senior year begins in the fall and the student meets admission criteria and may begin taking graduate courses in the subsequent spring term, the admission term should be that spring.

• Graduate units are responsible for assuring that the student information is accurate.

Note: A student who receives a bachelor’s degree and was not previously enrolled in a dual undergraduate-graduate program is not eligible to return and enroll in a graduate program and reduce the number of credit hours for the graduate degree.

Daniel Felix Ritchie School of Engineering and Computer Science

Master of Science in Bioengineering, Computer Engineering, Computer Science, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering or Mechatronic Systems Engineering and Bachelor of Arts in Applied Computing or Bachelor of Arts or Science in Animation and Game Development

• Undergraduate-level credits required with dual degree: 174
• Undergraduate credit reduction with dual degree: 9 credits from the original 183 required for the undergraduate degree
• Graduate-level credits required with dual degree: 45
• Graduate credit reduction: 0
• Minimum number of credits required with dual degree: 219

All students pursuing the dual Bachelor of Arts in Applied Computing or Bachelor of Arts or Science in Game Development/Master of Science in Bioengineering, Computer Engineering, Computer Science, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering or Mechatronic Systems Engineering are required to complete all degree requirements for both the BA or BS and Master’s.
Master of Science in Bioengineering, Computer Engineering, Computer Science, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering and Mechatronic Systems Engineering

Admission Requirements - Computer Science (48 hours ??) (p. 214)
Admission Requirements - Engineering (p. 248)
Admission Requirements - Mechanical and Materials Engineering (p. 262)
Admission Requirements - Electrical and Computer Engineering (p. 229)
Degree Requirements - Computer Science (48 hours ??) (p. 221)
Degree Requirements - Engineering (p. 250)
Degree Requirements - Mechanical and Materials Engineering (p. 266)
Degree Requirements - Electrical and Computer Engineering (p. 233)

Bachelor of Arts in Applied Computing
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofarts)

Bachelor of Arts or Science in Game Development
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/computerscience/#programofstudytext)

Master of Science in Bioengineering, Computer Engineering, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering or Mechatronic Systems Engineering and Bachelor of Science in Computer Science

- Undergraduate-level credits required with dual degree: 183
- Undergraduate credit reduction with dual degree: 0
- Graduate-level credits required with dual degree: 45
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 228

All students pursuing the dual Bachelor of Science in Computer Science/Master of Science in Bioengineering, Computer Engineering, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering or Mechatronic Systems Engineering are required to complete all degree requirements for both the BS and Master's.

Master of Science in Bioengineering, Computer Engineering, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering and Mechatronic Systems Engineering

Admission Requirements - Engineering (p. 248)
Admission Requirements - Mechanical and Materials Engineering (p. 262)
Admission Requirements - Electrical and Computer Engineering (p. 229)
Degree Requirements - Engineering (p. 250)
Degree Requirements - Mechanical and Materials Engineering (p. 266)
Degree Requirements - Electrical and Computer Engineering (p. 233)

Bachelor of Science in Computer Science
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/computerscience/#programofstudytext)
Master of Science in Computer Science and Bachelor of Science in Computer Science

- Undergraduate-level credits required with dual degree: 183
- Undergraduate credit reduction with dual degree: 0
- Graduate-level credits required with dual degree: 36
- Graduate credit reduction: 12 credits from the original 48 required for the graduate degree
- Minimum number of credits required with dual degree: 219

All students pursuing the dual Bachelor of Science in Computer Science/Master of Science in Computer Science are required to complete all degree requirements for both the BS and Master’s.

Master of Science in Computer Science
Admission Requirements - Computer Science (p. 214)
Degree Requirements - Computer Science (p. 221)

Bachelor of Science in Computer Science
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/computerscience/#programofstudytext)

Master of Science in Bioengineering, Computer Engineering, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering or Mechatronic Systems Engineering and Bachelor of Science in Mechanical Engineering

- Undergraduate-level credits required with dual degree: 183
- Undergraduate credit reduction with dual degree: 9 credits from the original 192 required for the undergraduate degree
- Graduate-level credits required with dual degree: 45
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 228

All students pursuing the dual Bachelor of Science in Mechanical Engineering/Master of Science in Bioengineering, Computer Engineering, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering or Mechatronic Systems Engineering are required to complete all degree requirements for both the BS and Master’s.

Master of Science in Bioengineering, Computer Engineering, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering and Mechatronic Systems Engineering
Admission Requirements - Engineering (p. 248)
Admission Requirements - Mechanical and Materials Engineering (p. 262)
Admission Requirements - Electrical and Computer Engineering (p. 229)
Degree Requirements - Engineering (p. 250)
Degree Requirements - Mechanical and Materials Engineering (p. 266)
Degree Requirements - Electrical and Computer Engineering (p. 233)

Bachelor of Science in Mechanical Engineering
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofscienceinmechanicalengineering)

Master of Science in Computer Science and Bachelor of Science in Mechanical Engineering

- Undergraduate-level credits required with dual degree: 183
- Undergraduate credit reduction with dual degree: 9 credits from the original 192 required for the undergraduate degree
- Graduate-level credits required with dual degree: 48
- Graduate credit reduction: 0
• Minimum number of credits required with dual degree: 231

All students pursuing the dual Bachelor of Science in Mechanical Engineering/Master of Science in Computer Science are required to complete all degree requirements for both the BS and Master’s.

**Master of Science in Computer Science**
Admission Requirements - Computer Science (p. 214)
Degree Requirements - Computer Science (p. 221)

**Bachelor of Science in Mechanical Engineering**
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinmechanicalengineering)

**Master of Science in Bioengineering, Computer Engineering, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering or Mechatronic Systems Engineering and Bachelor of Science in Computer Engineering or Electrical Engineering**

- Undergraduate-level credits required with dual degree: 189
- Undergraduate credit reduction with dual degree: 9 credits from the original 198 required for the undergraduate degree
- Graduate-level credits required with dual degree: 45
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 234

All students pursuing the dual Bachelor of Science in Computer Engineering or Electrical Engineering/Master of Science in Bioengineering, Computer Engineering, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering or Mechatronic Systems Engineering are required to complete all degree requirements for both the BS and Master’s.

**Master of Science in Bioengineering, Computer Engineering, Computer Science Systems Engineering, Electrical Engineering, Engineering, Materials Science, Mechanical Engineering and Mechatronic Systems Engineering**
Admission Requirements - Engineering (p. 248)
Admission Requirements - Mechanical and Materials Engineering (p. 262)
Admission Requirements - Electrical and Computer Engineering (p. 229)
Degree Requirements - Engineering (p. 250)
Degree Requirements - Mechanical and Materials Engineering (p. 266)
Degree Requirements - Electrical and Computer Engineering (p. 233)

**Bachelor of Science in Computer Engineering**
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceincomputerengineering)

**Bachelor of Science in Electrical Engineering**
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinelectricalengineering)

**Master of Science in computer science and Bachelor of Science in computer engineering or electrical engineering**
- Undergraduate-level credits required with dual degree: 189
- Undergraduate credit reduction with dual degree: 9 credits from the original 198 required for the undergraduate degree
- Graduate-level credits required with dual degree: 48
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 237
All students pursuing the dual Bachelor of Science in Computer Engineering or Electrical Engineering/Master of Science in any Engineering Program are required to complete all degree requirements for both the BS and Master’s.

**Master of Science in Computer Science**
Admission Requirements - Computer Science (p. 214)
Degree Requirements - Computer Science (p. 221)

**Bachelor of Science in Computer Engineering**
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceincomputerengineering)

**Bachelor of Science in Electrical Engineering**
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinelectricalengineering)

**Master of Science in Bioengineering, Computer Engineering, Electrical Engineering, Mechanical Engineering or Mechatronic Systems Engineering and Bachelor of Science in Biological Sciences, Biochemistry, Chemistry, Environmental Chemistry, Math, Molecular Biology or Physics**
- Undergraduate-level credits required with dual degree: 183
- Undergraduate credit reduction with dual degree: 0
- Graduate-level credits required with dual degree: 45
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 228

All students pursuing the dual Bachelor of Science in Bioengineering, Computer Engineering, Electrical Engineering, Mechanical Engineering or Mechatronic Systems Engineering/Master of Science in any Engineering Program are required to complete all degree requirements for both the BS and Master’s.

**Master of Science in Bioengineering, Computer Engineering, Electrical Engineering, Mechanical Engineering and Mechatronic Systems Engineering**
Admission Requirements - Mechanical and Materials Engineering (p. 262)
Admission Requirements - Electrical and Computer Engineering (p. 229)
Degree Requirements - Mechanical and Materials Engineering (p. 266)
Degree Requirements - Electrical and Computer Engineering (p. 233)

**Bachelor of Science in Biological Sciences, Biochemistry, Chemistry, Environmental Chemistry, Math, Molecular Biology and Physics**
Degree Requirements - Biological Sciences (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/biology/#programofstudytext)
Degree Requirements - Biochemistry (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/chemistryandbiochemistry/#programofstudytext)
Degree Requirements - Chemistry (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/chemistryandbiochemistry/#programofstudytext)
Degree Requirements - Environmental Chemistry (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/chemistryandbiochemistry/#programofstudytext)
Degree Requirements - Math (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/mathematics/#programofstudytext)
Degree Requirements - Molecular Biology (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/biology/#programofstudytext)
Daniels College of Business

Master of Accountancy and Bachelor of Science in Accounting

• Undergraduate-level credits required with dual degree: 186
• Undergraduate credit reduction with dual degree: 0 credits from the original 186 required for the undergraduate degree
• Graduate-level credits required with dual degree: 40
• Graduate credit reduction: 0
• Minimum number of credits required with dual degree: 226

All students pursuing the dual Bachelor of Science in Accounting/Master’s in Accountancy are required to complete all degree requirements for both the BS and Master’s.

Master of Accountancy
Admission Requirements (p. 361)
Degree Requirements (p. 362)

Bachelor of Science in Accounting
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/physicsandastronomy/#programofstudytext)

Master of Business Administration and Bachelor of Arts (Traditional Bachelor's Program)

• Undergraduate-level credits required with dual degree: 168
• Undergraduate credit reduction with dual degree: 15 credits from the original 183 required for the undergraduate degree
• Graduate-level credits required with dual degree: 80
• Graduate credit reduction: 0
• Minimum number of credits required with dual degree: 248

All students pursuing the dual Bachelor of Arts/Master’s in Business Administration are required to complete all degree requirements for both the BA and Master’s.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Bachelor of Arts (Traditional Bachelor’s Program)
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofarts)

Master of Business Administration and Bachelor of Science

• Undergraduate-level credits required with dual degree: 168
• Undergraduate credit reduction with dual degree: 15 credits from the original 183 required for the undergraduate degree
• Graduate-level credits required with dual degree: 80
• Graduate credit reduction: 0
• Minimum number of credits required with dual degree: 248

All students pursuing the dual Bachelor of Science/MA Business Administration are required to complete all degree requirements for both the BS and Master’s.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)
Bachelor of Science
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofscience)

Master of Business Administration and Bachelor of Science in Chemistry
- Undergraduate-level credits required with dual degree: 168
- Undergraduate credit reduction with dual degree: 15 credits from the original 183 required for the undergraduate degree
- Graduate-level credits required with dual degree: 80
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 248

All students pursuing the dual Bachelor of Science in Chemistry/MA Business Administration are required to complete all degree requirements for both the BS and Master’s.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Bachelor of Science in Chemistry
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofscienceinchemistry)

Master of Business Administration and Bachelor of Arts in Environmental Science with a Business Administration Minor
- Undergraduate-level credits required with dual degree: 168
- Undergraduate credit reduction with dual degree: 15 credits from the original 183 required for the undergraduate degree
- Graduate-level credits required with dual degree: 80
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 228

All students pursuing the dual Bachelor of Arts in Environmental Science with a Business Administration minor/Master’s in Business Administration are required to complete all degree requirements for both the BA and Master’s.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Bachelor of Arts in Environmental Science with a Business Administration minor
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofarts)

Master of Business Administration and Bachelor of Fine Arts
- Undergraduate-level credits required with dual degree: 174
- Undergraduate credit reduction with dual degree: 15 credits from the original 189 required for the undergraduate degree
- Graduate-level credits required with dual degree: 80
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 254

All students pursuing the dual Bachelor of Fine Arts/Master’s in Business Administration are required to complete all degree requirements for both the BA and Master’s.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)
Bachelor of Fine Arts
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bacheloroffinearts)

Master of Business Administration and Bachelor of Music
- Undergraduate-level credits required with dual degree: 179
- Undergraduate credit reduction with dual degree: 15 credits from the original 194 required for the undergraduate degree
- Graduate-level credits required with dual degree: 80
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 259

All students pursuing the dual Bachelor of Music/Master’s in Business Administration are required to complete all degree requirements for both the BA and Master’s.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Bachelor of Music
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofmusic)

Master of Business Administration and Bachelor of Science in Environmental Science
- Undergraduate-level credits required with dual degree: 168
- Undergraduate credit reduction with dual degree: 15 credits from the original 183 required for the undergraduate degree
- Graduate-level credits required with dual degree: 80
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 248

All students pursuing the dual Bachelor of Science in Environmental Science/MA Business Administration are required to complete all degree requirements for both the BS and Master’s.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Bachelor of Science in Environmental Science
Degree Requirements (??) (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofscience)

Master of Business Administration and Bachelor of Science in Computer Engineering
- Undergraduate-level credits required with dual degree: 182
- Undergraduate credit reduction with dual degree: 16 credits from the original 198 required for the undergraduate degree
- Graduate-level credits required with dual degree: 80
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 262

All students pursuing the dual BS in Computer Engineering/Master’s in Business Administration are required to complete all degree requirements for both the BS and MBA degrees.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)
Bachelor of Science in Computer Engineering
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceincomputerengineering)

Master of Business Administration and Bachelor of Science in Electrical Engineering
- Undergraduate-level credits required with dual degree: 183
- Undergraduate credit reduction with dual degree: 15 credits from the original 198 required for the undergraduate degree
- Graduate-level credits required with dual degree: 80
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 263

All students pursuing the dual BS in Electrical Engineering/Master’s in Business Administration are required to complete all degree requirements for both the BS and MBA degrees.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Bachelor of Science in Electrical Engineering
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinelectricalengineering)

Master of Business Administration and Bachelor of Science in Electrical Engineering with a Concentration in Mechatronic Systems Engineering
- Undergraduate-level credits required with dual degree: 185
- Undergraduate credit reduction with dual degree: 15 credits from the original 200 required for the undergraduate degree
- Graduate-level credits required with dual degree: 80
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 265

All students pursuing the dual BS in Electrical Engineering with a concentration in Mechatronic Systems Engineering/Master’s in Business Administration are required to complete all degree requirements for both the BS and MBA degrees.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Bachelor of Science in Electrical Engineering with a concentration in Mechatronic Systems Engineering
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinelectricalengineering)

Master of Business Administration and Bachelor of Science in Mechanical Engineering
- Undergraduate-level credits required with dual degree: 177
- Undergraduate credit reduction with dual degree: 15 credits from the original 192 required for the undergraduate degree
- Graduate-level credits required with dual degree: 80
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 257

All students pursuing the dual BS in Mechanical Engineering/Master’s in Business Administration are required to complete all degree requirements for both the BS and MBA degrees.

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)
Bachelor of Science in Mechanical Engineering
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofscienceinmechanicalengineering)

Division of Arts, Humanities and Social Sciences

Master of Arts in Art History or Concentration in Museum Studies and Bachelor of Arts in Art History
• Undergraduate-level credits required with the dual degree: 173
• Undergraduate credit reduction with dual degree: 10 credits from the original 183 required for the undergraduate degree
• Graduate-level credits required with dual degree: 55
• Graduate credit reduction: 1 from the original 56 required for the graduate degree
• Minimum number of credits required with dual degree: 228

All students pursuing the dual BA in Art History/MA in Art History, Concentration in Museum Studies are required to complete all degree requirements for both the BA and MA degrees.

Master of Art History, Concentration in Museum Studies
Admission Requirements (http://bulletin.du.edu/graduate/schoolscollegesanddivisions/artsandhumanities/schoolofartandarthistory/#admissionrequirementstext)
Degree Requirements (http://bulletin.du.edu/graduate/schoolscollegesanddivisions/artsandhumanities/schoolofartandarthistory/#programofstudytext)

Bachelor of Arts in Art History
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/schoolofartandarthistory/#programstext)

Division of Natural Sciences and Mathematics

Master of Science in Geographic Information Science and Bachelor of Arts in Environmental Science
• Undergraduate-level credits required with dual degree: 180
• Undergraduate credit reduction with dual degree: 3 credits from the original 183 required for the undergraduate degree
• Graduate-level credits required with dual degree: 48
• Graduate credit reduction: 0
• Minimum number of credits required with dual degree: 228

All students pursuing the dual BA in Environmental Science and the MS in Geographic Information Science are required to complete all degree requirements for both the BA and the MS degrees.

Master of Science in Geographic Information Science
Admission Requirements (p. 641)
Degree Requirements (p. 644)

Bachelor of Arts in Environmental Science
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/geographyandtheenvironment/#programofstudytext)

MASTER OF SCIENCE IN GEOGRAPHIC INFORMATION SCIENCE AND BACHELOR OF Science IN ENVIRONMENTAL SCIENCE
• Undergraduate-level credits required with dual degree: 180
• Undergraduate credit reduction with dual degree: 3 credits from the original 183 required for the undergraduate degree
• Graduate-level credits required with dual degree: 48
• Graduate credit reduction: 0
• Minimum number of credits required with dual degree: 228

All students pursuing the dual BS in Environmental Science and the MS in Geographic Information Science are required to complete all degree requirements for both the BS and the MS degrees.

**Master of Science in Geographic Information Science**
Admission Requirements (p. 641)
Degree Requirements (p. 644)

**Bachelor of Science in Environmental Science**
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/geographyandtheenvironment/#programofstudytext)

**MASTER OF SCIENCE IN GEOGRAPHIC INFORMATION SCIENCE AND BACHELOR OF ARTS IN Geography**

- Undergraduate-level credits required with dual degree: 180
- Undergraduate credit reduction with dual degree: 3 credits from the original 183 required for the undergraduate degree
- Graduate-level credits required with dual degree: 48
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 228

All students pursuing the dual BA in Geography and the MS in Geographic Information Science are required to complete all degree requirements for both the BA and the MS degrees.

**Master of Science in Geographic Information Science**
Admission Requirements (p. 641)
Degree Requirements (p. 644)

**Bachelor of Arts in Geography**
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/traditionalbachelorsprogrammajorandminors/geographyandtheenvironment/#programofstudytext)

**Graduate School of Social Work**

**Master of Social Work and Bachelor of Arts (Traditional Bachelor's Program), Bachelor of Science or Bachelor of Science in Chemistry**

- Undergraduate-level credits required with dual degree: 153
- Undergraduate credit reduction with dual degree: 30 credits from the original 183 required for the undergraduate degree
- Graduate-level credits required with dual degree: 90
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 243

All students pursuing the dual BA (Traditional Bachelor’s Program), BS or BS in Chemistry and the MSW are required to complete all degree requirements for both the BA or BS and the MSW degrees.

**Master of Social Work**
Admission Requirements (p. 406)
Degree Requirements (p. 408)

**Bachelor of Arts (Traditional Bachelor's Program)**
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofarts)
Bachelor of Science
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscience)

Degree Requirements - Bachelor of Science in Chemistry (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinchemistry)

Master of Social Work and Bachelor of Fine Arts
- Undergraduate-level credits required with dual degree: 159
- Undergraduate credit reduction with dual degree: 30 credits from the original 189 required for the undergraduate degree
- Graduate-level credits required with dual degree: 90
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 249

All students pursuing the dual BFA and the MSW are required to complete all degree requirements for both the BFA and the MSW degrees.

Master of Social Work
Admission Requirements (p. 406)
Degree Requirements (p. 408)

Bachelor of Fine Arts
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bacheloroffinearts)

Master of Social Work and Bachelor of Music
- Undergraduate-level credits required with dual degree: 164
- Undergraduate credit reduction with dual degree: 30 credits from the original 194 required for the undergraduate degree
- Graduate-level credits required with dual degree: 90
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 254

All students pursuing the dual BM and the MSW are required to complete all degree requirements for both the BM and the MSW degrees.

Master of Social Work
Admission Requirements (p. 406)
Degree Requirements (p. 408)

Bachelor of Music
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofmusic)

Master of Social Work and Bachelor of Science in Accounting
- Undergraduate-level credits required with dual degree: 156
- Undergraduate credit reduction with dual degree: 30 credits from the original 186 required for the undergraduate degree
- Graduate-level credits required with dual degree: 90
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 246

All students pursuing the dual BS in Accounting and the MSW are required to complete all degree requirements for both the BS and the MSW degrees.

Master of Social Work
Admission Requirements (p. 406)
Degree Requirements (p. 408)
Bachelor of Science in Accounting
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinaccounting)

Master of Social Work and Bachelor of Science in Business Administration
- Undergraduate-level credits required with dual degree: 155
- Undergraduate credit reduction with dual degree: 30 credits from the original 185 required for the undergraduate degree
- Graduate-level credits required with dual degree: 90
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 245

All students pursuing the dual BS in Business Administration and the MSW are required to complete all degree requirements for both the BS and the MSW degrees.

Master of Social Work
Admission Requirements (p. 406)
Degree Requirements (p. 408)

Bachelor of Science in Business Administration
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinbusinessadministration)

Master of Social Work and Bachelor of Science in Computer Engineering or Electrical Engineering
- Undergraduate-level credits required with dual degree: 168
- Undergraduate credit reduction with dual degree: 30 credits from the original 198 required for the undergraduate degree
- Graduate-level credits required with dual degree: 90
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 258

All students pursuing the dual BS in Computer Engineering or Electrical Engineering and the MSW are required to complete all degree requirements for both the BS and the MSW degrees.

Master of Social Work
Admission Requirements (p. 406)
Degree Requirements (p. 408)

Bachelor of Science in Computer Engineering
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceincomputerengineering)

Bachelor of Science in Electrical Engineering
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinelectricalengineering)

Master of Social Work and Bachelor of Science in Mechanical Engineering
- Undergraduate-level credits required with dual degree: 162
- Undergraduate credit reduction with dual degree: 30 credits from the original 192 required for the undergraduate degree
- Graduate-level credits required with dual degree: 90
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 252

All students pursuing the dual BS in Mechanical Engineering and the MSW are required to complete all degree requirements for both the BS and the MSW degrees.
Master of Social Work
Admission Requirements (p. 406)
Degree Requirements (p. 408)

Bachelor of Science in Mechanical Engineering
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinmechanicalengineering)

Josef Korbel School of International Studies

Master of Public Policy and Bachelor of Arts in Public Policy
- Undergraduate-level credits required with dual degree: 169
- Undergraduate credit reduction with dual degree: 14 credits from the original 183 required for the undergraduate degree
- Graduate-level credits required with dual degree: 60
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 229

All students pursuing the dual BA/MPP in Public Policy are required to complete all degree requirements for both the BA and the MPP degrees.

All fifth year MPP students still need to fulfill the requirements of their respective majors. However, up to 14 graduate credits can be cross-counted to fulfill undergraduate requirements. For Public Policy majors, these 14 credits would fulfill Policy major elective requirements. For Political Science, Economics, and Sociology majors, the 14 credits would cross-count to fulfill general undergraduate elective requirements. As compared to the traditional MPP curriculum, fifth year MPP degree students are exempt from taking the graduate version of Analytical and Critical Skills (PPOL 4400), as they will have already taken a similar class as an undergraduate. An additional elective is required in its stead.

Master of Public Policy
Admission Requirements (p. 468)
Degree Requirements (p. 470)

Bachelor of Arts in Public Policy
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescritptions/traditionalbachelorsprogrammajorandminors/publicpolicy/#programofstudytext)

Master of Arts in International Studies and Bachelor of Arts in International Studies
- Undergraduate-level credits required with dual degree: 183
- Undergraduate credit reduction with dual degree: 0 credits from the original 183 required for the undergraduate degree
- Graduate-level credits required with dual degree: 55
- Graduate credit reduction: 35
- Minimum number of credits required with dual degree: 238

All students pursuing the dual BA/MA in International Studies are required to complete all degree requirements for both the BA and the MA degrees.

Morgridge College of Education

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program and Bachelor of Arts, Bachelor of Science or Bachelor of Science in Chemistry
- Undergraduate-level credits required with dual degree: 168
• Undergraduate credit reduction with dual degree: 15 credits from the original 183 required for the undergraduate degree
• Graduate-level credits required with dual degree: 52
• Graduate credit reduction: 0
• Independent Study credits: 8
• Minimum number of credits required with dual degree: 228

The Combined License and Master’s Program (CLAMP) requires a total of 52 quarter credit hours. Please note that the dual degree students complete an additional 8 credit hours (CUI 3991) to meet the state requirement of age-appropriate work prior to admission to the Teacher Education Program.

All students pursuing the dual BA or BS degree/MA in Curriculum and Instruction with a Concentration in Teacher Education Program are required to complete all degree requirements for both the BA or BS and MA degrees.

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program

Admission Requirements (p. 586)

Degree Requirements (p. 591)

Bachelor of Arts

Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofarts)

Bachelor of Science

Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bachelorofscience)

Degree Requirements - Chemistry (http://bulletin.du.edu/undergraduate/majorsminorscoursedesciptions/traditionalbachelorsprogrammajorandminors/chemistryandbiochemistry/#programofstudytext)

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program and Bachelor of Fine Arts

• Undergraduate-level credits required with dual degree: 174
• Undergraduate credit reduction with dual degree: 15 credits from the original 189 required for the undergraduate degree
• Graduate-level credits required with dual degree: 52
• Graduate credit reduction: 0
• Independent Study credits: 8
• Minimum number of credits required with dual degree: 234

The Combined License and Master’s Program (CLAMP) requires a total of 52 quarter credit hours. Please note that the dual degree students complete an additional 8 credit hours (CUI 3991) to meet the state requirement of age-appropriate work prior to admission to the Teacher Education Program.

All students pursuing the dual BFA degree/MA in Curriculum and Instruction with a Concentration in Teacher Education Program are required to complete all degree requirements for both the BFA and MA degrees.

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program

Admission Requirements (p. 586)

Degree Requirements (p. 591)

Bachelor of Fine Arts

Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegreerequirements/bacheloroffinearts)

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program and Bachelor of Music

• Undergraduate-level credits required with dual degree: 179
• Undergraduate credit reduction with dual degree: 15 credits from the original 194 required for the undergraduate degree
• Graduate-level credits required with dual degree: 52
• Graduate credit reduction: 0
• Independent Study credits: 8
• Minimum number of credits required with dual degree: 239

The Combined License and Master’s Program (CLAMP) requires a total of 52 quarter credit hours. Please note that the dual degree students complete an additional 8 credit hours (CUI 3991) to meet the state requirement of age-appropriate work prior to admission to the Teacher Education Program.

All students pursuing the dual BM degree/MA in Curriculum and Instruction with a Concentration in Teacher Education Program are required to complete all degree requirements for both the BM and MA degrees.

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program
Admission Requirements (p. 586)
Degree Requirements (p. 591)

Bachelor of Music
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreerequirements/bachelorofmusic)

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program and Bachelor of Science in Accounting
• Undergraduate-level credits required with dual degree: 171
• Undergraduate credit reduction with dual degree: 15 credits from the original 186 required for the undergraduate degree
• Graduate-level credits required with dual degree: 52
• Graduate credit reduction: 0
• Independent Study credits: 8
• Minimum number of credits required with dual degree: 231

The Combined License and Master’s Program (CLAMP) requires a total of 52 quarter credit hours. Please note that the dual degree students complete an additional 8 credit hours (CUI 3991) to meet the state requirement of age-appropriate work prior to admission to the Teacher Education Program.

All students pursuing the dual BSAcc/MA in Curriculum and Instruction with a Concentration in Teacher Education Program are required to complete all degree requirements for both the BSAcc and MA degrees.

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program
Admission Requirements (p. 586)
Degree Requirements (p. 591)

Bachelor of Science in Accounting
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreerequirements/bachelorofscienceinaccounting)

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program and Bachelor of Science in Business Administration
• Undergraduate-level credits required with dual degree: 170
• Undergraduate credit reduction with dual degree: 15 credits from the original 185 required for the undergraduate degree
• Graduate-level credits required with dual degree: 52
• Graduate credit reduction: 0
• Independent Study credits: 8
• Minimum number of credits required with dual degree: 230

The Combined License and Master’s Program (CLAMP) requires a total of 52 quarter credit hours. Please note that the dual degree students complete an additional 8 credit hours (CUI 3991) to meet the state requirement of age-appropriate work prior to admission to the Teacher Education Program.

All students pursuing the dual BSBA/MA in Curriculum and Instruction with a Concentration in Teacher Education Program are required to complete all degree requirements for both the BSBA and MA degrees.

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program
Admission Requirements (p. 586)
Degree Requirements (p. 591)

**Bachelor of Science Business Administration**
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinbusinessadministration)

**Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program and Bachelor of Science in Computer Engineering or Electrical Engineering**
- Undergraduate-level credits required with dual degree: 183
- Undergraduate credit reduction with dual degree: 15 credits from the original 198 required for the undergraduate degree
- Graduate-level credits required with dual degree: 52
- Graduate credit reduction: 0
- Independent Study credits: 8
- Minimum number of credits required with dual degree: 243

The Combined License and Master’s Program (CLAMP) requires a total of 52 quarter credit hours. Please note that the dual degree students complete an additional 8 credit hours (CUI 3991) to meet the state requirement of age-appropriate work prior to admission to the Teacher Education Program.

All students pursuing the dual BScPE or BSEE/MA in Curriculum and Instruction with a Concentration in Teacher Education Program are required to complete all degree requirements for both the BScPE or BSEE and MA degrees.

**Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program**
Admission Requirements (p. 586)

Degree Requirements (p. 591)

**Bachelor of Science in Computer Engineering**
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceincomputerengineering)

**Bachelor of Science in Electrical Engineering**
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinelectricalengineering)

**Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program and Bachelor of Science in Mechanical Engineering**
- Undergraduate-level credits required with dual degree: 177
- Undergraduate credit reduction with dual degree: 15 credits from the original 192 required for the undergraduate degree
- Graduate-level credits required with dual degree: 52
- Graduate credit reduction: 0
- Independent Study credits: 8
- Minimum number of credits required with dual degree: 237

The Combined License and Master’s Program (CLAMP) requires a total of 52 quarter credit hours. Please note that the dual degree students complete an additional 8 credit hours (CUI 3991) to meet the state requirement of age-appropriate work prior to admission to the Teacher Education Program.

All students pursuing the dual BSME/MA in Curriculum and Instruction with a Concentration in Teacher Education Program are required to complete all degree requirements for both the BSME and MA degrees.

**Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program**
Admission Requirements (p. 586)

Degree Requirements (p. 591)

**Bachelor of Science in Mechanical Engineering**
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscienceinmechanicalengineering)
Sturm College of Law

juris doctor and bachelor of arts (traditional bachelor's program), Bachelor of Science

- Undergraduate-level credits required with dual degree: 138 quarter hours
- Undergraduate credit reduction with dual degree: 45 quarter hours from the original 183 required for the undergraduate degree
- Graduate-level credits required with dual degree: 135 quarter hours (90 semester hours)
- Graduate credit reduction: 0
- Minimum number of credits required with dual degree: 273 quarter hours

All students pursuing the dual BA or BS degree/Juris Doctor are required to complete all degree requirements for both the BA or BS and JD degrees.

Juris Doctor
Admission Requirements (p. 675)
Degree Requirements (p. 681)

Bachelor of Arts
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofarts)

Bachelor of Science
Degree Requirements (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/bachelorofscience)

University College

Master of Science in Environmental Policy and Management and Bachelor of Arts in Environmental Studies (Bachelor of Arts Completion Program)

- Undergraduate-level credits required with the dual degree: 180
- Undergraduate credit reduction with dual degree: 0
- Graduate-level credits required with dual degree: 39
- Graduate credit reduction: 9 from the original 48 required for the graduate degree
- Minimum number of credits required with dual degree: 219

All students pursuing the dual BA in Environmental Studies degree (BA Completion Program)/MS in Environmental Policy and Management are required to complete all degree requirements for both the BA and MS degrees.

Master of Science in Environmental Policy and Management
Admission Requirements (p. 765)
Degree Requirements (p. 767)

Bachelor of Arts in Environmental Studies (Bachelor of Arts Completion Program)
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/universitycollege/environmentalstudies/ #programofstudytext)

Master of Science in Information and Communications Technology and Bachelor of Arts in Information Technology (Bachelor of Arts Completion Program)

- Undergraduate-level credits required with the dual degree: 180
- Undergraduate credit reduction with dual degree: 0
- Graduate-level credits required with dual degree: 39
- Graduate credit reduction: 9 from the original 48 required for the graduate degree
- Minimum number of credits required with dual degree: 219

All students pursuing the dual BA in Information Technology (BA Completion Program)/MS in Information and Communications Technology are required to complete all degree requirements for both the BA and MS degrees.
Master of Science in Information and Communications Technology
Admission Requirements (p. 817)
Degree Requirements (p. 818)

Bachelor of Arts in Information Technology (Bachelor of Arts Completion Program)
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/universitycollege/informationtechnology/#programofstudytext)

Master of Science in Security Management and Bachelor of Arts in Global Commerce and Transportation (Bachelor of Arts Completion Program)
- Undergraduate-level credits required with the dual degree: 180
- Undergraduate credit reduction with dual degree: 0
- Graduate-level credits required with dual degree: 39
- Graduate credit reduction: 9 from the original 48 required for the graduate degree
- Minimum number of credits required with dual degree: 219

All students pursuing the dual BA in Global Commerce and Transportation (BA Completion Program)/MS in Security Management are required to complete all degree requirements for both the BA and MS degrees.

Master of Science in Security Management
Admission Requirements (p. 860)
Degree Requirements (p. 862)

Bachelor of Arts in Global Commerce and Transportation (Bachelor of Arts Completion Program)
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/universitycollege/globalcommerceandtransportation/#programofstudytext)

Master of Arts in Communication Management and Bachelor of Arts in Global Studies or Bachelor of Arts in Communication Arts or Bachelor of Arts in Leadership and Organization Studies
- Undergraduate-level credits required with the dual degree: 180
- Undergraduate credit reduction with dual degree: 0
- Graduate-level credits required with dual degree: 39
- Graduate credit reduction: 9 from the original 48 required for the graduate degree
- Minimum number of credits required with dual degree: 219

All students pursuing the dual BA in Global Studies or BA in Communication Arts or BA in Leadership and Organization Studies and the MA in Communication Management are required to complete all degree requirements for both the BA and MA degrees.

Master of Arts in Communication Management
Admission Requirements (p. 745)
Degree Requirements (p. 747)

Bachelor of Arts in Communication Arts (Bachelor of Arts Completion Program)
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/universitycollege/communicationarts/#programofstudytext)

Bachelor of Arts in Leadership and Organization Studies (Bachelor of Arts Completion Program)
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/universitycollege/leadershipandorganizationstudies/#programofstudytext)

Bachelor of Arts in Global Studies (Bachelor of Arts Completion Program)
Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/universitycollege/globalstudies/#programofstudytext)
Flexible Dual Degree Programs

Master of Science in Strategic Human Resources and Bachelor of Arts in Communication Arts OR Bachelor of Arts in LEADERSHIP AND ORGANIZATION STUDIES

- Undergraduate-level credits required with the dual degree: 180
- Undergraduate credit reduction with dual degree: 0
- Graduate-level credits required with dual degree: 39
- Graduate credit reduction: 9 from the original 48 required for the graduate degree
- Minimum number of credits required with dual degree: 219

All students pursuing the dual BA in Communication Arts (Bachelor of Arts Completion Program) and the MS in Strategic Human Resources are required to complete all degree requirements for both the BA and MS degrees.

Master of Science in Strategic Human Resources

Admission Requirements (p. 870)

Degree Requirements (p. 872)

Bachelor of Arts in Communication Arts (Bachelor of Arts Completion Program)

Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/universitycollege/communicationarts/#programofstudytext)

Bachelor of Arts in Leadership and Organization Studies (Bachelor of Arts Completion Program)

Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/universitycollege/leadershipandorganizationstudies/#programofstudytext)

Master of Science in Leadership and Organizations and Bachelor of Arts in Global Studies

- Undergraduate-level credits required with the dual degree: 180
- Undergraduate credit reduction with dual degree: 0
- Graduate-level credits required with dual degree: 39
- Graduate credit reduction: 9 from the original 48 required for the graduate degree
- Minimum number of credits required with dual degree: 219

All students pursuing the dual BA in Global Studies (Bachelor of Arts Completion Program) and the MS in Leadership and Organizations are required to complete all degree requirements for both the BA and MS degrees.

Master of Science in Leadership and Organizations

Admission Requirements (p. 848)

Degree Requirements (p. 850)

Bachelor of Arts in Global Studies (Bachelor of Arts Completion Program)

Degree Requirements (http://bulletin.du.edu/undergraduate/majorsminorscoursedescriptions/universitycollege/globalstudies/#programofstudytext)

Flexible Dual Degree Programs

FLEXIBLE DUAL DEGREE PROGRAMS

Students may propose a flexible dual degree program that links two master’s degrees or a master’s degree and a JD degree.

Students must submit the proposal for the flexible dual degree no later than one term prior to matriculation into the second degree.

Dual degrees must be pursued concurrently, not consecutively. In order to meet this requirement, students interested in pursuing a dual degree must be matriculated, pursuing coursework, in both programs for one full academic year (three quarters or two semesters). Students in a one year program must matriculate into the second program no later than the first admission term following fifty percent (50%) coursework completion of the first program.

Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.
Any significant changes to the approved program require the student to resubmit a revised proposal packet to the deans/chairs/directors and advisors of both programs and the Office of Graduate Studies.

**Proposing a Flexible Dual Degree**

To propose a flexible dual degree, the student must first apply to and be admitted by both programs, pay application fees and admissions deposits for both programs, and seek the counsel of an advisor in each program. Admission into each program does not take the place of filing a Flexible Dual Degree proposal (http://www.du.edu/media/documents/graduates/flexdual.pdf) nor guarantee approval of the proposal.

The dean, chair, or director of each degree program and both program advisors, must carefully compare the requirements for each program and approve the proposed curriculum. The student must then submit a copy of the original requirements for each degree (printout from the unit website or copy from the student handbook is acceptable), a detailed course plan showing all proposed courses, and the credit hours; a one to two-page statement of the educational/career objectives stating the reasons for the specific course selection and which courses most clearly serve the educational and career goals of the student; and current official/unofficial transcript(s) showing any work already completed towards the proposed program and degrees.

The student then submits the documents listed above to the Office of Graduate Studies, which reviews and decides on the proposals. Proposals with errors or course/program inconsistencies will be returned for revision.

Once the proposal is approved, the student will be entered into the University computer system as a flexible dual degree student.

**Curriculum Structure**

Students may propose any flexible dual degree program that seems reasonable to them and their advisors for academic and career objectives. Only elective courses may be counted among the hours used for reduction or cross-counting.

All the core requirements of each program must be preserved and cannot be overlapped or waived. Credit reduction due to cross counting of elective courses will be limited to the following for each program as determined by the original number of credit hours required for each degree.

Required credit hours for degrees and flexible dual degree reduction allowed:

- **45-60 quarter hour degree program:** Reduce or cross-count a maximum of 10 quarter hours for the one degree without outside transfer credit. The traditional maximum outside transfer credit allowed in this case would be 10 quarter hours. A reduction of 15 quarter hours from the original degree will be the maximum allowed when combining outside transfer hours and the cross counting of degree hours.
- **61-75 quarter hour degree program:** Reduce or cross-count a maximum of 12 quarter hours for the one degree without outside transfer credit. The traditional maximum outside transfer credit allowed in this case would be 22 quarter hours. A reduction of 25 quarter hours from the original degree will be the maximum allowed when combining outside transfer hours and the cross counting of degree hours.
- **76-90 quarter hour degree program:** Reduce or cross-count a maximum of 15 quarter hours for the one degree without outside transfer credit. The traditional maximum outside transfer credit allowed in this case would be 45 quarter hours. A reduction of 45 quarter hours will be the maximum allowed from the original degree when combining outside transfer hours and the cross counting of degree hours.

Note: Credits at the Sturm College of Law for a JD degree are calculated using semester hours: 1 semester hour equals 1.5 quarter hours. A 90 semester hour JD degree may only be reduced by a maximum of 10 semester hours for a total of 80 semester hours completed for the JD (10 semester hours equals 15 quarter hours).

**Non-Course Requirements**

All non-course requirements must be fulfilled for both programs. If one of the non-course requirements of both intended programs is the writing and defense of a thesis, then (with prior approval from both departments) a combined thesis may be written as long as both departments are equally represented (from original proposal to completion) and so long as the most rigorous requirements are adhered to for completion and oral defense.

Students who decide to only complete one degree must inform the units, program advisors and the Office of Graduate Studies in writing of their intention to nullify the flexible dual degree proposal. Students must complete all the original requirements for the remaining degree in order to graduate.

**Formal Dual Degree Programs**

**FORMAL DUAL DEGREE PROGRAMS**

A formal dual degree program links two master's degrees or a master's program with a JD program and leads to two degrees. The Graduate Council and the Associate Provost for Graduate Studies must approve all proposals for formal dual degree programs.

There are two types of formal dual degree programs. Type one incorporates two distinct disciplines where students complete two separate sets of core courses and cross-count electives. Type two incorporates two areas of study within one discipline where students can cross-count a common set of core courses and take separate sets of electives.
Dual degrees must be pursued concurrently, not consecutively. In order to meet this requirement, students interested in pursuing a dual degree must be matriculated, pursuing coursework, in both programs for one full academic year (three quarters or two semesters). Students in a one year program must matriculate into the second program no later than the first admission term following fifty percent (50%) coursework completion of the first program.

Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.

With fully developed and approved curricula, these programs are available to graduate students who are admitted to both schools and submit the Dual Degree Approval Form (http://www.du.edu/media/documents/graduates/dual_degree_form.pdf) during the program’s first term. For program details, please contact the school, college or department.

### Daniel Felix Ritchie School of Engineering and Computer Science

**FORMAL DUAL DEGREE PROGRAMS**

A formal dual degree program links two master’s degrees or a master’s program with a JD program and leads to two degrees. The Graduate Council and the Associate Provost for Graduate Studies must approve all proposals for formal dual degree programs.

There are two types of formal dual degree programs. Type one incorporates two distinct disciplines where students complete two separate sets of core courses and cross-count electives. Type two incorporates two areas of study within one discipline where students can cross-count a common set of core courses and take separate sets of electives.

Dual degrees must be pursued concurrently, not consecutively. In order to meet this requirement, students interested in pursuing a dual degree must be matriculated, pursuing coursework, in both programs for one full academic year (three quarters or two semesters). Students in a one year program must matriculate into the second program no later than the first admission term following fifty percent (50%) coursework completion of the first program.

Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.

With fully developed and approved curricula, these programs are available to graduate students who are admitted to both schools and submit the Dual Degree Approval Form (http://www.du.edu/media/documents/graduates/dual_degree_form.pdf) during the program’s first term. For program details, please contact the school, college or department.

### Master of Science in Computer Science and Juris Doctor

- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MS credits required with dual degree: 40
- MS credit reduction: 8 credits from the original 48 required for the MS
- Minimum number of credits required with dual degree: 120

### Juris Doctor

Admission Requirements (p. 675)

Degree Requirements (p. 681)

### Master of Science in Computer Science

Admission Requirements (p. 214)

Degree Requirements (p. 221)

### Daniels College of Business

**FORMAL DUAL DEGREE PROGRAMS**

A formal dual degree program links two master’s degrees or a master’s program with a JD program and leads to two degrees. The Graduate Council and the Associate Provost for Graduate Studies must approve all proposals for formal dual degree programs.
There are two types of formal dual degree programs. Type one incorporates two distinct disciplines where students complete two separate sets of core courses and cross-count electives. Type two incorporates two areas of study within one discipline where students can cross-count a common set of core courses and take separate sets of electives.

Dual degrees must be pursued concurrently, not consecutively. In order to meet this requirement, students interested in pursuing a dual degree must be matriculated, pursuing coursework, in both programs for one full academic year (three quarters or two semesters). Students in a one year program must matriculate into the second program no later than the first admission term following fifty percent (50%) coursework completion of the first program.

Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.

With fully developed and approved curricula, these programs are available to graduate students who are admitted to both schools and submit the Dual Degree Approval Form (http://www.du.edu/media/documents/graduates/dual_degree_form.pdf) during the program’s first term. For program details, please contact the school, college or department.

**Master of Business Administration and Juris Doctor**

- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MBA credits required with dual degree: 60
- MBA credit reduction: 20 credits from the original 80 required for the MBA
- Minimum number of credits required with dual degree: 140

**Juris Doctor**

Admission Requirements (p. 675)

Degree Requirements (p. 681)

**Master of Business Administration**

Admission Requirements (p. 285)

Degree Requirements (p. 288)

**Professional Master of Business Administration and Master of Social Work**

- MSW credits required with dual degree: 75
- MSW credit reduction with dual degree: 15 credits from the original 90 required for the MSW
- PMBA credits required with dual degree: 58
- PMBA credit reduction: 12 credits from the original 70 required for the PMBA
- Minimum number of credits required with dual degree: 133

**Master of Social Work**

Admission Requirements (p. 406)

Degree Requirements (p. 408)

**Professional Master of Business Administration**

Admission Requirements (p. 285)

Degree Requirements (p. 288)

**Master of Science in Real Estate and the Built Environment and Juris Doctorate**

- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MS credits required with dual degree: 35
- MS credit reduction: 13 credits from the original 48 required for the MS
- Minimum number of credits required with dual degree: 115
Master of Business Administration and Master of Accountancy in Accounting

- MBA credits required with dual degree: 76
- MBA credit reduction with dual degree: 4 credits from the original 80 required for the MBA
- MAcc credits required with dual degree: 40
- MAcc credit reduction: 0 credits from the original 40 required for the MAcc
- Minimum number of credits required with dual degree: 116

Master of Business Administration and Master of Science in Business Analytics

- MBA credits required with dual degree: 70
- MBA credit reduction with dual degree: 10 credits from the original 80 required for the MBA
- MS in Business Analytics credits required with dual degree: 46
- MS in Business Analytics credit reduction: 12 credits from the original 58 required for the MS in Business Analytics
- Minimum number of credits required with dual degree: 116

Master of Business Administration and Master of Science in Applied Quantitative Finance

- MBA credits required with dual degree: 72
- MBA credit reduction with dual degree: 8 credits from the original 80 required for the MBA
- MS in Applied Quantitative Finance credits required with dual degree: 45
- MS in Applied Quantitative Finance credit reduction: 12 credits from the original 57 required for the MS in Applied Quantitative Finance
- Minimum number of credits required with dual degree: 117
Master of Science in Applied Quantitative Finance
Admission Requirements (p. 335)
Degree Requirements (p. 336)

Master of Business Administration and Master of Science in Marketing
- MBA credits required with dual degree: 72
- MBA credit reduction with dual degree: 8 credits from the original 80 required for the MBA
- MS in Marketing credits required with dual degree: 44
- MS in Marketing credit reduction: 3 credits from the original 47 required for the MS in Marketing
- Minimum number of credits required with dual degree: 116

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Master of Science in Marketing
Admission Requirements (p. 345)
Degree Requirements (p. 347)

Master of Business Administration and Master of Science in Real Estate and the Built Environment
- MBA credits required with dual degree: 72
- MBA credit reduction with dual degree: 8 credits from the original 80 required for the MBA
- MS in Real Estate and the Built Environment credits required with dual degree: 44
- MS in Real Estate and the Built Environment credit reduction: 4 credits from the original 48 required for the MS in Real Estate and the Built Environment
- Minimum number of credits required with dual degree: 116

Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 354)
Degree Requirements (p. 355)

Master of Accountancy in Accounting and Master of Science in Business Analytics
- MAcc credits required with dual degree: 40
- MAcc credit reduction with dual degree: 0 credits from the original 40 required for the MAcc
- MS in Business Analytics credits required with dual degree: 50
- MS in Business Analytics credit reduction: 8 credits from the original 58 required for the MS in Business Analytics
- Minimum number of credits required with dual degree: 90

Master of Accountancy
Admission Requirements (p. 361)
Degree Requirements (p. 362)

Master of Science in Business Analytics
Admission Requirements (p. 281)
Degree Requirements (p. 282)
Master of Accountancy in Accounting and Master of Science in Applied Quantitative Finance

- MAcc credits required with dual degree: 40
- MAcc credit reduction with dual degree: 0 credits from the original 40 required for the MAcc
- MS in Applied Quantitative Finance credits required with dual degree: 45
- MS in Applied Quantitative Finance credit reduction: 12 credits from the original 57 required for the MS in Applied Quantitative Finance
- Minimum number of credits required with dual degree: 85

Master of Accountancy
Admission Requirements (p. 361)
Degree Requirements (p. 362)

Master of Science in Applied Quantitative Finance
Admission Requirements (p. 335)
Degree Requirements (p. 336)

Master of Accountancy in Accounting and Master of Science in Management

- MAcc credits required with dual degree: 40
- MAcc credit reduction with dual degree: 0 credits from the original 40 required for the MAcc
- MS in Management credits required with dual degree: 45
- MS in Management credit reduction: 0 credits from the original 45 required for the MS in Management
- Minimum number of credits required with dual degree: 85

Master of Accountancy
Admission Requirements (p. 361)
Degree Requirements (p. 362)

Master of Science in Management
Admission Requirements (p. 340)
Degree Requirements (p. 340)

Master of Accountancy in Accounting and Master of Science in Marketing

- MAcc credits required with dual degree: 40
- MAcc credit reduction with dual degree: 0 credits from the original 40 required for the MAcc
- MS in Marketing credits required with dual degree: 47
- MS in Marketing credit reduction: 0 credits from the original 47 required for the MS in Marketing
- Minimum number of credits required with dual degree: 87

Master of Accountancy
Admission Requirements (p. 361)
Degree Requirements (p. 362)

Master of Science in Marketing
Admission Requirements (p. 345)
Degree Requirements (p. 347)

Master of Accountancy in Accounting and Master of Science in Real Estate and the Built Environment

- MAcc credits required with dual degree: 40
- MAcc credit reduction with dual degree: 0 credits from the original 40 required for the MAcc
- MS in Real Estate and the Built Environment credits required with dual degree: 48
• MS in Real Estate and the Built Environment credit reduction: 0 credits from the original 48 required for the MS in Real Estate and the Built Environment
• Minimum number of credits required with dual degree: 88

Master of Accountancy
Admission Requirements (p. 361)
Degree Requirements (p. 362)

Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 354)
Degree Requirements (p. 355)

Master of Science in Applied Quantitative Finance and Master of Science in Business Analytics
• MS in Applied Quantitative Finance credits required with dual degree: 45
• MS in Applied Quantitative Finance credit reduction with dual degree: 12 credits from the original 57 required for the MS in Applied Quantitative Finance
• MS in Business Analytics credits required with dual degree: 50
• MS in Business Analytics credit reduction: 8 credits from the original 58 required for the MS in Business Analytics
• Minimum number of credits required with dual degree: 95

Master of Science in Applied Quantitative Finance
Admission Requirements (p. 335)
Degree Requirements (p. 336)

Master of Science in Business Analytics
Admission Requirements (p. 281)
Degree Requirements (p. 282)

Master of Science in Applied Quantitative Finance and Master of Science in Management
• MS in Applied Quantitative Finance credits required with dual degree: 41
• MS in Applied Quantitative Finance credit reduction with dual degree: 16 credits from the original 57 required for the MS in Applied Quantitative Finance
• MS in Management credits required with dual degree: 45
• MS in Management credit reduction: 0 credits from the original 45 required for the MS in Management
• Minimum number of credits required with dual degree: 86

Master of Science in Applied Quantitative Finance
Admission Requirements (p. 335)
Degree Requirements (p. 336)

Master of Science in Management
Admission Requirements (p. 340)
Degree Requirements (p. 340)

Master of Science in Applied Quantitative Finance and Master of Science in Marketing
• MS in Applied Quantitative Finance credits required with dual degree: 45
• MS in Applied Quantitative Finance credit reduction with dual degree: 12 credits from the original 57 required for the MS in Applied Quantitative Finance
• MS in Marketing credits required with dual degree: 39
• MS in Marketing credit reduction: 8 credits from the original 47 required for the MS in Marketing
• Minimum number of credits required with dual degree: 84

**Master of Science in Applied Quantitative Finance**
Admission Requirements (p. 335)
Degree Requirements (p. 336)

**Master of Science in Marketing**
Admission Requirements (p. 345)
Degree Requirements (p. 347)

**Master of Science in Applied Quantitative Finance and Master of Science in Real Estate and the Built Environment**

- MS in Applied Quantitative Finance credits required with dual degree: 45
- MS in Applied Quantitative Finance credit reduction with dual degree: 12 credits from the original 57 required for the MS in Applied Quantitative Finance
- MS in Real Estate and the Built Environment credits required with dual degree: 40
- MS in Real Estate and the Built Environment credit reduction: 8 credits from the original 48 required for the MS in Real Estate and the Built Environment
- Minimum number of credits required with dual degree: 85

**Master of Science in Applied Quantitative Finance**
Admission Requirements (p. 335)
Degree Requirements (p. 336)

**Master of Science in Real Estate and the Built Environment**
Admission Requirements (p. 354)
Degree Requirements (p. 355)

**Master of Science in Business Analytics and Master of Science in Management**

- MS in Business Analytics credits required with dual degree: 46
- MS in Business Analytics credit reduction with dual degree: 12 credits from the original 58 required for the MS in Business Analytics
- MS in Management credits required with dual degree: 41
- MS in Management credit reduction: 4 credits from the original 45 required for the MS in Management
- Minimum number of credits required with dual degree: 87

**Master of Science in Business Analytics**
Admission Requirements (p. 281)
Degree Requirements (p. 282)

**Master of Science in Management**
Admission Requirements (p. 340)
Degree Requirements (p. 340)

**Master of Science in Business Analytics and Master of Science in Marketing**

- MS in Business Analytics credits required with dual degree: 50
- MS in Business Analytics credit reduction with dual degree: 8 credits from the original 58 required for the MS in Business Analytics
- MS in Marketing credits required with dual degree: 39
- MS in Marketing credit reduction: 8 credits from the original 47 required for the MS in Marketing
- Minimum number of credits required with dual degree: 89

**Master of Science in Business Analytics**
Admission Requirements (p. 281)
Master of Science in Business Analytics and Master of Science in Real Estate and the Built Environment

- MS in Business Analytics credits required with dual degree: 50
- MS in Business Analytics credit reduction with dual degree: 8 credits from the original 58 required for the MS in Business Analytics
- MS in Real Estate and the Built Environment credits required with dual degree: 40
- MS in Real Estate and the Built Environment credit reduction: 8 credits from the original 48 required for the MS in Real Estate and the Built Environment
- Minimum number of credits required with dual degree: 90

Master of Science in Business Analytics

Master of Science in Real Estate and the Built Environment

Master of Science in Marketing and Master of Science in Management

- MS in Marketing credits required with dual degree: 43
- MS in Marketing credit reduction with dual degree: 4 credits from the original 47 required for the MS in Marketing
- MS in Management credits required with dual degree: 43
- MS in Management credit reduction: 2 credits from the original 45 required for the MS in Management
- Minimum number of credits required with dual degree: 86

Master of Science in Marketing

Master of Science in Management

Master of Science in Marketing And Master of Science in Real Estate and the Built Environment

- MS in Marketing credits required with dual degree: 43
- MS in Marketing credit reduction with dual degree: 4 credits from the original 47 required for the MS in Marketing
- MS in Real Estate and the Built Environment credits required with dual degree: 40
- MS in Real Estate and the Built Environment credit reduction: 8 credits from the original 48 required for the MS in Real Estate and the Built Environment
- Minimum number of credits required with dual degree: 83

Master of Science in Marketing
Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 354)
Degree Requirements (p. 355)

Master of Science in Management And Master of Science in Real Estate and the Built Environment
• MS in Management credits required with dual degree: 45
• MS in Management credit reduction: 0 credits from the original 45 required for the MS in Management
• MS in Real Estate and the Built Environment credits required with dual degree: 40
• MS in Real Estate and the Built Environment credit reduction: 8 credits from the original 48 required for the MS in Real Estate and the Built Environment
• Minimum number of credits required with dual degree: 85

Master of Science in Management
Admission Requirements (p. 340)
Degree Requirements (p. 340)

Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 354)
Degree Requirements (p. 355)

Professional Master of Business Administration and Master of Accountancy in Accounting
• PMBA credits required with dual degree: 66
• PMBA credit reduction with dual degree: 4 credits from the original 70 required for the PMBA
• MAcc credits required with dual degree: 40
• MAcc credit reduction: 0 credits from the original 40 required for the MAcc
• Minimum number of credits required with dual degree: 106

Professional Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Master of Accountancy
Admission Requirements (p. 361)
Degree Requirements (p. 362)

Professional Master of Business Administration and Master of Science in Business Analytics
• PMBA credits required with dual degree: 62
• PMBA credit reduction with dual degree: 8 credits from the original 70 required for the PMBA
• MS in Business Analytics credits required with dual degree: 44
• MS in Business Analytics credit reduction: 12 credits from the original 58 required for the MS in Business Analytics
• Minimum number of credits required with dual degree: 106

Professional Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)
Master of Science in Business Analytics
Admission Requirements (p. 281)
Degree Requirements (p. 282)

Professional Master of Business Administration and Master of Science in Applied Quantitative Finance
- PMBA credits required with dual degree: 62
- PMBA credit reduction with dual degree: 8 credits from the original 70 required for the PMBA
- MS in Applied Quantitative Finance credits required with dual degree: 45
- MS in Applied Quantitative Finance credit reduction: 12 credits from the original 57 required for the MS in Applied Quantitative Finance
- Minimum number of credits required with dual degree: 107

Professional Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Master of Science in Applied Quantitative Finance
Admission Requirements (p. 335)
Degree Requirements (p. 336)

Professional Master of Business Administration and Master of Science in Marketing
- PMBA credits required with dual degree: 62
- PMBA credit reduction with dual degree: 8 credits from the original 70 required for the PMBA
- MS in Marketing credits required with dual degree: 45
- MS in Marketing credit reduction: 2 credits from the original 47 required for the MS in Marketing
- Minimum number of credits required with dual degree: 107

Professional Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Master of Science in Marketing
Admission Requirements (p. 345)
Degree Requirements (p. 347)

Professional Master of Business Administration and Master of Science in Real Estate and the Built Environment
- PMBA credits required with dual degree: 62
- PMBA credit reduction with dual degree: 8 credits from the original 70 required for the PMBA
- MS in Real Estate and the Built Environment credits required with dual degree: 44
- MS in Real Estate and the Built Environment credit reduction: 4 credits from the original 48 required for the MS in Real Estate and the Built Environment
- Minimum number of credits required with dual degree: 106

Professional Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 354)
Executive Master of Business Administration and Master of Accountancy in Accounting

- EMBA credits required with dual degree: 60
- EMBA credit reduction with dual degree: 0 credits from the original 60 required for the EMBA
- MAcc credits required with dual degree: 40
- MAcc credit reduction: 0 credits from the original 40 required for the MAcc
- Minimum number of credits required with dual degree: 100

Executive Master of Business Administration

Master of Accountancy

Executive Master of Business Administration and Master of Science in Business Analytics

- EMBA credits required with dual degree: 60
- EMBA credit reduction with dual degree: 0 credits from the original 60 required for the EMBA
- MS in Business Analytics credits required with dual degree: 46
- MS in Business Analytics credit reduction: 12 credits from the original 58 required for the MS in Business Analytics
- Minimum number of credits required with dual degree: 106

Executive Master of Business Administration

Master of Science in Business Analytics

Executive Master of Business Administration and Master of Science in Applied Quantitative Finance

- EMBA credits required with dual degree: 60
- EMBA credit reduction with dual degree: 0 credits from the original 60 required for the EMBA
- MS in Applied Quantitative Finance credits required with dual degree: 41
- MS in Applied Quantitative Finance credit reduction: 16 credits from the original 57 required for the MS in Applied Quantitative Finance
- Minimum number of credits required with dual degree: 101

Executive Master of Business Administration

Master of Science in Applied Quantitative Finance
Executive Master of Business Administration and Master of Science in Marketing

- EMBA credits required with dual degree: 60
- EMBA credit reduction with dual degree: 0 credits from the original 60 required for the EMBA
- MS in Marketing credits required with dual degree: 41
- MS in Marketing credit reduction: 8 credits from the original 47 required for the MS in Marketing
- Minimum number of credits required with dual degree: 101

Executive Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Master of Science in Marketing
Admission Requirements (p. 345)
Degree Requirements (p. 347)

Executive Master of Business Administration and Executive Master of Science in Real Estate and the Built Environment

- EMBA credits required with dual degree: 60
- EMBA credit reduction with dual degree: 0 credits from the original 60 required for the EMBA
- Executive MS in Real Estate and the Built Environment credits required with dual degree: 40
- Executive MS in Real Estate and the Built Environment credit reduction with dual degree: 8 credits from the original 48 required for the Executive MS in Real Estate and the Built Environment
- Minimum number of credits required with dual degree: 100

Executive Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Executive Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 354)
Degree Requirements (p. 355)

Executive Master of Science in Real Estate and the Built Environment and Master of Accountancy in Accounting

- Executive MS in Real Estate and the Built Environment credits required with dual degree: 48
- Executive MS in Real Estate and the Built Environment credit reduction with dual degree: 0 credits from the original 48 required for the Executive MS in Real Estate and the Built Environment
- MAcc credits required with dual degree: 40
- MAcc credit reduction: 0 credits from the original 40 required for the MAcc
- Minimum number of credits required with dual degree: 88

Executive Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 354)
Degree Requirements (p. 355)

Master of Accountancy
Admission Requirements (p. 361)
Degree Requirements (p. 362)
Executive Master of Science in Real Estate and the Built Environment and Master of Science in Business Analytics

- Executive MS in Real Estate and the Built Environment credits required with dual degree: 40
- Executive MS in Real Estate and the Built Environment credit reduction with dual degree: 8 credits from the original 48 required for the Executive MS in Real Estate and the Built Environment
- MS in Business Analytics credits required with dual degree: 50
- MS in Business Analytics credit reduction: 8 credits from the original 58 required for the MS in Business Analytics
- Minimum number of credits required with dual degree: 90

Executive Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 354)
Degree Requirements (p. 355)

Master of Science in Business Analytics
Admission Requirements (p. 281)
Degree Requirements (p. 282)

Executive Master of Science in Real Estate and the Built Environment and Master of Science in Applied Quantitative Finance

- Executive MS in Real Estate and the Built Environment credits required with dual degree: 40
- Executive MS in Real Estate and the Built Environment credit reduction with dual degree: 8 credits from the original 48 required for the Executive MS in Real Estate and the Built Environment
- MS in Applied Quantitative Finance credits required with dual degree: 49
- MS in Applied Quantitative Finance credit reduction: 18 credits from the original 57 required for the MS in Applied Quantitative Finance
- Minimum number of credits required with dual degree: 89

Executive Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 354)
Degree Requirements (p. 355)

Master of Science in Applied Quantitative Finance
Admission Requirements (p. 335)
Degree Requirements (p. 336)

Executive Master of Science in Real Estate and the Built Environment and Master of Science in Marketing

- Executive MS in Real Estate and the Built Environment credits required with dual degree: 40
- Executive MS in Real Estate and the Built Environment credit reduction with dual degree: 8 credits from the original 48 required for the Executive MS in Real Estate and the Built Environment
- MS in Marketing credits required with dual degree: 43
- MS in Marketing credit reduction: 4 credits from the original 47 required for the MS in Marketing
- Minimum number of credits required with dual degree: 83

Executive Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 354)
Degree Requirements (p. 355)

Master of Science in Marketing
Admission Requirements (p. 345)
Degree Requirements (p. 347)
Executive Master of Science in Real Estate and the Built Environment and Master of Business Administration

- Executive MS in Real Estate and the Built Environment credits required with dual degree: 44
- Executive MS in Real Estate and the Built Environment credit reduction with dual degree: 4 credits from the original 48 required for the Executive MS in Real Estate and the Built Environment
- MBA credits required with dual degree: 72
- MBA credit reduction with dual degree: 8 credits from the original 80 required for the MBA
- Minimum number of credits required with dual degree: 116

Executive Master of Science in Real Estate and the Built Environment

Admission Requirements (p. 354)

Degree Requirements (p. 355)

Master of Business Administration

Admission Requirements (p. 285)

Degree Requirements (p. 288)

Executive Master of Science in Real Estate and the Built Environment and Professional Master of Business Administration

- Executive MS in Real Estate and the Built Environment credits required with dual degree: 44
- Executive MS in Real Estate and the Built Environment credit reduction with dual degree: 4 credits from the original 48 required for the Executive MS in Real Estate and the Built Environment
- PMBA credits required with dual degree: 62
- PMBA credit reduction with dual degree: 8 credits from the original 70 required for the PMBA
- Minimum number of credits required with dual degree: 106

Executive Master of Science in Real Estate and the Built Environment

Admission Requirements (p. 354)

Degree Requirements (p. 355)

Professional Master of Business Administration

Admission Requirements (p. 285)

Degree Requirements (p. 288)

Division of Arts, Humanities and Social Sciences

Division of Natural Sciences and Mathematics

FORMAL DUAL DEGREE PROGRAMS

A formal dual degree program links two master’s degrees or a master’s program with a JD program and leads to two degrees. The Graduate Council and the Associate Provost for Graduate Studies must approve all proposals for formal dual degree programs.

There are two types of formal dual degree programs. Type one incorporates two distinct disciplines where students complete two separate sets of core courses and cross-count electives. Type two incorporates two areas of study within one discipline where students can cross-count a common set of core courses and take separate sets of electives.

Dual degrees must be pursued concurrently, not consecutively. In order to meet this requirement, students interested in pursuing a dual degree must be matriculated, pursuing coursework, in both programs for one full academic year (three quarters or two semesters). Students in a one year program must matriculate into the second program no later than the first admission term following fifty percent (50%) coursework completion of the first program.
Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.

With fully developed and approved curricula, these programs are available to graduate students who are admitted to both schools and submit the Dual Degree Approval Form (http://www.du.edu/media/documents/graduates/dual_degree_form.pdf) during the program's first term. For program details, please contact the school, college or department.

**Master of Arts in Geography and Juris Doctor**

- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MA credits required with dual degree: 35
- MA credit reduction: 10 credits from the original 45 required for the MA
- Minimum number of credits required with dual degree: 115

**Juris Doctor**

Admission Requirements (p. 675)
Degree Requirements (p. 681)

**Master of Arts in Geography**

Admission Requirements (p. 641)
Degree Requirements (p. 644)

**Graduate School of Social Work**

**FORMAL DUAL DEGREE PROGRAMS**

A formal dual degree program links two master's degrees or a master's program with a JD program and leads to two degrees. The Graduate Council and the Associate Provost for Graduate Studies must approve all proposals for formal dual degree programs.

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Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.

With fully developed and approved curricula, these programs are available to graduate students who are admitted to both schools and submit the Dual Degree Approval Form (http://www.du.edu/media/documents/graduates/dual_degree_form.pdf) during the program's first term. For program details, please contact the school, college or department.

**Master of Social Work and Professional Master of Business Administration**

- MSW credits required with dual degree: 75
- MSW credit reduction with dual degree: 15 credits from the original 90 required for the MSW
- PMBA credits required with dual degree: 58
- PMBA credit reduction: 12 credits from the original 70 required for the PMBA
- Minimum number of credits required with dual degree: 133

**Master of Social Work**

Admission Requirements (p. 406)
Degree Requirements (p. 408)
Professional Master of Business Administration
Admission Requirements (p. 285)
Degree Requirements (p. 288)

Master of Social Work and Master of Legal Studies
- MSW credits required with dual degree: 75
- MSW credit reduction with dual degree: 15 credits from the original 90 required for the MSW
- MLS credits required with dual degree: 24
- MLS credit reduction: 6 credits from the original 30 required for the MLS
- Minimum number of credits required with dual degree: 99

Master of Social Work
Admission Requirements (p. 406)
Degree Requirements (p. 408)

Master of Legal Studies
Admission Requirements (p. 675)
Degree Requirements (p. 681)

Master of Social Work and Juris Doctor
- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MSW credits required with dual degree: 24
- MSW credit reduction: 15 credits from the original 90 required for the MSW
- Minimum number of credits required with dual degree: 155

Juris Doctor
Admission Requirements (p. 675)
Degree Requirements (p. 681)

Master of Social Work
Admission Requirements (p. 406)
Degree Requirements (p. 408)

Josef Korbel School of International Studies
FORMAL DUAL DEGREE PROGRAMS

A formal dual degree program links two master’s degrees or a master’s program with a JD program and leads to two degrees. The Graduate Council and the Associate Provost for Graduate Studies must approve all proposals for formal dual degree programs.

There are two types of formal dual degree programs. Type one incorporates two distinct disciplines where students complete two separate sets of core courses and cross-count electives. Type two incorporates two areas of study within one discipline where students can cross-count a common set of core courses and take separate sets of electives.

Dual degrees must be pursued concurrently, not consecutively. In order to meet this requirement, students interested in pursuing a dual degree must be matriculated, pursuing coursework, in both programs for one full academic year (three quarters or two semesters). Students in a one year program must matriculate into the second program no later than the first admission term following fifty percent (50%) coursework completion of the first program.

Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.
With fully developed and approved curricula, these programs are available to graduate students who are admitted to both schools and submit the Dual Degree Approval Form (http://www.du.edu/media/documents/graduates/dual_degree_form.pdf) during the program’s first term. For program details, please contact the school, college or department.

**Master of Public Policy and Juris Doctor**
- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MPP credits required with dual degree: 50
- MPP credit reduction: 10 credits from the original 60 required for the MPP
- Minimum number of credits required with dual degree: 130

**Juris Doctor**
Admission Requirements (p. 675)
Degree Requirements (p. 681)

**Master of Public Policy**
Admission Requirements (p. 468)
Degree Requirements (p. 470)

**Sturm College of Law**

**FORMAL DUAL DEGREE PROGRAMS**
A formal dual degree program links two master’s degrees or a master’s program with a JD program and leads to two degrees. The Graduate Council and the Associate Provost for Graduate Studies must approve all proposals for formal dual degree programs.

There are two types of formal dual degree programs. Type one incorporates two distinct disciplines where students complete two separate sets of core courses and cross-count electives. Type two incorporates two areas of study within one discipline where students can cross-count a common set of core courses and take separate sets of electives.

Dual degrees must be pursued concurrently, not consecutively. In order to meet this requirement, students interested in pursuing a dual degree must be matriculated, pursuing coursework, in both programs for one full academic year (three quarters or two semesters). Students in a one year program must matriculate into the second program no later than the first admission term following fifty percent (50%) coursework completion of the first program.

Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.

With fully developed and approved curricula, these programs are available to graduate students who are admitted to both schools and submit the Dual Degree Approval Form (http://www.du.edu/media/documents/graduates/dual_degree_form.pdf) during the program’s first term. For program details, please contact the school, college or department.

**Juris Doctor and Master of Laws in Environmental and Natural Resources Law and Policy**
- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- LLM credits required with dual degree: 24
- LLM credit reduction: 0 credits from the original 24 required for the LLM
- Minimum number of credits required with dual degree: 104

**Juris Doctor**
Admission Requirements (p. 675)
Degree Requirements (p. 681)
Master of Laws in Environmental and Natural Resources Law and Policy
Admission Requirements (p. 675)
Degree Requirements (p. 681)

Juris Doctor and Master of Laws in International Business Transactions
- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- LLM credits required with dual degree: 24
- LLM credit reduction: 0 credits from the original 24 required for the LLM
- Minimum number of credits required with dual degree: 104

Juris Doctor
Admission Requirements (p. 675)
Degree Requirements (p. 681)

Master of Laws in International Business Transactions
Admission Requirements (p. 675)
Degree Requirements (p. 681)

Juris Doctor and Master of Science in Legal Administration
- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MSLA credits required with dual degree: 27
- MSLA credit reduction: 3 credits from the original 30 required for the MSLA
- Minimum number of credits required with dual degree: 107

Juris Doctor
Admission Requirements (p. 675)
Degree Requirements (p. 681)

Master of Science in Legal Administration
Admission Requirements (p. 675)
Degree Requirements (p. 681)

Juris Doctor and Master of Laws in Taxation
- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- LLM credits required with dual degree: 45
- LLM credit reduction: 0 credits from the original 45 required for the LLM
- Minimum number of credits required with dual degree: 125

Juris Doctor
Admission Requirements (p. 675)
Degree Requirements (p. 681)

Master of Laws in Taxation
Admission Requirements (p. 446)
Degree Requirements (p. 447)

Juris Doctor and Master of Public Policy
- JD credits required with dual degree: 80
• JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
• MPP credits required with dual degree: 50
• MPP credit reduction: 10 credits from the original 60 required for the MPP
• Minimum number of credits required with dual degree: 130

**Juris Doctor**
Admission Requirements (p. 675)

Degree Requirements (p. 681)

**Master of Public Policy**
Admission Requirements (p. 468)

Degree Requirements (p. 470)

**Juris Doctor and Master of Business Administration**
• JD credits required with dual degree: 80
• JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
• MBA credits required with dual degree: 60
• MBA credit reduction: 20 credits from the original 80 required for the MBA
• Minimum number of credits required with dual degree: 140

**Juris Doctor**
Admission Requirements (p. 675)

Degree Requirements (p. 681)

**Master of Business Administration**
Admission Requirements (p. 285)

Degree Requirements (p. 288)

**Juris Doctor and Master of Science in Computer Science**
• JD credits required with dual degree: 80
• JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
• MS credits required with dual degree: 40
• MS credit reduction: 8 credits from the original 48 required for the MS
• Minimum number of credits required with dual degree: 120

**Juris Doctor**
Admission Requirements (p. 675)

Degree Requirements (p. 681)

**Master of Science in Computer Science**
Admission Requirements (p. 214)

Degree Requirements (p. 221)

**Juris Doctor and Master of Science in Healthcare leadership**
• JD credits required with dual degree: 80
• JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
• MS credits required with dual degree: 36
• MS credit reduction: 12 credits from the original 48 required for the MS
• Minimum number of credits required with dual degree: 116

**Juris Doctor**
Admission Requirements (p. 675)
Master of Science in Healthcare Leadership
Admission Requirements (p. 800)

Juris Doctor and Master of Science in Real Estate and the Built Environment
- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MS credits required with dual degree: 35
- MS credit reduction: 13 credits from the original 48 required for the MS
- Minimum number of credits required with dual degree: 115

Juris Doctor
Admission Requirements (p. 675)

Master of Science in Real Estate and the Built Environment
Admission Requirements (p. 285)

Juris Doctor and Master of Arts in Geography
- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MA credits required with dual degree: 35
- MA credit reduction: 10 credits from the original 45 required for the MA
- Minimum number of credits required with dual degree: 115

Juris Doctor
Admission Requirements (p. 675)

Master of Arts in Geography
Admission Requirements (p. 641)

Juris Doctor and Master of Social Work
- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MSW credits required with dual degree: 75
- MSW credit reduction: 15 credits from the original 90 required for the MSW
- Minimum number of credits required with dual degree: 155

Juris Doctor
Admission Requirements (p. 675)

Master of Social Work
Admission Requirements (p. 406)
Master of Legal Studies and Master of Social Work

- MSW credits required with dual degree: 75
- MSW credit reduction with dual degree: 15 credits from the original 90 required for the MSW
- MLS credits required with dual degree: 24
- MLS credit reduction: 6 credits from the original 30 required for the MLS
- Minimum number of credits required with dual degree: 99

Master of Social Work
Admission Requirements (p. 406)
Degree Requirements (p. 408)

Master of Legal Studies
Admission Requirements (p. 675)
Degree Requirements (p. 681)

NOTE: All credits within the Sturm College of Law are semester hours, except for the Graduate Tax Program.

University College

FORMAL DUAL DEGREE PROGRAMS

A formal dual degree program links two master’s degrees or a master’s program with a JD program and leads to two degrees. The Graduate Council and the Associate Provost for Graduate Studies must approve all proposals for formal dual degree programs.

There are two types of formal dual degree programs. Type one incorporates two distinct disciplines where students complete two separate sets of core courses and cross-count electives. Type two incorporates two areas of study within one discipline where students can cross-count a common set of core courses and take separate sets of electives.

Dual degrees must be pursued concurrently, not consecutively. In order to meet this requirement, students interested in pursuing a dual degree must be matriculated, pursuing coursework, in both programs for one full academic year (three quarters or two semesters). Students in a one year program must matriculate into the second program no later than the first admission term following fifty percent (50%) coursework completion of the first program.

Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.

With fully developed and approved curricula, these programs are available to graduate students who are admitted to both schools and submit the Dual Degree Approval Form (http://www.du.edu/media/documents/graduates/dual_degree_form.pdf) during the program’s first term. For program details, please contact the school, college or department.

Master of Science in Healthcare Leadership and Juris Doctor

- JD credits required with dual degree: 80
- JD credit reduction with dual degree: 10 credits from the original 90 required for the JD
- MS credits required with dual degree: 36
- MS credit reduction: 12 credits from the original 48 required for the MS
- Minimum number of credits required with dual degree: 116

Juris Doctor
Admission Requirements (p. 675)
Degree Requirements (p. 681)

Master of Science in Healthcare Leadership
Admission Requirements (p. 800)
Degree Requirements (p. 802)
Schools, Colleges, and Divisions
Academic Units

Graduate Studies at the University of Denver includes programs in the following academic units:

- Arts and Humanities Division
- Morgridge College of Education
- Daniels College of Business
- DU-Iliff Joint PhD Program
- Josef Korbel School of International Studies
- Graduate School of Professional Psychology
- Graduate School of Social Work
- Graduate Tax Program
- Natural Sciences and Mathematics Division
- Daniel Felix Ritchie School of Engineering and Computer Science
- Social Sciences Division
- Sturm College of Law
- University College

Arts, Humanities and Social Sciences

Arts, Humanities, and Social Sciences (AHSS) is the liberal arts hub of the University of Denver and represents 26 schools, departments and programs. We offer 26 different graduate degrees ranging from a PhD in English to a Master’s in Public Policy to a Master’s in Music. All of these graduate programs are well regarded for academic rigor and post-graduation job placement. With about 340 AHSS graduate students enrolled, our intimate graduate programs feature small class sizes taught by enthusiastic faculty, many of whom are internationally recognized for their research and creative endeavors. In our interdisciplinary, highly collaborative environment, we strive to foster meaningful partnerships amongst students and faculty, support student research opportunities and provide both theoretical and applied learning opportunities for our graduate community.

Anthropology

Office: Sturm Hall, Room 146
Mail Code: 2000 E. Asbury Ave., Denver, CO 80208
Phone: 303-871-2406
Email: anthropology@du.edu
Web Site: http://www.du.edu/anthro

The department of anthropology has a research-active faculty who work closely with students on a one-on-one basis. Classes are small, so graduate students have their own work-spaces. The department has a wealth of archaeological and ethnographic collections in its museum.

Anthropology explains the relationships among biology, culture and the environments in which people live. Anthropology addresses problems such as the integration of cultural and ethnic diversity, the conduct of international relations, human rights and the management of environmental and cultural resources. There are three basic options for construction of a master’s degree in anthropology: archaeology, cultural anthropology or museum and heritage studies. Each concentration has its own formal course work, independent study and requirements for graduation.

Master of Arts in Anthropology with a Concentration in Archaeology, cultural anthropology, museum & heritage studies

Following are the simple steps to apply for the Master of Arts in Anthropology at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts should be on file in the Office of Graduate Studies, by the program’s priority deadline: February 4, to receive consideration for funding. The program admits for the fall quarter only. Applications may be considered after the priority deadline as space and funding are available.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.
Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and Scrip-Safe.
- Paper transcripts should be sent to the following address:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802
- Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Anthropology program is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
- Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.
- In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, the Anthropology program may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through DU’s English Language Center to meet the English language requirement. English language training at centers outside of DU will not be counted toward meeting English language proficiency requirements. International applicants with a three-year baccalaureate degree or any other academic deficiencies cannot be granted English Conditional Admission.

Test Scores

- The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency. DU’s ETS Institution Code is 4842. Please see the Graduate Policies and Procedures for the complete test score policy for applicants.

Personal Statement

- A personal statement of academic and professional goals and objectives is required. Include your future goals and purpose for applying to the Anthropology program. The statement should be submitted via upload through the online application process.

Writing Sample (Optional)

- A paper or article you have written that you would like to share with the admittance committee.

Recommendation Letters

- Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.
Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid. Some programs provide competitive awards in the form of fellowships and/or assistantships. Anthropology applicants are automatically considered for these awards. Contact the program for more information.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

  • Electronic transcripts should be sent to gradinfo@du.edu.
  • For more information call (303) 871-2706.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Arts in Anthropology with a Concentration in Archaeology

TRACK: Thesis

Degree Requirements
• 48 graduate-level quarter hours
• Maximum of 10 hours of transfer work
• Minimum GPA: 3.0
• Minimum grade for individual courses counted toward degree: B

Course Requirements
• Maximum 12 quarter hours outside of ANTH prefix
• Maximum 8 quarter hours of ANTH 4991 Independent Study AND/OR ANTH 4995 Independent Research
• Must have completed a Field School or Field Methods Course approved by advisor or graduate director

Required Courses:

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<tr>
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Select at least one of the following Archaeology Courses:

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Select one Cultural Anthropology course:

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**Select one Museum course:**

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<td>Introduction to Conservation</td>
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<tr>
<td>ANTH 3742</td>
<td>Museum Exhibit Development</td>
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<td>ANTH 3743</td>
<td>Managing Collections</td>
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<tr>
<td>ANTH 3791</td>
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### Archaeology Course
- 4 credits

### Cultural Anthropology Course
- 4 credits

### Museum Course
- 4 credits

### Select Electives
- 20 credits

### Total Credits
- 48 credits

**Minimum number of credits required for the degree: 48**

**Non-Course Requirements**
- Advancement to candidacy
- Oral defense
- Thesis
- Qualifying examination
- Three quarters residency as a graduate student at DU

**TRACK: Master’s Paper**

**Degree Requirements**
- 60 graduate-level quarter hours
- Maximum of 10 hours of transfer work
- Minimum GPA: 3.0
- Minimum grade for individual courses counted toward degree: B

**Course Requirements**
- Maximum 12 quarter hours outside of ANTH prefix
- Maximum 8 quarter hours of ANTH 4991 Independent Study AND/OR ANTH 4995 Independent Research
- Must have completed a Field School or Field Methods Course approved by advisor or Graduate Director

**Required Courses:**
- ANTH 3630 Archaeological Method and Theory
- ANTH 3660 Anthropological Theory, Method and Context
- ANTH 3875 Research Methods in Anthropology
- ANTH 4000 Advanced Anthropology

**Select at least one of the following Archaeology Courses:**
- ANTH 3170 Applied Heritage Management
- ANTH 3390 Geoarchaeology
- ANTH 4040 Historical Archaeology: Theory and Method

**Select one of the following Cultural Anthropology courses:**
- ANTH 3000 Anthropology of Tourism
- ANTH 3020 Native Religions
- ANTH 3030 Digital Anthropology
- ANTH 3040 Anthropologies of Place
- ANTH 3060 Cultural Narratives
- ANTH 3070 Folklore and Cultural Heritage
- ANTH 3080 Memory and Memorialization
- ANTH 3135 Feasting, Fasting and Food: The Anthropology of Food
- ANTH 3225 Human Rights in Latin America
- ANTH 3290 Art and Anthropology
- ANTH 3310 Indigenous Environment
- ANTH 3320 Medical Anthropology
- ANTH 3330 Human Rights of Indg Peoples
- ANTH 3360 Cross-Cultural Perspective: Women
- ANTH 3370 Sex, Class and Race in Latin America
- ANTH 3380 Women and Development
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Select one of the following Museum and Heritage Studies Courses:

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Required Courses 16
Archaeology Course 4
Cultural Anthropology Course 4
Museum and Heritage Studies Course 4
Select Electives 32
Total Credits 60

Minimum number of credits required for the degree: 60

Non-Course Requirements
- Advancement to candidacy
- Master’s paper
• Qualifying examination
• Three-quarters residency as a graduate student at DU

Master of Arts in Anthropology with a Concentration in Cultural Anthropology

**TRACK: Thesis**

Degree requirements

- 48 graduate-level quarter hours
- Maximum of 10 hours of transfer work
- Minimum GPA of 3.0
- Minimum grade of B for individual courses counted toward degree

Course requirements

- Maximum of 12 quarter hours outside of ANTH prefix
- Maximum 8 quarter hours of ANTH 4991 Independent Study AND/OR ANTH 4995 Independent Research
- Students must take at least half of their courses in cultural anthropology

**Required Courses:**

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**Select four of the following Cultural Anthropology courses:**

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**Select one of the following Museum & Heritage Studies Courses:**

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<td>ANTH 3500</td>
<td>Culture and The City</td>
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<td>ANTH 3661</td>
<td>Museums and their Visitors</td>
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<td>ANTH 3743</td>
<td>Managing Collections</td>
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<td>ANTH 3791</td>
<td>Critical Perspectives in Museum Studies</td>
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<td>Context of Material Culture</td>
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<td>Folklore and Cultural Heritage</td>
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<td>Art and Anthropology</td>
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<td>ANTH 4701</td>
<td>Special Topics in Anthropology</td>
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<td>ANTH 4744</td>
<td>Museum Anthropology</td>
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</tbody>
</table>
Minimum Credits in Cultural Anthropology Courses

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Archaeology Course</td>
<td>4</td>
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<tr>
<td>Museum and Heritage Studies Course</td>
<td>4</td>
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<td>Select Electives</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>48</strong></td>
</tr>
</tbody>
</table>

Minimum number of credits required for the degree: 48

Non-course requirements
- Advancement to candidacy
- Thesis
- Oral examination
- Qualifying examination
- Three quarters of residency as a graduate student at the University of Denver

**TRACK: Master's Paper**

Degree requirements:
- 60 graduate-level quarter hours
- Maximum of 10 hours of transfer work
- Minimum GPA of 3.0
- Minimum grade of B for individual courses counted toward degree

Course requirements
- Maximum 12 quarter hours outside of ANTH prefix
- Maximum 8 quarter hours of
- Maximum 8 quarter hours of ANTH 4991 Independent Study AND/OR ANTH 4995 Independent Research
- Students must take at least half of their courses in cultural anthropology course work.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANTH 3660</td>
<td>Anthropological Theory, Method and Context</td>
</tr>
<tr>
<td>ANTH 3875</td>
<td>Research Methods in Anthropology</td>
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<tr>
<td>ANTH 4000</td>
<td>Advanced Anthropology</td>
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**Select four of the following Cultural Anthropology courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANTH 3000</td>
<td>Anthropology of Tourism</td>
</tr>
<tr>
<td>ANTH 3020</td>
<td>Native Religions</td>
</tr>
<tr>
<td>ANTH 3030</td>
<td>Digital Anthropology</td>
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<tr>
<td>ANTH 3040</td>
<td>Anthropologies of Place</td>
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<tr>
<td>ANTH 3060</td>
<td>Cultural Narratives</td>
</tr>
<tr>
<td>ANTH 3070</td>
<td>Folklore and Cultural Heritage</td>
</tr>
<tr>
<td>ANTH 3080</td>
<td>Memory and Memorialization</td>
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<tr>
<td>ANTH 3135</td>
<td>Feasting, Fasting and Food: The Anthropology of Food</td>
</tr>
<tr>
<td>ANTH 3225</td>
<td>Human Rights in Latin America</td>
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<tr>
<td>ANTH 3290</td>
<td>Art and Anthropology</td>
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<tr>
<td>ANTH 3310</td>
<td>Indigenous Environment</td>
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<tr>
<td>ANTH 3320</td>
<td>Medical Anthropology</td>
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<tr>
<td>ANTH 3330</td>
<td>Human Rights of Indg Peoples</td>
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<tr>
<td>ANTH 3360</td>
<td>Cross-Cultural Perspective: Women</td>
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<tr>
<td>ANTH 3370</td>
<td>Sex, Class and Race in Latin America</td>
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<tr>
<td>ANTH 3380</td>
<td>Women and Development</td>
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<td>ANTH 3430</td>
<td>Visions, Utopias and Messiahs</td>
</tr>
<tr>
<td>ANTH 3470</td>
<td>Applied Anthropology</td>
</tr>
<tr>
<td>ANTH 3485</td>
<td>Anthropology and Underdevelopment</td>
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<tr>
<td>ANTH 3500</td>
<td>Culture and The City</td>
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<tr>
<td>ANTH 3540</td>
<td>The Nature of Language</td>
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<tr>
<td>ANTH 3550</td>
<td>Africa: Peoples and Cultures</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>ANTH 3620</td>
<td>Ethnoarchaeology</td>
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<tr>
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<td>Dynamics of Culture Change</td>
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<td>ANTH 3701</td>
<td>Topics in Anthropology</td>
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<tr>
<td>ANTH 3750</td>
<td>Ethnographic Methods</td>
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<tr>
<td>ANTH 3880</td>
<td>Culture, Ecology, Adaptation</td>
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<td>ANTH 3890</td>
<td>Context of Material Culture</td>
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<td>ANTH 4070</td>
<td>Folklore and Cultural Heritage</td>
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<td>ANTH 4220</td>
<td>Human Rights in Latin America</td>
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<td>Art and Anthropology</td>
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<td>ANTH 4320</td>
<td>Medical Anthropology</td>
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<td>ANTH 4360</td>
<td>Cross-Cultural Perspectives of Women</td>
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<td>ANTH 4370</td>
<td>Sex, Class and Race in Latin America</td>
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<tr>
<td>ANTH 4380</td>
<td>Women and Development</td>
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<tr>
<td>ANTH 4701</td>
<td>Special Topics in Anthropology</td>
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</tbody>
</table>

**Select one of the following Archaeology Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANTH 3030</td>
<td>Digital Anthropology</td>
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<tr>
<td>ANTH 3040</td>
<td>Anthropologies of Place</td>
</tr>
<tr>
<td>ANTH 3060</td>
<td>Cultural Narratives</td>
</tr>
<tr>
<td>ANTH 3080</td>
<td>Memory and Memorialization</td>
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<tr>
<td>ANTH 3130</td>
<td>The Archaeology of Gender</td>
</tr>
<tr>
<td>ANTH 3170</td>
<td>Applied Heritage Management</td>
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<td>ANTH 3255</td>
<td>Ancient North America</td>
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<td>ANTH 3290</td>
<td>Art and Anthropology</td>
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<td>Indigenous Environment</td>
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<td>Latin American Archaeology</td>
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<td>ANTH 3390</td>
<td>Geoarchaeology</td>
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<td>ANTH 3500</td>
<td>Culture and The City</td>
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<td>ANTH 3510</td>
<td>The Ancient City</td>
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<tr>
<td>ANTH 3620</td>
<td>Ethnoarchaeology</td>
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<tr>
<td>ANTH 3630</td>
<td>Archaeological Method and Theory</td>
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<tr>
<td>ANTH 3701</td>
<td>Topics in Anthropology</td>
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<tr>
<td>ANTH 3741</td>
<td>Introduction to Conservation</td>
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<tr>
<td>ANTH 3743</td>
<td>Managing Collections</td>
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<td>ANTH 3790</td>
<td>Field Methods in Archaeology</td>
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<td>ANTH 3880</td>
<td>Culture, Ecology, Adaptation</td>
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<td>Context of Material Culture</td>
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<td>ANTH 3990</td>
<td>Summer Field School-Archaeology</td>
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<tr>
<td>ANTH 4040</td>
<td>Historical Archaeology: Theory and Method</td>
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<td>ANTH 4701</td>
<td>Special Topics in Anthropology</td>
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**Select one of the following Museum & Heritage Studies Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANTH 3030</td>
<td>Digital Anthropology</td>
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<td>ANTH 3040</td>
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<td>ANTH 3060</td>
<td>Cultural Narratives</td>
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<td>ANTH 3070</td>
<td>Folklore and Cultural Heritage</td>
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<td>Memory and Memorialization</td>
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<td>ANTH 3290</td>
<td>Art and Anthropology</td>
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<td>ANTH 3661</td>
<td>Museums and their Visitors</td>
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<td>ANTH 3701</td>
<td>Topics in Anthropology</td>
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<td>ANTH 3741</td>
<td>Introduction to Conservation</td>
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<tr>
<td>ANTH 3742</td>
<td>Museum Exhibit Development</td>
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</tbody>
</table>
ANTH 3743 Managing Collections
ANTH 3791 Critical Perspectives in Museum Studies
ANTH 3890 Context of Material Culture
ANTH 4070 Folklore and Cultural Heritage
ANTH 4290 Art and Anthropology
ANTH 4701 Special Topics in Anthropology
ANTH 4744 Museum Anthropology

Required Courses  12
Minimum Credits in Cultural Anthropology Courses 26
Archaeology Course 4
Museum & Heritage Studies Course 4
Select Electives 14
Total Credits 60

Minimum number of credits required for the degree: 60
Non-course requirements:
• Advancement to candidacy
• Master’s paper
• Qualifying examination
• Three quarters of residency as a graduate student at the University of Denver

Master of Arts in Anthropology with a Concentration in Museum and Heritage Studies

TRACK: Thesis
Degree requirements
• 48 graduate-level quarter hours
• Maximum of 10 hours of transfer work
• Minimum GPA of 3.0
• Minimum grade of B for individual courses counted toward degree

Course requirements
• Maximum 12 quarter hours outside of ANTH prefix
• Maximum 8 quarter hours of ANTH 4991 Independent Study AND/OR ANTH 4995 Independent Research

Required Courses:
ANTH 3660 Anthropological Theory, Method and Context
ANTH 3875 Research Methods in Anthropology
ANTH 4000 Advanced Anthropology

One of the following ANTH Courses:
ANTH 3630 Archaeological Method and Theory
ANTH 3791 Critical Perspectives in Museum Studies
ANTH 4744 Museum Anthropology

Select six of the following Museum and Heritage Studies Courses:
ANTH 3000 Anthropology of Tourism
ANTH 3040 Anthropologies of Place
ANTH 3060 Cultural Narratives
ANTH 3080 Memory and Memorialization
ANTH 3170 Applied Heritage Management
ANTH 3290 Art and Anthropology
ANTH 3500 Culture and The City
ANTH 3620 Ethnoarchaeology
ANTH 3661 Museums and their Visitors
ANTH 3701 Topics in Anthropology
### Required Courses

- ANTH 3741 Introduction to Conservation
- ANTH 3742 Museum Exhibit Development
- ANTH 3743 Managing Collections
- ANTH 3750 Ethnographic Methods
- ANTH 3890 Context of Material Culture
- ANTH 4040 Historical Archaeology: Theory and Method
- ANTH 4744 Museum Anthropology
- ANTH 4991 Independent Study
- ANTH 4995 Independent Research
- ANTH 4745 Museum Practicum
- ANTH 4070 Folklore and Cultural Heritage

1 Class is applied/practice oriented course. Students are limited to taking no more than three of these classes (12 credits) to count toward their requirements.

### Required Courses

- ANTH Course
- Electives to be taken inside the department, outside the department, or as internship

### Minimum number of credits required for the degree: 48

### Non-course requirements

- Advancement to candidacy
- Thesis
- Oral examination
- Qualifying examination
- Internship (can be taken for credit as ANTH 4981 Museum Internship)

### TRACK: Master’s Paper

### Degree requirements

- 60 graduate-level quarter hours
- Maximum of 10 hours of transfer work
- Minimum GPA of 3.0
- Minimum grade of B for individual courses counted toward degree

### Course requirements

- Maximum 12 quarter hours outside of ANTH prefix
- Maximum 8 quarter hours of ANTH 4991 Independent Study AND/OR ANTH 4995 Independent Research

### Required Courses:

- ANTH 3660 Anthropological Theory, Method and Context
- ANTH 3875 Research Methods in Anthropology
- ANTH 4000 Advanced Anthropology

### One of the following ANTH Courses:

- ANTH 3630 Archaeological Method and Theory
- ANTH 3791 Critical Perspectives in Museum Studies
- ANTH 4744 Museum Anthropology

### Select six of the following Museum and Heritage Studies Courses:

- ANTH 3000 Anthropology of Tourism
- ANTH 3040 Anthropologies of Place
- ANTH 3060 Cultural Narratives
ANTH 3080  Memory and Memorialization
ANTH 3170  Applied Heritage Management
ANTH 3290  Art and Anthropology
ANTH 3500  Culture and The City
ANTH 3620  Ethnoarchaeology
ANTH 3661  Museums and their Visitors
ANTH 3701  Topics in Anthropology
ANTH 3741  Introduction to Conservation
ANTH 3742  Museum Exhibit Development
ANTH 3743  Managing Collections
ANTH 3750  Ethnographic Methods
ANTH 3890  Context of Material Culture
ANTH 4040  Historical Archaeology: Theory and Method
ANTH 4744  Museum Anthropology
ANTH 4991  Independent Study
ANTH 4995  Independent Research
ANTH 4745  Museum Practicum
ANTH 4070  Folklore and Cultural Heritage

Class is applied/practice oriented course. Students are limited to taking no more than three of these classes (12 credits) to count toward their requirements.

Required Courses  12
Museum & Heritage Studies Courses  24
ANTH Course  4
Electives to be taken inside the department, outside the department, or as internship  20
Total Credits  60

Minimum number of credits required for the degree: 60
Non-course requirements

- Advancement to candidacy
- Master’s paper
- Qualifying examination
- Internship (can be taken for credit as ANTH 4981 Museum Internship)

Courses

ANTH 3000 Anthropology of Tourism (4 Credits)
Considers the interaction of host and visitor cultures in foreign tourism. Explores the effects of tourism on the host culture and the expectations of the visitors. Discusses tourism's relationship to development and the various levels of needs of the tourists.

ANTH 3020 Native Religions (4 Credits)
A cross-cultural survey of concepts used to understand and talk about "religion," "the supernatural," and associated behavior among Native peoples of Turtle Island. Topics include healing and techniques of controlling and channeling supernatural power; sacred places and their significance; myths and symbols in their cultural contexts; initiation rites; conceptualizations of male and female deities; and responses of indigenous people to attempted missionization.

ANTH 3030 Digital Anthropology (4 Credits)
Digital Anthropology introduces students to computer technology used in anthropological research. Students study and then produce a number of digital products useful in the analysis and interpretation of museum collections, for archaeological mapping and research, and for the dissemination of anthropological knowledge online. This process covers the use of Geographic Information Systems (GIS) for spatial analysis, three-dimensional imaging programs ranging in scale from broad landscape mapping to detailed digital artifact analysis. In addition, the use of geophysical methods for imaging what is below the surface allows students to produce images of what lies below the ground in archaeological contexts.
ANTH 3040 Anthropologies of Place (4 Credits)
This class is an exploration of the relationship between people and places from an anthropological viewpoint. We concern ourselves with a variety of ideas about place, emphasizing not just how places are used, but how they infuse themselves into the lives, histories and ethics of those who interact with them. The course readings include book-length anthropological case studies interspersed with interdisciplinary readings about place and landscape. The course includes seminar-style discussions of readings, workshops and observations in the field. On several occasions, we take our class on the road, working together to think about how people and place interact. By the end of the class, each student creates his or her own anthropological essay about a place. Must be junior standing or above.

ANTH 3060 Cultural Narratives (4 Credits)
Human beings are natural storytellers. Whether reciting oral traditions or recounting personal experience, people everywhere use narratives as a way to express and to understand themselves. This course approaches cultural narratives from two angles. First, it explores the ways that anthropologists, usually trained in the social sciences, make use of and study narratives, whether through ethnographic observation, conducting an interview, gathering folklore or archaeological interpretation. Second, the class investigates narratives that, although produced by non-anthropologists, engage with anthropological issues such as kinship, gender, work, tradition and identity. The narratives range broadly from fiction, to poetry, to film. These two approaches are framed by theoretically informed readings about narrativity, both from the social sciences and the humanities. The class involves intensive reading and writing, as it makes use of both discussion and workshop formats. Each student in the course completes a research and writing project culminating in his or her own cultural narrative. Must be junior standing or above.

ANTH 3070 Folklore and Cultural Heritage (4 Credits)
Folklore and Cultural Heritage is the study of the expressive behaviors and practices that constitute the everyday, everyday life of communities. Folklore includes the intangible cultural heritages of all peoples, for example, the artistic expression reflected in stories and storytelling, music, dance, legends, oral history, proverbs, jokes, popular beliefs, customs, dialects and ways of speaking. Everyone has folklore and participates in the "folklore process." Prerequisite: introductory social science course. Cross-listed with ANTH 4070.

ANTH 3080 Memory and Memorialization (4 Credits)
The course focuses on how social groups represent, experience and commemorate the remembered past; it explores issues of construction of memory, particularly how representations of the past and its materialization through monuments, ruins, and landscapes are connected with issues of institutionalized perceptions of national, ethnic, racial and religious identity. Furthermore, it discusses concepts such as "authenticity," "tradition," and "modernity" in the interpretation of cultural heritage and how the interpretation of the past and of culture depend on context (political and historical), experience and point of view. The course aims to develop an interdisciplinary approach to memory and to methodologies and empirical research.

ANTH 3130 The Archaeology of Gender (4 Credits)
This course examines the ways archaeology can contribute to the study of gender through investigations of the deep through recent past. The class will include readings on gender theory, the uses of archaeological data and specific case studies of engendered lives in the past. Cross listed with GWST 3130.

ANTH 3135 Feasting, Fasting and Food: The Anthropology of Food (4 Credits)
Feasting, Fasting and Food focuses on foodways and food culture. Food and its acquisition and preparation are tied to the historical, social and cultural lives of all peoples. By drawing on historical sources, ethnography and a number of anthropological perspectives, we look at foodways as symbols of identity, culinary tourism, food work as trade or profession, the study of food as art and theater, and food and memory. Prerequisite: ANTH 2310.

ANTH 3170 Applied Heritage Management (4 Credits)
Considers the role of archaeology in preservation and the management of cultural resources in terms of legislation, ethics and practical application, with emphasis of the utility, necessity and reality of doing archaeology today in the public sector. Site report writing, governmental regulations and the business side of archaeology are stressed. Archaeological information from site reports and artifact analysis are compiled and presented in a digital format. Prerequisite: ANTH 2310.

ANTH 3200 Human Origins and Evolution (4 Credits)
Examines the fossil record for human evolution from 6 million years ago to the origin of modern Homo sapiens, including current theories, evidence and controversies. Considers the historical and sociological contexts of human evolutionary studies, popular myths and misconceptions, and alternative scenarios for the future evolution of the human species.

ANTH 3225 Human Rights in Latin America (4 Credits)
This course aims to provide students with an overview of human rights issues and how they have evolved in recent Latin American history, from the military dictatorships of the authoritarian period to contemporary challenges faced by the region’s democracies. It also aims to place human rights concerns in a broader sociopolitical context. Many of today’s human rights issues are rooted in the past, but others respond to new and emerging challenges. In this class, we will explore the roots and contemporary realities of human rights movements in Latin America. The examination of these topics should allow us to pose broader questions about the meaning of human rights in a globalized world, the efficacy of international instruments for rights enforcement, and the complex challenges that linger in the aftermath of authoritarianism and state-sponsored terror.

ANTH 3255 Ancient North America (4 Credits)
This course examines the history of American Indian cultures from their earliest archaeological traces on this continent up to and including contact with European explorers and colonists.

ANTH 3290 Art and Anthropology (4 Credits)
Study of the concept of art and its multiple roles in society from a cross-cultural and historical perspective. Commodification of culture through tourism and the global art market; arts of resistance and survival; and cultural expression and community development.
ANTH 3310 Indigenous Environment (4 Credits)
The purpose of this course is to introduce students to particular environmental issues that affect indigenous peoples, including subsistence and economic issues; sacred lands; cultural property dilemmas; and the impact that use of traditional cultural properties by others—including nation-state governments, corporations and tourists—have on indigenous peoples’ cultural and social integrity. Particular focus is on one of these issues—travel and particularly “ecotavel” and “ecotourism.”

ANTH 3320 Medical Anthropology (4 Credits)
This course is an introduction to medical anthropology. As a professional and academic field, medical anthropology provides conceptual and analytical tools for a comprehensive understanding of health, illness and healing. It is concerned with the ways in which individual experience is inserted in social and historical contexts and it explores ideas and behaviors related to health in different societies and social groups, as well as the ways in which different groups organize their resources to face health-related needs in the context of their social and economic realities.

ANTH 3330 Human Rights of Indg Peoples (4 Credits)
This course introduces students to the concept and definition of “indigenous peoples.” It covers the history of resistance, revitalization, and assertion of sovereignty by Indigenous peoples, and why the United Nations felt it necessary to adopt a “Declaration on the Rights of Indigenous Peoples” in 2007. It covers how indigenous identities and indigenous rights issues do or do not “fit” with internationally accepted definitions of human rights. The course will concentrate on the intersection of indigenous autonomy with globalization, neo-liberal ideologies, and nation-state policies. Case studies focus on Iroquois, Crees, Mayans, Mapuche, Zapatistas, Maoris, and Sami.

ANTH 3350 Latin American Archaeology (4 Credits)
Covers the prehistory of the Western Hemisphere south of the Mexico-U.S. border, from initial colonization of the hemisphere by Paleo-Indian people, to the origins of agriculture and the rise of civilization. Olmec, Mayan, Aztec, Chavin, Moche and Inca cultures are covered in detail.

ANTH 3360 Cross-Cultural Perspective: Women (4 Credits)
Confronts question about women’s roles and women’s status in a global perspective. It addresses issues such as why women have been subordinate to men in so many cultures, how one actually measures dominance and subordination, and whether there is some biological basis for gender inequality. Broad theoretical questions on the status of women are discussed and form the basis for the analytical inquiry which follows. Cross-listed with ANTH 4360.

ANTH 3370 Sex, Class and Race in Latin America (4 Credits)
This course uses an intersectional approach to the study of sex, class and race in Latin America. Intersectionality aims at understanding the interlocking relation between sex, class, race and other aspects, and how these are rooted in historical and social structures, and are reproduced and resisted through individual and collective experience. In this course we will aim at understanding such history, culture and peoples with a special emphasis on examining their heterogeneity, and aiming at understanding how such heterogeneity is also related with social inequality. We will also examine some contemporary issues such as women’s rights, indigenous movements, human rights, migrations, and economy with an emphasis on their manifestations at the intersections of sex, class, and race.

ANTH 3380 Women and Development (4 Credits)
A case study approach to understanding women’s status and the problems of combining productive and reproductive responsibilities in developing countries. Cross-listed with ANTH 4380, INTS 3390.

ANTH 3390 Geoarchaeology (4 Credits)
Use of geological methods to interpret archaeological sites, ancient landscape reconstruction, study of environmental change and habitation.

ANTH 3430 Visions, Utopias and Messiahs (4 Credits)
Ghost dance, peyote religion, cargo cults, peasant revolution, charismatic leaders, messianic movements in cross-cultural perspectives; roles played by cultural systems, historical circumstances and social conditions in generating social movements.

ANTH 3470 Applied Anthropology (4 Credits)
The practical application of cross-cultural knowledge and awareness to the solution of social and cultural problems. Ethnographic methodologies, a review of the history of applied anthropology and a consideration of the ideological and ethical components of applied anthropology are covered.

ANTH 3485 Anthropology and Underdevelopment (4 Credits)
Anthropological approach to some of the developing world’s most pressing social problems and how anthropologists can make a relevant contribution in confronting, studying and changing the nature of underdevelopment.

ANTH 3500 Culture and The City (4 Credits)
Examines the past and future of the city as a human built environment that reflects and reproduces social, political, economic, and cultural forces and ideals. Begins with the origin of cities in antiquity and ends with contemporary urban landscapes. Analysis is sensitive to both the technologies and aesthetics of urban form. Emphasis is on the possibilities for urban redesign to meet the problems of 21st century city life.

ANTH 3510 The Ancient City (4 Credits)
The archaeological study of ancient cities around the world is a booming and controversial area of research. This course investigates what we know about the nature of the earliest cities in the great original cradles of civilization: Mesopotamia, Asia, Africa, and the Americas. Our focus is on how the first cities were planned, built, and experienced by citizens.

ANTH 3540 The Nature of Language (4 Credits)
Language as social, psychological, cultural phenomenon; relationship between cultures, semantics; language as medium of cultural unification; relationship between dialects, social structure.
ANTH 3550 Africa: Peoples and Cultures (4 Credits)
Survey course in the anthropology of Africa designed to explore the diversity of African people and cultures. The course examines issues of contemporary life in the continent as well as the way it has been portrayed by the media, anthropologists, historians, and writers. Topics such as geography, history, society, politics, religion, ethnicities, and material culture of different regions are central to the discussion.

ANTH 3620 Ethnoarchaeology (4 Credits)
Ethnography has often been used as an illustrative device to animate archaeological remains, or to develop models of human behavior, regardless of the geographic and chronological distance between the ethnographic and the archaeological data. This course addresses different perspectives and theories concerning the use of ethnoarchaeology to complement archaeological information. It aims to define the role of ethnoarchaeology in the study of human past; to establish an agenda of issues to which their use is relevant; and to provide a critical overview of major approaches to the use of ethnographic analogies and historical information in archaeology.

ANTH 3630 Archaeological Method and Theory (4 Credits)
This class presents methods for gathering archaeological data in the laboratory and then using a variety of theoretical approaches in its interpretation. Students gather archaeological data using museum collections from a variety of sites. Those artifacts include stone tools and ceramics as well as other environmental data and architectural information in a variety of environmental and landscape contexts. For each site studied students are presented with a body of theoretical literature from which to interpret these data. A variety of interpretative methods can potentially be chosen for each site, and in most cases there is no right answer, only answers that can be supported by the data collected and interpreted using the theoretical constructs read. All students are required to write up complete site reports for each project including all raw data collected in the analysis and theoretical approaches used in interpretation.

ANTH 3650 Dynamics of Culture Change (4 Credits)
Considers culture change and the agents of change. Focuses on changes in indigenous cultures around the world resulting from colonialism 1850-1950, forced acculturation, the tension between worldwide economic development and human rights, and the changing nature of the post-colonial world.

ANTH 3660 Anthropological Theory, Method and Context (4 Credits)
History and development of particular schools of thought, paradigms, methods and methodologies that characterize contemporary anthropology. Intellectual, artistic developments, world-wide sociopolitical and economic processes that shaped much of anthropological thinking of the times. Research methods in reconstruction of human history and qualitative ethnographical research.

ANTH 3661 Museums and their Visitors (4 Credits)
This course is designed to be a comprehensive introduction to museums and their approaches to serving visitors, primarily through exhibitions and education. It examines current research and museum practice as it relates to the museum as an environment for meaningful visitor experiences and learning. The course is organized around the following core issues: (1) What do visitor experiences look like in a museum context? (2) How do museums design for different audience types? (3) What do we learn from assessing visitors' experiences? (4) How do objects, ideas and spaces affect visitor learning and experiences? Cross listed with ARTH 3661.

ANTH 3680 Quantitative Methods-Anthropology (4 Credits)
The use of statistics in all branches of anthropology; data screening; parametric and nonparametric statistics. Prerequisite: any course in basic statistics.

ANTH 3701 Topics in Anthropology (4 Credits)
Specialized topics in anthropology. Check with the Department of Anthropology or the Schedule of Classes for further information; open to students who are non-majors; may be repeated for credit.

ANTH 3702 Topics in Anthropology (4 Credits)
Specialized topics in anthropology. Check with the Department of Anthropology or the Schedule of Classes for further information; open to students who are non-majors; may be repeated for credit. Prerequisite: ANTH 1010.

ANTH 3703 Topics in Anthropology (4 Credits)
Specialized topics in anthropology. Check with the Department of Anthropology or the Schedule of Classes for further information; open to students who are non-majors; may be repeated for credit. Prerequisite: ANTH 1010.

ANTH 3741 Introduction to Conservation (4 Credits)
Introduction to physical properties of materials found in museum artifacts and specimens. Discusses preventative conservation principles and methods.

ANTH 3742 Museum Exhibit Development (4 Credits)
Introduces general principles of planning, development, production and evaluation of museum exhibits. Explores design elements and methods of evaluation. Students have the opportunity to do exhibit mockups and exhibit evaluation.

ANTH 3743 Managing Collections (4 Credits)
Principles and methods regarding acquisition, documentation, conservation and accessibility of collections. Law, registration methods, computerization, policy, development, ethics and preventive conservation are also discussed.
ANTH 3750 Ethnographic Methods (4 Credits)
In this course, students study the art and science of ethnographic research methods, conduct quarter-long field research projects, and write practice ethnographies. The course requires students to apply the American Anthropological Association's Code of Ethics in their research and to write Institutional Review Board applications for their projects. Course readings include texts on ethnographic methods as well as controversial and exemplary ethnographic publications for student dissection and debate.

ANTH 3790 Field Methods in Archaeology (4 Credits)
Introduces basic methods of archaeological survey, excavation, artifact collection strategies and field interpretation. Students learn to create field maps and cross-sectional drawings of archaeological phenomena. Cross-listed with ANTH 1790. Prerequisite: ANTH 2310.

ANTH 3791 Critical Perspectives in Museum Studies (4 Credits)
This course critically explores museums and heritage complexes as sites of cultural production and consumption at different historical moments and in diverse cultural and national settings. Special attention is given to contemporary issues, debates, and approaches in the context of museum anthropology and heritage studies. The term museum is used to include a wide range of heritage projects that do not rely only on the traditional institution established to collect, conserve and exhibit material culture, but includes intangible heritage, historic built environment and event natural environment that was used and marked by human action.

ANTH 3800 Capstone Seminar Anthropology (4 Credits)
This seminar brings anthropology to bear on a topic of special significance. It assesses grasp of the key concepts, theories and insights of anthropology, and critically reflects on the nature and history of the discipline. Prerequisite: Senior standing.

ANTH 3875 Research Methods in Anthropology (4 Credits)
This course offers an in-depth introduction to anthropological research methods with the aim of providing students with the tools necessary to design a coherent research proposal. Starting with the notion that anthropological research is a scientific endeavor, the course offers knowledge and skills that allow for a systematic application of qualitative and quantitative methods to respond to research questions. Students will learn when and how to use one method, as well as the implications of doing it. Students will also learn how to critically read research reports that use qualitative, quantitative, or mixed methods. The course is organized in two portions. The qualitative portion will focus on a detailed exploration of the continuum that goes from posing a research question, choosing a methodology, carrying it on, and reporting the results. The quantitative portion is concentrated on collecting numerical data, methods of which are often based on a qualitative understanding of people. Quantitative analysis will present tools used to take readings, acquire data, observations, and other information necessary to test hypotheses about people, cultures and how we can understand them from their material remains. The purpose of the quantitative part of the class is to determine what is statistically significant and what ideas about people are supportable using the scientific method. This course is required for all anthropology graduate students, and suggested for advanced undergraduates who are working on senior theses, and have an interest in anthropological research. The course is also open to non-anthropology students interested in anthropological research.

ANTH 3880 Culture, Ecology, Adaptation (4 Credits)
This course is organized around these concepts: "ecology," "adaptation," "landscape," "technology," "artifact," and "architecture." The course focuses on defining and examining adaptation and the role of culture and technology in achieving adaptations, or in not achieving them. This focus will be especially pursued with respect to the concept of landscape—that is, culturally defined physical space—and the cultural artifacts that interpret and modify it in the course of human adaptation to its ecological components.

ANTH 3890 Context of Material Culture (4 Credits)
Examines how material culture both reflects and actively structures political, economic and cultural life. Considers the relationship between people and their material culture (portable objects, non-portable objects, buildings, socially-created landscapes) in Western, non-Western, ancient, and contemporary cultural contexts. Reading materials draw from the fields of ethnology, archaeology, folklore, geography, history, art and architecture.

ANTH 3981 Museum Internship (1-6 Credits)
ANTH 3990 Summer Field School-Archaeology (4-6 Credits)
Archaeological excavation, survey and recordings; analysis and conservation of artifacts in the field.

ANTH 3991 Independent Study (1-15 Credits)

ANTH 3992 Directed Study (1-10 Credits)

ANTH 3995 Independent Research (1-10 Credits)

ANTH 4000 Advanced Anthropology (4 Credits)

ANTH 4040 Historical Archaeology: Theory and Method (4 Credits)
Because it is the archaeology of periods for which there is also written history, historical archaeology is a dynamic and interdisciplinary field. It also has a distinct set of concerns and methods that builds upon, but does not replicate, those of prehistoric archaeology. This course is designed to engage students in the practice of historical archaeology through readings, discussions, and the hands-on analysis of archaeological materials. The first class of each week is a discussion of readings in historical archaeology. The readings introduce students to theoretical and methodological issues in the discipline, as well as important case studies. Many of the readings have a North American focus, but address international practice. The second class of each week has a hands-on focus. Backed by readings on historic materials analysis, we discuss and practice the types of research historical archaeologists perform on actual materials, focusing on different material types each week. Students in the course each process and analyze a set of materials excavated from a historic site. Cross-listed with ANTH 2040.
ANTH 4070 Folklore and Cultural Heritage (4 Credits)
Folklore and Cultural Heritage is the study of the expressive behaviors and practices that constitute the ordinary, everyday life of communities. Folklore includes the intangible cultural heritages of all peoples, for example, the artistic expression reflected in stories and storytelling, music, dance, legends, oral history, proverbs, jokes, popular beliefs, customs, dialects and ways of speaking. Everyone has folklore and participates in the “folklore process.” Cross-listed with ANTH 3070.

ANTH 4200 Native North America (4 Credits)
Native American cultures north of Mexico. Cross-listed with ANTH 2200.

ANTH 4220 Human Rights in Latin America (4 Credits)
This course aims to provide students with an overview of human rights issues and how they have evolved in recent Latin American history, from the military dictatorships of the authoritarian period to contemporary challenges faced in the region’s democracies. It also aims to place human rights concerns in a broader sociopolitical context. Many of today’s human rights issues are rooted in the past, but others respond to new and emerging challenges. In this class, we explore the roots and contemporary realities of human rights movements in Latin America. The examination of these topics should allow us to pose broader questions about the meaning of human rights in a globalized world, the efficacy of international instruments for rights enforcement, and the complex challenges that linger in the aftermath of authoritarianism and state-sponsored terror.

ANTH 4290 Art and Anthropology (4 Credits)
This class introduces students to anthropological approaches to the study of art and visual culture. The first part of the course covers foundational work in the field, introducing key concepts as well as methods for viewing and understanding art from a cross-cultural/comparative and interdisciplinary perspective. We examine the relationships among art, technology and the environment, as well as the importance of form, function, style, meaning, and aesthetics in the study of art. The second part addresses issues of contemporary concern in art and anthropology, such as the influence of market forces and tourism on artistic traditions and cultural expressions; the intersection of art and identity; the politics of cultural representation. The course also explores the ethnographic turn in some forms of contemporary art as well as doing ethnography as art.

ANTH 4320 Medical Anthropology (4 Credits)
This course is an introduction to medical anthropology. As a professional and academic field, medical anthropology provides conceptual and analytical tools for a comprehensive understanding of health, illness and healing. It is concerned with the ways in which individual experience is inserted in social and historical contexts and it explores ideas and behaviors related to health in different societies and social groups, as well as the ways in which different groups organize their resources to face health-related needs in the context of their social and economic realities.

ANTH 4360 Cross-Cultural Perspectives of Women (4 Credits)
Cross-listed with ANTH 3360.

ANTH 4370 Sex, Class and Race in Latin America (4 Credits)
This course uses an intersectional approach to the study of sex, class and race in Latin America. Intersectionality aims at understanding the interlocking relation between sex, class, race and other aspects, and how these are rooted in historical and social structures, and are reproduced and resisted through individual and collective experience. In this course we will aim at understanding such history, culture and peoples with a special emphasis on examining their heterogeneity, and aiming at understanding how such heterogeneity is also related with social inequality. We will also examine some contemporary issues such as women’s rights, indigenous movements, human rights, migrations, and economy with an emphasis on their manifestations at the intersections of sex, class, and race.

ANTH 4380 Women and Development (4 Credits)
Case study approach to understanding women’s status; problems of combining productive/reproductive responsibilities in developing countries. Cross-listed with ANTH 3380, INTS 3390.

ANTH 4700 Readings in Anthropology (1-5 Credits)
Directed readings in anthropology under faculty supervision. May be repeated for credit.

ANTH 4701 Special Topics in Anthropology (1-5 Credits)

ANTH 4702 Special Topics in Anthropology (1-5 Credits)

ANTH 4703 Special Topics in Anthropology (1-5 Credits)

ANTH 4704 Special Topics in Anthropology (1-5 Credits)

ANTH 4744 Museum Anthropology (4 Credits)
This course introduces students to museum anthropology and the ethnography of museums as well as the theoretical and practical sides of museum studies. The course is based on the following premises: Museum anthropology is a form of applied anthropology in which museums are a venue for making anthropological insights and knowledge accessible and relevant to the public; Museums, as institutions of public culture, are a forum for exploring contemporary social issues and concerns; The role of museums in society and civic engagement is at the core of contemporary museum anthropology and Museology.

ANTH 4745 Museum Practicum (2 Credits)
Individually designed practicum in student’s area of interest.

ANTH 4750 Masters Museum Exhibit (4 Credits)
Required for MA with museum studies concentration. Type of exhibit and placement planned with student’s committee.
Communication Studies

Office: Sturm Hall, Room 200
Mail Code: 2000 E. Asbury Ave., Denver, CO 80208
Phone: 303-871-2385
Email: gradcomn@du.edu
Web Site: http://www.du.edu/comn

The Department of Communication Studies has been a pioneer in speech and communication studies since 1912, offering MA and PhD programs.

Our program takes full advantage of being situated in the state’s capital and business center, offering students excellent opportunities to study culture and communication, interpersonal and family communication, and rhetoric and communication ethics.

The graduate program in Communication Studies seeks to identify the ways in which we can better understand who we are as members of cultures, groups and families; examine and critique ideologies and structures that constrain our contact with each other; identify ways to deliberate and reach just decisions in public, organizational and personal contexts; and create the means for dialogue and collaboration in instances of conflict and struggle. Our faculty members work within and across three main areas of expertise, and we encourage our students to combine these areas in novel ways.

Culture and Communication
The area of Culture and Communication investigates the communicative constitution and intersection of difference in its various codifications as culture, race, class, religion, ethnicity, nationality, gender and sexual orientation. Its vision is to promote an ethic of inclusivity, racial and social justice, reciprocity and mutual transformation in the encounter of difference. Courses reflect this emphasis, focusing on the social and performative construction of identity, the politics of representation, performances of affect, identity and community and vernacular and embodied rhetorics, all informed by critical, feminist and queer perspectives on cultural communication.

This area investigates the communicative constitution and negotiation of difference in its various codifications as culture, race, religion, ethnicity, nationality, gender and sexual orientation. Its vision of the goal of intercultural communication is to promote an ethic of inclusivity, racial and social justice, reciprocity and mutual transformation in the encounter of difference. As such, it endeavors to equip students with perspectives, knowledge and skills needed to function in an ethical manner within a global cultural context. Besides introducing students to the history of theorizing and practice in the field, the program seeks to update disciplinary competence to include more fluid and dynamic conceptions of cultural negotiation of difference within the context of trans-border crossings, intensified global interactions and the displacement and movements of populations.

Interpersonal and Family Communication
The area of interpersonal communication explores how human communication works in our everyday lives, specifically, how people interact, and the impact their actions have on relationships between members of dyads, families, groups, social networks and communities. A basic premise of work in this area is that human interaction is fundamental to the construction, development and maintenance of personal and social relationships, and to the organization of social life as we know it today. The curriculum in this area draws from and is grounded in several significant traditions in social science and communication research, namely social-psychological, dialectical and interpretive approaches. Courses focus on current trends and significant contributions to research in interpersonal communication, family communication and research on close relationships.

The objective of study in this area is to facilitate an increased understanding of the communication processes and practices that occur within various contexts of interpersonal and social relationships, such as close, intimate relationships, including friendships, marriages and family relationships. Our primary value commitment is to high-quality relationships. That is, our research and teaching is directed toward discovering and disseminating information about the ways that relationships can be mutually satisfying and constructive—or dissatisfying and destructive.

We emphasize the construction of relationships through communication and recognize that quality relationships can take many forms.

Rhetoric and Communication Ethics
The Rhetoric and Communication Ethics area of emphasis is dedicated to the investigation of public communication and is particularly concerned with questions of how ethics and justice are constituted throughout the spectrum of public communication activity. The study of rhetoric and communication ethics at DU is best defined through three intellectual commitments. First, we are committed to developing philosophical accounts of the nature of communicative activity. Second, we are committed to understanding how communicative action works to form and transform our public and civic identities. And third, we are committed to producing reflective criticism of communicative activity in all of its textual and performative modalities.

It is our mission to foster intellectual relationships between faculty and students that will result in research programs capable of describing the normative presuppositions of communication activity, using that knowledge to expose and critique illegitimate and unjust communication behavior.
and constructing normative models of ethical communicative practice. It is our mission to cultivate teachers dedicated to addressing important public issues in a reasoned, passionate and ethical manner. It is our mission to model a deep commitment to using knowledge of rhetoric and communication ethics to further the public good.

Master of Arts in Communication Studies

Following are the simple steps to apply for graduate study in Communication Studies (http://www.du.edu/ahss/comm) at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: December 15, for admission and financial aid consideration for fall quarter; March 15, for the following winter quarter; June 15, for the following spring quarter. After the priority deadlines, applications may be considered on a rolling basis.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- For the MA program, applicants must have a bachelor’s degree in communication or a related field. A minimum GPA of 3.0 in the highest earned degree at the time of matriculation is required. Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Paper transcripts should be sent to the following address:
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802

- Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Communications Studies programs is 88 (IBT) or 570 (paper-based). The institution code for the University of Denver is 4842. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.
Test Scores
- The Graduate Record Examination (GRE) is required. The minimum combined score required by the Communication Studies program is 286/800 on the verbal and quantitative sections. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. DU’s ETS Institution Code is 4842.

Essay
- Applicants must submit a two- to four-page essay indicating area of emphasis(s), motivation for applying, professional and personal goals, and any additional information that will inform the faculty of your capability to pursue graduate-level work. The essay should be submitted via upload through the online application process.

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- Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

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Doctor of Philosophy in Communication Studies
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Doctor of Philosophy in Communication Studies

Degree Requirements
Coursework Requirements
Core course requirements (135 graduate-level credits required)

Research Methods/Tools
Minimum of 8 credit hours of research methods from courses listed below or other courses with permission of advisor 8

COMN 4160 Performance Ethnography
COMN 4900 Quantitative Methods I
COMN 4901 Quantitative Methods II
COMN 4930 Speech and Communication Research - Qualitative Methods
COMN 4931 Qualitative Methods II
COMN 4932 Critical Methods for Studying Culture

Content Seminars
Minimum of 40 credit hours of any 4000-level COMN graduate coursework (or courses outside the department, with advisor approval) 40

Tutorials
12-18 hours of close engagement in scholarly work with a faculty mentor 12-18

COMN 4990 Graduate Tutorial in COMN

Electives
8-24

Dissertation Hours
0-22

COMN 5995 Independent Research (Maximum of 22 quarter hours of dissertation hours)

MA Transfer Credit
45

Assumes a 45 hr. credit transfer for the MA degree. If the student does not have an MA, the total hours required for the degree is 135 hours, or if the student has less than 45 hrs. of transfer credit s/he will need to take courses to equal 135 hours.

Total Credits
135

Minimum number of credits required for the degree: 135

Non-coursework Requirements
• Tool Requirement: The tool is a methodological rather than a content requirement. This requirement should be met through course work in a methodology that results in advanced knowledge about a method that is related to the dissertation. In addition to recognizing tool requirement options in the traditional sense, (i.e., statistics) the student, in consultation with the dissertation advisor, may petition the faculty for an option deemed appropriate to the research/investigative requirements of the dissertation. The tool consists of 8–10 credits of course work taken during the PhD program at the University of Denver; transfer hours from the student’s prior MA program cannot be counted toward the tool.

• Periodic Review: After the completion of 10 quarter credits, the PhD student may be advanced to preliminary candidacy. Basis for advancement is the periodic faculty review of the progress of each student.
• Comprehensive Examination: At the end of required graduate course work and preliminary to advancement to final candidacy, the PhD student is required to pass a comprehensive examination. The examination is designed to test the student’s competencies as a scholar. The examination assesses both depth and breadth of knowledge within the discipline by focusing upon both the student’s curriculum emphasis and supporting work in other fields of study. The comprehensive examination offers the doctoral student an opportunity to demonstrate that he/she has become an independent, original and mature thinker in the discipline, as a consequence of the research and study engaged in during formal graduate course work.

• Examination Procedures: Exam preparation and administration will be under the supervision of an examination committee chosen by the student in conjunction with his/her advisor. The committee will consist of a minimum of three tenure-track faculty members in the department of communication studies. The examining committee chair will, in consultation with the student, convene the committee to prepare the examination and will offer the student guidance in preparation for meeting. (See the department for a more detailed description of comprehensive examination policies and procedures.)

• Dissertation: The PhD student is expected to submit a formal dissertation proposal, write a dissertation and defend the dissertation in an oral defense. No oral defense can be taken in the summer quarters.

## Master of Arts in Communication Studies

### Degree Requirements

#### Thesis Track

<table>
<thead>
<tr>
<th>Coursework Requirements</th>
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<tbody>
<tr>
<td><strong>Research Methods</strong></td>
<td>8</td>
</tr>
<tr>
<td>Minimum of 8 credit hours of research methods from courses listed below or other courses with permission of advisor</td>
<td>8</td>
</tr>
<tr>
<td>COMN 4160</td>
<td>Performance Ethnography</td>
</tr>
<tr>
<td>COMN 4900</td>
<td>Quantitative Methods I</td>
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<tr>
<td>COMN 4901</td>
<td>Quantitative Methods II</td>
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<tr>
<td>COMN 4930</td>
<td>Speech and Communication Research - Qualitative Methods</td>
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<tr>
<td>COMN 4931</td>
<td>Qualitative Methods II</td>
</tr>
<tr>
<td>COMN 4932</td>
<td>Critical Methods for Studying Culture</td>
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<thead>
<tr>
<th>Content Seminars</th>
<th>28</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 credit hours of any 4000-level COMN graduate coursework (or courses outside the department, with advisor approval)</td>
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<tr>
<th>Electives</th>
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<tr>
<td>0-9</td>
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<tr>
<td>COMN 4995</td>
<td>Independent Research</td>
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<tbody>
<tr>
<td>Minimum number of credits required for the degree: 45</td>
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Non-coursework Requirements

- Thesis
- Thesis oral defense

#### Comprehensive Examination Track

<table>
<thead>
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<th>Coursework Requirements</th>
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<tr>
<th>Content Seminars</th>
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<tbody>
<tr>
<td>Minimum of 40 hours of any 4000-level COMN graduate coursework (or courses outside the department with advisor approval)</td>
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<tr>
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<tr>
<td>COMN 4991</td>
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<tbody>
<tr>
<td>Minimum number of credits required for the degree: 52</td>
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</table>
Minimum number of credits required for the degree: 52

Non-coursework Requirements
- Comprehensive exam: Comprehensive examinations may be taken throughout the year, with the exception of summer quarter. Exams taken during breaks will be reviewed the next quarter following completion of the examination. Areas of testing are determined by an advisor within guidelines established by the communication studies faculty.

Courses

COMN 3130 Organizational Communication (4 Credits)
This is an applied course, service learning course, based on a consulting model. While the course will extend and enrich the topical and theoretical knowledge developed in COMN 1550 and COMN 2130, the primary purpose of this course will be to help students explore how they can put such knowledge into practice by collectively working with a local non-profit organization to first diagnose and then propose (and, in some cases implement) solutions to an organizational communication problem faced by that organization.

COMN 3230 Principles of Leadership (4 Credits)
Roles, functions, behaviors that influence and direct; emphasis on interpersonal effectiveness; theories and methods.

COMN 3245 Building Group/Team Effectiveness (4 Credits)
The objectives of this course are to help students acquire a deeper understanding of groups and teams, how they function, and what contributes to their success or failure. It also aims to help students develop the skills and capacities that will allow them to contribute in concrete and significant ways to successful outcomes and satisfying experiences for themselves and others in groups and teams. Cross listed with LDRS 2540.

COMN 3270 Health Communication (4 Credits)
This course examines the role of health communication in our everyday lives. We will focus on communication strategies that inform and influence individuals, families and communities in decisions that enhance health. We will also explore the dynamics and impact of health communication between individuals and the health care system such as doctor-patient communication, dissemination of health related information, and the role of mediated communication in examining health communication.

COMN 3280 Family Communication (4 Credits)
The purpose of this course is to enhance understanding about communication patterns within families. In this course, we will examine theory/research on the role of communication in creating and maintaining healthy marriages and families. Specifically, we will study communication and the family life cycle, different family forms, family race/ethnicity, power in families, conflict in families, communication and stress in families, and communication in the aging family. The course format includes lectures, discussions, analysis of case studies, and in class applications.

COMN 3285 Advanced Relational Communication (4 Credits)
Advanced Relational Communication is intended to increase understanding of relationships from diverse perspectives. The three main perspectives we will investigate show how relationships affect and are affected by their context, the individuals involved, and the relational system. The goals of this course are for students to increase their skill in (1) explaining how knowledge about context, individuals, and relational systems increases understanding of communication processes in a variety of relationships; (2) evaluating critically the information about relationships that we encounter in our everyday lives; (3) asking and investigating questions about real-life relationships.

COMN 3290 Communication and Aging (4 Credits)
In this course, we will focus on the communication processes associated with aging. We will explore the implications of aging and how aging affects the process and outcomes social and relational interactions. We will examine communication and aging through interactional processes (intrapersonal, interpersonal and relational) and through context (organization, family, health, and culture). Emphasis will be placed on the theoretical and applied research in communication and aging.

COMN 3300 Principles of Persuasion (4 Credits)
This course involves a social scientific approach to persuasion and social influence. Some of the topics included in this approach are the relationship between attitude and behavior; characteristics of the source, message, and receiver of a persuasive appeal; and models and theories that explain the effects of persuasive communication. By the end of the course, students should be able to think more critically about the persuasive messages they encounter in everyday life, to apply theoretical models of persuasion, and to construct persuasive messages.

COMN 3315 Public Deliberation (4 Credits)
During the last two decades public deliberation has emerged as the centerpiece of theoretical and practical accounts of liberal democracy. This course begins by setting out the nature and functions of public deliberation. We will then track how deliberative democrats respect the traditional accounts of inclusion, equality and reason in an attempt to meet the demands of the deep cultural diversity that marks social life in advanced industrial societies. Specifically we will ask if public deliberation as portrayed in these accounts is sufficient to meet these demands or do we need to expand our understanding of political argument to include a diversity of rhetorical practices? And, once we do expand our account of deliberation how does this transform the traditional problematics of both democratic and rhetorical theory?.

COMN 3425 Rhetoric and Governance (4 Credits)
An introduction to the works of Michel Foucault and his influence on contemporary rhetorical theory. Permission of instructor is required.

COMN 3435 Rhetoric and Public Life (4 Credits)
An introduction to the conceptual and political history of the public sphere. The course pays particular attention to how the normative assumptions of public communication are affected by the demands of cultural pluralism. Permission from instructor is required.
COMM 3470 Seminar in Free Speech (4 Credits)
This course will survey some of the major conceptual innovations in the justifications of freedom of speech. We will begin with an exploration of the traditional defenses of free speech and then move to a reexamination of those defenses in light of modern communication theory and the challenges of pluralism. In particular we will ask if the justifications of free speech need to be rethought given our understanding of speech as a social force that constitutes identities and values rather than merely expressing private opinions. Moreover, given our understanding of the social force of speech, should we regulate speech that is racist, sexist and seems to erode the foundations of a public culture based on mutual respect and public deliberation over social goods? Can we devise a robust defense of free speech based on its social force that both protects those that may be harmed by antidemocratic discourses and still provides the resources for democratic dissent?

COMM 3500 Advanced Public Speaking (4 Credits)
Theory, preparation, delivery and evaluation of public speeches.

COMM 3680 Gender and Communication (4 Credits)
This course focuses on the interactive relationships between gender and communication in contemporary U.S. society. This implies three priorities for the class. First, the course explores the multiple ways communication creates and perpetuates gender roles in families, media, and society in general. Second, the course considers how we enact socially created gender differences in public and private settings and how this affects success, satisfaction, and self-esteem. Third, the course connects theory and research to our personal lives. Throughout the quarter, the course considers not only what IS in terms of gender roles, but also what might be and how we, as change agents, may act to improve our individual and collective lives. Cross listed with GWST 3680, HCOM 3680.

COMM 3700 Topics in Communication (1-4 Credits)
COMM 3701 Topics in Communication (1-4 Credits)
COMM 3702 Topics in Communication (1-4 Credits)
COMM 3703 Topics in Communication (1-4 Credits)
COMM 3704 Topics in Communication (1-4 Credits)
COMM 3705 Topics in Communication (1-4 Credits)
COMM 3770 Mediated Communication and Relationships (4 Credits)
This course examines how people develop, define, maintain, and manage interpersonal relationships through their use of mediated communication. We will examine communication in relationships that occur through the internet, text-messaging, cell phones, chat rooms, gaming, and virtual communities. This is a seminar type course where students guide and are guided through their own study of mediated relationships.

COMM 3800 Philosophies of Dialogue (4 Credits)
This course explores the philosophies of dialogue of Martin Buber, Mikhail Bakhtin and others in the context of contemporary communication scholarship on ethics, culture, and relationship. Prerequisite: permission of instructor.

COMM 3850 Communication Ethics (4 Credits)
This class is not just about how to be ethical communicators but it is also about how to discover ethics--the good life and care for others, answerability and responsibility--deep within the structures of human communication itself. The course is committed to a mixture of theory and practice but practice is at the heart of the matter. Half of our sessions will be devoted to dialogue or conversation about ethics in life. There we will try to work as close as we can with ethics in our own lived experience. In the other half, we will explore theory: the ethical/philosophical/communicative ground of ethics.

COMM 3991 Independent Study (1-5 Credits)
COMM 3992 Directed Study (1-10 Credits)
COMM 3995 Independent Research (1-10 Credits)
Topics and quarter hours vary. Prerequisite: instructor’s permission.

COMM 4010 Introduction to Graduate Studies (4 Credits)
History of the discipline; noteworthy scholars and publications, current issues in the discipline.

COMM 4020 Communication Studies: Relational (4 Credits)
Recent social science literature in interpersonal communication; emphasis on pragmatics, meta-level perspectives, relational concerns affecting intimacies, friendships, families.

COMM 4030 Communication Studies: Organizational (3-4 Credits)
Ways in which communicative actions create, maintain, transform terms that define and regulate our practical and passionate attachments to each other; specifically how identity, knowledge, value, social organizations are constructed in and through communicative practices.

COMM 4100 Seminar: Speech Communication Theory (4 Credits)
Theoretical foundations of communication and language behavior; syntactics, semantics, pragmatics.

COMM 4110 Theories in Interpersonal Communication (4 Credits)
Selected themes in interpersonal communication, based primarily on theoretical sources, including interaction, relationships, goal achievement, hierarchies, interpersonal change.
COMN 4210 Seminar: Interpersonal Communication (4 Credits)
Selected theories applicable to interpersonal communication and their implications.

COMN 4220 Critical Intercultural Communication (4 Credits)
This seminar explores the key figures and foundational essays in the development of Critical Intercultural Communication. This seminar offers a critical perspective on current theory and research in intercultural communication. We emphasize questions and practices of "diversity" (especially involving race, class, gender, and sexuality) as they manifest in local and global contexts in the United States. The principle objective is to develop a politically informed and self-reflexive praxis in the service of reframing the study of intercultural communication.

COMN 4221 Culture, Power and Representation (4 Credits)
Central to the production of cultural knowledge about the 'other' is the labor of power implicated in all practices of discursive representation. In this course, we will examine the various theories of representation, the racial and gendered production of difference, the relation between discourse and subjectivity, and more generally, the poetics and politics of representation. These topics will be explored within a rich variety of contexts and institutional sites, e.g., in colonial and anthropological discourse, in popular media narratives and consumer culture, in the global deployment of Western theoretical/knowledge productions, among others.

COMN 4222 Theories of Identity and Subjectivity (4 Credits)
The seminar explores the communicative constitution of cultural, political, and institutional identities. Discussion will range from the historical development of the theoretical discourse on identity and subjectivity to more contemporary theories covering the emergence and transformation of identities in public discursive spaces. Particular attention will be given to theoretical frameworks and methods of inquiry animating research having to do with what is known as the "new cultural politics of difference." The course ends with a look at the contexts and arenas in which "identity" and "subjectivity" have emerged as critical sites of contestation in the 21st century.

COMN 4223 Culture and Communication: Contexts and Issues (4 Credits)
This is a capstone course in the foundations sequence for the Culture and Communication Area of Concentration in Human Communication Studies. This course will integrate content from the other three area foundations courses and specifically address implications for the study and practice of intercultural communication in such contexts as globalization, transnationalism, diaspora, colonization, immigration, adaptation, localization, corporate, institutional, and situated discourse. In addition current theoretical, research, and application issues and problematics such as multivocality, voice and representation, intersections and contradictions of contradictory identifications, representations, micro and macro forces, and paradigmatic separation and integration will be discussed. Prerequisites: COMN 4220, COMN 4221 and COMN 4222.

COMN 4230 Intercultural Training (4 Credits)
Research and theoretical approaches that examine international/intercultural training and instructional practices about topics such as adaptation, adjustment, competence, conflict and cultural diversity.

COMN 4231 Discourse and Race (4 Credits)
This course looks at race as a discursive formation using the literature in Critical Race Theory that has emerged over the past decade. In analyzing this body of work covering a wide range of themes and diverse theoretical perspectives, we hope to uncover the historic, material, as well as symbolic determinations of the discourse on race that have conspired to sustain a highly racialized system in place.

COMN 4232 Critical Sexuality Studies (4 Credits)
This course takes a critical approach to the study of sexualities by challenging our assumptions and everyday knowledges about identities, gender, sexuality, race, and ethnicity. This course is organized around important and recent publications in the fields of Communication Studies and Sexuality Studies. Rather than simply reiterating the canonical voices such as Foucault and Butler, the course focuses on the voices of queer people of color.
Communication Studies

COMN 4240 Seminar: Group Communication (4 Credits)
Small group literature; interpersonal and group communication.

COMN 4250 Seminar: Family Communication (4 Credits)
This course is designed to investigate and explore the communication processes associated with families. Areas of exploration include definitions of family communication and interactional patterns, the impact of life stage on family communication processes, marriage and divorce, parent-child communication, sibling interactions, the child-free family, and the later-life family.

COMN 4251 Advanced Seminar in Family Communication (4 Credits)
This advanced seminar is designed to build on the first seminar in family communication. The course will examine how historic research in the study of families have influenced the field of family communication. Emphasis will be placed on how understanding these classics can influence theory and research in the human communication area of family communication.

COMN 4280 Theories-Group Communication (4 Credits)
Examination, from different theoretical perspectives, of group communication as an area of study; research and application in speech communication discipline.

COMN 4300 Seminar in Persuasion (4 Credits)
Theory, research, special problems in persuasion and attitude change.

COMN 4310 Communication and Collaboration (4 Credits)
A survey of contemporary theories and applications.

COMN 4315 Public Deliberation (4 Credits)
An introduction to the theories and problematics of public deliberation. The course pays particular attention to the demands of inclusion, equality, and public reason as requirements of public deliberation.

COMN 4400 Seminar: Rhetoric Conversation Analysis (4 Credits)
Contemporary contributions to development of rhetorical theory ranging from perspectives on rhetoric offered by various rhetorical theorists to methods of rhetorical criticism.

COMN 4420 Rhetorical Theory (4 Credits)
Contemporary rhetorical theories.

COMN 4425 Rhetoric and Governance (4 Credits)
An introduction to the works of Michel Foucault and his influence on contemporary rhetorical theory.

COMN 4435 Rhetoric and Public Life (4 Credits)
An introduction to the conceptual and political history of the public sphere. The course pays particular attention to how the normative assumptions of public communication are affected by the demands of cultural pluralism.

COMN 4510 Seminar: Speech Communication Theory (4 Credits)
Integration of conceptual theory with behavioral practice in formal public speaking situations through lectures, discussions, performances.

COMN 4530 Critical Theories of Communication II: Nietzsche's Influence on Contemporary Rhetoric (4 Credits)
In conversation with Classical Rhetorical Theory and Critical Theories I, this course is designed to explore a major philosopher's influence on rhetoric and communication studies. Friedrich Nietzsche offers and inspires a second trajectory of thinking that allies with, but ultimately diverges from, the Marxist critical project. Broadly, Nietzschean thought echoes the Marxist concern for structural oppression, alienation, and limited consciousness; but it attempts to undermine structural power as much as possible without the tools of structural power (namely, language, values/truth/knowledge, and the subject). We explore this line of critique much more closely, considering how it has materialized in communication scholarship. This course offers a point of departure for explorations of particular theorists.

COMN 4700 Topics in Communication (1-4 Credits)
COMN 4701 Topics in Communication (1-4 Credits)
COMN 4702 Topics in Communication (1-4 Credits)
COMN 4703 Topics in Communication (1-4 Credits)
COMN 4704 Topics in Communication (1-4 Credits)
COMN 4705 Topics in Communication (1-4 Credits)
COMN 4710 Seminar: Nonverbal Communication (4 Credits)
Theoretical and practical exploration of interpersonal role relationships; emphasis on time, space, kinetic, vocal, tactile cues; methodological concerns.

COMN 4760 Linguistic Aspects of Communication Theory (4 Credits)
COMN 4800 Philosophies of Dialogue (4 Credits)
This course explores the philosophies of dialogue of Martin Buber, Mikhail Bakhtin and others in the context of contemporary communication scholarship on ethics, culture, and relationship.
COMN 4850 Communication Ethics (4 Credits)
This course explores the work of Todorov, Bakhtin, Levinas, and Hyde as foundational to communication ethics.

COMN 4890 Philosophy of Communication (4 Credits)
How speech communication is presupposed and/or demonstrated to be related to social reality, language, intersubjectivity by various methodologies used in conducting communication research; special emphasis on exploring presuppositions of recent methodological developments in contrast to more traditional approaches.

COMN 4900 Quantitative Methods I (4 Credits)
Lectures, readings, written assignments that facilitate growth and development of the research scholar.

COMN 4901 Quantitative Methods II (4 Credits)
This course is a continuation of the HCOM 4900 which explored the process of human inquiry, social science paradigms, the development of sound research questions, and strategies and techniques surrounding sampling, measurement and design. This course will expand on the exploration of research design and statistical methods that can be utilized in answering research questions and hypotheses. In addition, we will be collecting data that will be used to help us understand and analyze various statistical strategies.

COMN 4910 Theory Building in Communication (4 Credits)
Steps involved in constructing theory; application of theory building process to communication phenomena.

COMN 4915 Discourse Analysis (4 Credits)
An introduction to common theoretical assumptions and methods shared by scholars who study discourse as social interaction, with emphasis on analyzing key features of discourse that are central to their work.

COMN 4920 Communication Research Practicum (4 Credits)

COMN 4930 Speech and Communication Research - Qualitative Methods (4 Credits)
Grounded theory, phenomenology and other non-numerical approaches to research in human interaction.

COMN 4931 Qualitative Methods II (4 Credits)
This course teaches students qualitative data management skills, introduces them to an array of qualitative methods for analyzing naturalistic data, and guides them through the application of these skills to qualitative research projects. Prerequisite: COMN 4930.

COMN 4932 Critical Methods for Studying Culture (4 Credits)
This seminar provides an overview of a variety of critical methodologies (inclusive of the theory of method) for the study of culture. Potential course foci include textual analysis, critical ethnography, personal narrative, oral history, performance writing, and autoethnography.

COMN 4933 Writing Culture (4 Credits)
This seminar serves as a capstone course in the Culture and Communication seminar sequence. Students explore diverse genres used to write about culture. The course aims to help every student find a writing voice by reading excellent writing in diverse genres. By writing and rewriting all term, this course guides students through the process of writing an article centered around culture and communication, following the practices of the field.

COMN 4990 Graduate Tutorial in COMN (2 Credits)
In this course, students will closely engage in scholarly work with a faculty member, with the intention to foster collaboration on mutually beneficial topics. This close collaboration can take many forms, and much like an independent study, it will be designed by faculty and students together. Such collaboration may include: deeper reading of the literature in a particular communicative context; advancing a research project toward presentation and publication (through data collection, data analysis, or/and manuscript revision); pedagogical development (through the development of syllabi, assignments, teaching materials, and educational philosophy). Students will deepen their knowledge base on a topic of significance in the field, advancing scholarly, pedagogical, and/or creative work.

COMN 4991 Independent Study (1-10 Credits)

COMN 4992 Directed Study (1-10 Credits)

COMN 4995 Independent Research (1-10 Credits)

COMN 5921 Seminar: Communication Research I (4 Credits)
Design, method, procedure strategies in research. Prerequisite: approved proposal.

COMN 5922 Seminar: Communication Research II (4 Credits)
Design, method, procedure strategies in research. Prerequisite: approved proposal.

COMN 5923 Seminar: Communication Research III (4 Credits)
Design, method, procedure strategies in research. Prerequisite: approved proposal.

COMN 5991 Independent Study (1-10 Credits)

COMN 5992 Directed Study (1-10 Credits)

COMN 5995 Independent Research (1-15 Credits)

Economics

Office: Sturm Hall, Room 246, 2000 E. Asbury Ave., Denver, CO 80208
Master of Arts in Economics

If you’re looking for a career as a business or government economist, the University of Denver’s master of arts in economics program offers excellent preparation.

Our MA program helps you build the solid skills and respected credentials that employers want. The degree also prepares students for doctoral studies, particularly if they want to explore alternative approaches and develop further insights about economics before entering doctoral programs.

Our department’s strengths include

- Macroeconomics
- Economics of money, banking and finance
- Environmental economics
- Health economics
- International and development economics
- Alternative approaches to economics
- History of economic thought
- Econometrics
- Gender economics
- Economics of technology
- Urban economics

Our MA program is also geared toward your schedule — all of our required courses, and many of our electives, are conducted between 6:00 p.m. and 7:50 p.m. to accommodate students who work during the day. Other elective courses are typically offered between 4:00 p.m. and 5:50 p.m.

Master of Arts in Economics

The following are the simple steps to apply for graduate study in Economics at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts are encouraged to be on file in the Office of Graduate Studies, by the program’s preferred deadline: February 15 for the fall quarter. Applications will be accepted after February 15th, but it is encouraged to send materials by the preferred deadline. Applications can be submitted for admission in any quarter of the year. However, because of the sequencing of the three required courses, it is most advisable for students to apply for admission to the fall quarter of an academic year.
- A $65 non-refundable application fee is required for an application to be processed.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a nationally or internationally accredited institution prior to beginning graduate coursework at DU.
- Applicants must have an undergraduate major or minor in economics, or 20 quarter hours of economics coursework, or permission from the DU economics department.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.

• Paper transcripts should be sent to the following address:

University of Denver
Office of Graduate Studies
Mary Reed Building, Room 5
2199 S. University Blvd.
Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency ([Link](http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers))

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores

• The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program's stated deadline. The institution code for the University of Denver is 4842.

Personal Statement

• A personal statement of academic and professional goals of at least 300 words is required. The statement should be submitted via upload through the online application process.

Recommendation Letters

• Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline: February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

• The Department of Economics has limited financial support available for graduate students each year. Graduate teaching assistantships (GTA) and tuition credits as well as merit scholarships are available for both international and domestic students. The department awards financial support mainly on the basis of scholastic ability, though with some concern for need and the ability and willingness of students to assist with undergraduate courses. To qualify for scholarship support, recipients must be full-time students.

Application Status

• We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

Contact Information

• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

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2199 S. University Blvd.
Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.
• For more information call (303) 871-2706.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). Considering that international applicants who are admitted would need to apply for the student visa, it is more urgent that they have their applications complete, with all materials on file in the admissions office by the recommended deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Arts in Economics

Degree Requirements
The program requires 45 credit hours of graduate work in economics. A student must earn a grade of B- or better in each of the required courses (where ECON 4993 only allows for pass/fail). The minimum grade for an individual elective course is C- but the minimum GPA is 3.0. The student must also defend her/his thesis in an oral exam and pass it, and then she/he must complete whatever revisions the thesis committee suggests. A grade will be assigned to the completed thesis ECON 4995 Thesis Research) and that grade enters into the calculation of the minimum GPA as well.

Course requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 3670</td>
<td>Econometrics: Multivariate Regression Analysis for Economists</td>
<td>4</td>
</tr>
<tr>
<td>ECON 4020</td>
<td>Adv Macroeconomic Theory</td>
<td>4</td>
</tr>
<tr>
<td>ECON 4030</td>
<td>Adv Microeconomic Theory</td>
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</tr>
<tr>
<td>ECON 4050</td>
<td>Origins of Modern Economics</td>
<td>4</td>
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<tr>
<td>ECON 4993</td>
<td>Thesis Topic Development and Defense</td>
<td>4</td>
</tr>
<tr>
<td>ECON 4995</td>
<td>Thesis Research</td>
<td>5</td>
</tr>
</tbody>
</table>

Electives
Students choose 5 courses (ECON 3XXX).

Total Credits 45

Minimum number of credits required for the degree: 45

Non-coursework Requirements
• Topic development and defense
• Thesis research
• Oral defense

Courses
ECON 3040 Marxian Political Economy (4 Credits)
An exposition of Marx’s theory of value through a detailed reading of Capital, vol. I. Excerpts from other readings by Marx, and some of the relevant secondary literature used. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.

ECON 3075 Marxism (4 Credits)
This course is a survey in the theoretical and political work influenced by the writings of 19th century philosopher and economist, Karl Marx. The course covers both the historical traditions in Marxism in the 19th, 20th, and 21st century as well as the geographical traditions of these time periods in France, Germany, England, Italy, Russia, China, and America. It is not necessary that students have a prior background in Marx’s work, but it is highly recommended. Requires junior standing or above. Cross listed with PHIL 3075.

ECON 3110 European Economic History (4 Credits)
The emergence of capitalism from feudal society; the Industrial Revolution, English capitalism; European industrialization; state and economy in capitalism; 20th-century Europe and the global economy. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.

ECON 3120 Economic History of the U.S. (4 Credits)
Industrial progress from colonial period to the present time; influence of economic forces in social and political development. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.

ECON 3460 Monetary Theory and Policy (4 Credits)
Studies the interaction between money and the economy. Examines the workings of the financial institutions and how they affect the economy. Looks at the questions of what serves as money, what determines interest rates, and how the central bank conducts monetary policy and its effect on the performance of the economy. Restriction: junior standing. Prerequisite: ECON 2030.

ECON 3480 Money & Financial Markets (4 Credits)
Examines workings of the money and financial markets and their relation to the monetary system and to the macroeconomy. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.
ECON 3500 Economic Development (4 Credits)
Careful re-examination of the works of the prominent development economists of the immediate postwar decades to critically shed light on the treatment of topical development problems by modern economists. Restriction: junior standing. Prerequisite: ECON 2020 or 2030.

ECON 3590 Urban Economics (4 Credits)
Covers topics and issues of economic growth and decline in metropolitan areas, emphasizing urban economic issues. A broad range of policy areas is discussed, including labor market policy, welfare reform, housing policy, racial segregation, transportation, and environmental policy, among others. Restriction: junior standing. Prerequisite: ECON 2020 or 2030.

ECON 3600 International Monetary Relations (4 Credits)
Theory, policy, and history of international organization of money and finance; open-economy macroeconomics: balance of payments, exchange rate dynamics, monetary policy effectiveness. Cross-listed with INTS 3600. Restriction: junior standing. Prerequisite: ECON 2030.

ECON 3610 International Trade Theory & Policy (4 Credits)
Examines topical trade issues confronting the United States, policies proposed to tackle them, and the theoretical underpinnings of these policies. Studies how those policies could affect the less developed countries as determined by the environment established under the World Trade Organization. Prerequisite: ECON 2020 or 2030. Recommended: ECON 2610.

ECON 3620 Philosophical Perspectives on Economics and Social Sciences (4 Credits)
This course provides an advanced survey of conceptual and methodological issues that lie at the intersection of philosophy, economics, and the social sciences. More specifically, the main goal is to engage in a critical discussion of how sciences such as psychology, sociology, and neuroscience can challenge and modify the foundations and methodology of economic theories. The course is structured around three broad modules. After a brief introduction, we begin by discussing the emergence of rational choice theory which constitutes the foundation of classical and neoclassical economics and present some paradoxical implications of expected utility theory. The second module focuses on the relationship between economics and psychology. More specifically, we examine the emergence of behavioral economics, the study of the social, cognitive, and emotional factors on the economic decisions of individuals and institutions and their consequences for market prices, returns, and resource allocation. Finally, the third module focuses on the implications of neuroscience on decision making. We discuss some recent developments in neuroeconomics, a field of study emerged over the last few decades which seeks to ground economic theory in the study of neural mechanisms which are expressed mathematically and make behavioral predictions.

ECON 3670 Econometrics: Multivariate Regression Analysis for Economists (4 Credits)
This course develops the foundations of ordinary least squares (OLS) regression analysis and teaches students how to specify, estimate, and interpret multivariate regression models. Students have to apply what they have learned using a popular software package used for econometrics and real data. Special topics also covered include regression models that include dummy variables, log-linear models, fixed effects models, a brief discussion of instrumental variables, and an introduction to time-series analysis and forecasting. Prerequisites: ECON 2670 and either ECON 2020 or ECON 2030. Restriction: Junior standing.

ECON 3740 Health Economics (4 Credits)
This course is designed to study the nature of the organization of health care production, delivery and utilization according to economic theory. It introduces the up-to-date problems and issues in the U.S. health care system by studying demand for and supply of health care services, health care production and costs, and market analysis of health care industry. Important parties playing roles in health care industry such as private health insurance firms, physicians, pharmaceutical industry, and hospital services will be studied in detail. In addition, the course deals with the role of government in health care industry and various health care reforms proposed in the U.S. Restriction: junior standing. Prerequisite: ECON 2020 or 2030.

ECON 3830 Topics in Macroeconomics (4 Credits)
Coverage varies but may include advanced topics in monetary theory, the study of business cycles, or the works of important monetary and macroeconomic theorists. Restriction: junior standing. Prerequisite: ECON 2030.

ECON 3850 Mathematics for Economists (4 Credits)
Restriction: junior standing. Prerequisite: ECON 2020 and 2670.

ECON 3900 Growth, Technology and Economic Policy (4 Credits)
This course will introduce students to the important issues related to technological change and how it relates to economic growth. The lectures seek to explain how technology and innovation determine growth and development with special emphasis on learning-by-doing, organizational capability, appropriation and spillover effects. The core topics that will be covered include: (1) origins of new technology and its market introduction, (2) the process of technological adoption and advancement, (3) the dissemination of technology and innovations within and across firms, industries and countries, (4) the impacts of technological change, including benefits and costs, on individual and society at large and (5) policy implications to promote innovation and to reduce its negative effects. The rest of the course will focus on the relationship of technological change to human development, social welfare, as well as prior experiences of industrialized economies and emerging economies. Prerequisites: ECON 2020 and junior standing.

ECON 3970 Environmental Economics (4 Credits)
This course examines economic perspectives of environmental and resource problems, ranging from peak oil, food crisis, and climate change. Topics include the property-rights basis of polluting problems, environmental ethics, benefit-cost analysis, regulatory policy, incentive-based regulation, clean technology, population growth and consumption, and sustainable development. Restriction: junior standing. Prerequisite: ECON 2020.

ECON 3991 Independent Study (1-8 Credits)
Prerequisites: ECON 1030.
ECON 3992 Directed Study (1-10 Credits)

ECON 3995 Independent Research (1-4 Credits)
This research project is based on a topic that the student picks in consultation with the chair of the economics department. During the consultation process a faculty supervisor is assigned to work with the student throughout the research process. The topic is preferably one that requires the student to demonstrate her/his ability to apply what she/he has learned in the intermediate-level required courses for the economics major. Restriction: senior standing.

ECON 3996 Senior Paper Research (2-4 Credits)
This research project is based on a topic that the student picks in consultation with the chair of the economics department. During the consultation process a faculty supervisor will be assigned to work with the student throughout the research process. The topic is preferably one that requires the student to demonstrate her/his ability to apply what she/he has learned in the intermediate-level required courses for the economics major. Restriction: senior standing.

ECON 4020 Adv Macroeconomic Theory (4 Credits)
Determinants of national income and its components and of the level of employment and the general price level; also examines business cycles and alternative macroeconomic theories.

ECON 4030 Adv Microeconomic Theory (4 Credits)
The orthodox microeconomic approach to determining prices and income distribution in competitive general equilibrium based on utility and profit maximization of consumers and firms; alternative theories of value and distribution.

ECON 4050 Origins of Modern Economics (4 Credits)
This course covers the development of economic theory from the decline of the classical school through the emergence of the Keynesian theory and investigates in detail the structure of the neoclassical theory and the degree to which Keynesian economics provides an alternative. We examine why economists thought that certain theoretical frameworks were better than others and what problems skill remain.

ECON 4991 Independent Study (1-10 Credits)
ECON 4992 Directed Study (1-10 Credits)

ECON 4993 Thesis Topic Development and Defense (4 Credits)
This resembles an independent-study where a student will work under the supervision of a professor. The aim is to encourage the student, as s/he completes a certain number of hours of course work, to actively formulate and develop her/his thesis topic, and to formally present and defend it in a thesis workshop scheduled by the Department. A minimum of 20 credit hours of graduate-level course work must be completed. Instructor's permission required.

ECON 4995 Thesis Research (1-10 Credits)

Emergent Digital Practices

Office: Sturm Hall, Room 216
Mail Code: 2000 E. Asbury Ave., Denver, CO 80208
Phone: 303-871-7716
Email: edp@du.edu
Web Site: www.du.edu/ahss/edp

The MA in Emergent Digital Practices combines the pursuit of advanced, investigatory technical media skill-sets with focused research agendas contextualized within a broad liberal arts and digital humanities framework. The MFA in Emergent Digital Practices emphasizes methods and production of creative scholarly research and works shaped by broader art historical and cultural contexts. Students in both of the graduate degree threads of the EDP program will share key critical, theoretical, and historical resources, will be expected to excel in areas of creative expression and hands-on media production, and will be asked to acquire specialized investigatory skills. Students will learn to work together by utilizing advanced technical platforms and facilities combined with opportunities for heightened critical reflection and dialog.

EDP graduate students should strive to develop critical awareness, to articulate deep media literacies, to sustain new creative practices, and to foster outlooks engaged with the world around us. While invested in participatory forms of creation, performance, and interactivity, EDP graduate students are expected to engage in technical experimentation outside the realm of industry standards and creative as well as critical undertakings that surpass the limits of single disciplines. Students are also expected to be able to articulate the critical underpinnings of the things they devise and create through writing and speaking.

Advanced study in EDP will add scholarly and professional depth to the multiple artistic and cultural practices—both mainstream and alternative—that have developed alongside the powerful, networked, and mobile computing technologies of the 21st century. Advanced research in EDP will provide students with an awareness of broad contexts as well as definitive, professional-level focus and in-depth knowledge of the strategies and collaborative processes for complex, interdisciplinary cultural engagement.
Master of Arts in Emergent Digital Practices

The EDP MA degree at the University of Denver is unique in that it asks the student to balance the technical and the critical, the practical and the aesthetic. The MA degree is structured to build upon the body of knowledge each student already possesses from his/her undergraduate studies and expand and explore the consequence and possibilities that arise from the inclusion of technology into that field.

The MA student should be able to articulate and demonstrate advanced perspectives on emergent digital practices within interdisciplinary contexts. The MA student should also be able to synthesize knowledge of ideas and practices from across the spectrum of historical and contemporary contexts, focusing not just on making the new, but making the needed. And the MA student’s work should demonstrate accomplished means and mechanisms for critically evaluating the cultural dynamics of emergent digital practices.

The MA degree is designed around a two-year coursework structure with two courses being taken during each of the three regular quarters per year and then students have up to three years to complete the non-coursework requirements. It is not unusual for students to be able to have a part-time job (up to 20 hours/week) and still be successful on the program.

Master of Fine Arts in Emergent Digital Practices

Envisioning artworks created with the latest technology fueled by critical content—that’s the EDP program.

While also demonstrating an understanding of Emergent Digital Practices within interdisciplinary contexts, the MFA student should be able to articulate a deep understanding of the art historical and contemporary contexts of art making as shaped by technology and the sciences. The MFA student should be prepared for public engagement through knowledge of the significance of established cultural institutions and frameworks such as galleries, museums, festivals, and other public spaces.

The MFA Degree is structured as three years of coursework with students taking on average three courses during each of the three normal quarters per year and then have up to two years to complete the non-coursework requirements. It is recommended that students pursuing the MFA degree are able to focus full time on their studies without simultaneous employment. The MFA degree is considered a “terminal degree” providing the necessary credentials to teach at an institute of higher education.

Master of Arts in Emergent Digital Practices

Following are the simple steps to apply for graduate study in Emergent Digital Practices at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (gradinfo@du.edu).

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online.
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s priority deadline: January 20. The program admits for the fall quarter only. After the priority deadline, applications may be considered on a rolling basis for fall admission.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. The minimum GPA for incoming EDP MA students is 2.75 with a strong preference for a GPA over 3.0 on an A = 4.0 scale. The minimum GPA for incoming EDP MA students who have previous graduate work is 3.0 on an A = 4.0 scale.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarters hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Paper transcripts should be sent to the following address:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the EDP program at DU is 105 (iBT) or 620 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the EDP program is 7.5. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

- In cases where minimum TOEFL?IELTS scores were not achieved or no English proficiency test was taken, the EDP program may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through DU’s English Language Center to meet the English language requirement. English language training at centers outside of DU will not be counted toward meeting English language proficiency requirements. International applicants with a three-year baccalaureate degree or any other academic deficiencies cannot be granted English Conditional Admission.

Test Scores

- Application to the MA program in Emergent Digital Practices requires the Graduate Record Examination (GRE) general test. Scores must be received directly from the appropriate testing agency. The institution code for the University of Denver is 4842.

Personal Statement

- MA applicants are required to submit a 2–4 page essay explaining motivation for application, personal and professional goals, and any information or perspectives that will better inform the faculty of your capability to pursue graduate-level work in the EDP program. Students should specifically address their interest in the EDP program. The statement should be submitted via upload through the online application process.

Resume/C.V.

- A resume or C.V. is required. This should be submitted via upload through the online application process.

Recommendation Letters

- Three letters of recommendation, preferably academic in nature, are required. Letters should be solicited and uploaded by recommenders through the online application system. Request for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Program-Specific Admission Requirements

- For MA applicants, submission of portfolios, demo reels, or other samples of work is optional. If you choose to submit these materials, they should be submitted via upload through the online application process. If necessary, send DVDs or CDs, with a self-addressed postage-paid envelope for their return, to:

  Emergent Digital Practices
  2000 East Asbury Ave., 216 Sturm Hall
  University of Denver, Denver CO 80208

Financial Support

- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15.

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  • Electronic transcripts should be sent to gradinfo@du.edu
  
  • For more information call (303) 871-2706.

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program's application deadline.

The Graduate Policies and Procedures (http://bulletin.du.edu/graduate/gradpolicy) provides complete details regarding admission requirements.

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- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. The minimum GPA for incoming EDP MFA students is 2.75 with a strong preference for a GPA over 3.1 on an A = 4.0 scale. The minimum GPA for incoming EDP MFA students who have previous graduate work is 3.0 on an A = 4.0 scale. The recommended undergraduate degree is a bachelor of fine arts degree (BFA) in design or studio arts practices with a strong foundation in both traditional and electronic practices. Students with a BA in art or design should have at least 24 credit hours of studio courses such as photography, electronic art, ceramics, painting, drawing, print making, sculpture, textiles, etc. as documented in their transcripts. Students with undergraduate degrees other than a BFA may be required to take prerequisite courses at the undergraduate level as a condition of admission. These courses would not count towards the MFA degree and may include:
  - Drawing
  - Art History
  - Studio Art Foundations

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• In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, the EDP program may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through DU’s English Language Center to meet the English language requirement. English language training at centers outside of DU will not be counted toward meeting English language proficiency requirements. International applicants with a three-year baccalaureate degree or any other academic deficiencies cannot be granted English Conditional Admission.

Test Scores
• The GRE is not required for MFA applicants.

Personal Statement
• MFA applicants are required to submit a 1–2 page personal statement explaining motivation for application, personal and professional goals, and any information or perspectives that will better inform the faculty of your capability to pursue graduate-level work in the EDP program. Students should specifically address their interest in the EDP program. The statement should be submitted via upload through the online application process.

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• A resume or C.V. is required. This should be submitted via upload through the online application process.

Recommendation Letters
• Three letters of recommendation, preferably academic in nature, are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Program-Specific Admission Requirements
• MFA applicants should submit a portfolio: 20 images and/or a maximum total of 15 minutes of time-based media representing at least 10 works of art. MFA applicants are strongly encouraged to submit a URL for the portfolio in website format. The portfolio must be accompanied by a 1-2 page descriptive list of the works. If necessary, send DVDs or CDs, with a self-addressed postage-paid envelope for their return, to:
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  2000 East Asbury Ave., 216 Sturm Hall
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• Emergent Digital Practices provides some scholarship hours based on merit and need. Applicants will be considered for financial support when they apply by the priority deadline, January 20, or as funds are available.

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  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.

• For more information call (303) 871-2706.

**International Applicants**

• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

*The Graduate Policies and Procedures (http://bulletin.du.edu/graduate/gradpolicy) provides complete details regarding admission requirements.*

**Master of Arts in Emergent Digital Practices**

**Degree Requirements**

**Coursework Requirements**

<table>
<thead>
<tr>
<th>Graduate Foundations</th>
<th>12</th>
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<tbody>
<tr>
<td>EDPX 4000</td>
<td>Digital Design Concepts</td>
</tr>
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<td>Emergent Digital Cultures</td>
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<tr>
<th>EDP Electives</th>
<th>24</th>
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<tbody>
<tr>
<td>Select at least 1 EDP Studio and at least 1 EDP Cultures</td>
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Courses meeting Studio/Making requirement:

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<tr>
<th>EDPX 4100</th>
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Emergent Digital Practices

EDPX 4510 Sonic Arts II
EDPX 4520 Voice and Sonic Environments
EDPX 4600 3D Modeling
EDPX 4610 3D Animation
EDPX 4620 3D Spaces
EDPX 4800 Topics in Digital Making
EDPX 4991 Independent Study 1
EDPX 4992 Directed Study 1

Courses meeting the Cultures requirement:
EDPX 4700 Topics in Digital Cultures
EDPX 4725 Activist Media
EDPX 4740 Performance Cultures
EDPX 4750 Sound Cultures
EDPX 4770 Cybercultures
EDPX 4780 Speculative Cultures
EDPX 4991 Independent Study 1
EDPX 4992 Directed Study 1

Research and Methods credits
EDPX 5700 Research & Theoretical Methods 4

Other credits
EDPX 5800 M.A. Thesis 4-8
EDPX 5850 M.A. Project 4

Total Credits Required 48

1 Depending on topic or focus

Minimum number of credits required for degree: 48

Non-coursework Requirements
- Thesis Requirement: The final form of the published thesis is a combination of a project and a thesis that are conceptually interconnected. Successful completion of the oral defense

OR

- Major Research Paper Requirement: The final form of the major research paper is a combination of a project and a major paper that are conceptually interconnected.

Master of Fine Arts in Emergent Digital Practices

Degree Requirements

Coursework Requirements

Graduate Foundations
EDPX 4000 Digital Design Concepts
EDPX 4010 Emergent Digital Tools
EDPX 4020 Emergent Digital Cultures

Art History/Grad Seminar/Grad EDP Cultures
12 hours of ARTH maximum
EDPX 5000 Graduate Seminar
ARTH 3834 Contemporary Art

EDP Cultures courses:
EDPX 4700 Topics in Digital Cultures
EDPX 4725 Activist Media
EDPX 4740 Performance Cultures
EDPX 4750 Sound Cultures
EDPX 4770 Cybercultures
EDPX 4780 Speculative Cultures
EDPX 4991 Independent Study 1
### Research Methods credits

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>EDPX 5700</td>
<td>Research &amp; Theoretical Methods</td>
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### Grad Critique credits

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<tr>
<td>EDPX 5100</td>
<td>Graduate Critique</td>
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### Exhibition credits

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<tbody>
<tr>
<td>EDPX 5900</td>
<td>MFA Exhibition</td>
<td>12</td>
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</table>

**Total Credits:** 92

Depending on topic or focus

**Minimum number of credits required for the degree:** 92

**Non-coursework Requirement**

**Exhibition:** Additionally the MFA graduate student should be prepared for the development and organization of emerging venues for the exhibition of, and public engagement through, digital art works and new media. The final form of the MFA exhibition is the creation and public off-campus showcase of a significant body of work coupled with a written analysis of the past present and future of connected ideas, inspirations and critical theories.
Courses

EDPX 3950 Collaboration and Production (4 Credits)
In this collaborative capstone experience, students combine skills to create complex works that encourage the social collaboration of its audience or users. Students learn how to develop group working methods that take advantage of the skills of each member. This course requires full cooperation between team members in order to demonstrate synthesis of the principles of experience, emergence, and engagement taught throughout the program. Understanding and involving the audience as full participants in the final created experiences are also essential. Lab fee. At least junior standing required. Prerequisite: varies with topic.

EDPX 4000 Digital Design Concepts (4 Credits)
An introductory course requiring conceptual, perceptual and manual skills to meet rigorous studio research into the history of mark-making, letter forms and layout designs as reflective of cultural, social, political and psychological contexts of interpretation. This class also emphasizes 2-D principles of design, including form, structure, conceptual understanding, visual aesthetics, semiotics, organizational systems, relationships of typography and imagery. Lab fee.

EDPX 4010 Emergent Digital Tools (4 Credits)
This course serves as a primer on the tools essential to expression, sharing, and creation in digital mediums. This includes knowledge of web technologies, creative coding, video, audio, and the basic historical and theoretical contexts of each. Lab fee.

EDPX 4020 Emergent Digital Cultures (4 Credits)
This course familiarizes students with current crucial approaches to understanding digital media and the impacts these media have in personal, community, cultural, social, institutional and international life. The course pays particular attention to cultural constructions of emergent digital media and practices. This course introduces graduate students to a variety of disciplinary lenses and conceptual practices, with readings and research ranging from media theory and studies, philosophy of technology, media archaeology and history, to science fiction studies as approaches to digital media and cultures.

EDPX 4100 Programming for Play (4 Credits)
This course offers an introduction to the creation of games and playful interactive objects. Students explore the space of socially conscious and humane games as well as investigate the creation of compelling interfaces and interactive opportunities. Cross listed with EDPX 3100. Prerequisites: EDPX 4000 and EDPX 4010, or permission of the instructor.

EDPX 4110 Rapid Game Design and Prototypes (4 Credits)
This course is a rigorous investigation into games, rules, systems, interaction, and the iterative design methodology through the rapid creation of paper-based and physical game prototypes. The ambition is for each student to create one new game per week in response to varying material and conceptual constraints. Participants create and constructively critique games created by classmates. Participants are expected to become reflective in their play. Class time is devoted to play-testing and discussion. Lab fee. Cross listed with EDPX 3110.

EDPX 4112 Rapid Physical Game Design & Prototyping (4 Credits)
This course is a rigorous investigation into games, rules, systems, interaction, collaboration, and the iterative design methodology through the rapid creation of large, human scale, "Big Games." The ambition is for students, working in changing collaborative groupings, to rapidly create games in response to varying material and conceptual constraints. Participants will both create and constructively critique games created by classmates. Participants are expected to become reflective in their play. Class time will be devoted to play-testing and discussion. Prerequisite: EDPX 4000. Lab fee.

EDPX 4115 Game Design: Paper to Digital (4 Credits)
This rigorous game design and development course analytically considers formal game design elements through game design and simple 2D game creation exercises, game design text readings, the creation of paper-based game prototypes, digital game-mechanic prototypes, and the followed by the creation of a complete 2D digital game. Class time is devoted to reading discussions, design exercises, play-testing, and some workshopping time. Lab fee. Prerequisite: EDPX 4100 or permission of the instructor.

EDPX 4120 Making Critical Games (4 Credits)
This course is a time intensive practicum offered once a year and may be available in Summer terms. Students are challenged to create games (board, physical, video-, and hybrid games) that respond to social conditions in a critical manner while still maintaining an essential ludic quality. Public Good and Civic Engagement projects are welcomed. The course may be repeated for credit with permission of the instructor and when projects vary. Lab fee. Prerequisites: EDPX 4100 and EDPX 4110 or permission of the instructor. Cross listed with EDPX 3120.

EDPX 4130 Making Educational Games (4 Credits)
This course is a time intensive practicum offered once a year and may be available in summer terms. Students are challenged to create games (board, physical, video-, and hybrid games) that deliver K-12 educational content while still maintaining an essential ludic quality. Course may be repeated for credit with permission of the instructor and when projects vary. Lab fee. Prerequisites: EDPX 4100 and EDPX 4110 or EDPX 4115, or permission of the instructor.

EDPX 4200 Data Visualization (4 Credits)
This course explores the creation of informational graphics for visual unpacking of relationships within and among data sets. Students learn to visualize large data sets as a means of revealing and exploring patterns of information. Creating interactive visualizations is also covered, allowing for deep and participatory engagement with information. The resulting mediums include print and web. Lab fee. Cross listed with EDPX 3200. Prerequisites: EDPX 4000 and EDPX 4010 or permission of the instructor.
**EDPX 4210 Typographic Landscapes (4 Credits)**

This class is a rigorous investigation of the expressive potential of typography as a crucial element of visual expression and electronic media. This class presumes no background in typography. Students are guided through project-based explorations that range from hand-rendered inter-letter spatial relationships to the typesetting of modest sets of pages for paper and e-books. Lab fee. Prerequisite: EDPX 4000 or permission of the instructor.

**EDPX 4250 Making Networks (4 Credits)**

This course provides students with the skills necessary to establish network presence across a range of platforms and technologies. Current web technologies and standards are covered but an emphasis is placed on identifying emerging platforms and developing innovative methodologies for critical engagement with emergent digital practices. Technologies studied may include content management and delivery systems, web APIs, big data, digital mapping platforms, data visualization, augmented reality and locative media. Prerequisite: EDPX 4010 or instructor permission. Lab fee. Crosslisted with EDPX 3250.

**EDPX 4270 Making Networked Art (4 Credits)**

In this course networked art is understood in the broadest sense from art that natively exists on digital networks to art that critiques and engages with the concept of the network in contemporary society. This course aims to develop a critical understanding of and response to the social, cultural, aesthetic and technical contexts of network culture, building on a deep understanding of contemporary and historical networked art practices. Students will engage with network architectures and platforms developing experimental approaches to user interface and interaction, deploying a range of digital materials from data to rich multimedia content to create work that produces new understandings of the role of the network in a post digital age. Prerequisite: EDPX 4250, or permission of the instructor. Lab fee. Crosslisted with EDPX 3270.

**EDPX 4310 Tangible Interactivity (4 Credits)**

Explores methods and devices for human-computer interaction beyond the mouse and keyboard. Students learn to create and hack electronic input and output devices and explore multi-touch augmented reality, and other forms of sensor-based technologies. Lab fee. Prerequisite: EDPX 4010 or permission of the instructor.

**EDPX 4320 Interactive Art (4 Credits)**

This course expands the concepts, aesthetics, and techniques critical to the exploration and authoring of interactive art. It explores human computer interactions; user/audience interface design/development; interactive logic, author-audience dialogue; meta-data/multimedia asset acquisition and authoring environments. While utilizing students' skills in numerous media forms, the class focuses on sensing, interactive scripting techniques, and emerging forms of digital narrative. Emphasis is on the development of interactive media deployment and distributions ranging from screen media to physical environments. Lab fee. Cross listed with EDPX 3320. Prerequisites EDPX 4310 or EDPX 4450.

**EDPX 4340 Designing Social Good (4 Credits)**

This course focuses on interdisciplinary approaches to artistic, scholarly and cultural methods for creating change in contemporary societal mindsets for a more sustainable and equitable future. Our objectives are to understand how current practices are reinforced and to then make experiences that encourage new ideas in the personal and global sphere. Lab fee. Cross listed with EDPX 3340. Prerequisites: EDPX 4000 and EDPX 4010.

**EDPX 4350 Sustainable Design (4 Credits)**

This course reviews and implements advanced sustainable design strategies as a praxis intersecting the domains of digital media design, dissemination, community organization and networking. The course builds upon the basic paradigms that have coalesced in the organizational and critical platforms of the sustainable design movement including ecology/environment, economy/employment, equity/equality and education/pedagogy/dissemination. The class reviews a wide spectrum of sustainable design strategies including: mapping of consumptive origin-thru-fate, green materials usage, creative commons, open source software/hardware movements, collaborative design, predictive complexity modeling, biomimicry, evolutionary design methods, and greening infrastructure, among others. Lab fee. Prerequisite: EDPX 4000 and EDPX 4010 or permission of the instructor.

**EDPX 4400 Video Art (4 Credits)**

This course continues the investigation of theories and practice of electronic media and expands into an exploration of video art, providing the basic principles of video technology and independent video production through a cooperative, hands-on approach utilizing various video formats. The course may be repeated for credit with permission of the instructor and when projects vary. Lab fee. Prerequisite: EDPX 4010 or permission of the instructor. Cross listed with EDPX 3400.

**EDPX 4410 Advanced Video Art (4 Credits)**

This course continues the investigation of theories and practices of electronic media and expands into an individual exploration of video art focusing on "off-screen" time-based media through conceptual and technological experimentation. Projects explore creating digital video for projection into spaces, onto buildings, and in the form of installations, to name a few formats. Projects are used as a platform for creative expression focusing on the critical skills necessary for the conception and completion of ideas. Lab fee. Prerequisite: EDPX 4400 or permission of instructor.

**EDPX 4430 2.5D Motion (4 Credits)**

This course provides students an opportunity to create multi-dimensionally active poetic orchestrations of text, video and audio using the post-production processing and animation tool, After Effects. Lab fee. Prerequisite: EDPX 4010. Cross listed with EDPX 3430.

**EDPX 4440 Site-Specific Installation (4 Credits)**

This class produces projects investigating physical space, virtual space and site-specific public installations. Lab fee. Cross listed with EDPX 3440. Prerequisites: EDPX 4000 and EDPX 4010.
EDPX 4450 Visual Programming (4 Credits)
This course introduces intuitive visual “programming” that allows rapid building of personalized tools for data, video, image, and sound manipulation. These tools can be used in real-time editing or performance, complex effects processing, or to bridge between multiple pieces of software. Lab fee. Cross listed with EDPX 3490. Prerequisite: EDPX 4010 or permission of the instructor.

EDPX 4460 Visual Programming II (4 Credits)
This class uses advanced visual programming concepts (as provided by Max/MSP and Jitter) to explore visualization and sonification techniques in an artistic context. Areas of exploration include OpenGL modeling and animation, virtual physics emulation, audio synthesis techniques, and external data manipulation. Students use these concepts to create art installation and performance projects. Lab fee. Cross listed with EDPX 3460. Prerequisite: EDPX 4450.

EDPX 4490 Expanded Cinema (4 Credits)
This course introduces several forms of expanded cinema, such as video remixes and mashups; live cinema and audiovisual performance; VJing; sonic visualization; visual music; and ambient video. The class extends the student’s multitrack video and audio mixing skills to an emphasis on both performance and generative approaches to audiovisual media. It introduces software and hardware sets including VJ tools and visual programming for generating as well as manipulating video files and real-time source streams. Lab fee. Cross listed with EDPX 3490. Prerequisite: EDPX 4010 or permission of the instructor.

EDPX 4500 Sonic Arts (4 Credits)
This class introduces the tools and techniques of the sonic arts, including field recording; sampling and synthesis; sound editing and effects processing; and mixing. Students survey a variety of sonic arts, historical and contemporary, to understand techniques and strategies for developing and distributing sonic artifacts. Lab fee. Cross listed with EDPX 3500. Prerequisite: EDPX 4010 or permission of the instructor.

EDPX 4510 Sonic Arts II (4 Credits)
This class extends and applies the techniques and theories of the sonic arts to include loop-based composition, generative creation and modular processing. Students learn to add richness and complexity to audio work based on a combination of modern and classic techniques for audio production and the sonic arts. Class assignments include creation of audio for video and games, live performance and installations. Lab fee. Prerequisite: EDPX 4500 or permission of the instructor.

EDPX 4520 Voice and Sonic Environments (4 Credits)
This course covers environmental sound design with an emphasis on the human voice and acoustic ecologies. Studying and exploring a range of documentary, narrative and experimental approaches to sound design and the spoken word, students write and produce several short audio pieces. The final consists of a podcast, voice-oriented performance and/or sonic installation. Lab fee. Prerequisite: EDPX 4500 or permission of the instructor. Cross listed with EDPX 3520.

EDPX 4600 3D Modeling (4 Credits)
This course serves as an introduction to 3D modeling, texturing, and lighting on the computer. Students complete a series of projects in which the processes of preparing and producing a 3D piece are explored. Various strategies and techniques for creating detailed models to be used in animation and games are examined. Additional attention is spent on virtual camera techniques as well as the use of composting in creating final pieces. Current trends in the field are addressed through the analysis and discussion of current and historical examples. Lab fee. Cross listed with EDPX 3600, MFJS 3600. Prerequisite: EDPX 4000 or permission of the instructor.

EDPX 4610 3D Animation (4 Credits)
This course examines animation within virtual 3D environments. Starting with basic concepts, the course develops timing and spacing principles in animation to support good mechanics. They also serve as the basis for the more advanced principles in character animation as the class progresses. Lab fee. Cross listed with EDPX 3610. Prerequisite: EDPX 4600.

EDPX 4620 3D Spaces (4 Credits)
An exploration of 3D digital space and the possibilities found in games, narratives and visualizations in these spaces. A real-time engine is used by students to examine the opportunities of virtual 3D worlds. Lab fee. Prerequisites: EDPX 4010 and EDPX 4600, or permission of the instructor.

EDPX 4700 Topics in Digital Cultures (4 Credits)
This course provides an in-depth exploration of the emergent digital practices of a particular culture and unique area of advanced study (for example, art and science studies; activism; youth culture; critical game studies; the philosophy of technology; or social networking). Students learn the social/historical context of the particular culture and observe and document the interplay between cultural practices and particular technologies. Prerequisite: varies with topic.

EDPX 4701 Topics in Emergent Digital Practices (1-4 Credits)
Topics in Emergent Digital Practices.

EDPX 4725 Activist Media (4 Credits)
Today’s alternative cultures use Internet and mobile technologies to access and circulate mainstream information, but also to rapidly exchange information that exists outside mainstream media channels. Activist movements today with access to digital tools and networks are no longer dependent on newspapers and broadcast networks to represent them and to disseminate their messages. We are, however, just beginning to see how the proliferation of alternative networks of communication, and the content, practices, and identities they facilitate, interact with traditional political and business organizations, as well as with traditional media products and practices. This course focuses on media activism over the past half-century tied to various social movements with an emphasis on contemporary protest movements and their use of new and old media tools and strategies. Cross listed with EDPX 3725, MFJS 3150.
EDPX 4730 21st Century Digital Art (4 Credits)
An exploration of Digital Art and surrounding culture from the last 15 years. Topics will include machinima, demoscenes, MMO performances, interactive installations, VR, animation, video shorts, and much more. Students will actively search for, share and critically review much of the creative work for the class.

EDPX 4740 Performance Cultures (4 Credits)
This course explores the history and current state of technology and performance. Topics covered include expanded cinema, live cinema, V.Jing, performance art, and the intersections of audiovisual media and technologies with dance, theater, and more. This course incorporates reading and discussion of critical texts and documentation of theory, process and practices, and the class includes screening and discussion of examples of both historical and emerging forms of media-enriched performance. Students produce written media on a variety of performance-related issues, artifacts, and practitioners, culminating in a written document or interactive publication. Lab Fee. Prerequisites: EDPX 4010 and EDPX 4020, or permission of the instructor.

EDPX 4750 Sound Cultures (4 Credits)
This course explores some of the cultures of artists, producers, and listeners that have formed around sound technologies. The class combines reading of critical texts and guided listening to study several genres of music, sound art and noise, ranging from post-WWII electronic music, field recordings and sound art, to hip-hop, dub, techno, jam bands, and more. Interdisciplinary in critical approach, this class encourages students to listen to these sonic forms as intersections of technological, social, ideological and imaginative forces. Students produce written media on a variety of sound-related issues, artifacts, and practitioners, culminating in a podcast or interactive publication. Lab fee. Cross listed with EDPX 3750. Prerequisites: EDPX 4010 and EDPX 4020.

EDPX 4770 Cybercultures (4 Credits)
This course encompasses a variety of lenses through which to view, evaluate and critique ideas of ‘community’ and communities in cyberspace (cyber culture). The course covers such issues as: identity and race in cyberspace (including ‘identity and racial tourism’); communication technologies and social control; digital censorship; and utopian and dystopian representations of digital technology. The course also engages with social theories involving issues of technological determinism and the popular representation of technology. It explores the views of a diverse set of critics to ask whether digital things are ‘good’ for you and your communities. Cross listed with EDPX 3770. Prerequisite: EDPX 4020.

EDPX 4780 Speculative Cultures (4 Credits)
This course explores the intersections of emergent digital practices and cultures with the extrapolative thought experiments, technical speculations, and social criticisms of science fiction. Students read, discuss, write and otherwise respond to primary texts by the likes of William Gibson, Bruce Sterling, Cory Doctorow, Philip K. Dick, and Hiroshi Yamamoto. Science fiction studies may also include sub-genres (steampunk, hard science fiction, ecological) and regional categories (Japanese sci-fi), as well as consider science fiction in other media formats (sound recordings, film, games). Students produce written materials in a variety of formats, culminating in a formal essay or interactive publication. Cross listed with EDPX 4780. Prerequisite: EDPX 4020 or permission of the instructor.

EDPX 4800 Topics in Digital Making (4 Credits)
This course provides an in-depth explorations of the emergent digital practices of a technology or method for making (for example, wearables; interactive projections; augmented reality; immersive multi-channel soundscapes). Students learn the social/historical context of the particular method and consider the role and function their creations serve when it becomes public. Lab Fee. Prerequisite: varies with topic.

EDPX 4980 Internship (0-8 Credits)
Instructor approval required.

EDPX 4991 Independent Study (1-8 Credits)
Independent Study form required.

EDPX 4992 Directed Study (1-4 Credits)
Independent study form required.

EDPX 4995 Independent Research (1-10 Credits)
Topics vary. Reading and discussion of critical theory. May include project(s) related to the topic. Course may be repeated up to six times.

EDPX 5000 Graduate Seminar (4 Credits)
The course focuses on student’s creative production. Critiques are moderated by a different faculty member each quarter. Conceptual, methodological and theoretical concerns are stressed. Critiques are designed to assist in the experimentation, preparation and construction of individual art projects. Time is also spent on preparing students for a professional practice in the Arts. Course may be repeated up to six times.

EDPX 5100 Graduate Critique (4 Credits)
The course provides graduate students with the strategies and techniques of research in the area of digital media studies.

EDPX 5780 M.A. Thesis (4-8 Credits)
Independent work toward completion of the MA Thesis. May only be taken with the permission of the Graduate Director. May be taken for up to 8 credit hours.

EDPX 5850 M.A. Project (4-8 Credits)
Independent work toward completion of the MA Project. May only be taken with the permission of the Graduate Director. May be taken for up to 8 credit hours.
EDPX 5900 MFA Exhibition (4-12 Credits)
Independent work toward completion of the MFA Thesis Exhibition. May only be taken with the permission of the Graduate Director. May be taken for up to 8 credit hours.

English
Office: Sturm Hall
Mail Code: 2000 E. Asbury Ave., Denver, CO 80208
Phone: 303-871-2266
Email: kheeps@du.edu
Web Site: http://www.du.edu/english

The Department of English offers a PhD in English with concentrations in creative writing and literary studies, as well as an MA with a concentration in literary studies.

Our major areas for dissertation research include creative writing; modern and contemporary British literature; American literature; American multicultural literature and Anglophone literatures; genre studies; and literary theory and rhetoric. We also offer course work in traditional literary fields, cultural studies, ethnic literatures and gender studies.

The University of Denver’s Department of English is small and intimate, with 22 faculty members, who all publish widely and seek to translate their learning into shared experiences by working closely with students in and out of the classroom.

Because of our relatively small faculty, the department has the flexibility to allow students to tailor their degrees to their specific talents and interests. We do so with a distinctive curriculum that offers not only typical graduate seminars but also writing workshops, individually designed tutorials and colloquia devoted to teaching and professional development. Such a curriculum encourages students to cross genre boundaries in their writing, to relate theory to practice and to work creatively with scholarly projects.

Master of Arts in English With a Concentration IN Literary Studies
Following are the simple steps to apply for the Master of Arts in English at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: January 1. The program admits for the fall quarter only.
• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. A Bachelor of Arts degree (BA), from a regionally accredited college or university, showing satisfactory preparation, grades and potential for advanced study are required for the master’s program.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
• Paper transcripts should be sent to the following address:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802
• Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency [link]
• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not a native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the graduate programs in English at DU is 88 (iBT) or 570 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by English is 6.5. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for Graduate Teaching Assistants.
• Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores
• Satisfactory scores on the Graduate Record Examination (GRE) for both the general test and the Advanced Literature subject test are required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

Essay
• An academic essay is required. The essay should be submitted via upload through the online application process.

Statement
• A statement of intent is required. The statement should be submitted via upload through the online application process.

Recommendation Letters
• Three letters of recommendation from college instructors that speak to the applicant’s scholarly and/or creative work are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online. Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
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  • Electronic transcripts should be sent to gradinfo@du.edu.
  • For more information call (303) 871-2706.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information [link]. International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures [link] provides complete details regarding admission requirements.
Doctor of Philosophy in English with a Concentration in Creative Writing or Literary Studies

Following are the simple steps to apply for graduate study in the Doctor of Philosophy in English at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines

- Applications for graduate study in English at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: January 1. The program admits for the fall quarter only.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree and a master’s degree from a regionally accredited institution prior to beginning graduate coursework at DU. A Master of Arts degree (MA) or Master of Fine Arts (MFA), from a regionally accredited college or university, showing satisfactory preparation, grades and potential for advanced study are required for the doctoral program.

Transcripts

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
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- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

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• Three letters of recommendation from college instructors that speak to the applicant’s scholarly and/or creative work are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Program-Specific Admission Requirements
• Applicants for the creative writing concentration must also submit representative samples of creative work. These may be submitted via upload through the online application process.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
• Teaching fellowships are three-year awards that include a stipend and full tuition waiver. Applicants are considered for fellowship and may also be nominated for other awards including the Doctoral Fellowship, a grant to an exceptional PhD candidate; the Doctoral Fellowship for Inclusive Excellence; Graduate Studies Dissertation Fellowship, and The Evan Frankel Dissertation Fellowship, a stipend for a fourth-year doctoral student to work full-time on completion of the dissertation. All teaching assistantships and fellowships require full-time attendance. Also, all assistantships and fellowships require that students remain in good standing and meet all major requirements on schedule.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online. Applicants will receive login information post application submission.

Contact Information
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International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures (http://bulletin.du.edu/graduate/gradpolicy) provides complete details regarding admission requirements.

Doctor of Philosophy in English with a Concentration in Creative Writing

Degree Requirements

Course Requirements

Coursework Requirements

48 hours of course work must be in formal classes, excluding ENGL 5995 and ENGL 5991 and tutorials (ENGL 4100)

Five courses distributed over three literary periods. Students must take at least one course in one period and at least two courses in the other two periods. Students must petition to count more than two 3000-level courses towards graduate study.

Courses listed below are representative examples. Students may consult the department for additional course options.

Before 1700

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 4125</td>
<td>Old English</td>
</tr>
<tr>
<td>ENGL 4150</td>
<td>Special Topics in Medieval Lit</td>
</tr>
<tr>
<td>ENGL 4200</td>
<td>Special Topics-Early Mod Lit</td>
</tr>
<tr>
<td>ENGL 4213</td>
<td>Advanced Studies in Early Modern Literature</td>
</tr>
</tbody>
</table>
ENGL 4220  Seminar-Studies in Shakespeare

1700-1900
ENGL 4300  Advanced Studies in 18th Century Literature
ENGL 4321  Spc Tpcs: 18th Cent Literature
ENGL 4424  Topics in English: 19th Century Literature
ENGL 4700  Antebellum American Literature
ENGL 4730  American Romanticism
ENGL 4732  Spc Tpc: Antebellum Amer Lit

After 1900
ENGL 4600  Adv Studies -20th Cent Lit
ENGL 4621  Adv Studies-20th C. Literature
ENGL 4650  Special Topics: 20th Cent Lit

Graduate Tutorials (Students may take up to 5 tutorials, 10 credits total)
ENGL 4100  Graduate Tutorial

Three Graduate Professional Seminars (count towards the 48 hours of course work)  6
ENGL 4830  Seminar: Teaching and Writing Literature
ENGL 4702  Topics in English (Crit Imag)
ENGL 4000  Colloquium

Three writing workshops: two in the genre of specialization, one in another  12
ENGL 4001  Sem Creative Writing-Poetry
ENGL 4011  Sem Creative Writing-Fiction
ENGL 4017  Travel Writing
ENGL 4650  Special Topics: 20th Cent Lit (Translation)

Total Credits  90

Minimum number of credits required for the degree: 90 graduate-level quarter hours beyond the master’s degree

Non-Course Requirements:
- Preliminary advancement to candidacy
- Advancement to candidacy
- A dissertation of publishable quality that makes a significant contribution to its field. This will take the form of an extended scholarly and critical work (usually between 150 and 250 pages) OR a creative work (fiction or poetry). The creative dissertation must include a critical preface that situates the dissertation in its literary context.
- Oral defense. When the dissertation is completed, it must be defended by the candidate. The defense must take place by April 30. No dissertation defenses will be held during the summer quarter. The candidate is therefore advised to set the defense date as far in advance as possible. The defense takes the form of a discussion with the committee concerning the content, context and implications of the work.
- Tool (reading knowledge of one language) proficiency may be established by completing any one of the following:
  - Passing a standard reading examination accredited by the Department
  - Passing, with a grade of B or better, a 3000-level literature course in the language.
  - Successful completion of the Bibliography and Research Methods class in the Department of English.
  - Selection and successful completion of a cognate course in another department that will augment specific skills. This course must be approved by the Graduate Committee.
  - Successful completion of Old English (4 credits), followed by a “Beowulf” tutorial (2 credits), followed by an intermediate Old English tutorial (2 credits). (This option will no longer require a petition to the Graduate Committee.)
  - Successful completion of a graduate translation class (students must secure approval of instructor)
- Proposal & Prospectus review. By the end of the Fall quarter of the third year, students must submit a Dissertation Area Proposal to the director of graduate studies. This proposal is a brief description (250-300 words) of the proposed area of the dissertation; it must be signed by at least two dissertation committee members. Before the end of the Winter quarter of the third year of study, all students should complete the prospectus review. This is an oral discussion based on the written dissertation prospectus and conducted by a committee consisting of the first two readers of the dissertation. The prospectus should be approximately 2,500–3,000 words and should be presented to the exam committee well in advance of the exam. For creative writing students, the prospectus should discuss the theoretical and generic origins of the project, its methodology and artistic goals.
- Written comprehensive exam. At the beginning of the third year of study, and after 48 hours of completed course work, all students will take a written comprehensive exam covering three (out of four) areas of study: (1) an author or major figure; (2) a genre; (3) a period; and (4) a second
period or special topic. All choices must be approved by examiners and the graduate director. Students will prepare a reading list for each area in consultation with examiners. All lists must be signed by both examiners and on file with the graduate director by May 1 or the student will not be allowed to take the exam the following fall.

Doctor of Philosophy in English with a Concentration in Literary Studies

Degree Requirements

Course Requirements

48 hours of course work must be in formal classes, excluding ENGL 5995, non-ENGL courses and tutorials (ENGL 4100)

Five courses distributed over three literary periods: before 1700; 1700–1900; and after 1900. Students must take at least one course in one period and at least two courses in the other two periods. Students must petition to count more than two 3000-graduate level courses towards graduate study.

Courses listed below are representative examples. Students may consult the department for additional course options.

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<td>Special Topics—Early Mod Lit</td>
</tr>
<tr>
<td>ENGL 4213</td>
<td>Advanced Studies in Early Modern Literature</td>
</tr>
<tr>
<td>ENGL 4220</td>
<td>Seminar—Studies in Shakespeare</td>
</tr>
</tbody>
</table>

**1700–1900**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 4300</td>
<td>Advanced Studies in 18th Century Literature</td>
</tr>
<tr>
<td>ENGL 4321</td>
<td>Spc Tpcs—18th Cent Literature</td>
</tr>
<tr>
<td>ENGL 4424</td>
<td>Topics in English: 19th Century Literature</td>
</tr>
<tr>
<td>ENGL 4700</td>
<td>Antebellum American Literature</td>
</tr>
<tr>
<td>ENGL 4730</td>
<td>American Romanticism</td>
</tr>
<tr>
<td>ENGL 4732</td>
<td>Spc Tpc: Antebellum Amer Lit</td>
</tr>
</tbody>
</table>

**After 1900**

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<tbody>
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<td>ENGL 4600</td>
<td>Adv Studies—20th Cent Lit</td>
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<tr>
<td>ENGL 4621</td>
<td>Adv Studies—20th C. Literature</td>
</tr>
<tr>
<td>ENGL 4650</td>
<td>Special Topics: 20th Cent Lit</td>
</tr>
</tbody>
</table>

**Graduate Tutorials (Students may take up to 5 tutorials, 10 credits total)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 4100</td>
<td>Graduate Tutorial</td>
</tr>
</tbody>
</table>

**Three Graduate Professional Seminars (count towards the 48 hours of course work)**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGL 4000</td>
<td>Colloquium</td>
</tr>
<tr>
<td>ENGL 4702</td>
<td>Topics in English (Crit Imag)</td>
</tr>
<tr>
<td>ENGL 4830</td>
<td>Seminar: Teaching and Writing Literature</td>
</tr>
</tbody>
</table>

**Total Credits** 90

Minimum number of credits required for the degree: 90 graduate-level quarter hours beyond the master’s degree

Non-Course Requirements:

- Preliminary advancement to candidacy
- Advancement to candidacy
- A dissertation of publishable quality that makes a significant contribution to its field. This will take the form of an extended scholarly and critical work (usually between 150 and 250 pages).
- Oral defense. When the dissertation is completed, it must be defended by the candidate. The defense must take place no later than April 30. No dissertation defenses will be held during the summer quarter. The candidate is therefore advised to set the defense date as far in advance as possible. The defense takes the form of a discussion with the committee concerning the content, context and implications of the work.
- Tool (reading knowledge of one language) proficiency may be established by completing one of the following:
  - Passing a standard reading examination accredited by the Department
  - Passing, with a grade of B or better, a 3000-level literature course in the language
  - Successful completion of the Bibliography and Research Methods class in the Department of English
  - Selection and successful completion of a cognate course in another department that will augment specific skills. This course must be approved by the Graduate Committee.
• Successful completion of Old English, followed by a two-credit “Beowulf” tutorial, followed by an intermediate Old English tutorial. (This option will no longer require a petition to the Graduate Committee.)

• Successful completion of a graduate translation class (students must secure approval of instructor)

The Tool requirement must be completed one quarter before graduation.

• Proposal & Prospectus review. By the end of the Fall quarter of the third year, students must submit a Dissertation Area Proposal to the director of graduate studies. This proposal is a brief description (250-300 words) of the proposed area of the dissertation; it must be signed by at least two dissertation committee members. Before the end of the Winter quarter of the third year of study, all students should complete the prospectus review. This is an oral discussion based on the written dissertation prospectus and conducted by a committee consisting of the first two readers of the dissertation. The prospectus should be approximately 2,500–3,000 words and should be presented to the exam committee well in advance of the exam.

• Written comprehensive exam. At the beginning of the third year of study, and after 48 hours of completed course work, all students will take a written comprehensive exam covering three (out of four) areas of study: (1) an author or major figure; (2) a genre; (3) a period; and (4) a second period or special topic. All choices must be approved by examiners and the graduate director. Students will prepare a reading list for each area in consultation with examiners. All lists must be signed by both examiners and on file with the graduate director by May 1 or the student will not be allowed to take the exam the following fall.

Master of Arts in English with a Concentration in Literary Studies

Degree Requirements

Course Requirements

• 45 hours of course credit, up to 13 hours of which may be taken in graduate tutorials (ENGL 4100), independent research (ENGL 4995) and/or cognate courses outside the department.

• All course work for the MA should be taken at the University of Denver, but, in rare exceptions, a maximum of 10 credit hours may be transferred to count for the requirements if approved by the director of graduate studies and meet the University’s transfer of credit policy.

• While students have no specific course requirements beyond the 32-hour minimum within the Department of English and the 13 hours of tutorials or cognate courses, they are advised to work closely with an adviser to determine a balance between coverage and focus. They may take both 3000- and 4000-graduate level courses in literary studies, but students must petition to count more than two 3000-graduate level courses towards graduate study.

• Courses must be completed within three years of enrollment (excluding ENGL 4995).

Coursework Requirements

Minimum of 32 classroom hours (eight courses) is required.

Up to 13 credits may be taken in graduate tutorials (ENGL 4100), independent research (ENGL 4995) and/or cognate courses outside the department.

Total Credits

Minimum number of credits required for the degree: 45

Non-Course Requirements

• Advancement to candidacy

• A thesis of at least 18,000 words. The thesis for an MA in literary studies is either a single scholarly/critical essay or two 30-page scholarly/critical essays. The thesis adviser must approve a prospectus for the thesis.

• Oral Defense. The defense takes the form of a discussion on the content, context and implications of the work.

Courses

ENGL 3000 Advanced Creative Writing—Poetry (4 Credits)
Technique, writing practice and criticism.

ENGL 3001 Advanced Creative Writing—Poetry (4 Credits)
Technique, writing practice and criticism.

ENGL 3002 Advanced Creative Writing—Poetry (4 Credits)
Technique, writing practice and criticism.

ENGL 3003 Advanced Creative Writing—Poetry (4 Credits)
Technique, writing practice and criticism.

ENGL 3010 Advanced Creative Writing—Fiction (4 Credits)
Technique, writing practice and criticism.

ENGL 3011 Advanced Creative Writing—Fiction (4 Credits)
Technique, writing practice and criticism.
ENGL 3012 Advanced Creative Writing—Fiction (4 Credits)
 Technique, writing practice and criticism.

ENGL 3013 Adv Creative Writing—Fiction (4 Credits)
 Technique, writing practice and criticism.

ENGL 3015 Advanced Creative Writing: Non-Fiction (4 Credits)

ENGL 3017 Travel Writing—Fiction & Fact (4 Credits)
 A study of European, American and other narratives of travel. This course examines relevant postcolonial and literary theories of travel and nationhood.

ENGL 3040 Introduction to Publishing (4 Credits)
 Cross listed with ENGL 2040, MFJS 3140.

ENGL 3101 Non-Chaucerian Middle English Literature (4 Credits)
 A study of Chaucer's near-contemporaries, Gower, Langland, and the Pearl poet as well as drama and lyrics.

ENGL 3121 Chaucer: Canterbury Tales (4 Credits)
 Life, culture, language and literary trends of Chaucer's age as reflected in "The Canterbury Tales".

ENGL 3320 Oral Literature and Orality in Literature (4 Credits)
 The term "oral literature" generally refers to narratives and poems—including songs—performed and disseminated orally from one generation to the other. Oral literature is, in some respects, the foundational 'text' of written literature. Some of the questions that we therefore explore in this course are as follows: How did oral literature develop? What are its types and their characteristics? How has oral literature been shaped by time and place? How is it distinct from as well as related to written literature? To answer these questions, we explore different forms of oral literature—from the traditional (such as folklore) to the contemporary (such as spoken work poetry). We also study the use of orality as a literary device in written literature. Our studies involve the examination of material and texts from different parts of the world.

ENGL 3402 Early Romantics (4 Credits)

ENGL 3404 England and Empire: Ambivalent Imperialism in Victorian and Edwardian Literature (4 Credits)
 A course investigating the literary accounts of and responses to British imperialism in Victorian and Edwardian England in which students read works by Conrad, Kipling and Forster as well as several 20th-21st works by post Commonwealth authors in London.

ENGL 3405 Postmodern Visions of Israel (4 Credits)
 This course investigates how representation of Israel as a modernist utopia have been replaced in contemporary literature with images of Israel as a dystopia. The class discusses the historical context that gave rise to visions of an idealized Israel, and the role the Hebrew language played in consolidating and connecting narration to nation. Next the class considers how belles-lettres from recent decades have reimagined Israel as a series of multilingual "multiverses." A selection of fiction translated from Hebrew forms the core of class reading. Theoretical exploration of postmodernism help us conceptualize the poetics of postmodern literature. No knowledge of Israeli history or Jewish culture is necessary to succeed in this course. Cross listed with JUST 3405.

ENGL 3706 Writing the American West (4 Credits)
 Explores historical and contemporary writing produced in and about the American West.

ENGL 3711 20th-Century American Fiction (4 Credits)
 Fiction, poetry, drama, and non-fiction on selected themes by 20th and 21st century American writers. Topics for study may include issues related to regionalism, ethnicity and gender, as well as specific social and historical concerns.

ENGL 3731 Topics in English (1-4 Credits)

ENGL 3732 Topics in English (1-4 Credits)

ENGL 3733 Topics in English (1-4 Credits)
 Topics vary reflecting the interdisciplinary nature of the department and studies of the faculty.

ENGL 3743 Modern Jewish Literature (4 Credits)
 Stories, novels and memoirs by 20th-century Jewish writers; consideration of issues of generation, gender and idea of Jewish literature as a genre. Cross listed with JUST 3743.

ENGL 3744 African American Literature (4 Credits)
 This course examines fiction, poetry, autobiography, and drama by African American writers, with strong consideration on the socio-historical conditions that gave rise to and continue to inform this literary tradition.

ENGL 3800 Bibliography/Research Method (4 Credits)

ENGL 3803 Modernism/Postmodernism (4 Credits)

ENGL 3813 History and Structure of the English Language (4 Credits)
 A composite course studying both the structure of modern English and the history of the English language.

ENGL 3815 Studies in Rhetoric (4 Credits)
 This course will examine the history and principles of rhetoric and how they pertain to theory and practice in the field of composition and rhetoric.
ENGL 3817 History of Rhetoric (4 Credits)
ENGL 3818 Composition Theory (4 Credits)
ENGL 3821 Literary Criticism: 19th Century-Present (4 Credits)
ENGL 3822 Literary Criticism: 20th Century (4 Credits)
Critical methods and philosophies of 20th-century critics; their relationship to traditions.
ENGL 3823 Interpretation Theory (4 Credits)
ENGL 3825 Cultural Criticism (4 Credits)
Cross listed with ENGL 2835.
ENGL 3822 Topics in Poetics (4 Credits)
ENGL 3852 Writers in the Schools (2,4 Credits)
This course operates mostly "in the field." Following the models of California Poets in the Schools and Teachers & Writers Collaborative, students are in training with a poet-in-residence, observing him as he conducts a residency in a public school. In addition, we have our own meetings to discuss pedagogy, classroom practices and management, teacher-writer relations, and all other necessary logistical planning. Placement in public schools is facilitated by Denver SCORES, an education program dedicated to increasing literacy in Denver's at-risk school population. For those wishing to work with middle or high school students, or in other community settings (e.g., homeless or women's shelters), special arrangements can be made. This course is a collaborative effort between CO Humanities, Denver SCORES, and the University of Denver.
ENGL 3991 Independent Study (1-17 Credits)
ENGL 3992 Directed Study (1-10 Credits)
ENGL 3995 Independent Research (1-10 Credits)
ENGL 4000 Colloquium (2 Credits)
ENGL 4001 Sem Creative Writing-Poetry (4 Credits)
ENGL 4011 Sem Creative Writing-Fiction (4 Credits)
ENGL 4012 History/Theory of Genre-Poetry (4 Credits)
ENGL 4017 Travel Writing (4 Credits)
ENGL 4050 The Critical Imagination (4 Credits)
This graduate level course explores poetry, fiction, and criticism as different facets of the imagination. This is a large and a necessarily vaguely defined topic. But in the world of literary studies, creativity and criticism are clearly symbiotic. Reading and writing are connected activities. The poet or fiction writer is often a critic, and there are numerous treatments of interpretation in the critical canon suggesting that the act of reading and interpreting is itself an imaginative and creative act. The course explores genre signatures and possibilities, as well as provides an introduction to some of the analytics through which texts, literary and otherwise, are interpreted.
ENGL 4100 Graduate Tutorial (2-4 Credits)
ENGL 4120 Beowulf (2 Credits)
Reading and translation of the Old English Beowulf. Prerequisite: ENGL 4125.
ENGL 4125 Old English (4 Credits)
This class introduces students to Old English grammar, prose, and poetry. This course is a prerequisite for ENGL 4120.
ENGL 4150 Special Topics in Medieval Lit (4 Credits)
ENGL 4200 Special Topics-Early Mod Lit (4 Credits)
ENGL 4210 Holocaust Literature (4 Credits)
This seminar presents a multidisciplinary and transnational approach to literature of the Holocaust. Students consider memoir, fiction, and poetry drawn from a variety of national literatures and linguistic traditions. Works written by victims, survivors and 'witnesses through the imagination' are all considered. These readings are supplemented by secondary texts, including historical and philosophical materials, as well as relevant works from the social sciences.
ENGL 4213 Advanced Studies in Early Modern Literature (4 Credits)
ENGL 4220 Seminar-Studies in Shakespeare (4 Credits)
ENGL 4300 Advanced Studies in 18th Century Literature (4 Credits)
ENGL 4321 Spc Tpcs: 18th Cent Literature (4 Credits)
Special Topics courses will explore specific topics within historical periods, single authors, or theoretical/critical/ scholarly issues.
ENGL 4424 Topics in English: 19th Century Literature (4 Credits)
Special Topics courses will explore specific topics within historical periods, single authors, or theoretical/critical/ scholarly issues.
ENGL 4600 Adv Studies - 20th Cent Lit (4 Credits)

ENGL 4621 Adv Studies - 20th C. Literature (4 Credits)
This course will offer (and be required of) graduate students an advanced foundation in 20th century literature; the primary texts and their cultural/historical/theoretical contexts.

ENGL 4650 Special Topics: 20th Cent Lit (4 Credits)

ENGL 4660 The Black Imagination (4 Credits)
Focusing mainly on Africa, Asia, Europe, and the Americas (especially the USA and the Caribbean/Latin America), this course explores and connects aspects of the black imagination. These aspects include oral performances, thought systems, literature, art, cinema, and critical discourses in different eras and in various places. Studied together, these existential and intellectual signposts provide an expanded insight into black (African and African diasporic) aesthetics from an interdisciplinary perspective.

ENGL 4675 Interactive Fictions (4 Credits)
This class examines the border between traditional narrative texts and texts that require a higher degree of interactivity, collectively called ‘configurational narratives,’ ‘works in movement’ (Umberto Eco) or ‘cyber texts’ (Espen Aarseth). The goal is to identify what differences may exist between traditional and interactive literatures, and to analyze the possibilities of the future of narrative. Primary texts are drawn from experimental and avant-garde works of poetry, prose, drama, and games. Secondary texts survey recent critical theory and trace analyses of interactivity to determine how “literature is a combinatorial game” (Italo Calvino).

ENGL 4700 Antebellum American Literature (4 Credits)

ENGL 4701 Topics in English (2-5 Credits)
A topics class; topics may change.

ENGL 4702 Topics in English (2-5 Credits)
A topics class; topics may change.

ENGL 4730 American Romanticism (4 Credits)

ENGL 4732 Spc Tpc: Antebellum Amer Lit (4 Credits)

ENGL 4735 Sem: H. James & E. Wharton (4 Credits)

ENGL 4830 Seminar: Teaching and Writing Literature (2-4 Credits)

ENGL 4832 Sem: Teaching Writing & Lit (2 Credits)

ENGL 4840 Topics in Composition Studies (2-4 Credits)
Each offering of this course focuses on specific issues in theory, research, or pedagogy within the broad field of composition studies. Examples of topics include the development of writing abilities; genre theory and composing; multimodal texts and their intersections and disjunctions of rhetoric and composition; the history of composing theories and practices; realms of composing, including the academic, civic, vocational, aesthetic, and interpersonal; institutional formations and settings of composing; discourse theories; stylistics; race, gender, class and composing; and so on.

ENGL 4851 Publishing Institute (6 Credits)

ENGL 4852 Dissertation Colloquium (2 Credits)
This two-credit dissertation colloquium is offered in the winter and spring for third-year PhD students in English who are in the process of researching and writing their dissertations. In addition to having weekly presentations and discussions of work in progress, the group will peruse prefaces and introductions to former English Department dissertations, write and abstract for their own dissertation, and possibly revise and send out a piece from their dissertation. The class is open to both literary studies and creative writing students. Restricted to doctoral students in English.

ENGL 4991 Independent Study (1-17 Credits)

ENGL 4992 Directed Study (1-10 Credits)

ENGL 4995 Independent Research (1-17 Credits)

ENGL 5991 Independent Study (1-17 Credits)

ENGL 5995 Independent Research (1-17 Credits)

Lamont School of Music

Office: Robert & Judi Newman Center for the Performing Arts
Mail Code: 2344 E. Iliff Ave., Denver, CO 80208
Phone: 303-871-6400
Email: musicadmissions@du.edu
Web Site: http://www.du.edu/lamont

With its wide array of degrees and certificates, outstanding faculty and superior new facilities, the Lamont School of Music is one of the most distinguished music programs in the United States.
If the words dedication, discipline, enthusiasm and desire define your musical aspirations, then you'll find exciting opportunities at the University of Denver. The Lamont School of Music will lend resonance to your musical career, as well as surrounding you with other talented students and a rich cultural environment in Denver.

The Lamont School of Music offers MM programs with concentrations in composition, conducting, pedagogy and performance, as well as MA programs in music theory and musicology. We also offer certificates with concentrations in conducting, orchestral studies, performance and Suzuki teaching; and artist diploma programs with a concentration in conducting and orchestral studies.

The faculty is composed of professors and instructors who actively perform, compose, publish, and lecture worldwide. The Lamont School of Music is located in the Robert and Judi Newman Center for the Performing Arts, a 186,000-square-foot state-of-the-art facility opened in 2002 and officially inaugurated in 2003. The Newman Center includes an academic building, a 225-seat recital hall, a 1,000-seat concert/opera hall and a 250-seat flexible theater. The academic building is replete with teaching studios, practice rooms (some of which are digitally enhanced as "virtual" acoustic practice rooms), large rehearsal spaces, a music library, a digital keyboard laboratory, two recording studios, an electronic music lab, classrooms with smart-to-the-seat technology and an 80-seat recital salon.

Master of Arts in Music

Following are the simple steps to apply for the Master of Arts in Music at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online (http://www.du.edu/apply/graduates).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies by the program’s stated deadline: January 15. The program admits for the fall quarter only.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- Applicants without an undergraduate degree in music must complete additional requirements. Please contact the Lamont Admission Office for details: email – musicadmission@du.edu or phone - 303-871-6973.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Paper Transcripts should be sent to the following address:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

- Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores
• The Graduate Record Examination (GRE) is required for MA applicants. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

Personal Statement
• A personal statement of at least 300 words is required. Your statement should include information concerning your life, education, experiences, interests and reason for applying to DU. The statement should be submitted via upload through the online application process.

Resume
• The resume is required and should be submitted via upload through the online application process.

Recommendation Letters
• Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Essay or Research Paper
• Required for all MA applicants.
• Musicology and Music Theory applicants must submit an essay or research paper on a topic in musicology, ethnomusicology, or music history. This paper should demonstrate critical and independent thinking in conjunction with the appropriate use of primary and secondary sources.
• Please submit your paper through the online application process.

Video of Teaching
• Required for MA in Musicology applicants only.
• Please submit, along with your other materials, a 5-10 minute video of your teaching—either a single student or a group.
• Please submit your video to the online application process.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) website. International students are not eligible for federal financial aid.
• Some programs provide competitive awards in the form of fellowships and/or assistantships. Contact your academic program for more information.
• All music applicants are automatically considered for scholarships. There is no additional application necessary. If chosen, music scholarships can range from $1,000 to full tuition.
• To be considered for a GTA in Theory, please provide syllabi from your undergraduate theory courses. In addition, please ask your recommenders to comment on your teaching abilities, or your potential. We will ask accepted students to take a keyboard and sight-singing test via Skype.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online. Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

    University of Denver
    Office of Graduate Studies
    Mary Reed Building, Room 5
    2199 S. University Blvd.
    Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.
• For more information call (303) 871-2706
International Applicants

• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Music

Following are the simple steps to apply for the Master of Music at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines

• Applications for graduate study at the University of Denver must be submitted online (https://gradadmissions.du.edu/apply).
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: January 15. The program admits for the fall quarter only.
• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
• Applicants without an undergraduate degree in music must complete additional requirements. Please contact the Lamont Admission Office for details: email – musicadmission@du.edu phone - 303-871-6973.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
• Paper Transcripts should be sent to the following address:
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  Office of Graduate Studies
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• Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.
Test Scores
- The Graduate Record Examination (GRE) is not required for master of music applicants.
- Master of Music in Piano Pedagogy applicants are strongly encouraged to take the GRE. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

Personal Statements/Essay
- A personal statement of at least 300 words is required. Your statement should include information concerning your life, education, experiences, interests and reason for applying to DU. The statement should be submitted via upload through the online application process.
- Piano Pedagogy Applicants: Applicants must submit a research paper related to music education/pedagogy, such as one written during undergraduate study.

Resume
- The resume is required and should be submitted via upload through the online application process.

Recommendation Letters
- Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Auditions
- Jazz and Commercial Music applicants: Submit pre-screening audition via the online application process.
- Voice applicants: Submit pre-screening audition via the online application process.
- All other performance applicants: Schedule and complete your music audition. Audition information (http://www.du.edu/ahss/lamont/apply-audition) and requirements can be found online.
- Composition applicants: Submit a portfolio of at least two scores to the online application process. One of these scores must be notated by hand (not by computer). Recordings are optional but encouraged.

Financial Support
- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
- Some programs provide competitive awards in the form of fellowships and/or assistantships. Contact your academic program for more information.
- All music applicants are automatically considered for scholarships. There is no additional application necessary. If chosen, music scholarships can range from $1,000 to full tuition.

Application Status
- We encourage you to be actively engaged in the admission process. You can check your application status online (http://gradadmissions.du.edu/apply/status). Applicants will receive login information post application submission.

Contact Information
- Mail official transcripts and any supplemental admission materials not submitted with the online application to:

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  Office of Graduate Studies
  Mary Reed Building, Room 5
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  Denver, CO 80208-4802

  Electronic transcripts should be sent to gradinfo@du.edu (musicadmission@du.edu).
  For more information call (303) 871-2706.

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Artist Diploma
Following are the simple steps to apply for the Artist Diploma program in the Lamont School of Music at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.
Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online (https://gradadmissions.du.edu/apply).
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: December 15. The program admits for the fall quarter only.
• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• The Artist Diploma program is a highly selective, intensive and focused program of professional studies designed to provide advanced training in the art of musical performance and interpretation.
• Proof of a high school diploma is required; undergraduate and postgraduate degrees are recommended, but not necessary for the Artist Diploma program.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
• Paper Transcripts should be sent to the following address:
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  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802
• Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
• Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.
• In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, the Artist Diploma program may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through DU’s English Language Center to meet the English language requirement. English language training at centers outside of DU will not be counted toward meeting English language proficiency requirements. International applicants with a three-year baccalaureate degree or any other academic deficiencies cannot be granted English Conditional Admission.

Test Scores
• The Graduate Record Examination (GRE) is not required for master of music applicants.

Personal Statement
• A personal statement of at least 300 words is required. Your statement should include information concerning your life, education, experiences, interests and reason for applying to DU. The statement should be submitted via upload through the online application process.
Resume
• The resume is required and should be submitted via upload through the online application process.

Recommendation Letters
• It is optional for all Artist Diploma applicants to submit recommendation letters.
• Conducting applicants: Optional recommendations must come from people who have seen the applicant conduct.

Auditions
• Submit a pre-screening video recording via the online application process by December 15, 2014. If you successfully pass the pre-screening, you will be invited to Lamont for a live audition / mini-recital.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
• Some programs provide competitive awards in the form of fellowships and/or assistantships. Contact your academic program for more information.
• All music applicants are automatically considered for scholarships. There is no additional application necessary. If chosen, music scholarships can range from $1,000 to full tuition.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your Lamont School of Music application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

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  Denver, CO 80208-4802

  Electronic transcripts should be sent to gradinfo@du.edu.
  For more information call (303) 871-2706.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information. International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Certificate in Music
Following are the simple steps to apply for the Lamont School of Music certificate programs at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online (https://gradadmissions.du.edu/apply).
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: December 15 for orchestral conducting applicants and January 15 for applicants in all other concentrations. The program admits for the fall quarter only.
• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.

• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.

• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.

• Paper Transcripts should be sent to the following address:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores
• The Graduate Record Examination (GRE) is not required for master of music applicants.

Personal Statement
• A personal statement of at least 300 words is required. Your statement should include information concerning your life, education, experiences, interests and reason for applying to DU. The statement should be submitted via upload through the online application process.

Resume
• The resume is required and should be submitted via upload through the online application process.

Recommendation Letters
• Suzuki applicants: Two (2) letters of recommendation are required. Recommendations must speak to the applicant’s character because of the interaction students in the program will have with both the general public and children.
• It is optional for all other applicants to submit recommendation letters.
• Conducting applicants: Optional recommendations must come from people who have seen the applicant conduct.

Auditions
• Jazz and Commercial Music Certificate applicants: Submit a pre-screening video recording via the online application process.
• Voice Certificate applicants: Submit a pre-screening video recording via the online application process.
• All other Certificate applicants need to schedule and complete a Music Audition. Audition information (http://www.du.edu/ahss/lamont/apply-audition) and requirements can be found online.
• Suzuki applicants: Students who are enrolling for the University of Denver Suzuki Cello or Violin Certificate program, are required to receive acceptance for teaching training through the Suzuki Association of the Americas guidelines. (The Suzuki Association is responsible for all Suzuki teacher training that takes place in the Americas and approves and supports the University of Denver Lamont School of Music as a university long-term training center for Suzuki Method Violin and Cello.) A video of your performance must be sent into the Suzuki Association. For audition guidelines, please visit http://suzukiassociation.org/teachers/guides/audition.
Financial Support

• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
• Some programs provide competitive awards in the form of fellowships and/or assistantships. Contact your academic program for more information.
• All music applicants are automatically considered for scholarships. There is no additional application necessary. If chosen, music scholarships can range from $1,000 to full tuition.

Application Status

• We encourage you to be actively engaged in the admission process. You can check your Lamont School of Music application status online (http://gradadmissions.du.edu/apply/status). Applicants will receive login information post application submission.

Contact Information

• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.
• For more information call (303) 871-2706.

International Applicants

• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Arts in Music with a Concentration in Music Theory

Degree requirements

Coursework requirements

Concentration Area

Music Theory courses (One course in music theory must be at the 4XXX level.) 12

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3005</td>
<td>Post-Tonal Theory and Analysis: Set-Theory and Serialism</td>
</tr>
<tr>
<td>MUAC 3023</td>
<td>Rhythm &amp; Meter in Tonal Music</td>
</tr>
<tr>
<td>MUAC 4002</td>
<td>Form and Analysis</td>
</tr>
<tr>
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</tr>
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<td>Tonal Counterpoint</td>
</tr>
<tr>
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<td>Pedagogy of Music Theory</td>
</tr>
<tr>
<td>MUAC 4121</td>
<td>Seminar in Music Theory</td>
</tr>
<tr>
<td>MUAC 4801</td>
<td>Introduction to Schenkerian Analysis</td>
</tr>
</tbody>
</table>
| MUAC 4995   | Thesis Research (Candidate must complete 5 credits total during time of study.) 5

Other courses as approved by department

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 4000</td>
<td>Introduction to Graduate Study (Complete 2 credits in both fall and winter quarters during the 1st year for a total of 4 credits.) 2</td>
</tr>
<tr>
<td>MUAC 4000</td>
<td>Introduction to Graduate Study</td>
</tr>
</tbody>
</table>

Musicology/Ethnomusicology courses (One course in Musicology/Ethnomusicology or Music Theory must be at the 4XXX level.) 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3497</td>
<td>Studying Music in the Field: Theory and Method in Ethnomusicology</td>
</tr>
<tr>
<td>MUAC 3502</td>
<td>Gender &amp; Genre in World Music</td>
</tr>
<tr>
<td>MUAC 3550</td>
<td>Major Composers-J.S. Bach</td>
</tr>
<tr>
<td>MUAC 3570</td>
<td>Major Composers: Beethoven</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>MUAC 3600</td>
<td>The Evolution of Rock</td>
</tr>
<tr>
<td>MUAC 3683</td>
<td>History of Chamber Music</td>
</tr>
<tr>
<td>MUAC 3847</td>
<td>Hip-Hop: Theory and Practice</td>
</tr>
<tr>
<td>MUAC 4161</td>
<td>Topics in 20th-Century Opera</td>
</tr>
<tr>
<td>MUAC 4350</td>
<td>Talam: Rhythmic Form and Process in South Indian Music</td>
</tr>
<tr>
<td>MUAC 4492</td>
<td>History of Opera: From Monteverdi to Minimalism and Beyond</td>
</tr>
<tr>
<td>MUAC 4493</td>
<td>Approaches to American Popular Music</td>
</tr>
<tr>
<td>MUAC 4494</td>
<td>Music and Belief in World Cultures</td>
</tr>
<tr>
<td>MUAC 4498</td>
<td>Music, Dance, and Everyday Life in South Asia</td>
</tr>
<tr>
<td>MUAC 4499</td>
<td>Topics in Musicology</td>
</tr>
<tr>
<td>MUAC 4511</td>
<td>Mahler and Musical Culture</td>
</tr>
<tr>
<td>MUAC 4512</td>
<td>Stories of Music History</td>
</tr>
<tr>
<td>MUAC 4513</td>
<td>Wagner and the Ideology of the Artwork</td>
</tr>
<tr>
<td>MUAC 4520</td>
<td>Topics in Hindustani Music</td>
</tr>
<tr>
<td>MUAC 4521</td>
<td>Topics in Baroque Music</td>
</tr>
<tr>
<td>MUAC 4535</td>
<td>Baroque Opera on Stage</td>
</tr>
<tr>
<td>MUAC 4536</td>
<td>Musics of the African Diaspora</td>
</tr>
<tr>
<td>MUAC 4545</td>
<td>The Making of Romantic Music: Paris and Leipzig in the 1830s</td>
</tr>
<tr>
<td></td>
<td>Other courses as approved by the department</td>
</tr>
</tbody>
</table>

**Electives**

| 3XXX or 4XXX Courses | 16 |

Note: Students may complete a maximum of 8 credits in graduate departments outside of the Lamont School of Music.

**Total Credits**

| 45 |

**Minimum number of credits required for degree:** 45 credits

**Non-coursework requirements (see below and the Lamont Student Handbook for more details)**

- Final Oral Comprehensive Examination: Final oral comprehensive examination, including defense of the thesis.
- Entrance Proficiencies:
  - By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiency in Musicology by examination.
  - By no later than the completion of 15 graduate credit hours, demonstration of superior graduate entrance-level proficiencies in Music Theory and Aural Skills by examination.
- Convocation: Attendance requirements as specified in the Lamont Student Handbook.

**Grades**

An overall 3.0 (“B”) grade point average is required in all graduate coursework accepted for the degree.

No more than one-fourth of the hours accepted toward the degree may be with “C” grades. A grade lower than “C” (2.0) renders the credit unacceptable for meeting degree requirements.

Students cannot take more than eight hours beyond the degree requirements in order to make up grade deficiencies. Students whose grades are still deficient after taking the additional eight hours are terminated from the degree program.

An overall 3.0 (“B”) grade point average must be maintained in all music courses.

Any course in the student’s concentration area within music, or the course Introduction to Graduate Study in Music, must be repeated if a grade lower than “B” (3.0) is awarded. A grade of “B” or better must be received in the repeated course. Only one such repeat is permitted; two grades lower than “B” for the same course will result in termination from the Lamont School of Music.

In the case of MUAC 4000 Introduction to Graduate Studies in Music, the average of the two grades from the two-quarter sequence must equal at least a B (3.0).

Upon failing a graduate music course, the student is placed on probationary status. If the student fails another music course while on probation, he/she will be terminated from the Lamont School of Music.

Five quarter-hours of “C” (2.0) work will be accepted in elective areas, provided they are balanced by the same number of quarter hours of “A” (4.0) work in any subject(s).
### Time Limit
All requirements for the degree must be completed within five years of matriculation.

### Master of Arts in Music with a Concentration in Musicology

#### Degree requirements

#### Coursework requirements

**Concentration Area**

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<tr>
<th>Course Code</th>
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<td>MUAC 4999</td>
<td>Topics in Musicology</td>
</tr>
</tbody>
</table>

Other courses as approved by the department  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 4995</td>
<td>Thesis Research</td>
</tr>
</tbody>
</table>

**Other Studies in Music**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MUAC 4000</td>
<td>Introduction to Graduate Study (Complete 2 credits in both fall and winter quarters during the 1st year for a total of 4 credits.)</td>
</tr>
<tr>
<td>MUAC 4000</td>
<td>Introduction to Graduate Study</td>
</tr>
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</table>

**Music Theory courses**

<table>
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<th>Course Title</th>
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</thead>
<tbody>
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<tr>
<td>MUAC 3023</td>
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<tr>
<td>MUAC 4002</td>
<td>Form and Analysis</td>
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<tr>
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<td>Seminar in Music Theory</td>
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<tr>
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<td>Introduction to Schenkerian Analysis</td>
</tr>
</tbody>
</table>

Other courses as approved by the department

**Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3XXX or 4XXX</td>
<td>Courses in MUAC/MUEN/MUPR</td>
</tr>
<tr>
<td>3XXX or 4XXX</td>
<td>Courses outside of Music</td>
</tr>
</tbody>
</table>

Note: Students may complete a maximum of 8 credits in graduate departments outside of the Lamont School of Music.

**Total Credits**

45
Minimum number of credits required for degree: 45 credits
Non-coursework requirements (see below and the Lamont Student Handbook for more details)

- Tool: Ability to read relevant music-based documents in at least one Western language other than English, as demonstrated by completion of at least two years of study of that language at the college level or a language tool examination in that language. Must be completed at least one quarter prior to the quarter in which the student will graduate.
- Final Written Examination
- Final Oral Comprehensive Examination: Final oral comprehensive examination, including defense of the thesis.
- Entrance Proficiencies
  - By no later than the completion of 15 graduate credit hours, demonstration of superior graduate entrance-level proficiency in Musicology by examination.
  - By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiencies in Music Theory and Aural Skills by examination.
- Convocation: Attendance requirements as specified in the Lamont Student Handbook.

Grades
An overall 3.0 (“B”) grade point average is required in all graduate coursework accepted for the degree.

No more than one-fourth of the hours accepted toward the degree may be with “C” grades. A grade lower than “C” (2.0) renders the credit unacceptable for meeting degree requirements.

Students cannot take more than eight hours beyond the degree requirements in order to make up grade deficiencies. Students whose grades are still deficient after taking the additional eight hours are terminated from the degree program.

An overall 3.0 (“B”) grade point average must be maintained in all music courses.

Any course in the student’s concentration area within music, or the course Introduction to Graduate Study in Music, must be repeated if a grade lower than “B” (3.0) is awarded. A grade of “B” or better must be received in the repeated course. Only one such repeat is permitted; two grades lower than “B” for the same course will result in termination from the Lamont School of Music.

In the case of MUAC 4000 Introduction to Graduate Studies in Music, the average of the two grades from the two-quarter sequence must equal at least a B (3.0).

Upon failing a graduate music course, the student is placed on probationary status. If the student fails another music course while on probation, he/she will be terminated from the Lamont School of Music.

Five quarter-hours of “C” (2.0) work will be accepted in elective areas, provided they are balanced by the same number of quarter hours of “A” (4.0) work in any subject(s).

Time Limit
All requirements for the degree must be completed within five years of matriculation.

Master of Music in Music with a Concentration in Composition
A Master of Music in Music with a concentration in Composition has two emphases: Classical or Jazz.

Degree requirements

Coursework requirements
Concentration Area
Complete the following course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUPR 4920</td>
<td>Composition</td>
</tr>
</tbody>
</table>
& 4920      | and Composition      |
& 4920      | and Composition      |
& 4920      | and Composition      |
& 4920      | and Composition      |

Emphases
Students must select one of two emphases (Classical or Jazz):

A. Classical Emphasis
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3124</td>
<td>Composition Seminar</td>
<td>6</td>
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<tr>
<td>&amp; 3124</td>
<td>and Composition Seminar</td>
<td></td>
</tr>
<tr>
<td>&amp; 3124</td>
<td>and Composition Seminar</td>
<td></td>
</tr>
<tr>
<td>&amp; 3124</td>
<td>and Composition Seminar</td>
<td></td>
</tr>
<tr>
<td>&amp; 3124</td>
<td>and Composition Seminar</td>
<td></td>
</tr>
<tr>
<td>Music Theory courses (At least four credits must be at the 4000 level.)</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>MUAC 3005</td>
<td>Post-Tonal Theory and Analysis: Set-Theory and Serialism</td>
<td></td>
</tr>
<tr>
<td>MUAC 3023</td>
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<td>Seminar in Music Theory</td>
<td></td>
</tr>
<tr>
<td>MUAC 4801</td>
<td>Introduction to Schenkerian Analysis</td>
<td></td>
</tr>
<tr>
<td>Other courses as approved by the department</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>MUEN 3XXX</td>
<td>Ensembles (Must register/participate in one per quarter as assigned.)</td>
<td></td>
</tr>
<tr>
<td>B. Jazz Emphasis</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>MUEN 3XXX</td>
<td>Ensembles (Must register/participate in two per quarter as assigned.)</td>
<td></td>
</tr>
<tr>
<td>MUAC, MUEN, MUPR 3XXX or 4XXX</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Courses from the Jazz Studies curriculum, selected in consultation with the student’s faculty advisor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Studies in Music</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both emphases complete all of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUAC 4000</td>
<td>Introduction to Graduate Study (Complete 2 credits in both fall and winter quarters during the 1st year for a total of 4 credits)</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 4000</td>
<td>Introduction to Graduate Study</td>
<td>2</td>
</tr>
<tr>
<td>Musicology/Ethnomusicology course</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MUAC 3497</td>
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</tr>
<tr>
<td>MUAC 3847</td>
<td>Hip-Hop: Theory and Practice</td>
<td></td>
</tr>
<tr>
<td>MUAC 4161</td>
<td>Topics in 20th-Century Opera</td>
<td></td>
</tr>
<tr>
<td>MUAC 4350</td>
<td>Talam: Rhythmic Form and Process in South Indian Music</td>
<td></td>
</tr>
<tr>
<td>MUAC 4492</td>
<td>History of Opera: From Monteverdi to Minimalism and Beyond</td>
<td></td>
</tr>
<tr>
<td>MUAC 4493</td>
<td>Approaches to American Popular Music</td>
<td></td>
</tr>
<tr>
<td>MUAC 4494</td>
<td>Music and Belief in World Cultures</td>
<td></td>
</tr>
<tr>
<td>MUAC 4498</td>
<td>Music, Dance, and Everyday Life in South Asia</td>
<td></td>
</tr>
<tr>
<td>MUAC 4499</td>
<td>Topics in Musicology</td>
<td></td>
</tr>
<tr>
<td>MUAC 4511</td>
<td>Mahler and Musical Culture</td>
<td></td>
</tr>
<tr>
<td>MUAC 4512</td>
<td>Stories of Music History</td>
<td></td>
</tr>
<tr>
<td>MUAC 4513</td>
<td>Wagner and the Ideology of the Artwork</td>
<td></td>
</tr>
<tr>
<td>MUAC 4520</td>
<td>Topics in Hindustani Music</td>
<td></td>
</tr>
<tr>
<td>MUAC 4521</td>
<td>Topics in Baroque Music</td>
<td></td>
</tr>
<tr>
<td>MUAC 4535</td>
<td>Baroque Opera on Stage</td>
<td></td>
</tr>
<tr>
<td>MUAC 4536</td>
<td>Musics of the African Diaspora</td>
<td></td>
</tr>
<tr>
<td>MUAC 4545</td>
<td>The Making of Romantic Music: Paris and Leipzig in the 1830s</td>
<td></td>
</tr>
<tr>
<td>Other courses as approved by the department</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MUAC 3XXX or 4XXX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Theory course</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Electives**

Select either a Classical or Jazz emphasis.
Classical Emphasis

3XXX or 4XXX Courses 8

Note: Students may complete a maximum of 8 credits in graduate departments outside of the Lamont School of Music.

MUAC 4009 Tonal Counterpoint is required if the equivalent was not completed during undergraduate study

Jazz Emphasis

MUAC 3XXX or 4XXX Musicology/Ethnomusicology/Music Theory/Composition courses 4

3XXX or 4XXX Course 4

Note: Students may complete a maximum of 4 credits in graduate departments outside of the Lamont School of Music.

MUAC 4009 Tonal Counterpoint is required if the equivalent was not completed during undergraduate study

Total Credits 50

Minimum number of credits required for degree: 50 credits

Non-coursework requirements

• Final Examination
  • Classical Emphasis
    Final written examination and final oral comprehensive examination
  • Jazz Emphasis
    Final oral comprehensive examination

• Entrance Proficiencies
  • By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiency in Musicology by examination.
  • By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiencies in Music Theory and Aural Skills by examination.

• Composer’s Series Concerts: Submission of at least one composition for every end-of-quarter Composer’s Series concert.

• Convocation: Attendance requirements as specified in the Lamont Student Handbook.

Grades

An overall 3.0 (“B”) grade point average is required in all graduate coursework accepted for the degree.

No more than one-fourth of the hours accepted toward the degree may be with “C” grades. A grade lower than “C” (2.0) renders the credit unacceptable for meeting degree requirements.

Students cannot take more than eight hours beyond the degree requirements in order to make up grade deficiencies. Students whose grades are still deficient after taking the additional eight hours are terminated from the degree program.

An overall 3.0 (“B”) grade point average must be maintained in all music courses.

Any course in the student’s concentration area within music, or the course Introduction to Graduate Study in Music, must be repeated if a grade lower than “B” (3.0) is awarded. A grade of “B” or better must be received in the repeated course. Only one such repeat is permitted; two grades lower than “B” for the same course will result in termination from the Lamont School of Music.

In the case of MUAC 4000 Introduction to Graduate Studies in Music, the average of the two grades from the two-quarter sequence must equal at least a B (3.0).

Upon failing a graduate music course, the student is placed on probationary status. If the student fails another music course while on probation, he/she will be terminated from the Lamont School of Music.

Five quarter-hours of “C” (2.0) work will be accepted in elective areas, provided they are balanced by the same number of quarter hours of “A” (4.0) work in any subject(s).

Time Limit

All requirements for the degree must be completed within five years of matriculation.

Master of Music in Music with a Concentration in Conducting

The Master of Music with a concentration in Conducting degree has three emphases: Choral, Orchestral, or Wind.

Degree requirements

Coursework requirements

Concentration Area
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 4930 &amp; 4930 &amp; 4930 &amp; 4930 &amp; 4930</td>
<td>Conducting Tutorial and Conducting Tutorial</td>
<td>12</td>
</tr>
</tbody>
</table>

**Emphasis**

Students must select one of the three emphases (Choral, Orchestral or Wind):

**A. Choral Emphasis**

Complete all of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3960</td>
<td>Advanced Orchestral Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 3962</td>
<td>Advanced Wind Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 3684</td>
<td>Choral Literature I</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 3689</td>
<td>Choral Literature II</td>
<td>2</td>
</tr>
<tr>
<td>MUCN 3712</td>
<td>Lamont Chorale</td>
<td>6</td>
</tr>
</tbody>
</table>

Select either Choral Pedagogy sequence or the Voice/Vocal Pedagogy sequence:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3686</td>
<td>Choral Pedagogy I</td>
<td>4</td>
</tr>
<tr>
<td>MUAC 3688</td>
<td>Choral Pedagogy II</td>
<td></td>
</tr>
<tr>
<td>MUAC 3240</td>
<td>Vocal Pedagogy</td>
<td></td>
</tr>
<tr>
<td>MUAC 3241</td>
<td>Voice Pedagogy</td>
<td></td>
</tr>
</tbody>
</table>

**B. Orchestral Emphasis**

Complete all of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3961</td>
<td>Advanced Choral Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 3962</td>
<td>Advanced Wind Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 3959</td>
<td>Movement and Expression for Conductors</td>
<td>4</td>
</tr>
<tr>
<td>MUAC 3XXX or 4XXX</td>
<td>Course in orchestral literature</td>
<td></td>
</tr>
<tr>
<td>MUCN 3760</td>
<td>Lamont Symphony Orchestra</td>
<td>6</td>
</tr>
</tbody>
</table>

**C. Wind Emphasis**

Complete all of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3960</td>
<td>Advanced Orchestral Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 3961</td>
<td>Advanced Choral Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 3959</td>
<td>Movement and Expression for Conductors</td>
<td>4</td>
</tr>
<tr>
<td>&amp; 3959</td>
<td>and Movement and Expression for Conductors (2 credits each year; Consult department for quarter.)</td>
<td></td>
</tr>
<tr>
<td>MUAC 3973</td>
<td>Advanced Wind Literature I</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 3974</td>
<td>Advanced Wind Literature II</td>
<td>2</td>
</tr>
<tr>
<td>MUCN 3752</td>
<td>Lamont Wind Ensemble</td>
<td>6</td>
</tr>
</tbody>
</table>

**Other Studies in Music**

All emphases complete all of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 4000</td>
<td>Introduction to Graduate Study</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 4000</td>
<td>Introduction to Graduate Study</td>
<td>2</td>
</tr>
</tbody>
</table>

**Musicology/Ethnomusicology course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3497</td>
<td>Studying Music in the Field: Theory and Method in Ethnomusicology</td>
<td>4</td>
</tr>
<tr>
<td>MUAC 3502</td>
<td>Gender &amp; Genre in World Music</td>
<td></td>
</tr>
<tr>
<td>MUAC 3550</td>
<td>Major Composers-J.S. Bach</td>
<td></td>
</tr>
<tr>
<td>MUAC 3570</td>
<td>Major Composers: Beethoven</td>
<td></td>
</tr>
<tr>
<td>MUAC 3600</td>
<td>The Evolution of Rock</td>
<td></td>
</tr>
<tr>
<td>MUAC 3683</td>
<td>History of Chamber Music</td>
<td></td>
</tr>
<tr>
<td>MUAC 3847</td>
<td>Hip-Hop: Theory and Practice</td>
<td></td>
</tr>
<tr>
<td>MUAC 4161</td>
<td>Topics in 20th-Century Opera</td>
<td></td>
</tr>
<tr>
<td>MUAC 4350</td>
<td>Talam: Rhythmic Form and Process in South Indian Music</td>
<td></td>
</tr>
<tr>
<td>MUAC 4492</td>
<td>History of Opera: From Monteverdi to Minimalism and Beyond</td>
<td></td>
</tr>
</tbody>
</table>
### Approaches to American Popular Music

- **MUAC 4493**

### Music and Belief in World Cultures

- **MUAC 4494**

### Music, Dance, and Everyday Life in South Asia

- **MUAC 4498**

### Topics in Musicology

- **MUAC 4499**

### Mahler and Musical Culture

- **MUAC 4511**

### Stories of Music History

- **MUAC 4512**

### Wagner and the Ideology of the Artwork

- **MUAC 4513**

### Topics in Hindustani Music

- **MUAC 4520**

### Topics in Baroque Music

- **MUAC 4521**

### Baroque Opera on Stage

- **MUAC 4535**

### Musics of the African Diaspora

- **MUAC 4536**

### The Making of Romantic Music: Paris and Leipzig in the 1830s

- **MUAC 4545**

### Other courses as approved by the department

### Music Theory course

- **MUAC 3005**
- **MUAC 3023**
- **MUAC 4002**
- **MUAC 4006**
- **MUAC 4007**
- **MUAC 4009**
- **MUAC 4010**
- **MUAC 4121**
- **MUAC 4801**

#### Other courses as approved by department

### Electives

All emphases complete all of the following courses:

- **MUAC 3XXX or 4XXX**

#### Musicology/Ethnomusicology/Music Theory/Composition course

- **MUAC 3XXX or 4XXX**

#### Course

Note: Students may complete a maximum of 4 credits in graduate departments outside of the Lamont School of Music.

### Minimum number of credits required for degree: 50 credits

### Non-coursework requirements (see below and the Lamont Student Handbook for more details)

- Final Written Examination
- Final Oral Comprehensive Examination
- Entrance Proficiencies
  - By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiency in Musicology by examination.
  - By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiencies in Music Theory and Aural Skills by examination.
- Recital: One full-length conducting recital.
- Convocation: Attendance requirements as specified in the Lamont Student Handbook.

### Grades

An overall 3.0 ("B") grade point average is required in all graduate coursework accepted for the degree.

No more than one-fourth of the hours accepted toward the degree may be with "C" grades. A grade lower than "C" (2.0) renders the credit unacceptable for meeting degree requirements.

Students cannot take more than eight hours beyond the degree requirements in order to make up grade deficiencies. Students whose grades are still deficient after taking the additional eight hours are terminated from the degree program.

An overall 3.0 ("B") grade point average must be maintained in all music courses.
Any course in the student’s concentration area within music, or the course Introduction to Graduate Study in Music, must be repeated if a grade lower than “B” (3.0) is awarded. A grade of “B” or better must be received in the repeated course. Only one such repeat is permitted; two grades lower than “B” for the same course will result in termination from the Lamont School of Music.

In the case of MUAC 4000 Introduction to Graduate Studies in Music, the average of the two grades from the two-quarter sequence must equal at least a B (3.0).

Upon failing a graduate music course, the student is placed on probationary status. If the student fails another music course while on probation, he/she will be terminated from the Lamont School of Music.

Five quarter-hours of “C” (2.0) work will be accepted in elective areas, provided they are balanced by the same number of quarter hours of “A” (4.0) work in any subject(s).

**Time Limit**

All requirements for the degree must be completed within five years of matriculation.

---

**Master of Music in Music with a Concentration in Pedagogy**

The Master of Music in Music with a concentration in Pedagogy has two emphases: Piano and Suzuki Cello/Violin.

---

**Degree requirements**

**Coursework requirements**

**Emphasis**

Select one of the two emphases (Piano or Suzuki Cello/Violin):

A. Piano Emphasis

Complete all of the following courses:

- MUPR 4210 Piano and Piano
- MUPR 4210 and Piano
- MUPR 4210 and Piano
- MUPR 4210 and Piano
- MUPR 4210 and Piano

- MUAC 4831 Prof Found-Piano Pedagogy
- MUAC 4832 and Prof Found-Piano Pedagogy
- MUAC 4833 and Prof Found-Piano Pedagogy
- MUAC 4020 Intro Research in Music Ed

Select three of the following:

- MUAC 4850 Sem Piano Ped-Preschool Chld
- MUAC 4851 Sem Piano Ped-Elem Children
- MUAC 4853 Sem Piano Pedegogy-Beg/Int Adt
- MUAC 4854 Sem Piano Ped-Adv Students

Complete all of the following courses:

- MUAC 4840 Piano Teaching Practicum
- MUAC 4841 and Piano Teaching Practicum
- MUAC 4842 and Piano Teaching Practicum
- MUAC 4995 Thesis Research

B. Suzuki Cello/Violin Emphases

Select either the Suzuki Cello or Suzuki Violin emphasis.

1. Suzuki Cello Pedagogy Emphasis

- MUPR 4270 Violoncello and Violoncello
- MUPR 4270 and Violoncello
- MUPR 4270 and Violoncello
- MUPR 4270 and Violoncello
- MUPR 4270 and Violoncello
- MUAC 3463 Suzuki Cello Seminar I
- MUAC 3464 and Suzuki Cello Seminar I
- MUAC 3465 and Suzuki Cello Seminar I
MUAC 3466  
Suzuki Cello Seminar II  
6
MUAC 3467  
and Suzuki Cello Seminar II  
2
MUAC 3468  
and Suzuki Cello Seminar II  
3
MUAC 3439  
Teaching Note Reading  
2
MUAC 3460  
Suzuki Cello Practicum  
2
MUAC 3461  
and Suzuki Cello Practicum  
3
MUAC 3462  
and Suzuki Cello Practicum  
3
MUEN 3XXX  
Ensembles (Must register/participate in two ensembles per quarter as assigned.)  
6

2. Suzuki Violin Pedagogy Emphasis

MUPR 4250  
Violin  
12
MUPR 4250  
and Violin  
12
MUC 3470  
Suzuki Violin Seminar I  
6
MUC 3471  
and Suzuki Violin Seminar I  
2
MUC 3471  
and Suzuki Violin Seminar I  
2
MUC 3282  
Suzuki Violin Seminar II  
6
MUC 3283  
and Suzuki Violin Seminar II  
3
MUC 3284  
and Suzuki Violin Seminar II  
3
MUC 3439  
Teaching Note Reading  
2
MUC 3477  
Suzuki Violin Practicum  
3
MUC 3478  
and Suzuki Violin Practicum  
3
MUC 3479  
and Suzuki Violin Practicum  
3
MUEN 3XXX  
Ensembles (Must register/participate in two ensembles per quarter as assigned.)  
6

Other Studies in Music

All emphases complete all of the following courses:

MUAC 4000  
Introduction to Graduate Study (Complete 2 credits in both fall and winter quarters during the 1st year for a total of 4 credits)  
2
MUAC 4000  
Introduction to Graduate Study  
2
Musicology/Ethnomusicology course

MUAC 3497  
Studying Music in the Field: Theory and Method in Ethnomusicology  
4
MUAC 3502  
Gender & Genre in World Music  
4
MUAC 3550  
Major Composers-J.S. Bach  
4
MUAC 3570  
Major Composers: Beethoven  
4
MUAC 3600  
The Evolution of Rock  
4
MUAC 3683  
History of Chamber Music  
4
MUAC 3847  
Hip-Hop: Theory and Practice  
4
MUAC 4161  
Topics in 20th-Century Opera  
4
MUAC 4350  
Talam: Rhythmic Form and Process in South Indian Music  
4
MUAC 4492  
History of Opera: From Monteverdi to Minimalism and Beyond  
4
MUAC 4493  
Approaches to American Popular Music  
4
MUAC 4494  
Music and Belief in World Cultures  
4
MUAC 4498  
Music, Dance, and Everyday Life in South Asia  
4
MUAC 4499  
Topics in Musicology  
4
MUAC 4511  
Mahler and Musical Culture  
4
MUAC 4512  
Stories of Music History  
4
MUAC 4513  
Wagner and the Ideology of the Artwork  
4
MUAC 4520  
Topics in Hindustani Music  
4
MUAC 4521  
Topics in Baroque Music  
4
MUAC 4535  
Baroque Opera on Stage  
4
MUAC 4536  
Musics of the African Diaspora  
4
MUAC 4545  
The Making of Romantic Music: Paris and Leipzig in the 1830s  
4

Other courses as approved by the department
## Music Theory course

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3005</td>
<td>Post-Tonal Theory and Analysis: Set-Theory and Serialism</td>
</tr>
<tr>
<td>MUAC 3023</td>
<td>Rhythm &amp; Meter in Tonal Music</td>
</tr>
<tr>
<td>MUAC 4002</td>
<td>Form and Analysis</td>
</tr>
<tr>
<td>MUAC 4006</td>
<td>Post-Tonal Theory: Mode/Rhythm</td>
</tr>
<tr>
<td>MUAC 4007</td>
<td>Post-Tonal Theory and Analysis: Set-Theory and Serialism</td>
</tr>
<tr>
<td>MUAC 4009</td>
<td>Tonal Counterpoint</td>
</tr>
<tr>
<td>MUAC 4010</td>
<td>Pedagogy of Music Theory</td>
</tr>
<tr>
<td>MUAC 4121</td>
<td>Seminar in Music Theory</td>
</tr>
<tr>
<td>MUAC 4801</td>
<td>Introduction to Schenkerian Analysis</td>
</tr>
</tbody>
</table>

Other courses as approved by the department

Piano emphasis students also complete the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUEN 3775</td>
<td>Piano Accompanying (Must register/participate in the Piano Accompanying Program each quarter.)</td>
</tr>
</tbody>
</table>

### Electives

All emphases complete all of the following courses:

- MUAC 3XXX or MUAC 4XXX: Musicology/Ethnomusicology/Music Theory/Composition course

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Musicology/Ethnomusicology/Music Theory/Composition course</td>
</tr>
</tbody>
</table>

Note: Students may complete a maximum of 4 credits in graduate departments outside of the Lamont School of Music.

Note: If Piano emphasis candidates did not complete one year of piano literature prior to graduate study in this program, MUAC 3822/MUAC 3823/MUAC 3824 PIANO REPERTOIRE or its equivalent must be successfully completed before graduation.

### Total Credits for Suzuki Cello/Violin Pedagogy Emphases

<table>
<thead>
<tr>
<th>Total Credits for Suzuki Cello/Violin Pedagogy Emphases</th>
<th>55</th>
</tr>
</thead>
</table>

### Total Credits for Piano Pedagogy Emphasis

<table>
<thead>
<tr>
<th>Total Credits for Piano Pedagogy Emphasis</th>
<th>59</th>
</tr>
</thead>
</table>

### Minimum number of credits required for the degree with a Suzuki Violin Pedagogy Emphasis or a Suzuki Cello Emphasis: 55 credits

### Minimum number of credits required for the degree with a Piano Pedagogy Emphasis: 59 credits

### Non-coursework requirements (see below and the Lamont Student Handbook for more details)

- Ensemble Participation:
  - Piano Pedagogy Emphasis: Participation in the Piano Accompanying Program each quarter. An accompanying load that is equivalent to participation in two ensembles will be determined by the coordinator of the program.
  - Suzuki Cello/Violin Pedagogy Emphases: Participation in at least two ensembles each quarter as assigned.

- Recital: One full-length performance recital.

- Thesis (only required for Piano Pedagogy Emphasis): A thesis that constitutes an original contribution of research to the field.

- Final Teaching Demonstration

- Final Oral Comprehensive Exam:
  - Cello (Suzuki) and Violin (Suzuki) Pedagogy Emphases: Final oral comprehensive examination.
  - Piano Pedagogy Emphasis: Final oral comprehensive examination, including defense of the thesis.

- Entrance Proficiencies
  - By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiency in Musicology by examination.
  - By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiencies in Music Theory and Aural Skills by examination.

- Convocation: Attendance requirements as specified in the Lamont Student Handbook.

### Grades

An overall 3.0 ("B") grade point average is required in all graduate coursework accepted for the degree.

No more than one-fourth of the hours accepted toward the degree may be with "C" grades. A grade lower than "C" (2.0) renders the credit unacceptable for meeting degree requirements.

Students cannot take more than eight hours beyond the degree requirements in order to make up grade deficiencies. Students whose grades are still deficient after taking the additional eight hours are terminated from the degree program.
An overall 3.0 (“B”) grade point average must be maintained in all music courses.

Any course in the student’s concentration area within music, or the course Introduction to Graduate Study in Music, must be repeated if a grade lower than “B” (3.0) is awarded. A grade of “B” or better must be received in the repeated course. Only one such repeat is permitted; two grades lower than “B” for the same course will result in termination from the Lamont School of Music.

In the case of MUAC 4000 Introduction to Graduate Studies in Music, the average of the two grades from the two-quarter sequence must equal at least a B (3.0).

Upon failing a graduate music course, the student is placed on probationary status. If the student fails another music course while on probation, he/she will be terminated from the Lamont School of Music.

Five quarter-hours of “C” (2.0) work will be accepted in elective areas, provided they are balanced by the same number of quarter hours of “A” (4.0) work in any subject(s).

Time Limit
All requirements for the degree must be completed within five years of matriculation.

Master of Music in Music with a Concentration in Performance
The Master of Music in Music with a concentration in Performance has several emphases: Bassoon, Carillon, Cello, Clarinet, Double Bass, Flute, Guitar, Harp, Horn, Jazz (Double Bass, Drums, Guitar, Piano, Trombone, Trumpet, Voice, or Woodwinds), Oboe, Organ, Percussion, Piano, Saxophone, Trombone, Trumpet, Tuba, Viola, Violin, or Voice.

Degree requirements
Coursework requirements
Concentration Area
All emphases must complete all of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUPR 4XXX</td>
<td>Applied Lessons</td>
<td>12</td>
</tr>
<tr>
<td>MUEN 3XXX</td>
<td>Ensembles (See note below.)</td>
<td>6</td>
</tr>
</tbody>
</table>

Select one of the instrument emphases.

A. Bassoon

- MUAC 3761 Pedagogy & Repertoire Bassoon
- MUAC 3762 Pedagogy & Repertoire Bassoon

3XXX or 4XXX: Area elective

B. Carillon

- MUAC 3700 Carillon Repertoire (8 credits over two quarters)
- MUAC 3700 Carillon Repertoire
- MUAC 3698 Carillon History and Mechanics

C. Cello

- MUAC 3730 Pedagogy & Repertoire Cello
  or MUAC 3463 Suzuki Cello Seminar I
  or MUAC 3464 Suzuki Cello Seminar I
- MUAC 3650 Orchestral Excerpts-Cello
  or MUAC 3465 Suzuki Cello Seminar I
  or MUAC 3466 Suzuki Cello Seminar II

3XXX or 4XXX: Area elective

D. Clarinet

- MUAC 3751 Pedagogy & Repertoire Clarinet
  & MUAC 3752 and Pedagogy & Repertoire Clarinet

3XXX or 4XXX: Area elective

E. Double Bass

- MUAC 3655 Orchestral Excerpts-Bass
- MUAC 3733 Pedagogy & Rep Double Bass

3XXX or 4XXX: Area elective

F. Flute

- MUAC 3747 Pedagogy & Repertoire Flute
  & MUAC 3748 and Pedagogy & Repertoire Flute
3XXX or 4XXX: Area elective

G. Guitar
Select one of the following options:

MUAC 3724 & 3724
Pedagogy & Repertoire Guitar and Pedagogy & Repertoire Guitar

3XXX or 4XXX: Area elective

OR

MUAC 4050 & MUAC 4051 & MUAC 4052
Major Adv Repertoire Guitar and Major Adv Repertoire Guitar

3XXX or 4XXX: Area elective

H. Harp

MUAC 3735 & MUAC 3736
Pedagogy & Repertoire Harp and Pedagogy & Repertoire Harp

3XXX or 4XXX: Area elective

I. Horn

MUAC 3662
Orchestral Studies for Brass

MUAC 3708
Pedagogy & Repertoire Horn

MUAC 3765
Professional Brass Techniques

3XXX or 4XXX: Area elective

J. Jazz

Jazz emphasis in Double Bass, Drums, Guitar, Piano, Trombone, Trumpet, Voice, or Woodwinds
Courses from the Jazz Studies curriculum selected in consultation with student's faculty advisor.

K. Oboe

MUAC 3757 & MUAC 3758
Pedagogy & Repertoire Oboe and Pedagogy & Repertoire Oboe

3XXX or 4XXX: Area elective

L. Organ

MUPR 3350 & 3350 & 3350
Organ Improvisation and Organ Improvisation

MUAC 3738 & MUAC 3739 & MUAC 3740
Pedagogy & Repertoire Organ and Pedagogy & Repertoire Organ

3XXX or 4XXX: Area elective

M. Percussion

MUAC 3717 & MUAC 3718
Pedagogy & Repertoire Percussion and Pedagogy & Repertoire Percussion

3XXX or 4XXX: Area elective

N. Piano

Select one of the following options:

MUAC 3822 & MUAC 3823 & MUAC 3824
Piano Repertoire I and Piano Repertoire II and Piano Repertoire III

Sequence required if equivalent courses were not completed in the undergraduate degree.

MUAC 3XXX or 4XXX
Advanced Keyboard Repertoire course

OR

MUAC 3XXX or 4XXX
Advanced Keyboard Repertoire courses

3XXX or 4XXX: Area elective

O. Saxophone

MUAC 3753 & MUAC 3754
Pedagogy & Repertoire Saxophone and Pedagogy & Repertoire Saxophone

3XXX or 4XXX: Area elective

P. Trombone

MUAC 3662
Orchestral Studies for Brass
MUAC 3712  Pedagogy & Repertoire Trombone
MUAC 3765  Professional Brass Techniques
3XXX or 4XXX: Area elective

Q. Trumpet
MUAC 3662  Orchestral Studies for Brass
MUAC 3742  Pedagogy & Repertoire Trumpet
MUAC 3765  Professional Brass Techniques
3XXX or 4XXX: Area elective

R. Tuba
MUAC 3662  Orchestral Studies for Brass
MUAC 3706  Pedagogy & Repertoire Tuba
MUAC 3765  Professional Brass Techniques
3XXX or 4XXX: Area elective

S. Viola
MUAC 3661 & MUAC 3663  Orchestral Excerpts Viola
            and Orchestral Excerpts, Viola II
3XXX or 4XXX: Area elective

T. Violin
MUAC 3470 & MUAC 3471  Suzuki Violin Seminar I
            and Suzuki Violin Seminar I
MUAC 3660 or MUAC 3472 or MUAC 3282  Orchestral Excerpts-Violin
            Suzuki Violin Seminar I
            Suzuki Violin Seminar II
3XXX or 4XXX: Area elective

U. Voice
MUAC 3810 & MUAC 3811 & MUAC 3812  Voice Repertoire
            and Voice Repertoire
            and Voice Repertoire
MUAC 4200  Diction-Graduate Voice Majors
3XXX or 4XXX: Area elective

Other Studies in Music
Complete all of the following courses:
MUAC 4000  Introduction to Graduate Study (Complete 2 credits in both fall and winter quarters during the 1st year for a total of 4 credits) 2
MUAC 4000  Introduction to Graduate Study 2
Musicology/Ethnomusicology course 4
MUAC 3497  Studying Music in the Field: Theory and Method in Ethnomusicology
MUAC 3502  Gender & Genre in World Music
MUAC 3550  Major Composers-J.S. Bach
MUAC 3570  Major Composers: Beethoven
MUAC 3600  The Evolution of Rock
MUAC 3683  History of Chamber Music
MUAC 3847  Hip-Hop: Theory and Practice
MUAC 4161  Topics in 20th-Century Opera
MUAC 4350  Talam: Rhythmic Form and Process in South Indian Music
MUAC 4492  History of Opera: From Monteverdi to Minimalism and Beyond
MUAC 4493  Approaches to American Popular Music
MUAC 4494  Music and Belief in World Cultures
MUAC 4498  Music, Dance, and Everyday Life in South Asia
MUAC 4499  Topics in Musicology
MUAC 4511  Mahler and Musical Culture
MUAC 4512  Stories of Music History
MUAC 4513  Wagner and the Ideology of the Artwork
MUAC 4520  Topics in Hindustani Music  
MUAC 4521  Topics in Baroque Music  
MUAC 4535  Baroque Opera on Stage  
MUAC 4536  Musics of the African Diaspora  
MUAC 4545  The Making of Romantic Music: Paris and Leipzig in the 1830s  
Other courses as approved by the department  

Music Theory course  
4  
MUAC 3005  Post-Tonal Theory and Analysis: Set-Theory and Serialism  
MUAC 3023  Rhythm & Meter in Tonal Music  
MUAC 4002  Form and Analysis  
MUAC 4006  Post-Tonal Theory: Mode/Rhythm  
MUAC 4007  Post-Tonal Theory and Analysis: Set-Theory and Serialism  
MUAC 4009  Tonal Counterpoint  
MUAC 4010  Pedagogy of Music Theory  
MUAC 4121  Seminar in Music Theory  
MUAC 4801  Introduction to Schenkerian Analysis  
Other courses as approved by the department  

Electives  
Complete all of the following courses:  
MUAC 3XXX or 4XXX  Musicology/Ethnomusicology/Music Theory/Composition course  4  
3XXX or 4XXX  Course  4  

Note: Students may complete a maximum of 4 credits in graduate departments outside of the Lamont School of Music.  
Voice emphasis candidates must take MUAC 3240 Vocal Pedagogy if equivalent coursework was not completed in the undergraduate degree.  

Total credits  
50  

Minimum number of credits required for the degree: 50 credits  

Non-coursework requirements (see below and the Lamont Student Handbook)  
- Ensemble Participation or the Piano Accompanying Program (depending on the emphasis)  
  - All MM Performance students (except voice and piano) must audition and participate in two ensembles per quarter as assigned.  
  - All MM Voice students must audition and participate in two ensembles per quarter for three quarters, and one ensemble per quarter for all other quarters.  
  - All Piano Emphasis students must participate in the Piano Accompanying Program each quarter. An accompanying load that is equivalent to participation in two ensembles will be determined by the coordinator of the program.  
- Recital: One full-length performance recital.  
- Final Written Project: Final written project determined by department.  
- Final Oral Comprehensive Examination  
- Entrance Proficiencies  
  - By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiency in Musicology by examination.  
  - By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiencies in Music Theory and Aural Skills by examination.  
- Convocation: Attendance requirements as specified in the Lamont Student Handbook.  

Grades  
An overall 3.0 ("B") grade point average is required in all graduate coursework accepted for the degree.  

No more than one-fourth of the hours accepted toward the degree may be with "C" grades. A grade lower than "C" (2.0) renders the credit unacceptable for meeting degree requirements.  

Students cannot take more than eight hours beyond the degree requirements in order to make up grade deficiencies. Students whose grades are still deficient after taking the additional eight hours are terminated from the degree program.  

An overall 3.0 ("B") grade point average must be maintained in all music courses.
Any course in the student’s concentration area within music, or the course Introduction to Graduate Study in Music, must be repeated if a grade lower than “B” (3.0) is awarded. A grade of “B” or better must be received in the repeated course. Only one such repeat is permitted; two grades lower than “B” for the same course will result in termination from the Lamont School of Music.

In the case of MUAC 4000 Introduction to Graduate Studies in Music, the average of the two grades from the two-quarter sequence must equal at least a B (3.0).

Upon failing a graduate music course, the student is placed on probationary status. If the student fails another music course while on probation, he/she will be terminated from the Lamont School of Music.

Five quarter-hours of “C” (2.0) work will be accepted in elective areas, provided they are balanced by the same number of quarter hours of “A” (4.0) work in any subject(s).

**Time Limit**
All requirements for the degree must be completed within five years of matriculation.

**MASTER OF MUSIC DUAL CONCENTRATION**

**Degree requirements**

**Coursework requirements**

**Concentration Areas**

All course requirements listed under Concentration Area in the Bulletin for each of the two concentrations selected.

**Other Studies in Music**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 4000</td>
<td>Introduction to Graduate Study (Complete 2 credits in both fall and winter quarters during the 1st year for a total of 4 credits)</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 4000</td>
<td>Introduction to Graduate Study</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 3XXX or 4XXX: Musicology/Ethnomusicology course</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>MUAC 3XXX or 4XXX: Music Theory course</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td>MUAC 3XXX or 4XXX: Musicology/Ethnomusicology/Music Theory/Composition course</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>3XXX or 4XXX</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: Students may complete a maximum of 4 credits in graduate departments outside of the Lamont School of Music.

Voice majors must take MUAC 3240 Vocal Pedagogy if equivalent was not completed during undergraduate study.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUEN 3XXX</td>
<td>Ensembles (Consult Lamont Student Handbook for specific requirements. Not necessary if credits are required in the Concentration Area.)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Minimum Number of Credits Required**

75

**Minimum number of credits required for degree: 75 credits**

**Non-coursework requirements (see below and the Lamont Student Handbook for more details)**

- Thesis: As stipulated for each of the two concentrations
- Final Written Examination: As stipulated by each of the two concentrations
- Final Written Project: As stipulated for each of the two concentrations
- Final Oral Comprehensive Examination: As stipulated for each of the two concentrations

**Additional non-coursework requirements (see below and the Lamont Student Handbook for more details)**

- Entrance Proficiencies
  - By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiency in Musicology by examination.
  - By no later than the completion of 15 graduate credit hours, demonstration of graduate entrance-level proficiencies in Music Theory and Aural Skills by examination.
-Recital: As stipulated for each of the two concentrations.
-Convocation: Attendance requirements as specified in the Lamont Student Handbook.

**Grades**

An overall 3.0 (“B”) grade point average is required in all graduate coursework accepted for the degree.

No more than one-fourth of the hours accepted toward the degree may be with “C” grades. A grade lower than “C” (2.0) renders the credit unacceptable for meeting degree requirements.
Students cannot take more than eight hours beyond the degree requirements in order to make up grade deficiencies. Students whose grades are still deficient after taking the additional eight hours are terminated from the degree program.

An overall 3.0 (“B”) grade point average must be maintained in all music courses.

Any course in the student’s concentration area within music, or the course Introduction to Graduate Study in Music, must be repeated if a grade lower than “B” (3.0) is awarded. A grade of “B” or better must be received in the repeated course. Only one such repeat is permitted; two grades lower than “B” for the same course will result in termination from the Lamont School of Music.

In the case of MUAC 4000 Introduction to Graduate Studies in Music, the average of the two grades from the two-quarter sequence must equal at least a B (3.0).

Upon failing a graduate music course, the student is placed on probationary status. If the student fails another music course while on probation, he/she will be terminated from the Lamont School of Music.

Five quarter-hours of “C” (2.0) work will be accepted in elective areas, provided they are balanced by the same number of quarter hours of “A” (4.0) work in any subject(s).

**Time Limit**
All requirements for the degree must be completed within five years of matriculation.

**Certificate in Music (Artist Diploma Program) with a Concentration in Conducting**

The Artist Diploma with a concentration in Conducting has three emphases: Choral, Orchestral, or Wind.

**Certificate requirements**

**Coursework requirements**

**Core coursework requirements**

Complete all of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC, MUPR, MUEN 3XXX or 4XXX</td>
<td>Upper division Music electives</td>
<td>9</td>
</tr>
<tr>
<td>MUAC 4930</td>
<td>Conducting Tutorial</td>
<td>12</td>
</tr>
<tr>
<td>&amp; 4930</td>
<td>and Conducting Tutorial</td>
<td></td>
</tr>
<tr>
<td>&amp; 4930</td>
<td>and Conducting Tutorial</td>
<td></td>
</tr>
<tr>
<td>&amp; 4930</td>
<td>and Conducting Tutorial</td>
<td></td>
</tr>
<tr>
<td>&amp; 4930</td>
<td>and Conducting Tutorial</td>
<td></td>
</tr>
<tr>
<td>MUAC 3060</td>
<td>Extra-Musical Roles of the Music Director</td>
<td>6</td>
</tr>
<tr>
<td>&amp; 3060</td>
<td>and Extra-Musical Roles of the Music Director</td>
<td></td>
</tr>
<tr>
<td>&amp; 3060</td>
<td>and Extra-Musical Roles of the Music Director</td>
<td></td>
</tr>
<tr>
<td>&amp; 3060</td>
<td>and Extra-Musical Roles of the Music Director</td>
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</tr>
<tr>
<td>&amp; 3060</td>
<td>and Extra-Musical Roles of the Music Director</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>27</td>
</tr>
</tbody>
</table>

**Minimum number of credits required for the certificate: 27 credits**

**Non-coursework requirements**

• Candidates will be enrolled in the Artist Diploma Program for two years.

• Candidates will make four concert appearances with an appropriate large ensemble, which will be evaluated.

• Candidates will successfully perform one full-length conducting recital while enrolled in the Program.

**Certificate in Music (Artist Diploma Program)**

**Certificate requirements**

**Coursework requirements**

**Core coursework requirements**

Complete all of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC, MUPR, MUEN 3XXX or 4XXX</td>
<td>Upper division Music electives</td>
<td>9</td>
</tr>
<tr>
<td>MUPR 4XXX</td>
<td>Applied Lessons (2 credits per quarter)</td>
<td>12</td>
</tr>
<tr>
<td>MUEN 3XXX</td>
<td>Ensemble/Chamber Music</td>
<td>6</td>
</tr>
</tbody>
</table>
Note: These are minimum hours required. Candidates must enroll for at least one credit hour per quarter for each quarter of study and participate in at least two ensembles per quarter of study.

| Total Credits | 27 |

Minimum number of credits required for the certificate: 27 credits

Non-coursework requirements
- Candidates will perform three juried, full-length solo recitals.
- Candidates will participate in two ensembles each quarter, as assigned by faculty.
- Candidates will participate in the Lamont Honors Competition and the Lamont Chamber Music Competition at least once during enrollment in the Program.

Certificate in Music with a Concentration in Conducting

The Certificate in Music with a concentration in Conducting has three emphases: Choral, Orchestral, or Wind.

Certificate requirements

Coursework requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 4930</td>
<td>Conducting Tutorial</td>
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<tr>
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</tr>
<tr>
<td>MUAC 3060</td>
<td>Extra-Musical Roles of the Music Director</td>
</tr>
<tr>
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<td>MUAC 3060</td>
<td>Extra-Musical Roles of the Music Director</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUEN 3XXX</td>
<td>Ensembles</td>
</tr>
</tbody>
</table>

Candidates will enroll in the appropriate major ensemble for 1 credit hour per quarter for each quarter of study. They must audition for, and if so assigned, play/sing in said ensemble each quarter. Candidates who do not play an appropriate instrument or who are not accepted into the ensemble for any given quarter will fulfill the credit and requirement by attending all rehearsals and concerts, following along in their scores during rehearsals.

Select the two courses outside your emphasis from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3960</td>
<td>Advanced Orchestral Conducting</td>
</tr>
<tr>
<td>MUAC 3961</td>
<td>Advanced Choral Conducting</td>
</tr>
<tr>
<td>MUAC 3962</td>
<td>Advanced Wind Conducting</td>
</tr>
</tbody>
</table>

Total Credits

| Credits | 28 |

Minimum number of credits required for the certificate: 28 credits

Non-coursework requirements
- Candidates will be enrolled in the Certificate Program for two years.
- Candidates will successfully perform one full-length conducting recital while enrolled in the Program.

Certificate in music with a concentration in jazz studies and commercial music

Certificate requirements

Coursework requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUPR 4XXX</td>
<td>Applied Lessons on major instruments</td>
</tr>
<tr>
<td>MUEN 3XXX</td>
<td>Ensembles (as assigned by department chair)</td>
</tr>
</tbody>
</table>

Electives

Select three from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3860</td>
<td>Basic Jazz Improvisation</td>
</tr>
<tr>
<td>MUAC 3870</td>
<td>Jazz Improvisation &amp; Composition</td>
</tr>
<tr>
<td>MUAC 3980</td>
<td>Advanced Jazz Improvisation and Composition</td>
</tr>
<tr>
<td>MUAC 3830</td>
<td>Advanced Jazz Arranging I</td>
</tr>
<tr>
<td>MUAC 3831</td>
<td>Jazz and Commercial Music Orchestration and Arranging</td>
</tr>
</tbody>
</table>
MUAC 3832 Jazz and Commercial Music Orchestration and Arranging

Total Credits 24

Minimum number of credits required for the certificate: 24

Certificate in Orchestral Studies

Certificate requirements

Coursework requirements

<table>
<thead>
<tr>
<th>Applied Lessons on Major Instrument</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUPR 4195 Applied Lessons</td>
<td></td>
</tr>
</tbody>
</table>

Applied Lessons on Orchestral Repertoire | 6 |
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>MUPR 4195 Applied Lessons</td>
<td></td>
</tr>
</tbody>
</table>

Lamont Symphony Orchestra | 3 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MUEN 3760 Lamont Symphony Orchestra</td>
<td></td>
</tr>
</tbody>
</table>

Chamber Music | 3 |
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Chamber Music</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 18

Minimum number of credits required for the certificate: 18

Non-coursework Requirements

- One solo recital consisting of orchestral audition solo repertoire
- Two orchestral audition juries in audition format (winter and spring quarters)
- Candidates will normally be enrolled for one year. However, one may request to remain in school longer with the stipulation that the candidate must enroll in orchestra every quarter during which he/she is on campus.

Certificate in Suzuki Pedagogy for Violin and Cello

Certificate requirements

Coursework requirements

Cello

Suzuki Seminars: 2 credits each quarter | 12 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3463 Suzuki Cello Seminar I</td>
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</tr>
<tr>
<td>MUAC 3464 Suzuki Cello Seminar I</td>
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</tr>
<tr>
<td>MUAC 3465 Suzuki Cello Seminar I</td>
<td></td>
</tr>
<tr>
<td>MUAC 3466 Suzuki Cello Seminar II</td>
<td></td>
</tr>
<tr>
<td>MUAC 3467 Suzuki Cello Seminar II</td>
<td></td>
</tr>
<tr>
<td>MUAC 3468 Suzuki Cello Seminar II</td>
<td></td>
</tr>
<tr>
<td>MUAC 3439 Teaching Note Reading</td>
<td>2</td>
</tr>
<tr>
<td>MUAC 3460 Suzuki Cello Practicum</td>
<td>1</td>
</tr>
<tr>
<td>MUAC 3461 Suzuki Cello Practicum</td>
<td>1</td>
</tr>
<tr>
<td>MUAC 3462 Suzuki Cello Practicum</td>
<td>1</td>
</tr>
<tr>
<td>MUAC 4450 Suzuki Group Lesson Practicum</td>
<td>1</td>
</tr>
</tbody>
</table>

Violin

Suzuki Seminars: 2 credits each quarter | 12 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MUAC 3470 Suzuki Violin Seminar I</td>
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</tr>
<tr>
<td>MUAC 3471 Suzuki Violin Seminar I</td>
<td></td>
</tr>
<tr>
<td>MUAC 3472 Suzuki Violin Seminar I</td>
<td></td>
</tr>
<tr>
<td>MUAC 3282 Suzuki Violin Seminar II</td>
<td></td>
</tr>
<tr>
<td>MUAC 3283 Suzuki Violin Seminar II</td>
<td></td>
</tr>
<tr>
<td>MUAC 3284 Suzuki Violin Seminar II</td>
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</tr>
<tr>
<td>MUAC 3439 Teaching Note Reading</td>
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<tr>
<td>MUAC 3477 Suzuki Violin Practicum</td>
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</tr>
<tr>
<td>MUAC 3478 Suzuki Violin Practicum</td>
<td>1</td>
</tr>
<tr>
<td>MUAC 3479 Suzuki Violin Practicum</td>
<td>1</td>
</tr>
<tr>
<td>MUAC 4450 Suzuki Group Lesson Practicum</td>
<td>1</td>
</tr>
</tbody>
</table>
Minimum number of credits required for the certificate: 18

Music-Academic Classes Courses

MUAC 3002 Form and Analysis (4 Credits)
Analysis of structural elements and stylistic features in solo, chamber and orchestral literature from 1600 to present. Prerequisite: MUAC 2006.

MUAC 3005 Post-Tonal Theory and Analysis: Set-Theory and Serialism (4 Credits)
This course has two components: (1) A study of selected analytical techniques for post-tonal music, primarily pitch-class set theory and twelve-tone (serial) theory; (2) Analysis of representative works from the twentieth century, focusing on the music from the first half of the century (Schoenberg, Berg, Webern, Stravinsky, and Bartok). Six credits of Theory 2 or permission of instructor required.

MUAC 3023 Rhythm & Meter in Tonal Music (4 Credits)
This course gives a general background, including the history of rhythm and meter, different rhythmic analyses, and various topics (dissonance, ambiguity, Schenker, motives, biology, and perception).

MUAC 3024 Introduction to Tonal Analysis (4 Credits)
This course introduces students to various types of musical analysis for tonal music that are more advanced than what is introduced in first- and second-year music theory. Prerequisites: MUAC 2006 and MUAC 2022.

MUAC 3025 Topics in Analysis: Brahms (4 Credits)
This course explores a variety of analytical techniques used to understand the compositions of Brahms. We examine works by musicologists and theorists such as Allen Forte, Walter, Frisch, Arnold Schoenberg, Carl Schachter, and David Lewin. Issues discussed include developing variations, rhythm, form, and ambiguity in Brahms. We cover a wide range of repertoire, ranging from piano works to choral works to symphonies.

MUAC 3030 Seminar-Performance Psychology (2 Credits)

MUAC 3036 Internship (1-5 Credits)

MUAC 3045 Introduction to Studio Recording (3 Credits)
A hands-on introduction to recording popular music in the state of the art Lamont Recording Studio. Students will participate in pre-production and recording of a professional four piece rock band. Students will also learn basic audio theory as it applies to the use of microphones, signal processing, and other studio equipment. Topics to be covered include drum sounds, guitar and bass sounds, basic audio theory and acoustics, basic electricity, digital recording, microphones and DI’s, signal routing in the studio, tracking with ProTools HD and Logic Pro7, equalization, dynamics, reverberation and delay, special effects, mixing to stereo.

MUAC 3059 Audio Production II (4 Credits)
This course covers theory in audio engineering and provides hands-on training in professional audio engineering for studio sessions and live events. Students receive classroom instruction as well as on-site training at Lamont School of Music performances. This is the first sequence in the audio production concentration.

MUAC 3060 Extra-Musical Roles of the Music Director (1 Credit)
Under the supervision and guidance of the director of orchestral studies, students will gain hands-on, actual experience with many of the non-musical tasks that conductors face. These experiences will include managing orchestra personnel, librarian activities, running auditions, and recruiting. Open only to Artist Diploma in orchestral conducting students.

MUAC 3061 Audio Production I (4 Credits)
An introduction to analog and digital synthesis, MIDI sequencing, and DAW software.

MUAC 3064 Audio Production IV (4 Credits)
This course covers theory in audio engineering and provides hands-on training in professional audio engineering for studio sessions and live events. Students receive classroom instruction as well as on-site training at Lamont School of Music performances. This is the third sequence in the audio production concentration.

MUAC 3065 Audio Production V (4 Credits)
This course covers theory in audio engineering and provides hands-on training in professional audio engineering for studio sessions and live events. Students receive classroom instruction as well as onsite training at Lamont School of Music performances. This is the fourth sequence in the audio production concentration.

MUAC 3068 Audio Production for Working Musicians (4 Credits)
In this course, students are taught a solid foundation of basic audio production skills that will enable them to record any style of music. Students are also taught the basics of digital music synthesis and how to create music with digital synthesizers and MIDI. The primary digital audio workstation software used in this course will be ProTools, and each student is required to purchase ProTools (about $250 academic price) and an iLok license dongle (about $40). However, the course has been designed so that skills acquired can be easily applied to any regular DAW platform, such as Logic, Cubase, Ardour, etc. Production techniques for various musical genres will be presented, including Rock, Jazz, Classical, Techno, experimental electro-acoustic, etc. This course will be of great value to performing musicians, singer/songwriters, ensemble directors and conductors, composers, or anyone who wants to record and/or produce music. Students are encouraged but not required to purchase an audio interface and microphone or other input device depending on their area of interest, and are advised in class as to what purchases make sense.
MUAC 3069 Jazz Rhythm Section (4 Credits)
Jazz Rhythm Section provides students with detailed performance practice skills and knowledge. This class may be used to fulfill four hours of Jazz Studies and Commercial Music Area Requirements and may only be taken once for credit. Jazz Studies and Commercial Music Major or the performance ability sufficient to perform on a rhythm section instrument in one of the JSCM ensembles.

MUAC 3092 The Business Side of Music (4 Credits)
A personal and clinical approach to developing music business skills and strategies.

MUAC 3105 Studies in Style: Movement, Mannerisms, Gesture and Physical Comedy (3 Credits)
The exploration of period styles in theatrical and historical genres will be introduced to broaden the singer/actor's repertoire of physical gesture and comedic forms of stage movement. The focus of the course will include studies in rhythm, timing, pacing, musicality and lyricism as these elements apply to heightened expressivity within scene work, character development and ensemble performance. Considerable time will be devoted to the physical practice of related skills as preparation and facilitation of performance projects that will serve as an opportunity for peer observation, group discussion and commentary, and student assessment.

MUAC 3106 The Dynamic Body: Foundations in Movement Methods and Body Awareness Principles (2 Credits)
An introduction to fundamental body awareness principles in relationship to physical performance skills for vocal performance majors. Methods for heightening kinesthetic awareness will be learned in the form of movement explorations, improvisations, structures, and learned phrases to gain somatic insight into the performer's sense of verticality in all places and dimensions of space. The concepts of the body in motion will be a primary context and focus for the progression of studies or 'etudes,' and for the reflective and analytical processes that include observation, journaling, discussion and peer commentary. Studio activities in solo, partnering, and group work will further the student's knowledge of how to become more responsive, expressive, and communicative when interacting with the surrounding environment and with others. Integrated with the body-mind practice and theoretical study, students will be encouraged to inquire, examine and articulate possible philosophies regarding why the mastery of the performer's physical body requires an essential sense of discipline that is cultivated in the performing arts, and how the somatic practices being investigated can serve his/her performance presence and support one's vocal training and health for the long-term.

MUAC 3124 Composition Seminar (1 Credit)
Composition Seminar focuses on the reading and performance of modern scores by Lamont and recognized composers. Any student composing music or wishing to perform new compositions at Lamont may register and participate. Requirements for composers include the completion, rehearsal and performance of a piece of music at the New Music Ensemble concert each quarter. Non-composers are required to rehearse and perform at the New Music Ensemble concert. Composers enrolled in the ensemble may be required to play compositions submitted as well.

MUAC 3165 Music Theater Survey (2 Credits)
A historical overview of the American Broadway musical, performance technique, audition preparation and repertoire. Must be prepared to sing and perform.

MUAC 3166 Music Theater Survey II (2 Credits)
Fundamentals of music theater performance will be addressed through readings of the text, "Acting in Music Theater" by Joe Dee and Rocco dal Vera. Application of these techniques through performance of musical theater literature will be incorporated during the last number of weeks. Additionally, we will highlight prominent composers and their works throughout the quarter.

MUAC 3196 Advanced Composition Tutorial (4 Credits)
MUAC 3200 Recitative in Opera & Oratorio (2 Credits)
The fluid singing of recitative in German, English, Italian and French will be explored and practiced in this class. Students will harmonically analyze examples, add ornamentation, and perform recitative with a knowledge of the translation and emotional content.

MUAC 3234 Cycle of Seasons-Resources (1 Credit)
MUAC 3235 Preschool Music Workshop (3 Credits)
MUAC 3236 Family Music Workshop (1 Credit)
MUAC 3237 Music Makers at the Keyboard (3 Credits)
This 30-hour workshop presents the keyboard method for groups of young beginners ages 5-9.

MUAC 3238 Music Makers at Home & World (3 Credits)
This 30-hour workshop presents the method for a sequential two-year program that guides the musical development of children ages 4-7. Different world cultures are celebrated through music, songs, dances, stories, and rituals.

MUAC 3240 Vocal Pedagogy (2 Credits)
Psychological and physical aspects of teaching of singing.

MUAC 3241 Voice Pedagogy (2 Credits)
Psychological and physical aspects of teaching of singing.
MUAC 3282 Suzuki Violin Seminar II (2 Credits)
MUAC 3283 Suzuki Violin Seminar II (2 Credits)
MUAC 3284 Suzuki Violin Seminar II (2 Credits)
MUAC 3333 Advanced Vocal Pedagogy (2 Credits)
An advanced study of the science behind the singing voice, including the biomechanics of phonation, identifying systems and changes in the voice, posture and breathing that impact phonation, and a physiologic approach to vocal exercises in preparation for teaching voice. Prerequisite: MUAC 3242.
MUAC 3350 Social History-Modern Britain (4 Credits)
This course investigates the intersections of class, gender, and race in nineteenth-century British society. During this period, Britain became the preeminent world power thanks to its spectacular industrialization and its even more impressive empire. Such success often fostered smugness and complacency, yet British society was also riddled with dissension as people struggled to cope with the enormous changes they were witnessing. Discussions focus on the ways in which Victorian people themselves understood their society and its problems, and how they attempted to construct solutions to those problems. Who was implicitly or explicitly excluded from British society? As we consider these topics, we use a variety of secondary and primary sources, including fiction; one goal of the course is for us to think about how to integrate different kinds of sources as we analyze historical problems and create our own interpretations. Cross listed with HIST 3350.
MUAC 3439 Teaching Note Reading (2 Credits)
MUAC 3460 Suzuki Cello Practicum (1 Credit)
MUAC 3461 Suzuki Cello Practicum (1 Credit)
MUAC 3462 Suzuki Cello Practicum (1 Credit)
MUAC 3463 Suzuki Cello Seminar I (2 Credits)
MUAC 3464 Suzuki Cello Seminar I (2 Credits)
MUAC 3465 Suzuki Cello Seminar I (2 Credits)
MUAC 3466 Suzuki Cello Seminar II (2 Credits)
MUAC 3467 Suzuki Cello Seminar II (2 Credits)
MUAC 3468 Suzuki Cello Seminar II (2 Credits)
MUAC 3470 Suzuki Violin Seminar I (2 Credits)
MUAC 3471 Suzuki Violin Seminar I (2 Credits)
MUAC 3472 Suzuki Violin Seminar I (2 Credits)
Comprehensive study of Suzuki philosophy, repertoire and teaching techniques for violin. Offered fall, winter, and spring quarters. May be repeated for credit.
MUAC 3477 Suzuki Violin Practicum (1 Credit)
MUAC 3478 Suzuki Violin Practicum (1 Credit)
MUAC 3479 Suzuki Violin Practicum (1 Credit)
MUAC 3497 Studying Music in the Field: Theory and Method in Ethnomusicology (4 Credits)
This course introduces issues that motivate ethnomusicological research and techniques for carrying out fieldwork, the ethnographic method which has largely come to define the discipline. Our primary texts include Bruno Nettl's classic text, The Study of Ethnomusicology, and Shadows in the Field, a seminal volume of essays discussing ethnomusicological fieldwork. This course also involves hands-on experience in some of the major fieldwork techniques, including field observation and writing fieldnotes, musical transcription and interviewing. This course culminates in a field research project in a Denver musical community determined in consultation with the professor. Note: this course is not open to freshman; sophomores with permission of instructor.
MUAC 3502 Gender & Genre in World Music (4 Credits)
How are concepts of "maleness," "femaleness" and other gendered categories constructed, maintained, and contested through musical performance? This course examines the issues explored and debated in recent studies of gender relation to music of various cultures including Western art music, popular music, and other world genres. We focus on reading and discussion of ethno-musicological and anthropological ethnographies, musicological studies focusing on gender and theoretical writings from gender and women's studies. Lectures and discussions are supplemented by guest lecture-demonstrations, film/video screenings and hands-on workshops. This course is not open to freshman. Sophomores can register with instructor approval.
MUAC 3550 Major Composers-J.S. Bach (4 Credits)
Music of Bach, including chronological development, form and style, studied against background of baroque musical practice and circumstances of Bach's life and temperament. Prerequisites: MUAC 1621, 1622 and 1623.

MUAC 3578 Advanced Composition (4 Credits)
Advanced composition with students composing works of large scope and using a variety of advanced techniques consistent with interests and abilities; emphasis on imagination and originality of personal expression.

MUAC 3579 Advanced Composition (3 Credits)
Advanced composition with students composing works of large scope and using a variety of advanced techniques consistent with interests and abilities; emphasis on imagination and originality of personal expression. May be taken more than once for credit. Prerequisite: MUAC 3020.

MUAC 3590 Guitar History (4 Credits)

MUAC 3600 The Evolution of Rock (4 Credits)
This course traces the history of rock from the Beatles in the early 60's to the most recent developments of the 90's. The course provides a concise overview of this most influential musical phenomenon. Designed for the non-music major, it requires no prerequisites. Classes consist of lectures and listening. All listening examples are available via computer to each student.

MUAC 3630 Basic Jazz Arranging (2 Credits)
A study and practical analysis of the foundational techniques involved with composing and orchestrating for small group jazz ensembles. This course will cover the basics of form, notation, and orchestration in the small group jazz idiom, consisting of one to four horns and/or vocals, guitar, piano, bass, and drums.

MUAC 3650 Orchestral Excerpts-Cello (4 Credits)
This course will explore excerpts from the standard orchestral literature, highlighting favorite audition materials of the major symphony orchestras. Students will be given a list of excerpts and coached on how to prepare them. They will participate in mock auditions and receive feedback. This course will also address the mental aspects involved in taking successful auditions and the expectations demanded of them in the professional world of orchestras.

MUAC 3655 Orchestral Excerpts-Bass (4 Credits)
This course will explore excerpts from the standard orchestral literature, highlighting favorite audition materials of the major symphony orchestras. Students will be given a list of excerpts and coached on how to prepare them. They will participate in mock audition and receive feedback. This course will also address the mental aspects involved in taking successful auditions and the expectations demanded of them in the professional world of orchestras.

MUAC 3660 Orchestral Excerpts-Violin (4 Credits)
This course will explore excerpts from the standard orchestral literature, highlighting favorite audition materials of the major symphony orchestras. Students will be given a list of excerpts and coached on how to prepare them. They will participate in mock auditions and receive feedback. This course will also address the mental aspects involved in taking successful auditions and the expectations demanded of them in the professional world of orchestras.

MUAC 3661 Orchestral Excerpts Viola (4 Credits)
This course explores excerpts from the standard orchestral literature, highlighting favorite audition materials of the major symphony orchestras. Students are given a list of excerpts and coached on how to prepare them. They participate in mock auditions and receive feedback. This course also addresses the mental aspects involved in taking successful auditions and the expectations demanded of them in the professional world of orchestras.

MUAC 3662 Orchestral Studies for Brass (2 Credits)
Study of orchestral literature brass players are likely to be asked to play at auditions for professional orchestras. Undergraduate participants should have passed their Sophomore Proficiency jury with distinction.

MUAC 3663 Orchestral Excerpts, Viola II (4 Credits)
Companion course to Orchestral Excerpts Viola I, this section expands the repertoire list beyond the standard works used for auditions today. In addition to further honing required basic material from section I, students study and prepare less frequently required works and principle viola solo repertoire. There is more extensive discussion of the audition process and mock auditions as a part of the course. While it is advised and preferable that students complete the first section of this course it is possible to take the course with the approval of the instructor.

MUAC 3682 Topics-Orchestral Repertoire (4 Credits)
We explore the history of the orchestra and orchestral literature from the baroque through modern eras, and examine a number of test cases in which conventional understanding has been challenged in recent years. The course concludes with individual research projects and presentations on topics students choose and develop.

MUAC 3683 History of Chamber Music (4 Credits)
Chamber music from baroque trio sonata to contemporary electronic works. Prerequisites: MUAC 1621, MUAC 1622 and MUAC 1623. Winter quarter only.

MUAC 3684 Choral Literature I (2 Credits)
This course is an analysis of the development of choral repertoire from the Middle Ages through the Baroque era.
MUAC 3686 Choral Pedagogy I (2 Credits)
The Choral Pedagogy course focuses on effective choral methods and techniques indigenous to primary schools of thought that have risen to prominence or have proven successful in practice and performance throughout the last 50 years in the academic and professional choral idiom. Through study and analysis of selected works by various composers, effective teaching techniques are explored in performance practice and style interpretation.

MUAC 3688 Choral Pedagogy II (2 Credits)
The Choral Pedagogy course focuses on effective choral methods and techniques indigenous to primary schools of thought that have risen to prominence or have proven successful in practice and performance throughout the last 50 years in the academic and professional choral idiom. Through study and analysis of selected works by various composers, effective teaching techniques are explored in performance practice and style interpretation.

MUAC 3689 Choral Literature II (2 Credits)
This course is an analysis of the development of choral repertoire from the Classical period until the present day. This course is meant to be taken in sequence after Choral Literature I.

MUAC 3698 Carillon History and Mechanics (4 Credits)
A survey of the evolution of signal bells into the musical instrument known as the carillon. This subject is often called “campanology.” The history will be traced from the 16th century in the Low Countries through modern times in Europe, North America, Australia/New Zealand and Japan. Topics will include bell foundries, bell casting and tuning, bell chambers, playing actions, carillonneurs, carillon schools, carillon organizations, the use of the carillon in its various regions and basic carillon maintenance.

MUAC 3700 Carillon Repertoire (4 Credits)
A survey of the music expressly produced for carillon from the earliest times through the present. Categories include automatic music (e.g., De Sany, Wyckaert, Eggert), the earliest compositions for manual play (Van den Gheyn and the Louvain manuscripts of the 18th century), and the 20th-century categories: Flemish, Dutch, French and North American. Mainstream publishers as well as incidental publications will be covered. The labs will focus on analysis through recordings and live performances by participants.

MUAC 3704 Pedagogy & Repertoire Tuba (4 Credits)
Teaching techniques and survey of literature and teaching materials for the tuba.

MUAC 3705 Pedagogy & Repertoire Tuba (4 Credits)
Teaching techniques and survey of literature and teaching materials for the tuba.

MUAC 3706 Pedagogy & Repertoire Tuba (4 Credits)
Teaching techniques and survey of literature and teaching materials for the tuba.

MUAC 3707 Pedagogy & Repertoire Horn (4 Credits)
Teaching techniques and survey of literature and teaching materials for the horn.

MUAC 3708 Pedagogy & Repertoire Horn (4 Credits)
Teaching techniques and survey of literature and teaching materials for the horn.

MUAC 3709 Pedagogy & Repertoire Horn (4 Credits)
Teaching techniques and survey of literature and teaching materials for the horn.

MUAC 3710 Carillon Pedagogy I (2 Credits)
An exploration of the physical and psychological elements that can lead to effective carillon teaching: technique, handling/pedaling ("fingering" on the piano), and developing an attitude that fosters successful performance.

MUAC 3711 Pedagogy & Repertoire Trombone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trombone.

MUAC 3712 Pedagogy & Repertoire Trombone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trombone.

MUAC 3713 Pedagogy & Repertoire Trombone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trombone.

MUAC 3717 Pedagogy & Repertoire Percussion (4 Credits)
Teaching techniques and survey of literature and teaching materials for percussion.

MUAC 3718 Pedagogy & Repertoire Percussion (4 Credits)
Teaching techniques and survey of literature and teaching materials for percussion.

MUAC 3719 Pedagogy & Repertoire Percussion (4 Credits)
Teaching techniques and survey of literature and teaching materials for percussion.

MUAC 3724 Pedagogy & Repertoire Guitar (4 Credits)
Teaching techniques and survey of literature and teaching materials for the guitar.

MUAC 3726 Pedagogy & Repertoire Viola (4 Credits)
Teaching techniques and survey of literature and teaching materials for the viola.
MUAC 3727 Pedagogy & Repertoire Viola (4 Credits)
Teaching techniques and survey of literature and teaching materials for the viola.

MUAC 3730 Pedagogy & Repertoire Cello (4 Credits)
Teaching techniques and survey of literature and teaching materials for the cello.

MUAC 3733 Pedagogy & Rep Double Bass (4 Credits)
Teaching techniques and survey of literature and teaching materials for the double bass.

MUAC 3735 Pedagogy & Repertoire Harp (4 Credits)
Teaching techniques and survey of literature and teaching materials for the harp.

MUAC 3736 Pedagogy & Repertoire Harp (4 Credits)
Teaching techniques and survey of literature and teaching materials for the harp.

MUAC 3737 Pedagogy & Repertoire Harp (4 Credits)
Teaching techniques and survey of literature and teaching materials for the harp.

MUAC 3738 Pedagogy & Repertoire Organ (2 Credits)
Teaching techniques and survey of literature and teaching materials for the organ.

MUAC 3739 Pedagogy & Repertoire Organ (2 Credits)
Teaching techniques and survey of literature and teaching materials for the organ.

MUAC 3740 Pedagogy & Repertoire Organ (2 Credits)
Teaching techniques and survey of literature and teaching materials for the organ.

MUAC 3741 Pedagogy & Repertoire Trumpet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trumpet.

MUAC 3742 Pedagogy & Repertoire Trumpet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trumpet.

MUAC 3743 Pedagogy & Repertoire Trumpet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trumpet.

MUAC 3747 Pedagogy & Repertoire Flute (4 Credits)
Teaching techniques and survey of literature and teaching materials for the flute.

MUAC 3748 Pedagogy & Repertoire Flute (4 Credits)
Teaching techniques and survey of literature and teaching materials for the flute.

MUAC 3749 Pedagogy & Repertoire Flute (4 Credits)
Teaching techniques and survey of literature and teaching materials for the flute.

MUAC 3750 Pedagogy & Repertoire Clarinet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the clarinet.

MUAC 3751 Pedagogy & Repertoire Clarinet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the clarinet.

MUAC 3752 Pedagogy & Repertoire Clarinet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the clarinet.

MUAC 3753 Pedagogy & Repertoire Saxophone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the saxophone.

MUAC 3754 Pedagogy & Repertoire Saxophone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the saxophone.

MUAC 3755 Pedagogy & Repertoire Saxophone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the saxophone.

MUAC 3756 Pedagogy & Repertoire Oboe (4 Credits)
Teaching techniques and survey of literature and teaching materials for the oboe.

MUAC 3757 Pedagogy & Repertoire Oboe (4 Credits)
Teaching techniques and survey of literature and teaching materials for the oboe.

MUAC 3758 Pedagogy & Repertoire Oboe (4 Credits)
Teaching techniques and survey of literature and teaching materials for the oboe.

MUAC 3759 Pedagogy & Repertoire Bassoon (4 Credits)
Teaching techniques and survey of literature and teaching materials for the bassoon.

MUAC 3761 Pedagogy & Repertoire Bassoon (4 Credits)
Teaching techniques and survey of literature and teaching materials for the bassoon.
MUAC 3762 Pedagogy & Repertoire Bassoon (4 Credits)
Teaching techniques and survey of literature and teaching materials for the bassoon.

MUAC 3765 Professional Brass Techniques (4 Credits)
This 4-hour per week course will be divided into a lecture/seminar for two hours and performance practicum for two hours. Topics discussed and performed include orchestral playing, sight reading, practice, solo performance, jazz survival, ornamentation, transposition, and warm-up/maintenance routine.

MUAC 3804 Topics in Music (1-5 Credits)

MUAC 3810 Voice Repertoire (2 Credits)
Styles, periods and traditions of vocal repertoire from earliest music to contemporary compositions.

MUAC 3811 Voice Repertoire (2 Credits)
Styles, periods and traditions of vocal repertoire from earliest music to contemporary compositions.

MUAC 3812 Voice Repertoire (2 Credits)
Styles, periods and traditions of vocal repertoire from earliest music to contemporary compositions.

MUAC 3822 Piano Repertoire I (2 Credits)
Performance and analysis.

MUAC 3823 Piano Repertoire II (3 Credits)
Performance and analysis.

MUAC 3824 Piano Repertoire III (3 Credits)
Performance and analysis.

MUAC 3830 Advanced Jazz Arranging I (2 Credits)
A study and practical analysis of small to medium jazz ensemble writing with extended instrumentation. Consisting of nonette-style orchestration including orchestral instruments such as horn, tuba, woodwinds, and voice along with extended electronic textures, this course will cover the basics of from, notation and orchestration in the 21st Century hybrid small to medium size jazz ensemble idiom.

MUAC 3831 Jazz and Commercial Music Orchestration and Arranging (2 Credits)
A study and practical analysis of large “studio orchestra” type jazz writing with extended instrumentation. Consisting of medium to full orchestral string section, woodwinds, harp, percussion, brass plus jazz rhythm section, voices, and soloists. Exemplified by such modern ensembles as Snarky Puppy with the Metropole Orchestra, this will be a full studio orchestra with modern 21st Century jazz, rock, and pop sensibilities. String bowings and aspects of dynamic ensemble balances in the studio orchestra will be studied, as well as writing for the harp.

MUAC 3832 Jazz and Commercial Music Orchestration and Arranging (4 Credits)
This course offers an in-depth, three term sequence of the theory, forms and styles of commercial music composition. Prerequisite: Satisfactory completion of first- and second-year written and aural theory. Final projects include production of a “studio orchestra” piece and writing for a film, including MIDI and SMPTE technologies.

MUAC 3841 Jazz & Commercial Music History/Repertoire (4 Credits)

MUAC 3842 Jazz & Commercial Music History/Repertoire (4 Credits)
Writing for small and large jazz groups; accompaniment skills; writing for live performance versus writing for recorded performance. Prerequisite: MUAC 3830.

MUAC 3843 Jazz & Commercial Music History/Repertoire (4 Credits)
Writing for small and large jazz groups; accompaniment skills; writing for live performance versus writing for recorded performance. Prerequisite: MUAC 3830.

MUAC 3844 21st Century Artistry I (2 Credits)
21st Century Artistry I is a course of study that examines the full spectrum of attributes and skills necessary for a student to “survive and thrive” in the every-changing landscape of the 21st Century. With a two-fold approach of examining effective strategies for a “modern artistry mindset” along with extensive case studies of successful 21st Century professionals, this course will offer the student a wide array of important recourses to guide their career. The case study aspect of 21st Century Artistry I will be based on multiple evaluations of successful artists in the 21st Century in partnership with local presenters.

MUAC 3845 Writing for The Modern Large Jazz Ensemble I (2 Credits)
A study and practical analysis of the major methods for writing for the modern large jazz ensemble (big band) as exemplified by Frank Foster, Sammy Nestico, Slide Hampton, Bob Brookmeyer and other modern practitioners. Application of analysis will be in the form of a complete arrangement or original composition for modern big band.

MUAC 3846 Writing for the Modern Large Jazz Ensemble II (2 Credits)
A study and practical analysis of the major methods for writing for the modern large jazz ensemble (big band) as exemplified by Bob Brookmeyer, Maria Schneider, Gil Evans, Darcy James Argue, and others. A special emphasis will be placed on creating full works for the large jazz ensemble that uses textures and modern extended form approaches indicative of these artists. Application of analysis will be in the form of a complete arrangement or original composition for modern big band.
MUAC 3847 Hip-Hop: Theory and Practice (4 Credits)
Students in this class will examine the socio-cultural, economic, and political significance of hip-hop as a medium of expression for youth around the world. Through analysis of popular writing and media, as well as academic texts, we critically explore issues of race, social justice, masculinity, misogyny, censorship, technology, and intellectual property, as they relate to mainstream and underground hip-hop in America. Having discussed hip-hop's roots in the U.S., the remainder of the quarter will be devoted to tracing hip-hop's global routes.

MUAC 3860 Basic Jazz Improvisation (4 Credits)
The study of jazz improvisation techniques and forms. Open to music majors or by instructor permission.

MUAC 3870 Jazz Improvisation & Composition (4 Credits)
Improvisational styles of major jazz soloists studied through transcription and analysis of selected recorded jazz solos; scales and modes; rhythmic styles and devices; practice and development of individual student's improvisational technique. Prerequisites: MUAC 1011, MUAC 1012, MUAC 3830.

MUAC 3872 Jazz Improvisation & Composition (4 Credits)
Improvisational styles of major jazz soloists studied through transcription and analysis of selected recorded jazz solos; scales and modes; rhythmic styles and devices; practice and development of individual student's improvisational technique. Prerequisites: MUAC 1011, MUAC 1012, MUAC 3830.

MUAC 3872 Jazz Improvisation & Composition (4 Credits)
Improvisational styles of major jazz soloists studied through transcription and analysis of selected recorded jazz solos; scales and modes; rhythmic styles and devices; practice and development of individual student's improvisational technique. Prerequisites: MUAC 1011, MUAC 1012, MUAC 3830.

MUAC 3910 Orchestration (4 Credits)
Techniques of instrumental scoring.

MUAC 3933 Graduate Music History Review (0 Credits)
MUAC 3935 Graduate Music Theory Review (0 Credits)
This course provides an accelerated review of materials from the undergraduate theory core, including analysis and written exercises in diatonic and chromatic harmony, counterpoint, tonal forms, and an introduction to 20th-Century theory.

MUAC 3959 Movement and Expression for Conductors (2 Credits)
Conductors use their whole body to communicate and elicit successful performances from their ensemble. If you have unnecessary tension or lack of ease in your body, this is communicated unconsciously to your ensemble, hindering quality of performance. Additionally, physical tension can prevent your ability to communicate and think clearly under pressure. This course is an exploration of freedom of movement and the physicality of musical expression. Classes will include group activities in free-movement, dance, acting, keeping your cool, poise, balance, tension release, as well as hands-on instruction applying Alexander technique to your conducting.

MUAC 3960 Advanced Orchestral Conducting (2 Credits)
Discussions of and exercises in score study, interpretation, and techniques associated with orchestral conducting. Includes practical experience conducting orchestral repertoire. Required of MM Conducting students with Choral or Wind concentrations. Open to other students with permission of instructor. Prerequisite: Permission of instructor (not needed for MM Conducting students with Choral or Wind concentration). Fall quarter only.

MUAC 3961 Advanced Choral Conducting (2 Credits)
Conducting complex choral works, including those with instrumental accompaniment; phrasing, interpretation and score reading. Prerequisite: MUAC 2940. Fall quarter only.

MUAC 3962 Advanced Wind Conducting (2 Credits)
Conducting complex wind compositions; phrasing, interpretation and score reading. Prerequisite: MUAC 2970. Spring quarter only.

MUAC 3973 Advanced Wind Literature I (2 Credits)
This course is an overview of wind literature appropriate for junior high school, high school, college and professional programs including strategies in effective programming and creation of appropriate program notes.

MUAC 3974 Advanced Wind Literature II (2 Credits)
An in-depth study of successful compositional techniques by prominent composers of wind literature. Prerequisite: MUAC 3973.

MUAC 3980 Advanced Jazz Improvisation and Composition (4 Credits)
A three term sequence continuing the in-depth study of the theory, performance practices, style, and history of jazz improvisation and composition. Prerequisite: satisfactory completion of the three terms of Jazz Improvisation and Composition or consent of the instructor.

MUAC 3990 Internship in Music (1-8 Credits)
Internship in Music will offer opportunities for music majors to experience actual music related careers within a sponsoring music organization chosen by the student and accepted by the supervising faculty of the School of Music.

MUAC 3991 Independent Study (1-10 Credits)
MUAC 3992 Directed Study (1-10 Credits)
MUAC 4000 Introduction to Graduate Study (2 Credits)
Problems of research in various chronological epochs of Western musical culture; research techniques and sources used in research; formal writing style.

MUAC 4002 Form and Analysis (4 Credits)
Analysis of structural elements and stylistic features in solo, chamber and orchestral literature from 1600 to present. Prerequisite: MUAC 2006.
MUAC 4006 Post-Tonal Theory: Mode/Rhythm (4 Credits)
Works of Stravinsky, Bartok, Satie, Debussy, and others are studied, employing various transformational theories, diatonic set theory, and 20th-century metric theories. Prerequisite: completion of Music Theory I and Music Theory II sequences.

MUAC 4007 Post-Tonal Theory and Analysis: Set-Theory and Serialism (4 Credits)
This course has two components: (1) A study of selected analytical techniques for post-tonal music, primarily pitch-class set theory and twelve-tone (serial) theory; (2) Analysis of representative works from the twentieth century, focusing on the music from the first half of the century (Schoenberg, Berg, Webern, Stravinsky, and Bartok). Six credits of Theory 2 or permission of instructor required.

MUAC 4009 Tonal Counterpoint (4 Credits)
Eighteenth-century counterpoint using J.S. Bach as a model, with two- and three-part fugue writing.

MUAC 4010 Pedagogy of Music Theory (4 Credits)
Materials, devices, techniques of teaching theory. Students must have successfully completed undergraduate music theory or passed graduate review theory.

MUAC 4020 Intro Research in Music Ed (2 Credits)
Foundations in measurement and evaluation of musical behaviors and understanding, using, designing primary research projects in music education.

MUAC 4030 Convocation Attendance (0 Credits)

MUAC 4050 Major Adv Repertoire Guitar (2 Credits)
Bibliographical survey of materials related to particular repertoire chosen by student for MA recital in preparation for major written project at end of year.

MUAC 4051 Major Adv Repertoire Guitar (2 Credits)
Bibliographical survey of materials related to particular repertoire chosen by student for MA recital in preparation for major written project at end of year.

MUAC 4052 Major Adv Repertoire Guitar (2 Credits)
Bibliographical survey of materials related to particular repertoire chosen by student for MA recital in preparation for major written project at end of year.

MUAC 4090 Model Composition (4 Credits)
Students in this course deepen their understanding of musical styles and techniques by composing works that imitate major composers before 1900. Music by each student is performed in a final recital. Prerequisite: Tonal Counterpoint, equivalent coursework from another institution, or permission of instructor.

MUAC 4121 Seminar in Music Theory (4 Credits)
Composition Seminar focuses on the reading and performance of modern scores by Lamont and recognized composers. Any student composing music or wishing to perform new compositions at Lamont may register and participate. Requirements for composers include the completion, rehearsal and performance of a piece of music at the New Music Ensemble concert each quarter. Non-composers are required to rehearse and perform at the New Music Ensemble concert. Composers enrolled in the ensemble may be required to play compositions submitted as well.

MUAC 4161 Topics in 20th-Century Opera (4 Credits)
This course involves the close study of selected twentieth- and twenty-first-century operas, their respective musical styles and their videotaped performances. This study will include such issues as opera and film, opera libretto criticism, and the personal and public politics of the opera.

MUAC 4189 Jazz Performance Techniques (2 Credits)
Individual study of jazz performance techniques in a directed study environment.

MUAC 4196 Graduate Composition Tutorial (2 Credits)

MUAC 4200 Diction-Graduate Voice Majors (2 Credits)
This course is designed to help refine the diction skills of graduate students in voice, with an emphasis on Italian, French and German. Native speakers will be presented, and the student will learn some basic vocabulary and syntactical aspects of the language.

MUAC 4300 Topics in Jazz History (4 Credits)
A seminar focusing on a major figure of jazz history. Detailed examination of a single artist, their life, music and influences.

MUAC 4301 The Michael Brecker Era - Jazz Fusion 1970 to the Present (4 Credits)
An examination of the music of jazz and pop saxophonist Michael Brecker. From the Saturday Night Live Band through performances on over 700 pop, R&B, and jazz recordings, this course will look at the evolution of jazz fusion through this active musical period.

MUAC 4305 Advanced Bebop Concepts (2 Credits)
An in-depth study of the language of bebop jazz improvisation. The course will combine listening, composing and performing skills with theoretical knowledge of the great improvisers of the 1940s and 50s.
MUAC 4350 Talam: Rhythmic Form and Process in South Indian Music (4 Credits)
This course explores the rhythmic system (talam) of Carnatic music, the classical music of Southern India. We begin the quarter with a general introduction to Carnatic music performance, examining its relationship to religious identity, histories of colonialism and nationalism, and social practices of class, caste, and gender. Having contextualized South Indian classical music socio-historically, the remainder of the quarter will focus on theoretical and practical issues in Carnatic talam. Readings and discussions will examine Indian conceptions of time (musical, cosmological, and cultural), the setting of song-texts, the art of improvisation and accompaniment, as well as the relationship between music, dance, and the body. We will also discuss and analyze cross-cultural applications of Carnatic rhythm in the compositions and pedagogies of several rock, jazz, and classical musicians. Weekly modules in solkattu, a system of spoken syllables and patterned hand gestures, will help students build and sharpen rhythmic skills and develop an analytical understanding for the intricacies of Carnatic meter and rhythmic design. Over the quarter, students will learn increasingly challenging exercises and rhythmic compositions in a variety of tala cycles (3, 5, 7, 8, and 9 beats in length). Some class time will be devoted to hands-on instruction in Carnatic percussion, including the mrdangam, the principle drum of South Indian classical music, as well as other hand drums including the khanjira frame drum.

MUAC 4450 Suzuki Group Lesson Practicum (1 Credit)
The Suzuki Group Lesson Teaching Practicum provides an opportunity for Suzuki Pedagogy master’s students and Suzuki Teaching Certificate students to receive feedback on their own group lesson teaching skills from the professor. Prerequisites: MUAC 3478 or MUAC 3461.

MUAC 4492 History of Opera: From Monteverdi to Minimalism and Beyond (4 Credits)
This seminar course surveys the history of opera from the invention of the genre c. 1600 to the present day. In addition to assigned excerpts, students view three complete operas during the quarter. Primary and secondary source readings supplement the required text and class lectures. Students write a research paper that may examine some aspect of a particular opera or that may compare a particular aspect found in several operas. With the prior consent of the instructor, students may submit an alternative final project, one that combines performance with some form of written work.

MUAC 4493 Approaches to American Popular Music (4 Credits)
We explore a number of topics involved in the study of popular music, including tensions between analytical and cultural approaches; issues of race, class, and gender; and constructions of authenticity and personae. Listening and reading are wide-ranging, encompassing diverse styles. The course concludes with individual research projects and presentations on topics students choose and develop.

MUAC 4494 Music and Belief in World Cultures (4 Credits)
How does music affect religious experience and how does religion shape musical practice? Why is music vital in some religious rituals and expressly banned in others? If humans use music to create, reflect, and comment upon the worlds they experience and imagine, then the use of music in religious practice is among its most powerful and ephemeral. Students are introduced to a wide range of musical traditions and their relationship to many of the world’s religions, including Islam, Judaism, Christianity, Buddhism, Hinduism, Native American belief and the religious practices of Africa and its diaspora. Readings, lectures and discussions are supplemented by guest lecture demonstrations, film/video screenings and hands-on workshops.

MUAC 4498 Music, Dance, and Everyday Life in South Asia (4 Credits)
This course serves as an introduction to a diverse array of performance traditions from the South Asian subcontinent. We examine the significance of music and dance in everyday life, the influence of media technology, and the relationship of performance to issues such as caste, gender, nationalism and globalization. Class discussions are supplemented by guest lectures, hands-on workshops and film screenings. Our study of music outweights that of dance, and a music background is strongly encouraged.

MUAC 4499 Topics in Musicology (4 Credits)
This course focuses on particular musicology topics determined by the instructor. Course materials may include primary and secondary source readings, theoretical writings from other disciplines, a variety of listening assignments, film/video screenings, guest lecture demonstrations, and hands-on workshops. Students are expected to participate in class discussions and may be asked to write short response papers and/or to give short oral presentations. The course concludes with individual research projects, presented orally and in written form, on topics chosen and developed in consultation with the instructor. Expectations for graduate students enrolled in the course are commensurate with their training and background as compared to undergraduates enrolled in the course. In some cases, with the prior consent of the instructor, students may choose to combine performance with the final research project.

MUAC 4511 Mahler and Musical Culture (4 Credits)
We explore Gustav Mahler’s life, historical context, and music, all in relation to one another. The focus is on recent and important scholarly approaches to this conductor and composer. The course concludes with individual research projects and presentations on topics students choose and develop.

MUAC 4512 Stories of Music History (4 Credits)
We explore a number of case studies in which “conventional wisdom” about a composer, repertory, or a period of time turns out to be not universally “true,” but instead contingent on cultural context and changing ideologies about music. The course concludes with individual research projects and presentations on topics students choose and develop.

MUAC 4513 Wagner and the Ideology of the Artwork (4 Credits)
We explore Richard Wagner’s music dramas, particularly the Ring operas, as well as theories and ideologies surrounding them. The focus is on recent and important scholarly approaches. The course concludes with individual research projects and presentations on topics students choose and develop.
MUAC 4520 Topics in Hindustani Music (4 Credits)
This course explores the melodic system (raga) and rhythmic system (tala) of Hindustani music, the classical music of North India. These conceptual frameworks act both as sound structures to be realized in improvised performance and as aesthetic entities manifested in the related traditions of dance, iconography, and film. A major emphasis of this course will be developing an understanding of raga and tala as musical structures through intensive listening as well as practical instruction. Accordingly, one class each week is devoted to incorporate hands-on music-making through singing, rhythmic exercises, and dance. By the end of the quarter, students will become familiar with several ragas and talas and the stages by which they are developed in performance. A second, equally important objective is to learn to appreciate ragas as aesthetic entities. We will analyze their musical characteristics as well as the “extra-musical” characteristics of sentiment (rasa), performance time and/or season and iconographic associations (ragamala painting).

MUAC 4521 Topics in Baroque Music (4 Credits)
Through the study of selected Baroque instrumental, vocal and operatic works, this seminar course considers various approaches to performance practice issues such as “authenticity,” the “historically informed” performance, period instruments, ornamentation, continuo realization, and editing. Facsimile editions and primary and secondary source readings serve as the texts for the course. Students write a research paper that examines some aspect of Baroque music with an emphasis on performance practice. With the prior consent of the instructor, students may submit an alternative final project, one that combines performance with some form of written work.

MUAC 4535 Baroque Opera on Stage (4 Credits)
This course will explore aspects of Baroque opera not immediately conveyed by a score - including staging, gesture, scenic design, machinery, theater space, performers response - as they inform our understanding of specific Baroque operas and the cultural context within which they were performed. We will focus on operas by Monteverdi, Cavalli, Purcell, Handel, Lully, Campra and Rameau, among others. Students should expect to participate in class discussions, to write short research papers, to give short oral presentations, and to write a 12 to 15 page paper that examines a Baroque opera or operas in the light of one or more performance considerations. With the prior consent of the instructor, students may submit an alternative final project, one which combines performance with some form of written work.

MUAC 4536 Musics of the African Diaspora (4 Credits)
How have African music-cultures changed in their transitions to new lands? What performative Africanisms have been retained, reconstructed and/or highlighted in the aftermath of legal slavery? And within newer Afro-diasporic communities? What role does musical transmission play in cultural retention and survival? This course will explore the connections and differences in musical practice and worldview throughout the African diaspora. We focus primarily on music-cultures of North, South, and Central America, and the Caribbean, examining traditional forms of music and dance associated with religion and ritual such as Afro-Cuban bata drumming, practices which fuse music and movement such as Afro-Brazilian capoeira, jazz, and popular music such as rap. Lectures and class discussions are supplemented by guest lecture-demonstrations, film/video screenings and hands-on workshops.

MUAC 4541 Mozart’s Piano Concertos (4 Credits)
Cultural context, stylistic sources, stylistic development, meaning, and performance issues with regard to Mozart’s 30 works in the piano concerto genre. Principles for the creation of stylistic cadenzas, lean-ins, embellishments, “white-spot” fill-ins, and basso continuo realizations. Considerations of means for integration aspects of the concertos’ original cultural context into performance for twenty-first-century pianists, orchestral players, and their listeners. Course is designed for both pianists and non-pianists.

MUAC 4542 Beethoven’s Piano Concertos (4 Credits)
Cultural context, stylistic sources, stylistic development, meaning, and performance issues with regard to Beethoven’s works in the piano concerto genre, including the triple concerto and the choral fantasía with piano. Consideration of means of integrating aspects of the concertos’ original cultural context into performance for twenty-first-century pianists, orchestral players, and their listeners. Course is designated for both pianists and non-pianists.

MUAC 4543 Schubert and the Piano: Sonatas and Chamber Music (4 Credits)
Cultural context, stylistic sources, stylistic development, meaning, and performance issues with regard to Franz Peter Schubert’s works in the piano sonata genre - whether for two or four hands - and other closely related genres. Consideration of means for integrating aspects of the works’ original cultural context into performance for 21st-Century pianists and their listeners. Course is designed for both pianists and non-pianists.

MUAC 4544 Advanced Keyboard Repertoire: 2-Piano & 4-Hand (4 Credits)
In this course, pianists will explore 2-piano/4-hand repertoire, and discuss its historical development and use as a pedagogic tool. Students are required to perform in a collaborative recital, in which the repertoire may extend beyond two pianists. This course is designed for piano students and have no prerequisites. Permission of instructor required for non-piano students.

MUAC 4545 The Making of Romantic Music: Paris and Leipzig in the 1830s (4 Credits)
With a view to identifying the various interdisciplinary factors that led to the making of romantic music, this seminar course focuses on musical life in Paris and Leipzig in the 1830s. Specific attention is paid to the music of Chopin, Berlioz, Mendelssohn, and Robert and Clara Schumann and the personal and musical connections between these composers. Primary and secondary source readings serve as the texts for the course. Students write a research paper that examines some aspect of music and/or musical life in the 1830s. With the prior consent of the instructor, students may submit an alternative final project, one that combines performance with some form of written work.

MUAC 4601 Soundpainting: The Study of the Live Composing Sign Language for the Performing and Visual Arts (2 Credits)
In this course, students will study the soundpainting gestural language, a universal live composing sign language for the performing and visual arts.
MUAC 4602 Free Improvisation Techniques (2 Credits)
Free improvisation techniques will explore exercises in Tom Hall’s book Free Improvisation: A Practical Guide. We will also explore how those exercises relate to the broader concepts of improvising as discussed in Stephen Nachmanovich’s landmark book Free Play. This class is best suited for all musicians, especially those who are seeking to expand the way they relate to performing and how performing relates to other aspects of their life.

MUAC 4801 Introduction to Schenkerian Analysis (4 Credits)

MUAC 4831 Prof Found-Piano Pedagogy (2 Credits)
Literature in musical aesthetics, educational philosophy, psychology; curriculum development; group teaching processes; interpretation and technique; foundations of educational research in music; practice teaching of children and adults.

MUAC 4832 Prof Found-Piano Pedagogy (2 Credits)
Literature in musical aesthetics, educational philosophy, psychology; curriculum development; group teaching processes; interpretation and technique; foundations of educational research in music; practice teaching of children and adults.

MUAC 4833 Prof Found-Piano Pedagogy (2 Credits)
Literature in musical aesthetics, educational philosophy, psychology; curriculum development; group teaching processes; interpretation and technique; foundations of educational research in music; practice teaching of children and adults.

MUAC 4837 Pedagogy and Repertoire Organ (2 Credits)
Study of teaching techniques, survey of literature and teaching materials from the 20th and 21st centuries. Prerequisite: MUAC 3740.

MUAC 4840 Piano Teaching Practicum (1 Credit)
Guided observations, lesson planning, practice teaching of students of various developmental age groups using foundations and principles developed in Piano Pedagogy.

MUAC 4841 Piano Teaching Practicum (1 Credit)
Guided observations, lesson planning, practice teaching of students of various developmental age groups using foundations and principles developed in Piano Pedagogy.

MUAC 4842 Piano Teaching Practicum (1 Credit)
Guided observations, lesson planning, practice teaching of students of various developmental age groups using foundations and principles developed in Piano Pedagogy.

MUAC 4850 Sem Piano Ped-Preschool Chld (2 Credits)
Designing piano-centered music education offerings for preschool-aged children. Prerequisites: MUAC 4831, MUAC 4832, MUAC 4833 or equivalent.

MUAC 4851 Sem Piano Ped-Elem Children (2 Credits)
Designing piano-centered music education offerings at elementary level for school-aged children. Prerequisites: MUAC 4831, MUAC 4832, MUAC 4833 or equivalent.

MUAC 4852 Sem Piano Ped-Int Children (2 Credits)
Designing piano-centered music education offerings at intermediate level for school-aged children. Prerequisites: MUAC 4831, 4832, 4833 or equivalent.

MUAC 4853 Sem Piano Pedegogy-Beg/Int Adt (2 Credits)
Designing piano-centered music education offerings at intermediate level for school-aged children. Prerequisites: MUAC 4831, MUAC 4832, MUAC 4833 or equivalent.

MUAC 4854 Sem Piano Ped-Adv Students (2 Credits)
Designing advanced piano instruction for adolescents and adults. Prerequisites: MUAC 4831, MUAC 4832, MUAC 4833 or equivalent.

MUAC 4929 Tutorials-Theoretical Subject (1-5 Credits)
Individual instruction in all areas of music theory with regularly scheduled meetings allowing students to acquire necessary skills to qualify for upper-division and/or graduate courses. Summer session only.

MUAC 4930 Conducting Tutorial (2 Credits)
Private tutorial in orchestral conducting. Open to Orchestral Conducting majors only.

MUAC 4934 Choral Pedagogy (4 Credits)
A comprehensive investigation of the art and science of choral music instruction. Students use philosophical and theoretical learning to develop a practical approach to choral music instruction. Students identify personal strengths in the area of choral music instruction as well as areas for improvement.
MUAC 4991 Independent Study (1-10 Credits)
MUAC 4992 Directed Study (1-10 Credits)
MUAC 4993 Independent Study (1-10 Credits)
MUAC 4995 Thesis Research (1-10 Credits)
MUAC 4999 Graduate Recital (1-10 Credits)
MUAC 5991 Graduate Thesis (1-10 Credits)

Music-Ensembles Courses

MUEN 3025 Ensemble Block (3 Credits)
Required for all incoming first-year music majors.

MUEN 3028 Album Combo (0-1 Credits)
The study and performance of the skills and practices of collective improvisation and composition.

MUEN 3029 Steel Drum Ensemble (0-1 Credits)
The steel drum music of Trinidad and Tobago as well as other styles of music from around the world are studied and performed by this ensemble. Participation in this ensemble does not require music notation. Participation in the ensemble is limited; therefore, students are selected by a simple audition process.

MUEN 3030 Hard Bop Combo (0-1 Credits)
The Hard Bop Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with Hard Bop jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo's Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3031 Bebop Combo (0-1 Credits)
The Bebop Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with Bebop jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo's Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3032 Latin Combo (0-1 Credits)
The Latin Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with Latin jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo's Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3033 Standards Combo (0-1 Credits)
The Standards Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with standard jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo's Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3034 Traditional Jazz Combo (0-1 Credits)
The Traditional Jazz Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with traditional (Dixieland) jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo's Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3035 Fusion Combo (0-1 Credits)
The Fusion Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with fusion jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo's Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3036 Commercial Music Combo (0-1 Credits)
The Commercial Music Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with commercial music repertoire and performance practices. The combo performs one concert each term on campus and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3037 Vocal Repertoire Combo (0-1 Credits)
The Vocal Repertoire Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with vocal jazz solo repertoire and performance practices. The combo performs one concert each term on campus and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3038 Vocal Jazz Combo (0-1 Credits)
The Vocal Jazz Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with vocal jazz repertoire and performance practices. The combo performs one concert each term on campus and frequent concerts in the community and on tour. Admission is by audition.
MUEN 3039 Modal Combo (0-1 Credits)
The Modal Combo is coached by one of our faculty of performing jazz and commercial artists and is concerned with modal jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo’s Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3040 Contemporary Combo (0-1 Credits)
The Contemporary Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with contemporary jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo’s Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3041 North Indian Classical Ensemble (0-1 Credits)
The arts of India are distinguished by their close interrelationship; rhythm, melody and movement are all encompassed by the term “sangeet.” In keeping, DU’s North Indian Classical Ensemble is dedicated to the practice of all three of these arts, through singing, rhythmic recitation and dance. Participation in this ensemble involves studying the ornate and highly refined systems of Hindustani music and Kathak dance. No prior experience is necessary; all that is required is a positive attitude and a desire to learn.

MUEN 3042 Advanced Vocal Jazz Repertoire (0-1 Credits)
This combo is intended for vocal jazz majors who have completed the first year of Vocal Jazz Repertoire and are ready to progress into more advanced repertoire, as well as composing and arranging for small group settings.

MUEN 3043 Senegalese Drum/Dance Ensemble (0-1 Credits)
This ensemble is dedicated to learning the art of sabar dance and drumming, vibrant traditions of the Wolof people of Senegal, West Africa. In Senegal, sabar drums are played exclusively by griots, a caste of hereditary musicians. Sabar drum troupes perform at a variety of events, baptisms, weddings, wrestling matches, political meetings, and neighborhood dance parties. At most of these events, dance is an essential counterpart to drumming. The drum ensemble consists of numerous parts that come together to create complex polyrhythms. Ensemble members learn various drum parts that form rhythms over which a lead drummer solos, and dance movements that accompany these drum rhythms. They also learn bakks, extended musical phrases played in unison, and songs in the Wolof language. This course may be taken multiple times. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3044 Ghanaian Drumming Ensemble (0-1 Credits)
This class provides a practical and theoretical introduction to the drumming and singing traditions of Ghana, West Africa. Through hands-on instruction and oral transmission, students learn ceremonial and recreational music styles of select ethnic groups. Assigned readings, film viewing, guided listening, and in-class discussion familiarizes students with the social and cultural meanings of the musics performed in class. The course culminates in an end of the quarter concert. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3045 Flex Jazz Ensemble (0-1 Credits)
The Flex Jazz Ensemble is a modern jazz group with open-ended instrumentation. The ensemble consists of traditional jazz instruments and vocalists as well as nontraditional jazz instruments (such as double reed, French Horns, strings, etc). While there is no specific instrumentation for the ensemble, the core of the group will always be the traditional modern jazz rhythm section: piano (keys-synth), bass (acoustic and electric), drums (plus an extra percussionist as needed), and guitar (hollow body and Stratocaster-styles with the full range of pedals and gear. With the addition of non-traditional instrumentation, the ensemble reaches out to the classical side of Lamont to give those students a jazz opportunity. Along with the regular fare of programmed concerts, this ensemble also provides opportunities to other departments (theatre, creative writing, studio art, EDP, etc) to incorporate their disciplines in performances.

MUEN 3710 Opera (0-1 Credits)
Practical experience in operatic performance. One production each quarter; major production in winter quarter. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3712 Lamont Chorale (0-1 Credits)
This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3720 Pioneer Pep Band (0-1 Credits)

MUEN 3730 American Heritage Chorale (1 Credit)
This ensemble will explore through choral music the various ways in which music written by American composers has been influenced and has its roots in music from other cultures and regions of the globe. Special attention shall be given to music by African American composers. American Heritage Chorale is open to all students interested in singing. Prior choral experience is not required. A brief vocal interview will determine appropriate placement within the ensemble. The course will conclude with a performance at the end of the quarter. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3740 Lamont Men's Choir (0-1 Credits)

MUEN 3750 Modern Music Ensemble (1 Credit)
The 20th- and 21st-Centuries have produced some of the most expressive, intriguing, and diverse music ever written. In this course, students have the opportunity to prepare and perform chamber music by 20th-Century masters, as well as recent works by living composers and new pieces written for them by students. This repertoire often involved unusual combinations of instruments (potentially including strings, woodwinds, brass, percussion, plucked instruments, keyboards, vocals, and electronics), providing an opportunity for students to work in less familiar ensembles. Students may also participate in the course by conducting or composing. The course is limited to music majors who are graduate students or advanced undergraduate students. Students in their first or second undergraduate year, and music non-majors may enroll with instructor approval.
MUEN 3751 Lamont Jazz Orchestra (0-1 Credits)
This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3752 Lamont Wind Ensemble (0-1 Credits)
Open to all students by audition and approval of conductor; regularly scheduled concerts. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3753 Lamont Jazz Ensemble (0-1 Credits)
Open to all students by audition and approval of director of jazz studies; regularly scheduled concerts. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3754 University Jazz Ensemble (0-1 Credits)
The study of large ensemble jazz works for non-music majors. Must have high school performance ability.

MUEN 3760 Lamont Symphony Orchestra (0-1 Credits)
The LSO generally performs six symphonic concerts and one opera each year. Students are exposed to orchestral repertoire from all periods and styles of music as well as appropriate performance practices associated with each period and style. The LSO is open to all university students by audition. However, because the course objective is to prepare students for successful professional orchestra careers, all participants are held to a very high standard and level of expectation. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3769 Organ Accompanying (0-1 Credits)
Major choral/vocal and major instrumental repertoire with organ accompaniment are studied and prepared for possible performance with chamber groups or local professional/church choirs.

MUEN 3770 Chamber Ensemble-Piano (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3771 Chamber Ensemble-Accordion (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3772 Chamber Ensemble-Harp (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3773 Chamber Ensemble-Brass (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3774 Piano Accompanying (0-2 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3775 Chamber Ensemble-Percussion (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3776 Chamber Ensemble-Strings (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3777 Chamber Ensemble-Woodwind (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3781 Chamber Ensemble-Guitar (0-2 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3800 Vocal Chamber Ensemble (0-1 Credits)
A small group of outstanding singers interested in singing soloist vocal chamber music.

MUEN 3900 Lamont Women's Chorus (0-1 Credits)
This course counts toward the Analytical Inquiry: Society and Culture requirement.

Music-Studio Lessons Courses

MUPR 3120 Alexander Technique (2 Credits)
The Alexander technique is a skill that can be incorporated into practice, performance, and everyday life. Using the principles discovered by F. Matthias Alexander, students will learn how to identify and change faulty patterns of thought and movement. Emphasis will be placed on recognizing how these patterns affect music-making in practice and performance. Lessons are individually tailored and topics may include injury recovery and prevention, pain and tension reduction, stress management, performance anxiety, freeing the breath, using the back effectively, balance, and ease of motion.

MUPR 3121 Alexander Technique (4 Credits)
The Alexander technique is a skill that can be incorporated into practice, performance, and everyday life. Using the principles discovered by F. Matthias Alexander, students will learn how to identify and change faulty patterns of thought and movement. Emphasis will be placed on recognizing how these patterns affect music-making in practice and performance. Lessons are individually tailored and topics may include injury recovery and prevention, pain and tension reduction, stress management, performance anxiety, freeing the breath, using the back effectively, balance, and ease of motion. This class is tailored to the needs of students who are experiencing pain or injury and cannot take their regular studio lesson in a given quarter.
MUPR 3350 Organ Improvisation (2 Credits)
This course is designed for organ students to introduce them to the art of organ improvisation, hymn and ensemble playing, as well as all possible forms of accompaniment. It is meant for undergraduate students (upper division), graduate students, and artist diploma graduates. Prerequisites: knowledge of music history, figured bass, and counterpoint. Permission of instructor required.

MUPR 4191 Jazz Piano (2 Credits)
MUPR 4195 Applied Lessons (2,4 Credits)
MUPR 4210 Piano (2 Credits)
MUPR 4230 Voice (2 Credits)
MUPR 4250 Violin (2 Credits)
MUPR 4251 Violin (2 Credits)
MUPR 4270 Violoncello (2 Credits)
MUPR 4290 Viola (2 Credits)
MUPR 4310 Bass Violin (2 Credits)
MUPR 4312 Jazz Bass (2 Credits)
MUPR 4330 Harp (2 Credits)
MUPR 4350 Organ (2 Credits)
MUPR 4370 Clarinet (2 Credits)
MUPR 4390 Flute (2 Credits)
MUPR 4460 Bassoon (2 Credits)
MUPR 4480 Trombone (2 Credits)
MUPR 4481 Jazz Trombone (2 Credits)
MUPR 4500 Trumpet (2 Credits)
MUPR 4520 Horn (2 Credits)
MUPR 4540 Euphonium (2 Credits)
MUPR 4560 Tuba (2 Credits)
MUPR 4570 Tuba (4 Credits)
MUPR 4600 Classical Guitar (0-2 Credits)
MUPR 4610 Classical Guitar (4 Credits)
MUPR 4621 Jazz Guitar (2 Credits)
MUPR 4660 Percussion (2 Credits)
MUPR 4661 Percussion Set (2 Credits)
MUPR 4671 Percussion Set (4 Credits)
MUPR 4680 Oboe (2 Credits)
MUPR 4780 Saxophone (2 Credits)
MUPR 4900 Carillon (2 Credits)
MUPR 4920 Composition (2 Credits)
One-on-one instruction for composition majors.

Media, Film & Journalism Studies
Office: Media, Film and Journalism Studies Building, Room 127
Mail Code: 2490 S. Gaylord St., Denver, CO 80208
Phone: 303-871-2166
Email: mfjsadm@du.edu
Web Site: http://www.du.edu/ahss/mfjs

Master of Arts in International and Intercultural Communication
The Master of Arts program in International and Intercultural Communication is offered through an interdisciplinary partnership between two large and active entities, the Department of Media, Film & Journalism Studies and the Josef Korbel School of International Studies. Students are able to choose
from the breadth of coursework available in these two entities, while developing their own specific areas of concentration. Additionally, students are able to take advantage of electives and internships to develop expertise in their field of interest.

Graduates of this program are prepared to pursue careers in international and intercultural public relations and marketing, TV, print and Internet journalism, government diplomacy, cross-cultural and diversity training, college teaching and international education, conflict resolution and cross-cultural human resources/organizational communication.

Effective global communication requires that people understand both international and intercultural dynamics and differences. Success is based on communicating goals and bridging differences. Students pursuing the MA-IIC establish a strong theoretical and applied foundation, while learning the nuances of the global environment. They then have an opportunity to extend this interdisciplinary base through courses in business, anthropology, education and other areas.

**Master of Arts in Media and Public Communication**

The Master of Arts in Media and Public Communication is a 48-credit, two year degree program, which equips students with a combination of essential theoretical and practical skills that prepare them for a variety of professional and research careers in the areas of media and communication. Students will examine the production, representation, reception, use and dissemination of media and communication within changing global cultural, political and economic contexts. The program emphasizes the role of media and communication in bridge building and social justice across diverse audiences. Students can choose one of two areas of concentration: Strategic Communication or Media and Globalization. Depending on students’ personal goals and interests, they can opt to complete a master’s thesis or a professional internship as their capstone requirement.

**Concentration in Strategic Communication:** Strategic communication encompasses skills and activities that are traditionally associated with the fields of public relations, advertising, brand management, and marketing communications. The program emphasizes ethical communication and focuses on the nonprofit sector, as well as on international and intercultural issues within strategic communication. Many of the classes in this concentration incorporate applied learning projects in which students work in partnership with nonprofit organizations to develop creative and strategically sound communication campaigns. Students in this concentration will benefit from faculty expertise in nonprofit, international, intercultural, health, corporate, and political communication. Students will integrate theoretical concepts in media and strategic communication with applied research, writing, and messaging skills needed for a successful career in a variety of strategic communication careers in both nonprofit and corporate settings. Student will also gain a solid foundation for pursuing advanced degrees and conducting independent research projects in academic or professional settings.

**Concentration in Media and Globalization:** The concentration in Media and Globalization is designed to address the challenges of the dynamic fields of media and public communication as they relate to cultural, economic and political processes in global contexts. The courses in this concentration prepare students to be globally aware, actively engaged, and media literate citizens and practitioners of media and communication. This concentration emphasizes critical and creative thinking, socially responsible and culturally sensitive practices in the field of public communication, and a deep understanding of the role of media and communication in global social change. Students will benefit from faculty’s research and creative projects in a variety of international locations, including Latin America, Africa, Europe, and Asia, as well as from faculty work with immigrant communities in the U.S. Graduates can pursue careers in international and intercultural strategic communication, public diplomacy, college teaching, and international education. In addition, students will gain a solid foundation for pursuing advanced degrees and conducting independent research projects in academic or professional settings.

**Master of Arts in International and Intercultural Communication**

Following are the simple steps to apply for graduate study in International and Intercultural Communication at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

**Apply Online / Application Deadlines**

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s priority deadline: January 1, for international students seeking fall quarter admission; and, February 15 for domestic students seeking fall quarter admission. Applications are accepted after the priority deadlines if space is available. Applicants for winter and spring quarters should have their applications complete at least two months prior to the start of the quarter.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

**Course and Degree Prerequisites and Requirements**

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree, and, if applicable, a master’s degree from a regionally accredited institution prior to beginning graduate coursework at DU.

**Transcripts** (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.

• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.

• Paper transcripts should be sent to the following address:
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802  
  
  Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the International & Intercultural Communication program is 105 (iBT) or 620 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted is 7.5. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores

• The Graduate Record Examination (GRE) is required and scores generally must be at or above the 50th percentile to be competitive for admission to the program. Scores must be received directly from the appropriate testing agency by the program's stated deadline. The institution code for the University of Denver is 4842.

Personal Statement

• Also required is a personal statement of academic and professional experience and goals and how they relate to the international and intercultural communication program. The statement should be submitted via upload through the online application process.

Recommendation Letters

• Three letters of recommendation are required. Academic references are preferred, although professional references may also be submitted. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid. Some programs provide competitive awards in the form of fellowships and/or assistantships. All applicants are automatically considered for these awards. Contact your academic program for more information.

Application Status

• We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

Contact Information

• Mail official transcripts and any supplemental admission materials not submitted with the online application to:
  
  University of Denver  
  Office of Graduate Studies
International Applicants

- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Arts in media and public communication with a concentration in strategic communication; master of arts in media and public communication with a concentration in media and globalization

Following are the simple steps to apply for graduate study in Media, Film and Journalism Studies at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

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- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- An undergraduate degree in communications is not required for admission to graduate programs in Media, Film & Journalism Studies. However, some prerequisites may be required for the video program.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
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The Graduate Record Examination (GRE) is required and scores generally must be at or above the 50th percentile to be competitive for admission to the program. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

Personal Statement
- A personal statement is required.
- Applicants are encouraged to address these three areas in their statement:
  - Their future career goals.
  - How these goals intersect with the degree they are seeking from the Media, Film & Journalism Studies Department at the University of Denver.
  - Other information relevant to their pursuit of an advanced degree.

Recommendation Letters
- Three letters of recommendation are required and at least one should be academic in nature. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline. It is encouraged that at least two of the letters speak to the applicant’s academic promise.

Financial Support
- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid. Some programs provide competitive awards in the form of fellowships and/or assistantships. All applicants are automatically considered for these awards. Contact your academic program for more information.

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  Denver, CO 80208-4802  

- Electronic transcripts should be sent to gradinfo@du.edu.
- For more information call (303) 871-2706.

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/_graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.
Master of Arts in International and Intercultural Communication

Degree requirements
The MA in International and Intercultural Communication (IIC) requires 60 quarter hours of credit, including two foundation courses, four courses in Media, Film & Journalism Studies MFJS (16 credits), a research methods course, and four in International Studies INTS (20 credits) as well as completing a thesis or an SRP (substantial research paper) and/or an internship (5 credits). Students must demonstrate a two-year proficiency in at least one language other than English.

Coursework requirements
Students should plan ahead to ensure they are able to complete their required courses as some are offered every other year.

Core coursework requirements

I. Department of Media, Film and Journalism Studies requirements (6 courses) 24
Complete the following courses:
- MFJS 4000 MFJS Graduate Assessment Requirement
Required foundational courses:
- MFJS 4650 Global Media and Communication
- MFJS 4654 Intercultural Communication
Complete an additional 4 courses in MFJS

II. Joseph Korbel School of International Studies requirements (4 courses) 20
Depending on substantive interests, a student selects one of the following options (Traditional MA or Professional):

A. Traditional MA option
Complete 2 courses in one concentration plus 2 classes in a second concentration OR students complete 1 core curriculum course plus 3 courses in one concentration.
Core curriculum includes but is not limited to:
- INTS 4900 International Politics
- or INTS 4501 Comparative Politics in the 21st Century
- or INTS 4820 Democracy and War
- or INTS 4822 Contemporary Political Thought
Students must develop a specialization in communication, and one to two specializations in international studies. See the IIC Handbook online for further details. Specialization areas include:
- Human Rights; Development; Global Political Economy; Policy Analysis, International Technology Analysis and Management; Conflict Resolution; Global Environment; International Security; Global Finance, Trade, and Economic Integration; Global Health; and Humanitarian Aid

B. Professional MA option
Students may take 4 courses in one of the designated Program Training Core curricula in one of the professional MA programs in INTS: International Administration; International Public Policy; Development; Global Finance, Trade & Economic Integration; International Health; and Humanitarian Aid. Students choosing this option to fulfill their INTS requirements should work with Tom Rowe, the IIC advisor for INTS coursework; the associate dean; or the student services coordinator, to develop a written plan, and submit a draft to the IIC director. The quarter before the student plans to graduate, s/he should complete a final plan and get Prof. Tom Rowe and his/her IIC advisor in MFJS to sign it. Students who have special needs and interests may prefer to create a custom-designed combination of courses; modifications may be made in these requirements after consultation with Tom Rowe, the associate dean, or the student services coordinator. A signed copy of the modified agreement should be given to the IIC director for the student’s file.
Note: Details on the Traditional or Professional MA options are available from the INTS department and are included in the INTS Student Handbook.

III. Research Methods 4-5
The research methods course may be from MFJS or INTS and counts as one of the 4 courses required in either unit. Advisors must approve research methods courses. Students who wish to take a methods course from another department must receive approval from the IIC director to fulfill this requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MFJS 4260</td>
<td>Qualitative Research Methods</td>
</tr>
<tr>
<td>MFJS 4560</td>
<td>Methods in Communication Research</td>
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<tr>
<td>INTS 4057</td>
<td>Statistics for International Affairs</td>
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<tr>
<td>INTS 4332</td>
<td>Data Analysis and Development</td>
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<tr>
<td>INTS 4333</td>
<td>International Project Analysis</td>
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<tr>
<td>INTS 4423</td>
<td>Introduction to Epidemiology</td>
</tr>
<tr>
<td>INTS 4500</td>
<td>Social Science Methods</td>
</tr>
<tr>
<td>INTS 4575</td>
<td>Systems Thinking for Social Scientists</td>
</tr>
</tbody>
</table>
INTS 4576  Seminar: Community-Based Research Methods
INTS 4632  Qualitative Research Methods: Working with the Denver Immigrant Community
INTS 4644  Human Rights Research Methods
INTS 4966  Applied Field Methods

IV. Thesis or Substantial Research Paper and/or Internship

5
MFJS 4980  Internship
MFJS 4995  Independent Research

V. Electives

Electives may serve as additional coursework needed to reach the minimum number of credits required for the degree. Elective courses must be at the 4000 level. A student is allowed to take one graduate 3000-level course to count towards the 60 hours required. Students should consult the course description in their unit, program, and course schedule prior to enrolling in any 3000-level course to verify it is listed at the graduate level and may count as credit for the graduate degree. 3000-level courses that are not designated as graduate level are not approved to count toward graduate degrees. Consult with the instructor and the IIC director before enrolling in any 3000-level course.

Total Credits

60

Note: The maximum number of credits that will be accepted in transfer toward the degree is 25 credits.

Minimum number of credits required for degree: 60 credits

Non-coursework Requirements:

• Foreign Language Proficiency
• Thesis or Substantial Research Paper (SRP) and/or internship

Foreign Language Proficiency

IIC students must demonstrate proficiency equivalent to approximately two years of college-level coursework in a language other than English. This requirement is waived for IIC-Peace Corps Fellows, as well as international students whose primary language is not English. Ways to demonstrate proficiency include:

1. Course work beyond the two-year level (earned ’B’ or better) within the past three years of initial enrollment in the IIC program. Note: **The school must offer the course according to formal levels or years: for example, when the student finishes a course, the student will be at or beyond the two-year level. If the course was performed at a non-accredited institution (so the courses are not offered by levels), the student must take the proficiency test. Students enrolling in Berlitz Language Learning courses must complete level 4. Most university courses are offered according to year or level, whereas many short-term intensive immersion programs or classes are not.

2. Worked or lived in another culture requiring proficiency at or beyond the two-year level for six months or more within the past three years where the primary language used by the student in the other culture was not English.

3. Taking a foreign language course (see (1) above on type of course) for which completion (and earning a ‘B’ or better) brings the student up to the two-year proficiency level within three years of enrolling in the IIC program or during the program. The classes will not count toward the degree.

4. Taking a foreign language course beyond the two-year level and earning a ‘B’ or better. Students may take 3000-level courses to bring them beyond the two-year proficiency requirement; however the classes will not count as credits toward their degree.

5. Taking and passing the graduate foreign language proficiency exam through the Center for World Languages and Cultures (CWLC).
   a. Students must take the language proficiency exam AT LEAST two quarters prior to their anticipated graduation date. It should be taken as early in your program as possible! Students should contact the CWLC at cwlc@du.edu or 303.871.4601, to register for the exam, for a fee of $50 (cash or a check only). Early registration is appreciated! Contact the CWLC to determine exact dates the Language Proficiency Test is offered each quarter. Students may take the test only one time per quarter, so if the student does not pass the test, s/he will need to wait until the next quarter before taking it again. The test may be taken a maximum of three times.

   Students should submit a memo with written evidence of proficiency to the IIC Director no later than the beginning of the quarter before graduation.

No University of Denver language courses may be counted toward the course requirements of the joint MA program. Students may take language courses to reach or surpass the two-year proficiency level, but these will not count toward the credits required for the degree.

International students whose native language is not English may use that language to meet the requirement, provided they have done academic or professional work in that original language.

Internship

Internships required 40 hours of work per credit (40 x 5 = 200 hours). IIC Peace Corps Fellows are required to complete five credits of internship with a high-needs community in the United States. An internship is registered as a course (MFJS 4980: Internship), and may be taken for 1 to 5 credits during any one term. (Note: For internships at the end of a student’s program, they must be secured or in the process of being secured in the quarter before
Students in the general IIC program may opt to do a thesis instead of an internship, for a total of 5 credits. To begin work on the thesis, the student must first choose an area of interest and develop a research question that will guide the research project. At that time, the student should also choose a thesis advisor with expertise in the student’s interest area. The advisor will help the student to focus the research question and may suggest additional readings or coursework that will help the student develop the thesis project. Students should review the process and policies for the master’s thesis in the Graduate Policy Manual. Students can find “Thesis and Dissertation Formatting Guidelines,” “Thesis Oral Defense Information,” and “Thesis/Dissertation Submission Instructions via ETD” under the “Graduation and Oral Defense Information on this website. The student should meet at least twice with the thesis advisor to finalize a research question and outline the entire project. The student should then begin work on a preliminary proposal which may need to be reviewed by the IIC Graduate Committee (as determined by the thesis advisor and IIC Director), and should include a brief summary of the following:

- research problem or question
- theoretical framework
- preliminary literature review
- methods

The committee will review the proposal and the student’s course record (including grades), consult with the student’s advisor and instructors of courses related to the thesis, and make a recommendation to the student on doing a thesis. If the committee recommends against the student doing a thesis, the student is required to do an internship. A student has the option to revise and resubmit the preliminary thesis proposal one time. Once the preliminary proposal has been approved by the IIC Graduate Committee, the student and advisor will need to select a thesis committee, which includes the advisor and a minimum of two other committee members (at least one Media, Film & Journalism Studies, and one from International Studies; the third may be from either area) who will read the formal research proposal and the final report. These additional members should be contacted and asked if they would be willing to serve on the thesis committee. Having formed the thesis committee, the student should begin work on a formal thesis proposal. The exact form of this proposal will be outlined by the thesis advisor and will vary according to the thesis topic, the specific problem being studied and the methodology proposed to explore that problem. All proposals should include the following (the order may vary):

1. a general introduction to the thesis topic
2. an explication of the problem(s) the research will address (i.e., the purpose of the study)
3. a review of the literature related to the stated problem
4. a clear and succinct statement of the research questions or hypotheses the thesis will address
5. a discussion of the research methods that will be used to explore the questions or hypotheses
6. a description of the material or data that will be examined in order to suggest answers to the research questions or to test the hypotheses
7. if appropriate, a discussion of the contributions the study will make to the existing discourse on the thesis topic.

The student will need to convene the thesis committee for a proposal meeting following completion of the proposal. The committee members should be presented with a draft of the research proposal two weeks prior to this meeting. At the meeting the committee members will question the student on the project’s theory, design, and research methods to ensure that the project is rigorous and of appropriate scope. Revisions to the proposal may be required following this meeting. An approved proposal outlines the specific procedures the student must follow to complete the thesis requirement. Following approval of the research proposal, the student may then proceed to conduct the research described in the proposal, then report and discuss the results in the final written thesis report, which must be approved in an oral defense by the thesis committee. The format of the thesis should follow the guidelines developed by the Office of Graduate Studies exactly.

Substantial Research Paper (SRP)

A Substantial Research Paper is a problem-focused paper designed to engage students in an independent research project that is longer and more in-depth than a class research paper, but less than a thesis project. An SRP does not require a review committee or an oral defense; rather, it will be supervised and graded by a single appointed faculty member.

Students should register for MFJS 4995 for a maximum of 5 credits, allocated in the quarters in which they are actually working on the SRP. It is not permissible to register for credit before work has commenced or after the work has been completed.

To begin work on the SRP, the student must first choose an area of research interest and develop a research question that will guide the research. It may be based on a class research paper that will then be expanded for the SRP. The student should choose an SRP advisor with expertise in the student’s interest area. The advisor will help the student to focus the research question and may suggest additional readings or coursework that will help the student develop the SRP. It is important that the student and faculty advisor establish a reasonable and mutually agreeable timeline for exchanging drafts and comments on the student’s work. The final copy of the SRP should be formatted according to APA, MLA or other guidelines agreed upon with the faculty advisor.
IIC/Peace Corps’ Paul D. Coverdell Fellows Program

In cooperation with the Peace Corps, the Paul D. Coverdell Fellows Program permits students who have completed their service in the Peace Corps to complete the MA in International & Intercultural Communication degree following their service. They receive 10 credits for their Peace Corps service toward the 60 credits required for the degree, leaving 50 credits for the program. In addition, the foreign language proficiency requirement is waived. Students are required to complete an internship with a high needs community in the U.S.

Coursework requirements

Students should plan ahead to ensure they are able to complete their required courses as some are offered every other year.

Core coursework requirements

I. Department of Media, Film and Journalism Studies requirements (6 courses) 24

Complete the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFJS 4000</td>
<td>MFJS Graduate Assessment Requirement</td>
</tr>
</tbody>
</table>

Required foundational courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFJS 4650</td>
<td>Global Media and Communication</td>
</tr>
<tr>
<td>MFJS 4654</td>
<td>Intercultural Communication</td>
</tr>
</tbody>
</table>

Complete an additional 4 courses in MFJS

II. Joseph Korbel School of International Studies requirements (4 courses) 20

Depending on substantive interests, a student selects one of the following options (Traditional MA or Professional):

A. Traditional MA option

Complete 2 courses in one concentration plus 2 classes in a second concentration OR students complete 1 core curriculum course plus 3 courses in one concentration.

Core curriculum includes but is not limited to:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4900</td>
<td>International Politics</td>
</tr>
<tr>
<td>or INTS 4501</td>
<td>Comparative Politics in the 21st Century</td>
</tr>
<tr>
<td>or INTS 4820</td>
<td>Democracy and War</td>
</tr>
<tr>
<td>or INTS 4822</td>
<td>Contemporary Political Thought</td>
</tr>
</tbody>
</table>

Students must develop a specialization in communication, and one to two specializations in international studies. See the IIC Handbook online for further details. Specialization areas include:

- Human Rights; Development; Global Political Economy; Policy Analysis, International Technology Analysis and Management; Conflict Resolution; Global Environment; International Security; Global Finance, Trade, and Economic Integration; Global Health; and Humanitarian Aid

B. Professional MA option

Students may take 4 courses in one of the designated Program Training Core curricula in one of the professional MA programs in INTS:

- International Administration; International Public Policy; Development, Global Finance, Trade & Economic Integration; International Health; and Humanitarian Aid. Students choosing this option to fulfill their INTS requirements should work with Tom Rowe, the IIC advisor for INTS coursework; the associate dean; or the student services coordinator, to develop a written plan, and submit a draft to the IIC director. The quarter before the student plans to graduate, s/he should complete a final plan and get Prof. Tom Rowe and his/her IIC advisor in MFJS to sign it. Students who have special needs and interests may prefer to create a custom-designed combination of courses; modifications may be made in these requirements after consultation with Tom Rowe, the associate dean, or the student services coordinator. A signed copy of the modified agreement should be given to the IIC director for the student’s file.

Note: Details on the Traditional or Professional MA options are available from the INTS department and are included in the INTS Student Handbook.

III. Research Methods 4-5

The research methods course may be from MFJS or INTS and counts as one of the 4 courses required in either unit. Advisors must approve research methods courses. Students who wish to take a methods course from another department must receive approval from the IIC director to fulfill this requirement.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFJS 4260</td>
<td>Qualitative Research Methods</td>
</tr>
<tr>
<td>MFJS 4560</td>
<td>Methods in Communication Research</td>
</tr>
<tr>
<td>INTS 4057</td>
<td>Statistics for International Affairs</td>
</tr>
<tr>
<td>INTS 4332</td>
<td>Data Analysis and Development</td>
</tr>
<tr>
<td>INTS 4333</td>
<td>International Project Analysis</td>
</tr>
<tr>
<td>INTS 4423</td>
<td>Introduction to Epidemiology</td>
</tr>
<tr>
<td>INTS 4500</td>
<td>Social Science Methods</td>
</tr>
<tr>
<td>INTS 4575</td>
<td>Systems Thinking for Social Scientists</td>
</tr>
<tr>
<td>INTS 4576</td>
<td>Seminar: Community-Based Research Methods</td>
</tr>
</tbody>
</table>
INTS 4632  Qualitative Research Methods: Working with the Denver Immigrant Community
INTS 4644  Human Rights Research Methods
INTS 4966  Applied Field Methods

IV. Internship (must be completed with a high needs community in the U.S.)  5
MFJS 4980  Internship

V. Electives
Electives may serve as additional coursework needed to reach the minimum number of credits required for the degree. Elective courses must be at the 4000 level. A student is allowed to take one graduate 3000-level course to count towards the 50 hours required. Students should consult the course description in their unit, program, and course schedule prior to enrolling in any 3000-level course to verify it is listed at the graduate level and may count as credit for the graduate degree. 3000-level courses that are not designated as graduate level are not approved to count toward graduate degrees. Consult with the instructor and the IIC director before enrolling in any 3000-level course.

Total Credits  50

Note: The maximum number of credits that will be accepted in transfer toward the degree is 25 credits

* Check prerequisites for these courses

Minimum number of credits required for degree: 50 credits
Non-coursework Requirements:
  • Internship

Master of Arts in Media and Public Communication with a Concentration in Strategic Communication

Degree Requirements
The MA in Media and Public Communication with a Concentration in Strategic Communication requires 48 quarter hours of credit, as well as completing a thesis or an internship.

Coursework Requirements
Students should plan ahead to ensure they are able to complete their required courses as some are offered every other year.

Required Courses  16

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFJS 4000</td>
<td>MFJS Graduate Assessment Requirement</td>
</tr>
<tr>
<td>MFJS 4160</td>
<td>Media Theories</td>
</tr>
<tr>
<td>MFJS 4560</td>
<td>Methods in Communication Research</td>
</tr>
<tr>
<td>MFJS 4300</td>
<td>Mass Media Law</td>
</tr>
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</table>

Choose one of the following courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFJS 4020</td>
<td>Emergent Digital Cultures</td>
</tr>
<tr>
<td>MFJS 4055</td>
<td>Media and Cultural Studies</td>
</tr>
<tr>
<td>MFJS 4250</td>
<td>Critical Visual Studies</td>
</tr>
<tr>
<td>MFJS 4650</td>
<td>Global Media and Communication</td>
</tr>
<tr>
<td>MFJS 4654</td>
<td>Intercultural Communication</td>
</tr>
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</table>

Concentration Courses  16

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFJS 4050</td>
<td>Foundations of Strategic Communication</td>
</tr>
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Choose 3 of the following courses

<table>
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<tr>
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<th>Title</th>
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<tr>
<td>MFJS 4060</td>
<td>Strategic Messaging</td>
</tr>
<tr>
<td>MFJS 4065</td>
<td>Public Diplomacy and Nation Branding</td>
</tr>
<tr>
<td>MFJS 4070</td>
<td>Seminar in Strategic Communication</td>
</tr>
<tr>
<td>MFJS 4080</td>
<td>Global/Multicultural Campaigns</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>------------</td>
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</tr>
<tr>
<td>MFJS 4165</td>
<td>Global Health and Development Communication</td>
</tr>
<tr>
<td>MFJS 4175</td>
<td>Multicultural Health Communication</td>
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**Electives**

<table>
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<th>Credits</th>
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**Internship or Thesis**

<table>
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<tr>
<th>Credits</th>
<th>4-8</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFJS 4980</td>
<td>Internship</td>
</tr>
<tr>
<td>or MFJS 4995</td>
<td>Independent Research</td>
</tr>
</tbody>
</table>

**Total Credits**

<table>
<thead>
<tr>
<th>Credits</th>
<th>48</th>
</tr>
</thead>
</table>

**Minimum number of credits required for the degree: 48**

**Non-coursework Requirements:**

- MFJS Graduate Assessment
- Internship or Thesis

**MFJS Graduate Assessment**

Students are required to register for the zero credit course entitled MFJS Graduate Assessment (MFJS 4000) during the final year in their program. All students are required to complete the assessment requirements before they graduate.

**Internship**

Internships required 40 hours of work per credit (40 x 5 = 200 hours). An internship is registered as a course (MFJS 4980: Internship), and may be taken for 4 to 8 credits during any one term. (Note: For internships at the end of a student’s program, they must be secured or in the process of being secured in the quarter before graduation.) Students may elect to do an internship with media/communications agencies, non-profit organizations, corporations, or government, located in the Denver area, or elsewhere in the U.S. or abroad. Students are encouraged to do the internship after they have completed at least half of the 48 credits required for the MA degree. All internships will be administered and supervised by the director of internships in the Dept. of Media, Film and Journalism Studies. Students must meet with the internship director in order to obtain approval for an internship.

**Thesis**

Students in the general MFJS may opt to do a thesis instead of an internship, for a total of 4 to 8 credits. To begin work on the thesis, the student must first choose an area of interest and develop a research question that will guide the thesis project. At that time, the student should also identify a faculty member with expertise in their area of interest who is available and willing to work with them as a thesis advisor. The advisor will help the student to focus the research question and may suggest additional readings or coursework that will help the student develop the thesis project. Students should review the process and policies for the master’s thesis in the Graduate Policy Manual. Students can find “Thesis and Dissertation Formatting Guidelines,” “Thesis Oral Defense Information,” and “Thesis/Dissertation Submission Instructions via ETD” under the “Graduation and Oral Defense Information on this website. The student should meet with the thesis advisor to finalize a research question and outline the entire project. The student should then begin work on a preliminary proposal which may need to be reviewed by the MFJS Graduate Committee (as determined by the thesis advisor and MA director), and should include the following:

- research problem or question
- theoretical framework
- preliminary literature review
- methods
- The committee will review the proposal and the student’s course record (including grades), consult with the student’s advisor and instructors of courses related to the thesis, and make a recommendation to the student on doing a thesis. If the committee recommends against the student doing a thesis, the student is required to do an internship. A student has the option to revise and resubmit the preliminary thesis proposal one time. Once the preliminary proposal has been approved by the graduate committee, the student and advisor will need to select a thesis committee, which includes the advisor and a minimum of two other committee members who will read the formal research proposal and the final report. These additional members should be contacted and asked if they would be willing to serve on the thesis committee. Once the thesis committee is formed, the student should begin work on a formal thesis proposal. The exact form of this proposal will be outlined by the thesis advisor and will vary according to the thesis topic, the specific problem being studied and the methodology proposed to explore that problem. All proposals should include the following (the order may vary):

- a general introduction to the thesis topic
- an explication of the problem(s) the research will address (i.e., the purpose of the study)
- a review of the literature related to the stated problem
- a clear and succinct statement of the research questions or hypotheses the thesis will address
- a discussion of the research methods that will be used to explore the questions or hypotheses
- a description of the material or data that will be examined in order to suggest answers to the research questions or to test the hypotheses
- if appropriate, a discussion of the contributions the study will make to the existing discourse on the thesis topic.
• The student will need to convene the thesis committee for a proposal meeting following completion of the proposal. The committee members should be presented with a draft of the research proposal two weeks prior to this meeting. At the meeting the committee members will question the student on the project’s theory, design, and research methods to ensure that the project is rigorous and of appropriate scope. Revisions to the proposal may be required following this meeting. An approved proposal outlines the specific procedures the student must follow to complete the thesis requirement. Following approval of the research proposal, the student may then proceed to conduct the research described in the proposal, then report and discuss the results in the final written thesis report, which must be approved in an oral defense by the thesis committee. The format of the thesis should follow the guidelines developed by the Office of Graduate Studies exactly.

Master of Arts in Media and Public Communication with a Concentration in Media and Globalization

Degree Requirements
The MA in Media and Public Communication with a Concentration in Media and Globalization requires 48 quarter hours of credit, as well as completing a thesis or an internship.

Course Requirements
Students should plan ahead to ensure they are able to complete their required courses as some are offered every other year.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<td>MFJS 4300</td>
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</tr>
<tr>
<td>MFJS 4560</td>
<td>Methods in Communication Research</td>
</tr>
</tbody>
</table>

Choose One of the Following Courses:

<table>
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<tbody>
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<td>MFJS 4020</td>
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<td>MFJS 4055</td>
<td>Media and Cultural Studies</td>
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<td>MFJS 4250</td>
<td>Critical Visual Studies</td>
</tr>
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<td>MFJS 4650</td>
<td>Global Media and Communication</td>
</tr>
<tr>
<td>MFJS 4654</td>
<td>Intercultural Communication</td>
</tr>
</tbody>
</table>

Concentration Courses

Choose 4 of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFJS 4065</td>
<td>Public Diplomacy and Nation Branding</td>
</tr>
<tr>
<td>MFJS 4165</td>
<td>Global Health and Development Communication</td>
</tr>
<tr>
<td>MFJS 4255</td>
<td>Space, Place and Globalization</td>
</tr>
<tr>
<td>MFJS 4567</td>
<td>Networked Media and Social Justice</td>
</tr>
<tr>
<td>MFJS 4652</td>
<td>Culture, Gender, and Global Communication</td>
</tr>
<tr>
<td>MFJS 4653</td>
<td>Language, Power, and Globalization</td>
</tr>
<tr>
<td>MFJS 4654</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>MFJS 4655</td>
<td>Multicultural Journalism</td>
</tr>
<tr>
<td>MFJS 4912</td>
<td>Seminar in Media Film &amp; Journalism Studies (Cross-Cultural Travel Seminar)</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFJS 4980</td>
<td>Internship</td>
</tr>
<tr>
<td>or MFJS 4995</td>
<td>Independent Research</td>
</tr>
</tbody>
</table>

Total Credits: 48

Minimum number of credits required for the degree: 48

MFJS 4654 may count as either a required course or a concentration course, but not both.

Non-coursework Requirements:
• MFJS Graduate Assessment
• Internship or Thesis

MFJS Graduate Assessment
Students are required to register for the zero credit course entitled MFJS Graduate Assessment (MFJS 4000) during the final year in their program. All students are required to complete the assessment requirements before they graduate.

Internship

Internships required 40 hours of work per credit (40 x 5 = 200 hours). An internship is registered as a course (MFJS 4980: Internship), and may be taken for 4 to 8 credits during any one term. (Note: For internships at the end of a student’s program, they must be secured or in the process of being secured in the quarter before graduation.) Students may elect to do an internship with media/communications agencies, non-profit organizations, corporations, or government, located in the Denver area, or elsewhere in the U.S. or abroad. Students are encouraged to do the internship after they have completed at least half of the 48 credits required for the MA degree. All internships will be administered and supervised by the director of internships in the Dept. of Media, Film and Journalism Studies. Students must meet with the internship director in order to obtain approval for an internship.

Thesis

Students in the general MFJS may opt to do a thesis instead of an internship, for a total of 4 to 8 credits. To begin work on the thesis, the student must first choose an area of interest and develop a research question that will guide the thesis project. At that time, the student should also identify a faculty member with expertise in their area of interest who is available and willing to work with them as a thesis advisor. The advisor will help the student to focus the research question and may suggest additional readings or coursework that will help the student develop the thesis project. Students should review the process and policies for the master’s thesis in the Graduate Policy Manual. Students can find “Thesis and Dissertation Formatting Guidelines,” “Thesis Oral Defense Information,” and “Thesis/Dissertation Submission Instructions via ETD” under the “Graduation and Oral Defense Information” on this website. The student should meet with the thesis advisor to finalize a research question and outline the entire project. The student should then begin work on a preliminary proposal which may need to be reviewed by the MFJS Graduate Committee (as determined by the thesis advisor and MA director), and should include the following:

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- preliminary literature review
- methods
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- a general introduction to the thesis topic
- an explication of the problem(s) the research will address (i.e., the purpose of the study)
- a review of the literature related to the stated problem
- a clear and succinct statement of the research questions or hypotheses the thesis will address
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- if appropriate, a discussion of the contributions the study will make to the existing discourse on the thesis topic.
- The student will need to convene the thesis committee for a proposal meeting following completion of the proposal. The committee members should be presented with a draft of the research proposal two weeks prior to this meeting. At the meeting the committee members will question the student on the project’s theory, design, and research methods to ensure that the project is rigorous and of appropriate scope. Revisions to the proposal may be required following this meeting. An approved proposal outlines the specific procedures the student must follow to complete the thesis requirement. Following approval of the research proposal, the student may then proceed to conduct the research described in the proposal, then report and discuss the results in the final written thesis report, which must be approved in an oral defense by the thesis committee. The format of the thesis should follow the guidelines developed by the Office of Graduate Studies exactly.

Courses

MFJS 3120 Media Ethics (4 Credits)
Analysis of problems affecting mass communications profession that result from interaction among governmental, legal, institutional and socioeconomic forces in mass communications systems. Senior standing required.
MFJS 3150 Activist Media: A Historical Overview 1960-Present (4 Credits)
Today’s alternative cultures use internet and mobile technologies to access and circulate mainstream information, but also to rapidly exchange information that exists outside mainstream media channels. Activist movements today with access to digital tools and networks are no longer dependent on newspapers and broadcast networks to represent them and to disseminate their messages. We are, however, just beginning to see how the proliferation of alternative networks of communication, and the content, practices, and identities they facilitate, interact with traditional political and business organizations, as well as with traditional media products and practices. This course focuses on media activism over the past half-century tied to various social movements with an emphasis on contemporary protest movements and their use of new and old media tools and strategies. Cross listed with EDPX 3725, MFJS 4725. Prerequisite: junior standing or permission of instructor. MFJS, SCOM, MDST, COMN, JOUR, MCOM, IIC, or DMST majors only.

MFJS 3160 Networked Journalism (4 Credits)
This course traces the shift that has taken place over the past 15 years from mass-mediated journalism to networked journalism, with emphasis on experiments in citizen and participatory news and on the changing relationship between journalists and their publics. It explores emergent communication technologies and practices and how they are changing the news media landscape. Prerequisite: junior standing or permission of instructor. MFJS, SCOM, MDST, COMN, JOUR, MCOM, IIC, or DMST majors only.

MFJS 3201 Digital Graphic Design (4 Credits)
Students explore digital publication and graphic design, from printed layouts (newspaper and magazines) to digital packages (eBooks and mobile apps). Courses focuses on raster and vector tools to create effective presentations and user interfaces. Laboratory fee required. Prerequisites: MFJS 2140.

MFJS 3203 Women and Film (4 Credits)
This course explores the major intersections of the terms "women" and "film." It is concerned, for example, with the representation of women in film, both in the dominant Hollywood cinema and in alternative filmmaking practices (independent, experimental, documentary, and other national cinemas), with films by women and with women as cinema viewers or spectators. This course examines a variety of feminist approaches (historical, critical, theoretical) relevant to the subject matter. Lab fee. Cross listed with GWST 3203. Prerequisites: MFJS 200 or GWST 1112 or permission of instructor.

MFJS 3204 Film & Broadcast Documentary (4 Credits)
An historical study of documentary film and video, from the films of the Lumiere brothers to contemporary examples. Issues explored include: the nature of documentary and what distinguishes it from fiction, the development of documentary modes or styles, propaganda and ideology in documentary film, ethics, borderline forms that combine documentary and fiction, and documentary’s role in supporting established institutions and regimes and/or promoting social change. Lab fee required. Prerequisite: Permission of instructor.

MFJS 3205 International & Development Communication (4 Credits)
The course uses a variety of methods and approaches to inspire critical reflection about the complex relationship between communication, culture, media and globalization, (trans)national identity(ies) and development.

MFJS 3206 Film History I: Silent Cinema (4 Credits)
This course explores the international history of film, from the origins of cinema through the late silent period. We examine the ways in which important events such as massive immigration, the Progressive movement, colonialism, World War I, modernism, and the Bolshevik Revolution have altered the face of film history, and look at some of the most important cinematic movements of the period. We discuss film historiography and the special challenges posed by film historical research and writing. Lab fee required. Note: This course is writing-intensive. Prerequisite: Permission of the instructor.

MFJS 3208 Narrative and Longform Journalism (4 Credits)
Students spend time learning the nature and functions of in-depth news reporting for online and print, with a focus on magazine-style feature article writing and editing. Laboratory fee required. Prerequisite: MFJS 2140.

MFJS 3212 Film History II: Sound Cinema (4 Credits)
This course explores the international history of film, from the development of sound cinema through the post-World War II period, 1926-1960. We examine the ways in which important events such as the Great Depression, the rise of fascism, the Second World War, and the Cold War have altered the face of film history, and look at some of the most important cinematic movements of the period. We discuss film historiography and the special challenges posed by film historical research and writing. Lab fee required. Prerequisite: Permission of the instructor.

MFJS 3216 Film History III: Contemporary Cinema (4 Credits)
This course explores the history of film from 1960 to the present. We examine the ways in which important events such as the Cold War, struggles against colonialism, the Vietnam War, globalization, and the rise of religious fundamentalisms have altered the face of film history and look at some of the most important cinematic movements of the period. We discuss film historiography and the special challenges posed by film historical research and writing. Note: Lab fee required. This course is writing-intensive. Lab fee required. Prerequisite: Permission of the instructor.

MFJS 3224 Introduction to 16mm Film and HD Digital Cinematography (4 Credits)
This course focuses on the visual aspects of telling a cinematic Story. Students learn the basics of black and white cinematography using 16mm film cameras and/or the basics of color cinematography using high definition digital cameras. The class emphasizes silent storytelling, using lighting, art design and camera movement to develop character and theme. Students read from seminal film theorists about varying approaches to cinematography and write analyses of their own work. Lab fee required.
MFJS 3229 Video Editing is for Everybody (4 Credits)
The goal for this course is for students to have a basic working knowledge of editing using various media elements (video, audio, photos, music, graphics), developing proficiencies using different editing software, and applying a mixture of editing theories and techniques. This is a summer course only.

MFJS 3301 Culture Jamming (4 Credits)
"Culture Jamming" describes a set of tactics that certain artists, activists, filmmakers, musicians and journalists use to subvert power structures through appropriation, re-use or re-contextualization of dominant media influences. Students study the cultural context of (to name just a few topics) graffiti art, musical mashups, the re-editing of film and video, flash mobs, media interventions, drop-lifting, and the critical graphic design and journalism of publications like Adbusters.

MFJS 3310 Advanced Newswriting & Reporting (4 Credits)
Application of investigative techniques to interpretive reporting in areas of contemporary social concern. Laboratory fee required. Prerequisite: MFJS 2140.

MFJS 3320 Screenwriting for TV & Film (4 Credits)
This course leads students through advanced screenwriting formats based on instructor expertise. Lab fee required. Prerequisite: MFJS 2150.

MFJS 3330 Broadcast & Video Journalism (4 Credits)
Students in this course learn and practice the techniques used by broadcast journalists as they write, shoot and edit news packages for television. Laboratory fee required. Prerequisite: MFJS 2140.

MFJS 3501 Web Design & Content Development (4 Credits)
This course covers the building and management of web pages. Students must be comfortable planning, creating and integrating social media and third-party content into web sites, along with analytical tools that measure audience engagement. Laboratory fee required. Prerequisite: MFJS 2140 and MFJS 2240.

MFJS 3504 Advanced Multimedia Storytelling and Publishing (4 Credits)
This course leads students to the reporting, writing, editing and multimedia production and editing skills and knowledge learned and practiced in previous journalism studies classes and apply them to building from scratch, an open content management based multimedia web site. Laboratory fee required. Prerequisites: MFJS 2140 and MFJS 2240.

MFJS 3600 Introduction to 3D Modeling (4 Credits)
This course will serve as an introduction to 3D modeling, texturing, and lighting on the computer. Students will complete a series of projects in which the processes of preparing and producing a 3D piece will be explored. Various strategies and techniques for creating detailed models to be used in animation and games will be examined. Additional attention will be spent on virtual camera techniques as well as the use of compositing in creating final pieces. Current trends in the field will be addressed through the analysis and discussion of current and historical examples. Prerequisites: MFJS 2110, DMST 2100, DMST 4100 or permission of instructor. Cross-listed with DMST 3600, DMST 3630, EDPX 3600, EDPX 4600, MCOM 3600, MFJS 3630. MFJS, SCOM, MDST, MCOM, IIC, JOUR, COMN and DMST majors only.

MFJS 3852 Advanced Design, Layout, and Editing (4 Credits)
This course teaches students advanced layout and design for media publications using contemporary software applications for journalists and public relations professionals.

MFJS 3900 Topics in Media Film & Journalism (1-4 Credits)

MFJS 4000 MFJS Graduate Assessment Requirement (0 Credits)
This zero credit hour course is designed to enable graduate students enrolled in the Department of Media, Film and Journalism Studies’ M.A. in Media and Public Communication and the M.A. in International and Intercultural Communication degrees to complete an assessment file prior to their graduation. The requirement does not take place in conjunction with a single quarter but is rather completed throughout the student’s academic career according to the required coursework within both the M.A. in IIC and M.A. in MEPC (Media and Globalization or Strategic Communication concentration).

MFJS 4020 Emergent Digital Cultures (4 Credits)
This course introduces graduate students to some of the major historical, cultural, sociopolitical, philosophical, and other critical trends in this field of digital media. The rapid growth of participatory culture online has significant social implications and brings up issues of privacy, consumer power, intellectual property, and the nature of community and public engagement. This class will explore these issues as they manifest in various cases including politics, intellectual property, youth culture, activism, journalism and art. Particular emphasis will be placed on the question of how new media differs from mass media across various fields of cultural production (music, news, advertising, for example) and on what influence new digital products and practices might have on these industries and on cultures and societies more generally.

MFJS 4050 Foundations of Strategic Communication (4 Credits)
Focuses on understanding and implementing public communication campaigns. Central to the course is the exploration of the theoretical social science framework underlying communication campaigns and examination of the ways theories are used to define and explain communication problems and to plan and evaluate campaigns.
MFJS 4055 Media and Cultural Studies (4 Credits)
This class surveys key ideas and authors in the interdisciplinary field of cultural studies with a focus on their contributions to the study of media and communication. Some theoretical concepts to be discussed include: representation, identity, cultural production, ideology, hegemony, intersectionality, and power as these relate to the analysis of media institutions, technologies, cultures, audiences/users, texts, and artifacts. Students will develop an understanding of cultural studies as a theoretical, methodological, and political project, devoted to social critique and transformative praxis.

MFJS 4060 Strategic Messaging (4 Credits)
Continues the focus on learning and applying public relations techniques, emphasizing media relations and media writing. Students develop the ability to formulate and evaluate appropriate communication objectives, strategies, and tactics in response to real-world public relations problems, paying attention to ethical considerations. Students produce a portfolio of written public relations materials. Prerequisite MFJS 4050 or permission of instructor.

MFJS 4065 Public Diplomacy and Nation Branding (4 Credits)
Drawing on research from strategic communication, cultural studies, international relations, and marketing, this interdisciplinary course examines how nation-states strive to manage their reputations and increase their influence in the context of globalization and mediatization. Students will learn about the evolution of public diplomacy and nation branding from the Cold War to present day and will discuss current developments and challenges. The course will introduce several theoretical approaches and will use a variety of case studies to help students gain insights into public diplomacy and nation branding as fields of research and of practice.

MFJS 4070 Seminar in Strategic Communication (4 Credits)
Through a combination of course readings, case study analyses and guest speakers, students will observe and learn about the practice of public relations in the health and nonprofit sectors. Students will also learn about the goals, challenges and opportunities specific to these sectors. Prerequisite: MCOM/MFJS 4060 or permission of instructor.

MFJS 4080 Global/Multicultural Campaigns (4 Credits)
Explores aspects of international and intercultural public relations, including intercultural communications issues, international media issues, international corporate PR, cross-cultural and diversity training, international media relations, and international public relations of governments. The class focuses on relevant theories and issues, rather than on techniques. Prerequisite MFJS 4050 or permission of instructor.

MFJS 4140 Issues in Mass Communication History (4 Credits)
This course examines historically the interplay of economic, social, political and cultural aspects of communications technologies, media production and media institutions. The course deals primarily with American media history; some attention will be paid to media history in other countries.

MFJS 4160 Media Theories (4 Credits)
Surveys a number of theoretical approaches to the study of media and mass communication, paying attention to the historical context in which they arise. Students explore the relationships among media technologies, institutions, content, and audiences as well as their impacts on culture and society. The class prepares students to formulate theoretically grounded research questions within the field of media and mass communication.

MFJS 4165 Global Health and Development Communication (4 Credits)
This course will begin with an overview of Health Communication in the United States and the ways in which health and illness are defined through communication, including media. We will discuss existing health disparities and social determinants of health as we examine health communication in multicultural settings in the U.S. We will further examine multicultural audiences and perspectives about health and illness, including diverse meaning systems and their influences on health attitudes and behaviors. Students will learn about cross-cultural concepts of health and disease and how those are represented in communication about health and illness. As students learn about what it means to develop culturally grounded communication programs, they will examine culture centric messaging in health promotion. We will also discuss the ways in which health care systems are promoting patient-centered, culturally sensitive health care.

MFJS 4175 Multicultural Health Communication (4 Credits)
The course will begin with an overview of Health Communication in the United States and the ways in which health and illness are defined through communication, including media. We will discuss existing health disparities and social determinants of health as we examine health communication in multicultural settings in the U.S. We will further examine multicultural audiences and perspectives about health and illness, including diverse meaning systems and their influences on health attitudes and behaviors. Students will learn about cross-cultural concepts of health and disease and how those are represented in communication about health and illness. As students learn about what it means to develop culturally grounded health communication campaigns, they will examine culture centric messaging in health promotion. We will also discuss the ways in which health care systems are promoting patient-centered, culturally sensitive health care.

MFJS 4200 Topics in Mass Communications (4 Credits)

MFJS 4218 Narrative Film/Video Production I (4 Credits)
This is the first of a two-course capstone sequence focused on the filmmaking process and the completion of a short narrative film. Using an intensive workshop method, the class examines the scriptwriting and pre-production processes, and students finish the quarter with a completed pre-production notebook that includes a shooting script, a producer analysis, a script breakdown, production boards, casting decisions, location scouting reports and a shooting schedule. Likewise, through readings, discussions and screenings, the course is designed to expose students to the larger world of narrative filmmaking. Lab fee required. Cross-listed with MFJS 3218. Prerequisites: MFJS 4450 and MFJS 4470 or permission of the instructor.
**MFJS 4219 Documentary Film/Video Production I (4 Credits)**
This is the first of a two-course capstone sequence focused on the filmmaking process and the completion of a short documentary film. This course focuses on historical modes and styles of documentary, ethics, and documentary pre-production. Students pitch films, form filmmaking teams and research and write a proposal for their films. Reflective writing about process and outcome anchors student learning. Lab fee required. Cross listed with MFJS 3219. Prerequisites: MFJS 4470 or permission of instructor.

**MFJS 4220 Narrative Film/Video Production II (4 Credits)**
This is the second of a two-course capstone sequence focused on the filmmaking process and the completion of a short narrative film. The class uses an intensive workshop method to hone work on films pre-produced in Narrative Film/Video I. Specifically, students focus on shooting, directing, editing and sound development for their short narrative film. Lab fee required. Prerequisites: MFJ 4450, MFJS 4470, and MFJS 4218.

**MFJS 4221 Documentary Film/Video Production II (4 Credits)**
This is the second of a two-course capstone sequence focused on the filmmaking process and the completion of a short documentary film. The course focuses on documentary structure, production and post-production. Additionally, using an intensive workshop style, students, critique their own and each other's work. Reflective writing about process and outcome anchors student learning. Lab fee required. Prerequisites: MFJS 4470 and MFJS 4219.

**MFJS 4222 Experimental Theory and Production (4 Credits)**
This course is an historical, critical overview of experimental film/video movements; training in experimental projection techniques; production of own experimental projects. Lab fee required. Cross listed with MFJS 3222. Prerequisite: MFJS 4470 or permission of instructor.

**MFJS 4223 Advanced Editing (4 Credits)**
Building on the basic non-linear editing skills gained in Introduction to Field Production and Editing, this course focuses on advanced editing techniques including image and sound manipulation that utilize rhythmic, graphic, metaphorical, temporal and spatial approaches. In addition, the class addresses advanced sound sweetening and image color correction. Students read from seminal film theorists about varying approaches to editing and write analyses of their own work. Lab fee required. Cross listed with MFJS 3223. Prerequisite: MFJS 4470 or permission of instructor.

**MFJS 4225 Space, Place and Globalization (4 Credits)**
This graduate seminar introduces students to the major theories of culture and to various critical approaches to media and communication.

**MFJS 4226 Qualitative Research Methods (4 Credits)**
Surveys interpretive critical theories and methods, which may include participant observation, ethnography, textual analysis, reception or audience studies, historiography, semiotics, and feminist studies. The class also prepares students to write a thesis proposal. Prerequisite MFJS 4250 or permission of instructor.

**MFJS 4230 Mass Media Law (4 Credits)**
Introduction to freedom of expression and media law. Students learn how the American legal system works and gain an understanding and appreciation of the philosophical foundations of free expression. In addition, students confront many of the issues facing professional communicators today. Topics include incitement, hate speech, student speech, copyright, defamation, and other issues crucial to mass media professionals. The course examines also explores challenges to free expression brought by new(er) communication technologies. The purpose of this course is to give students the knowledge and critical thinking skills needed to be successful in today's rapidly changing communication environment. Cross-listed with MFJS 3040.

**MFJS 4231 New Media Law & Regulation (4 Credits)**
Examination of current conflicts in mass communications law. Particular emphasis is given the legal problems of communications technologies. Topics may include libel, privacy, obscenity, news gathering, copyright, media ownership and comparative approaches to media law. The course provides insight into how the legal process works and an understanding of the principles and philosophies that underlie the restraints on new communication technologies.

**MFJS 4232 Brands and Identities (4 Credits)**
Reviews theories and cases of the role and meaning of brands in a consumer society, with a particular emphasis on understanding how brands are implicated in the construction and presentation of personal and group identities. The course combines insights from marketing, social psychology, and cultural studies to explore the importance of brands for both consumers and practitioners. Students master core branding concepts and use them to critically analyze salient social and cultural issues.
MFJS 4450 Scriptwriting (4 Credits)
Utilizing film and written texts, this course examines the fundamentals of narrative scriptwriting. Students produce a short narrative script (10-15 pages) while learning about the various processes involved in this art form. Cross listed with MFJS 2150. Lab fee required.

MFJS 4470 Introduction to Field Production and Editing (4 Credits)
This course focuses on the complete production process: pre-production (planning), production (lighting, shooting and sound gathering) and post-production (editing). The goal of the course is for students to gain a basic understanding of the process involved in producing a field-based production, the skills necessary to complete it and the critical understanding behind all decision. Lab fee required. Cross listed with MFJS 3215.

MFJS 4501 Web Building & Site Management (4 Credits)
An introduction to the fundamental concepts of Web site development and management, including HTML, DHTML, graphical Web-building tools (Macromedia DreamWeaver and others), multilevel site planning and construction, navigation schemes, basic interactivity (via Javascript and CGI), information organization, Web site management and delivery of basic multimedia content.

MFJS 4540 Attitude Change & Persuasion (4 Credits)
A review of the major theories of persuasion, and analysis of their application in public communication campaigns.

MFJS 4550 Media Effects & Consequences (4 Credits)
Examines the psychological effects and sociological consequences of mass communications. The course combines theoretical perspectives from social science inquiry that seek to explain how audiences use the mass media and the effects which media have on audiences. Emphasis is placed upon areas of inquiry which have a bearing on mass communications policy. Prerequisite MFJS 4160.

MFJS 4560 Methods in Communication Research (4 Credits)
Development and application of specific social scientific research techniques to study mass communication. The class surveys both quantitative and qualitative techniques and addresses methods for evaluation.

MFJS 4567 Networked Media and Social Justice (4 Credits)
The course explores contemporary transnational protest movements in the context of new digital-era communication, including the Occupy movement against finance-industry-based expanding economic inequities, the environmental justice movement that seeks to address the production of climate-changing industrial pollution, and the movement to protect online civil liberties related to issues like access and privacy online.

MFJS 4650 Global Media and Communication (4 Credits)
Major theories concerning international communication flows, the impact of globalization and global media, issues of new communication technologies, the rhetoric and media framing of global politics and culture; international marketing and public relations; and national and cultural sovereignty issues related to communication. Prerequisite: instructor's permission.

MFJS 4651 Development Communication (4 Credits)
An overview of major theories in development communication concerning past, present, and future roles of media in economic/cultural development around world. Prerequisite: MFJS 4160 or permission by instructor.

MFJS 4652 Culture, Gender, and Global Communication (4 Credits)
Explore the ways in which culture, gender, and communication intersect and shape a variety of issues from an international and intercultural perspective, including sexuality and gender identity, indigenous and immigration rights, women’s rights, and human rights. Using a global feminist perspective, the class examines paradigm shifts in creating social change through social and political movements. Cross listed with MFJS 3652.

MFJS 4653 Language, Power, and Globalization (4 Credits)
This course focuses on scholarly and political debates surrounding the social nature of language, language and (inter)national and individual identity, language policy, multilingualism and linguistic diversity, language and globalization, language and media and communication technologies, and, finally, the future of the global language landscape.

MFJS 4654 Intercultural Communication (4 Credits)
This course focuses on the intersections between culture & communication, including intercultural communication in interpersonal and mediated contexts at the local, national and global levels as shaped by processes of globalization. It covers major theoretical perspectives and methods, the role of power and privilege in the construction and articulation of culture and cultural identity, and intersections with race, ethnicity, gender, sexuality and class, intercultural training and the role of communication and culture in conflict and conflict resolution.

MFJS 4655 Multicultural Journalism (4 Credits)
This course focuses on multicultural approaches to journalism and media, including representations and news coverage related to gender, race/ethnicity, class, and sexuality, disabilities, religion, and nationality, etc.,. The class explores culture and intercultural communication and ways to apply these to journalistic writing as a creative process and craft. Prerequisite: Prior journalistic coursework or its equivalent (including writing experience). Cross-listed with MFJS 3655.

MFJS 4656 Cross-Cultural Travel Seminar: Immigration, Communication, and Border Cultures (4 Credits)
This is a one-week intensive travel course that takes place in Tucson, Arizona and south to the US-Mexican border region. The focus of this experiential learning class is to study immigration issues, border cultures, and the role of communication and media through testimonies of immigrants, and visits to key sites such as the migrant trail, immigration detention center and courts. Also included are talks by activists and officials involved in the immigration debate. Class meets for two pre-class sessions in spring quarter. Cross-listed with MFJS 3656.
MFJS 4912 Seminar in Media Film & Journalism Studies (1-5 Credits)
MFJS 4980 Internship (1-10 Credits)
Arrange with internship director to complete internship with Denver-area media organization. Prerequisite: varies; consult internship director.
MFJS 4991 Independent Study (1-10 Credits)
MFJS 4992 Directed Study (1-10 Credits)
MFJS 4995 Independent Research (1-10 Credits)

Philosophy
Office: Sturm Hall, Room 257
Mail Code: Sturm Hall, Room 257, 2000 E. Asbury, Denver, CO 80208
Phone: 303-871-2063
Email: philosophy@du.edu
Web Site: http://www.du.edu/philosophy

Master of Arts in Philosophy
The department of philosophy at the University of Denver offers an MA in philosophy, but only when done through the university's flexible dual-degree program in conjunction with an MA in another approved discipline. The philosophy faculty places a strong emphasis on research and personal interaction with students. Our program is designed to meet the needs of two kinds of students — those wishing to prepare for doctoral work in philosophy and those seeking an individualized course of study with a more interdisciplinary focus. Areas of concentration include the history of Western thought, interpretive and critical theory, practical philosophy, meta- philosophy, and studies in creative and critical reasoning about human nature and values.

Proposal Process for Flexible Dual-Degree Program in Philosophy
After formal admission into both programs, the dean, chair, or director of each degree program and both program advisors, must carefully compare the requirements for each program and approve the proposal. The student must then submit a copy of the original requirements for each degree (printout from the unit Web site or copy from the student handbook is acceptable), and the flexible dual-degree proposal to the Office of Graduate Studies. The philosophy department will provide a coursework template for the student to include with his or her proposal. The student then submits the documents listed above to the Office of Graduate Studies, which reviews and decides on the proposals.

Master of Arts in Philosophy
Following are the simple steps to apply for graduate study in Philosophy at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
• All students should apply after matriculation into their first MA program at DU, but must matriculate into the Philosophy program no later than the first available term following fifty percent (50%) course work completion of the first program. To propose a flexible dual-degree, the student must seek the counsel of an adviser in the philosophy department.
• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
• An undergraduate degree in philosophy is desirable, but talented students from other areas will be considered for admission. Students must already have been accepted and matriculated into the master’s degree program in another approved DU master’s program.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
• If official transcripts were sent with the student’s application to their primary MA program, no additional copies are necessary.
• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.

• Paper Transcripts should be sent to the following address

University of Denver
Office of Graduate Studies
Mary Reed Building, Room 5
2199 S. University Blvd.
Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores

• The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

Personal Statements

• A short statement describing your interest in philosophy and career goals is required. The statement should be submitted via upload through the online application process.

Recommendation Letters

• Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

• Some programs provide competitive awards in the form of fellowships and/or assistantships. Contact your academic program for more information.

Application Status

• We encourage you to be actively engaged in the admission process. You can check your application status online. Applicants will receive login information post application submission.

Contact Information

• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

University of Denver
Office of Graduate Studies
Mary Reed Building, Room 5
International Applicants

For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures (http://bulletin.du.edu/graduate/gradpolicy) provides complete details regarding admission requirements.

Master of Arts in Philosophy

Degree Requirements

Coursework Requirements

45 quarter hours in philosophy (students may propose to have this amount reduced by a maximum of 10 quarter hours under appropriate circumstances as specified by the flexible dual-degree guidelines). Because philosophy is part of a flexible dual degree program, these hours are required in addition to the required hours in another approved discipline. Courses graded below a C– cannot be counted for a flexible dual degree.

PHIL 3XXX, 4XXX, or 5XXX courses

Total Credits

45

Non-Coursework Requirements

• A comprehensive exam over the history of Western philosophy
• A portfolio paper approved by a committee of three department faculty
• An oral defense covering both the comprehensive exam on the history of Western philosophy and the portfolio paper

Courses

PHIL 3000 Plato’s Metaphysics (4 Credits)
A systematic study of Plato’s Middle and Late Period Dialogues that focuses on his arguments for the existence of abstract objects and the development of Plato’s theory of Forms. Prerequisite: At least Junior standing or permission of instructor.

PHIL 3003 Plato’s Theory of Knowledge (4 Credits)
A systematic investigation of Plato’s treatments of knowledge throughout the dialogues with a focus on the theory of recollection, Forms as objects of knowledge, the relationship between the Forms and perceptual experience, and the challenges posed by notions of true and false belief. Prerequisites: At least Junior standing or permission of instructor.

PHIL 3005 Cosmopolitics (4 Credits)
This class will be a close reading of Plato’s dialogue Timaeus, with a special focus on the cosmological, theological, and political dimensions of the text.

PHIL 3010 Great Thinkers: Aristotle (4 Credits)
A study of Aristotle’s central theories and doctrines. Prerequisite: junior standing or instructor’s permission.

PHIL 3023 Great Thinkers: Maimonides: Politics, Prophecy and Providence (4 Credits)
Using “The Guide for the Perplexed” as our central text, we explore the complex philosophical ideas of Moses Maimonides (1135-1204), one of the central figures in medieval philosophy and Jewish thought. Our study includes analyses of his ideas on principles of faith, human perfection, intellectual vs. “imaginational” approaches to truth, pedagogy and politics, reasons for the commandments, the nature of God and divine will, the limits of human knowledge, the mechanics of prophecy, and the parameters and implications of providence. Cross listed with RLGS 3023 and JUST 3023. Prerequisite: junior standing or instructor’s permission.

PHIL 3024 Maimonides: Greek, Islamic, and Christian Encounters (4 Credits)
Using the “Guide of the Perplexed” as our central text, we explore the complex philosophical ideas of Moses Maimonides (1135-1204), a central figure in the history of philosophy and in the history of Jewish thought. In this course, we examine in depth the relationship between Maimonides’ core ideas and various Greek, Muslim and Christian thinkers, including: Aristotle, Plotinus, al-Farabi, Avicenna (Ibn Sina), al-Ghazali, Averroes (Ibn Rushd), and Aquinas. Topics to be explored include: what is “metaphysics?”; God’s unity and essence as existence itself; the mystery of knowing and not knowing God (including a consideration of God’s ways as well as “negative theology”—viz. the extent to which we do not know God); God as pure intellect; the nature of the cosmos and the “separate intellects”; creation vs. eternity vs. emanation: philosophical and religious perspectives on the origins of the universe and implications for “living in the world with/out God.” In our study, we will also address the methodological implications of cross-religious and cross-language analyses, and how to spot and address (in your own work and in the work of others) tacit cultural biases at play in the interpretive process. Cross listed with JUST 3024 and RLGS 3024. Prerequisite: Junior standing or instructor’s permission.
PHIL 3050 Great Thinkers: Hume (4 Credits)
A detailed study of Hume’s “radical” empiricism and its impact on contemporary analytic philosophy. Prerequisite: junior standing or instructor's permission.

PHIL 3061 Kant's Ethics/Aesthetics/Politics (4 Credits)
A study of Kant’s “value theory” and its historical significance. Prerequisite: junior standing or instructor’s permission.

PHIL 3062 Kant’s Epistemology and Logic (4 Credits)
A study of Kant’s theory of knowledge, logic and related issues. Prerequisite: junior standing or instructor's permission.

PHIL 3063 Kant on Religion (4 Credits)
A study of Immanuel Kant’s major writings on religion and their subsequent influence on theology and the philosophy of religion. Prerequisite: junior standing or instructor’s permission.

PHIL 3070 Great Thinkers: Hegel (4 Credits)
Hegel’s “Phenomenology,” later system and place in the history of modern philosophy. Prerequisite: junior standing or instructor’s permission.

PHIL 3075 Marxism (4 Credits)
This course is a survey in the theoretical and political work influenced by the writings of 19th century philosopher and economist, Karl Marx. The course covers both the historical traditions in Marxism in the 19th, 20th, and 21st century as well as the geographical traditions of these time periods in France, Germany, England, Italy, Russia, China, and America. It is not necessary that students have a prior background in Marx’s work, but it is highly recommended. Cross listed with ECON 3075.

PHIL 3090 Great Thinkers: Heidegger (4 Credits)
Study of “Being and Time” and related essays by a major 20th-century philosopher. Prerequisite: junior standing or instructor's permission.

PHIL 3092 Great Thinkers: The Later Heidegger (4 Credits)
Study of the works of Heidegger after 1930. Prerequisite: junior standing or instructor's permission.

PHIL 3101 Great Thinkers: Kierkegaard (4 Credits)
Each year, the philosophy department offers at least two courses in great thinkers. Specific figures may vary from year to year. Cross-listed with RLGS 3102. Prerequisite: 10 hours of Philosophy at the 2000 level or permission of instructor.

PHIL 3111 Contemporary Continental Philosophy: The Figure of the Migrant (4 Credits)
The 21st century has been described as the century of “people on the move” by UNHCR High Commissioner Antonio Guterres. Some 11 million people are refugees worldwide, fleeing political violence and/or persecution at home; whole more than 20 million are internally displaced within the borders of their own countries. Accordingly, the figure of the migrant/refugee has emerged as one of the most important, if not the most important, political figures of contemporary continental philosophy. Despite differences in philosophical orientation, thinkers such as Gilles Deleuze, Judith Butler, Jacques Ranciere, Julia Kristeva, Alain Badiou, and Jacques Derrida have all written at length on the centrality of the figure of the migrant for contemporary political thought. Not only does the figure of the migrant define the people of our time, according to many of these authors, it also defines a positive political way forward. This course thus provides not only a survey of the different traditions in contemporary European philosophy over the last twenty years (post-structuralism, deconstruction, neo-classicism, post-Marxism, third-wave feminism) but also offers a thematic look at the politico-philosophical figure of the migrant and other issues related to migration (human rights, borders, camps, sovereignty, territory, nomadism, and resistance).

PHIL 3120 Metaphysics (4 Credits)
In the course of this study, we will cover a broad range of philosophical topics falling within metaphysics, philosophy of language, philosophy of science, and epistemology. Prerequisite: junior standing or instructor's permission.

PHIL 3130 Knowledge Problems (4 Credits)
Problems in the foundations and justifications of claims to knowledge. Prerequisite: junior standing or instructor’s permission.

PHIL 3146 Great Thinkers: Levinas (4 Credits)
Emmanuel Levinas (1906-1995), famous for his arresting and original idea of “ethics as first philosophy,” is an important figure in the histories of phenomenology, metaphysics, and theology. In this course, we set out to explore Levinas’ insights on ethics, alterity, and infinity, including the connection of his ideas to Plato, Descartes, Kant, and Husserl, as well as his critical responses to Heidegger and his positive contributions to Derrida. In this course, we work through Levinas’ two major works, Ethics and Infinity and Otherwise Than Being or Beyond Essence, as well as a number of shorter writings—including material from his Talmudic commentaries. Themes to be covered include: Being, Goodness, Risk, Ethics, Alterity, Transcendence, Law, Judaism, Gift, Forgiveness, Politics, Theology, and Justice. This course is cross-listed with JUST 3146.

PHIL 3150 Metaphysics of Matter: Theory-Building from Science to Philosophy to Theology (4 Credits)
What is matter? How do we make sense of philosophical discussions of an "X I know not what"? Of a "nothing" which is something? Of a "pure potency" that lacks any actual characteristics? In what sense does matter mark the very limits of human theorizing, and how do theories of matter reveal differences (or similarities) between the methods of theorizing that we use in physics, metaphysics, and theology? In this course, we work to understand the metaphysics and metametaphysics of matter, focusing on a number of views of matter as well as on methodological questions of what it means to theorize about matter in (1) scientific, (2) philosophical, and (3) theological contexts. Drawing on theory ranging from ancient physics and cosmology to contemporary metametaphysics, philosophy of science, and philosophy of language, we engage in close readings of ancient, medieval, and modern texts to challenge the ways we theorize about matter (and theory itself) in the history of philosophy. Requires junior standing or higher.
PHIL 3152 Philosophy Meets Mysticism: A Greek, Jewish and Islamic Neoplatonic Journey (4 Credits)
Neoplatonism is a unique genre—somewhere between philosophy and mysticism. This course, we investigate some of the leading themes of Neoplatonism, tracing the Greek ideas of Plotinus (the third century "father of Neoplatonism") into later Jewish and Islamic textual traditions. As part of our journey, we will investigate a host of philosophical writings, including the Theology of Aristotle and the Liber de Causis, as well as works by Plato, Plotinus, Proclus, Ibn Tufayl, Aviceaena, Isaac Israeli, Solomon Ibn Gabirol, and Abraham Ibn Ezra. Themes to be covered include emanation and creation, apophatic discourse, divine desire, the theological significance of imagination, inward reflection and the call to virtue. Prerequisite: junior standing or instructor’s permission. Cross listed with JUST 3152.

PHIL 3175 Morality and the Law (4 Credits)
A systematic study of various elements of the relation between law and morality. Are we obligated to obey every law the government enacts? Why? If we do have an obligation to obey the law, are civil disobedients like Martin Luther King, Jr. justified in disobeying the law? Are immoral laws, laws at all, or must a law connect with some higher moral truth to have any authority? To what extent is it morally permissible for the law to restrict our personal freedoms? To what extent is it morally permissible for the law to enforce morality in general? If it is not permissible for the law to enforce morality, do we incur any obligation to obey the law? Prerequisite: junior standing or instructor’s permission.

PHIL 3176 Advanced Topics in Philosophy of Law: Rights, Legal Institutions, and Justice (4 Credits)
A critical examination of rights claims and an exploration of those rights claims ought to affect legal institutions. What are rights? How are they justified? How do various different rights claims conflict with each other? Does a theory or rights help provide a justified theory of criminalization? Are there any rights we have just in virtue of being human? How does the concept of human rights apply to issues such as international law, the right to life and whether human rights require a right to democracy?.

PHIL 3178 Metaethics (4 Credits)
This course systematically and critically examines the metaphysical, semantic, and epistemic issues central to the study of metaethics. Do moral properties exist? If so, how are they related to natural properties? Do moral properties exist independent of human agency, or do we construct morality? If moral properties exist, how can we come to have justified belief about them? Is it possible to know that a moral belief is true? Doesn't the phenomenon of widespread, intractable disagreement about moral matters establish that there are no objective moral truths? Is the process of gaining scientific knowledge really that different from the process of gaining moral knowledge? Prerequisite: junior standing or instructor’s permission.

PHIL 3179 Virtue Ethics (4 Credits)
Virtue ethics purportedly provides a distinct approach to moral deliberation, moral reasoning, moral decision-making, and moral justification. This course is a systematic study of the nature of virtue ethics, the nature of a virtue, and the alleged superiority of virtue ethics over its more familiar consequentialist and deontological alternatives. We also study various responses to the following questions: Have moral psychologists generated any valuable studies on the nature of virtue? What virtues ought we to endorse? At least Junior standing required or permission of the instructor.

PHIL 3180 Socratic Ethics (4 Credits)
A study of Plato’s early dialogues in order to discern the ethical views of the historical Socrates. Prerequisite: junior standing or instructor’s permission.

PHIL 3185 Philosophy of Action and Agency (4 Credits)
Wittgenstein once asked, “What is left over if I subtract the fact that my arm goes up from the fact that I raise my arm?” Understanding the difference between mere happening and an intentional action became central to the philosophical investigation of action and agency in the 20th century. In this course we examine this distinction and why it should matter to us. Our topics include intentional action, the causal theory of action, the metaphysics of action, agent causation, basic action, acting and trying to act, intentions, weakness of will, strength of will, and mental action. Requires junior standing or permission of instructor.

PHIL 3201 Wittgenstein, Quine, & Kripke on Necessity and a Priori Knowledge (4 Credits)
A study of Wittgenstein, Quine, and Kripke on the nature of necessity, a priori knowledge and their relation to understanding philosophy. Prerequisite: junior standing or instructor’s permission.

PHIL 3210 Philosophy of Movement (4 Credits)
Everything is in motion. Yet, philosophers have consistently considered motion to be a derivative or secondary form of being. Why? What are the political and metaphysical consequences of marginalizing motion in the history of philosophy? The aim of this class is to read the history of philosophy with a unique focus on the status of movement and motion from the ancient to contemporary period.

PHIL 3211 Contemporary Pol Philosophy (4 Credits)
This class focuses primarily on the philosophical problems generated by thinking about political authority and justice. We discuss the nature of political authority, justice, rights, equality and the role of property in a modern state.

PHIL 3215 Modern Jewish Philosophy (4 Credits)
Prerequisite: junior standing or instructor’s permission. Cross listed with JUST 3215.
PHIL 3445 Cultural Theory and Critique (4 Credits)
This course will provide an overview of the major theories of culture and cultural critique, as well as a consideration of some of the major controversies and recent developments in this field. It will proceed roughly chronologically, beginning with liberal humanist critique and continuing with hermeneutics, materialist and Marxist critique, psychoanalysis, the Frankfurt School, structuralism, post-structuralism, and contemporary British cultural studies. It will also consider more recent developments, such as feminist critique, GLBT critique, and postcolonialism. While the approach will be mainly philosophical, implications for other areas such as literature, art, emergent media, religion, and politics will also figure in the discussions, so it is appropriate for students in many fields, not just philosophy. Prerequisite: Junior standing or permission of the instructor. Note that this course will serve as a foundational offering for students interested in participating in the Critical Theory specialization.

PHIL 3450 Phenomenology and Theology (4 Credits)
Cross listed with RLGS 3455. Prerequisite: junior standing or instructor’s permission.

PHIL 3455 Philosophy and 9/11: Sovereignty in Traumatic Times (4 Credits)
Philosopher’s responses to the attacks on 9/11/2001, leading into philosophical study of the connections between trauma and modern assertions of political sovereignty. Prerequisite: junior standing or instructor’s permission.

PHIL 3460 Nietzsche & the Death of God (4 Credits)
This course involves an intensive reading and discussion of Friedrich Nietzsche’s ‘Thus Spake Zarathustra,’ together with relevant associated materials, especially ‘The Gay Science.’ Prerequisite: junior standing or instructor’s permission. Cross listed with RLGS 3460.

PHIL 3465 Derrida and Postmodernism (4 Credits)
Cross listed with RLGS 3465. Prerequisite: junior standing or instructor’s permission.

PHIL 3466 Contemporary Continental Philosophy (4 Credits)
A critical study of current trends in European philosophy, focusing on such thinkers as Deleuze, Badiou, Zizek, Meillassoux, or Laruelle. Prerequisite: junior standing or instructor’s permission.

PHIL 3610 Advanced Topics in Philosophy, Psychology, and Cognitive Science (4 Credits)
This course provides an advanced survey of conceptual and methodological issues that lie at the intersection of philosophy, psychology, and cognitive science. More specifically, our main goal is to engage in a critical discussion of how the study of the mind requires an interdisciplinary approach that integrates empirical findings with conceptual and philosophical theorizing. Cross listed with PSYC 3610. Prerequisites: PSYC 1001 and junior standing (or instructor approval).

PHIL 3618 Philosophy of Biology (4 Credits)
A survey of conceptual issues that lie at the intersection of biology and philosophy: the central concepts of evolutionary theory (such as natural selection, fitness, adaptation and function), the relation of biology to other “lower” sciences (can it be reduced to physics and chemistry?), whether there are genuine scientific laws in biology, and the relation between biology and other fields like cognitive science and ethics. At least Junior standing required.

PHIL 3620 Philosophical Perspectives on Economics and Social Sciences (4 Credits)
This course provides an advanced survey of conceptual and methodological issues that lie at the intersection of philosophy, economics, and the social sciences. More specifically, the main goal is to engage in a critical discussion of how sciences such as psychology, sociology, and neuroscience can challenge and modify the foundations and methodology of economic theories. The course is structured around three broad modules. After a brief introduction, we begin by discussing the emergence of rational choice theory which constitutes the foundation of classical and neoclassical economics and present some paradoxical implications of expected utility theory. The second module focuses on the relationship between economics and psychology. More specifically, we examine the emergence of behavioral economics, the study of the social, cognitive, and emotional factors on the economic decisions of individuals and institutions and their consequences for market prices, returns, and resource allocation. Finally, the third module focuses on the implications of neuroscience on decision making. We discuss some recent developments in neuroeconomics, a field of study emerged over the last few decades which seeks to ground economic theory in the study of neural mechanisms which are expressed mathematically and make behavioral predictions.

PHIL 3699 Proseminar in Philosophy (4 Credits)
Philosophy is a diverse discipline with various subfields, most of which are becoming increasingly specialized and methodologically autonomous. Specialization is often (rightly) perceived as an indicator of disciplinary progress and intellectual development. However, it is important that students of philosophy pursue breadth as well as depth. The goal of this course is to provide an overview of a series of seminal texts in philosophy, from a variety of subfields, epochs, and traditions. Each weekly meeting is devoted to the presentation, analysis, and discussion of a text that any student of philosophy should read at some point in her or his career. Requires junior standing or instructor’s permission.

PHIL 3700 Topics in Philosophy (1-4 Credits)
Prerequisite: junior standing or instructor’s permission.

PHIL 3701 Topics in Philosophy (1-4 Credits)
Prerequisite: junior standing or instructor’s permission.

PHIL 3702 Topics in Philosophy (1-4 Credits)
Prerequisite: 10 hours of Philosophy at 2000 level or permission of instructor.

PHIL 3703 Topics in Philosophy (1-4 Credits)
Prerequisite: 10 hours of Philosophy at 2000 level or permission of instructor.
PHIL 3704 Topics in Philosophy (1-4 Credits)
Prerequisite: 10 hours of Philosophy at 2000 level or permission of instructor.

PHIL 3991 Independent Study (1-8 Credits)

PHIL 3992 Directed Study (1-10 Credits)

PHIL 4991 Independent Study (1-10 Credits)

PHIL 4992 Directed Study (1-10 Credits)

PHIL 4995 Independent Research (1-10 Credits)

PHIL 5300 Philosophy Colloquium (4 Credits)

PHIL 5400 Cultural Theory Colloquium (1-5 Credits)

Psychology
Office: Frontier Hall
Mail Code: 2155 S. Race St., Denver, CO 80208
Phone: 303-871-2478
Email:
Web Site: www.du.edu/psychology

The Psychology PhD program in the department of psychology is oriented toward training qualified students to pursue careers in research, teaching and professional practice. Concentrations include: Affective/Social Psychology, Clinical Psychology, Cognitive Psychology, and Developmental Psychology. We also offer a specialization in Developmental Cognitive Neuroscience (DCN).

Doctor of Philosophy in Psychology with a concentration in Affective/Social Psychology
The graduate program in Affective/Social Psychology focuses on the intricacies of human emotional and social processes from neuroscience and social perspectives.

Doctor of Philosophy in Psychology with a concentration in Clinical Psychology
The graduate program in Clinical Psychology focuses on conducting scientific research on child psychopathology and its many contributing environmental and social factors.

Doctor of Philosophy in Psychology with a concentration in Cognitive Psychology
The graduate program in Cognitive Psychology focuses on how the mind works in areas such as memory, executive functions, reading and language processes, and unconscious cognition.

Doctor of Philosophy in Psychology with a concentration in Developmental Psychology
The graduate program in Developmental Psychology focuses on human developmental processes—including biological, cultural, social and psychophysiological factors.

Developmental Cognitive Neuroscience
The specialization in Developmental Cognitive Neuroscience is open to students in any of the graduate programs and offers a developmental approach to the neuroscience underlying specific content areas with study of genetics, imaging, network models and behavior of both typical and abnormal populations.

PhD in Psychology
Following are the simple steps to apply for graduate study in Psychology in the Division of Arts, Humanities, and Social Sciences at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: December 1.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.
Course and Degree Prerequisites and Requirements

- Proof of a bachelor’s, and, if applicable, a master’s degree is required from a regionally accredited college or university.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Paper transcripts should be sent to the following address:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802
- Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Psychology program is 80 (iBT) or 550 (paper-based). The minimum IELTS score accepted by the University is 6.0. The institution code for the University of Denver is 4842. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores

- The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842. Clinical Child applicants are encouraged to take the Psychology GRE Subject Test, but it is not required.

Biographical and Diversity Statements, Mentor Selection, and Resume

- Biographical Statement

  • Please prepare approximately 2-3 pages of typewritten, double-spaced autobiographical material which will be considered confidential. (Please be aware that the review committees may contain graduate student representatives.) Indicate the source of your interest in psychology and the reasons why you wish to pursue graduate studies in your chosen area of specialization. If you have had practical experience (work or volunteer) in psychology, please describe it. If you have been in another area of academic study or employment, discuss your change. When and how was your attention directed to our graduate program? Indicate how the specific features of our training program would facilitate your professional goals.

- Mentor Selection

  • Please review the descriptions of our faculty’s research interests and state which faculty member(s) you would like to do your research with. Explain why the faculty’s research interests represent a match with your own training goals and your career plans. Please type the name(s) of your proposed mentor(s) on a separate line at the end of your essay so as to facilitate screening. Mentors are typically faculty in the student’s program, but our program allows cross-program mentors. So, for example, clinical child applicants may list a faculty mentor that is not a
member of the clinical child faculty. If there is one person you are primarily interested in, name one; if there are two who you are interested in, name two. There is no advantage to naming just one person or naming two people. What is important is the rationale for your choice.

- Diversity Statement
  - Applicants to the clinical child program are required (and other applicants are invited) to include a one page essay describing how their thinking about research and clinical work is influenced by considerations of diversity (broadly defined).

- Resume
  - Please submit a resume that includes: publications, professional presentations, awards and scholarships, professional experience (both research and clinical), and membership in professional organizations.

Recommender Letters
- Three letters of recommendation are required and should emphasize research potential or promise. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
- The department intends to provide full tuition waivers for the 120 hours required for the Ph.D. and stipend support for at least four years for students in good standing. Additional support may be available during the summer months for teaching or research assistantships. In addition to tuition and stipend support, the department makes available, on a competitive basis, funds for both research and travel to professional meetings.

Application Status
- We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

Contact Information
- Mail official transcripts and any supplemental admission materials not submitted with the online application to:
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802  

- Electronic transcripts should be sent to gradinfo@du.edu.
- For more information call (303) 871-2706.

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of Philosophy in Psychology with a Concentration in Affective-Social Psychology

Students earn a master’s degree on their way toward obtaining the PhD; however, students are not required to obtain an official master’s degree. All students are required to fulfill the requirements for the master’s degree, regardless of whether or not they apply for graduation for an official master’s degree. Completion of master’s degree requirements is required in order to be advanced to preliminary doctoral candidacy.

Degree requirements

Coursework requirements

I. Master’s degree requirements

The Department requires a master’s degree as part of the Ph.D. program. To earn an official master’s degree, complete at least 35 credits of the 45 minimum number of credits in content coursework which excludes Independent Study and Independent Research credits.
II. PhD requirements

Statistics Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSYC 4295</td>
<td>Research Design &amp; Inference</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4300</td>
<td>Correlation and Regression</td>
<td>5</td>
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Advanced Stat Course (1 from below):

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PSYC 4330</td>
<td>Analysis of Variance</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4350</td>
<td>Structural Equation Modeling for the Social Sciences</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4355</td>
<td>Multilevel Modeling for the Psychological Sciences: Theory and Applications</td>
<td>5</td>
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</table>

Core coursework requirements

Complete one course from four of the five categories (Cognitive Psychology, Neuroscience, Social/Personality/Emotions, Developmental Psychology, and Clinical Science)

A. Cognitive Psychology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC 4002</td>
<td>Prosem in Memory and Cognition</td>
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Note: Cognitive students must take PSYC 4002 Prosem in Memory and Cognition

B. Neuroscience

<table>
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<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>PSYC 4526</td>
<td>Prosem in Cog Neuroscience</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4525</td>
<td>Prosem in Develop Neuropsych</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4262</td>
<td>Affective Neuroscience</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: DCN students are required to take Cognitive Neuroscience and at least 1 other Neuroscience Prosem

C. Social/Personality/Emotions

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSYC 4011</td>
<td>Proseminar in Emotion</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4021</td>
<td>Prosem in Social Psychology</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4020</td>
<td>Proseminar in Personality</td>
<td>5</td>
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Note: Affective/ Social students must take both the Social and the Emotion Proseminars

Note: Clinical Child students must take the PSYC 4021 Proseminar in Social Psychology

D. Developmental Psychology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>PSYC 4032</td>
<td>Developmental Proseminar: Social-Emotional</td>
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<tr>
<td>PSYC 4033</td>
<td>Devel Proseminar: Biological</td>
<td>5</td>
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</table>

Note: Developmental Students are required to complete both courses.

Note: Clinical Child students must take either PSYC6 4032 Devel Prosem: Social-Emotional or PSYC 4033 Devel Prosem: Biological

E. Clinical Science

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PSYC 4512</td>
<td>Prosem in Psychopathology</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4565</td>
<td>Systems of Psychotherapy</td>
<td>5</td>
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</table>

Note: Clinical Students are required to complete both courses.

Ethics

Complete the following course:

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PSYC 4920</td>
<td>Ethics-Psych &amp; Rsrch Practice</td>
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Tool requirement

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Total Credits

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<tr>
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<td>120</td>
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</table>

Minimum number of credits required for the degree: 120

Non-coursework requirements:

- Master’s research paper or thesis and oral defense
- Teaching
- Conceptual Analysis of Dissertation Area (CADA) paper
- Dissertation Prospectus and Prospectus Meeting
- Dissertation and Oral Defense
Additional Course Requirements:
• Specialty Seminars
• Research Tool Requirement (10 hours required)

Doctor of Philosophy in Psychology with a Concentration in Cognitive Psychology

Students earn a master’s degree on their way toward obtaining the PhD; however, students are not required to obtain an official master’s degree. All students are required to fulfill the requirements for the master’s degree, regardless of whether or not they apply for graduation for an official master’s degree. Completion of master’s degree requirements is required in order to be advanced to preliminary doctoral candidacy.

Degree Requirements
Coursework Requirements

I. Master’s degree requirements

The Department requires a master’s degree as part of the Ph.D. program. To earn an official master’s degree, complete at least 35 credits of the 45 minimum number of credits in content coursework which excludes Independent Study and Independent Research credits.

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Total credits for master’s degree: 45

II. PhD requirements

Statistics Requirement

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<td>Multilevel Modeling for the Psychological Sciences: Theory and Applications</td>
<td>5</td>
</tr>
</tbody>
</table>

Core coursework requirements

Complete one course from four of the five categories (Cognitive Psychology, Neuroscience, Social/Personality/Emotions, Developmental Psychology, and Clinical Science)

A. Cognitive Psychology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4002</td>
<td>Prosem in Memory and Cognition</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: Cognitive students must complete PSYC 4002 Prosem in Memory and Cognition

B. Neuroscience

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4526</td>
<td>Prosem in Cog Neuroscience</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4525</td>
<td>Prosem in Develop Neuropsych</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4262</td>
<td>Affective Neuroscience</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: DCN students are required to take Cognitive Neuroscience and at least 1 other Neuroscience Prosem

C. Social/Personality/Emotions

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4011</td>
<td>Proseminar in Emotion</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4021</td>
<td>Proseminar in Social Psychology</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4020</td>
<td>Proseminar in Personality</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: Affective/ Social students must take both the Social and the Emotion Proseminars

Note: Clinical Child students must take the PSYC 4021 Proseminar in Social Psychology

D. Developmental Psychology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4032</td>
<td>Developmental Proseminar: Social-Emotional</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4033</td>
<td>Devel Proseminar: Biological</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: Developmental Students are required to complete both courses.

Note: Clinical Child students must take either PSYC 4032 (Social/Emotional) or PSYC 4033 (Biological Processess)

E. Clinical Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4512</td>
<td>Prosem in Psychopathology</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4565</td>
<td>Systems of Psychotherapy</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: Clinical Students are required to complete both courses.

Ethics

Complete the following course:

2
Doctor of Philosophy in Psychology with a Concentration in Clinical Psychology

Degree Requirements

Coursework Requirements

Students earn a master’s degree on their way toward obtaining the PhD; however, students are not required to obtain an official master’s degree. All students are required to fulfill the requirements for the master’s degree, regardless of whether or not they apply for graduation for an official master’s degree. Completion of master’s degree requirements is required in order to be advanced to preliminary doctoral candidacy.

I. Master’s degree requirements

The Department requires a master’s degree as part of the Ph.D. program. To earn an official master’s degree, complete at least 35 credits of the 45 minimum number of credits in content coursework which excludes Independent Study and Independent Research credits.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4920</td>
<td>Ethics-Psych &amp; Rsrch Practice</td>
<td>10</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>120</td>
</tr>
</tbody>
</table>

II. PhD requirements

a. Statistics Requirement

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4295</td>
<td>Research Design &amp; Inference</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4300</td>
<td>Correlation and Regression</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4330</td>
<td>Analysis of Variance</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4350</td>
<td>Structural Equation Modeling for the Social Sciences</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4355</td>
<td>Multilevel Modeling for the Psychological Sciences: Theory and Applications</td>
<td>5</td>
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</tbody>
</table>

b. Advanced Stat Course (1 from below):

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSYC 4325</td>
<td>Prosem in Develop Neuropsych</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4262</td>
<td>Affective Neuroscience</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: DCN students are required to take Cognitive Neuroscience and at least 1 other Neuroscience Prosem

C. Social/Personality/Emotions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PSYC 4002</td>
<td>Prosem in Memory and Cognition</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4011</td>
<td>Proseminar in Emotion</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4021</td>
<td>Prosem in Social Psychology</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4020</td>
<td>Proseminar in Personality</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4032</td>
<td>Developmental Proseminar: Social-Emotional</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4033</td>
<td>Devel Proseminar: Biological</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: Affective/ Social students must take both the Social and the Emotion Proseminars

Note: Clinical Child students must take the PSYC 4021 Proseminar in Social Psychology

D. Developmental Psychology

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<tbody>
<tr>
<td>PSYC 4032</td>
<td>Developmental Proseminar: Social-Emotional</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4033</td>
<td>Devel Proseminar: Biological</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: Developmental Students are required to complete both courses
Note: Clinical Child students must take either PSYC 4032 (Social/Emotional) or PSYC 4033 (Biological Processes)

E. Clinical Science

PSYC 4512 Prosem in Psychopathology 5
PSYC 4565 Systems of Psychotherapy 5

Note: Clinical Students are required to complete both courses.

Ethics 2

Complete the following courses:

PSYC 4920 Ethics-Psych & Rsrch Practice 2
PSYC 4925 Clinical Ethics and Professional Issues in Psychology 3

Multicultural Competency

PSYC 4571 Multicult Issues & Ment Health 5

Clinical Assessment

PSYC 4411 Child Assessment-Cognition 2-5
PSYC 4413 Child Assessment-Personality 5

Tool requirement 10

Total Credits 120

Minimum number of credits required for the degree: 120

Non-coursework Requirements

• Master’s research paper or thesis and oral defense
• Dissertation Prospectus and Prospectus Meeting
• Dissertation and Oral Defense
• Research Training
• Clinical Competencies
• Clinical Training
  • Clinical Practicum
  • Successful Completion of an Externship
  • Successful Completion of an APA approved internship

Doctor of Philosophy in Psychology with a Concentration in Developmental Psychology

Degree Requirements

Coursework Requirements

Students earn a master’s degree on their way toward obtaining the PhD; however, students are not required to obtain an official master’s degree. All students are required to fulfill the requirements for the master’s degree, regardless of whether or not they apply for graduation for an official master’s degree. Completion of master’s degree requirements is required in order to be advanced to preliminary doctoral candidacy.

I. Master’s degree requirements

The Department requires a master’s degree as part of the Ph.D. program. To earn an official master’s degree, complete at least 35 credits of the 45 minimum number of credits in content coursework which excludes Independent Study and Independent Research credits.

PSYC 4920 Ethics-Psych & Rsrch Practice 2

Total credits for master’s degree 45

II. PhD requirements

Statistics Requirement

PSYC 4295 Research Design & Inference 5
PSYC 4300 Correlation and Regression 5

Advanced Stat Course (1 from below):

PSYC 4330 Analysis of Variance 5
Core coursework requirements

Complete one course from four of the five categories (Cognitive Psychology, Neuroscience, Social/Personality/Emotions, Developmental Psychology, and Clinical Science)

A. Cognitive Psychology

PSYC 4002 Proseminar in Memory and Cognition 5
Note: Cognitive students must take PSYC 4002 Proseminar in Memory and Cognition

B. Neuroscience

PSYC 4526 Proseminar in Cog Neuroscience 5
PSYC 4525 Proseminar in Develop Neuropsych 5
PSYC 4262 Affective Neuroscience 4
Note: DCN students are required to take Cognitive Neuroscience and at least 1 other Neuroscience Prosem

C. Social/Personality/Emotions

PSYC 4011 Proseminar in Emotion 5
PSYC 4021 Proseminar in Social Psychology 5
PSYC 4020 Proseminar in Personality 5
Note: Affective/ Social students must take both the Social and the Emotion Proseminars
Note: Clinical Child students must take the PSYC 4021 Proseminar in Social Psychology

D. Developmental Psychology

PSYC 4032 Developmental Proseminar: Social-Emotional 5
PSYC 4033 Devel Proseminar: Biological 5
Note: Developmental Students are required to complete both courses.
Note: Clinical Child students must take either PSYC 4032 (Social/Emotional) or PSYC 4033 (Biological Processes)

E. Clinical Science

PSYC 4512 Proseminar in Psychopathology 5
PSYC 4565 Systems of Psychotherapy 5
Note: Clinical Students are required to complete both courses.

Ethics

Complete the following course:

PSYC 4920 Ethics-Psych & Rsrch Practice 2

Tool requirement

10

Total Credits

120

Minimum number of credits required for degree: 120

Non-coursework Requirements

- First-Year Project or Paper
- Master’s research paper or thesis and oral defense
- Developmental Comprehensive Exams
- Presentation Requirement
- Teaching
- Dissertation Prospectus and Prospectus Meeting
- Dissertation and Oral Defense

Specialization: Development Cognitive Neuroscience Requirements

Requirements

The following requirements for the DCN program are in addition to the student’s area requirements. The DCN minor mainly affects how students meet Core and Tool requirements. DCN students in each of the four Areas of the Department have additional Core requirements listed below. It also affects Advanced Clinical requirements for Clinical DCN students and elective requirements for non-clinical DCN Students (see below). The Neuroscience methods courses listed fulfill the student’s Tool Requirement; students are not required to fulfill their area’s tool requirements.

Any entering student in DCN must demonstrate competency in basic neurobiology (i.e. have taken an undergraduate class in physiological psychology, basic neurobiology, etc.). Otherwise, they need to take Introduction to Neurobiology in the Biology Department.
Coursework requirements

Four required Core Courses (these also count toward Area Core requirements)

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
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<tbody>
<tr>
<td>PSYC 4002</td>
<td>Prosem in Memory and Cognition</td>
</tr>
<tr>
<td>PSYC 4011</td>
<td>Proseminar in Emotion</td>
</tr>
<tr>
<td>PSYC 4021</td>
<td>Prosem in Social Psychology</td>
</tr>
<tr>
<td>PSYC 4020</td>
<td>Proseminar in Personality</td>
</tr>
</tbody>
</table>

One Cognitive Area Proseminar

<table>
<thead>
<tr>
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<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4002</td>
<td>Prosem in Memory and Cognition</td>
</tr>
<tr>
<td>PSYC 4011</td>
<td>Proseminar in Emotion</td>
</tr>
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<td>PSYC 4021</td>
<td>Prosem in Social Psychology</td>
</tr>
<tr>
<td>PSYC 4020</td>
<td>Proseminar in Personality</td>
</tr>
</tbody>
</table>

Two Neuroscience Core Classes

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4526</td>
<td>Prosem in Cog Neuroscience (required)</td>
</tr>
<tr>
<td>PSYC 4525</td>
<td>Prosem in Develop Neuropsych</td>
</tr>
<tr>
<td>or PSYC 4262</td>
<td>Affective Neuroscience</td>
</tr>
</tbody>
</table>

Developmental Proseminar or Biological Processes in Development or Cognition/Perception (if Biological Processes is not offered)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4033</td>
<td>Devel Proseminar: Biological</td>
</tr>
<tr>
<td>or PSYC 4031</td>
<td>Developmental Proseminar: Cognition &amp; Perception</td>
</tr>
</tbody>
</table>

Required Neuroscience methods classes (counts for department Tool Requirement). Two of the following courses (each of which focuses on different neuroscience methods):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4255</td>
<td>Imaging the Mind</td>
</tr>
<tr>
<td>PSYC 4085</td>
<td>Stress &amp; Health</td>
</tr>
<tr>
<td>PSYC 4254</td>
<td>Intro to Neural Network Models</td>
</tr>
</tbody>
</table>

Genetics (available at IBG at CU Boulder; check with Developmental Cognitive Neuroscience Area Head about how to enroll.)

Other Required Courses/Experiences

- For Developmental DCN students, either a Cognitive or Affective/Social elective
- For Cognitive DCN students, either a Developmental or Affective/Social elective
- For Affective/Social DCN students, either a Developmental or Cognitive elective
- For Clinical DCN students, one year of Developmental Neuropsychology Clinic.

Master of Arts in Psychology

Degree requirements

Coursework requirements

The MA in Psychology is considered an interim MA for the students enrolled in the PhD in Psychology. To earn an official master’s degree, complete at least 35 credits of the 45 minimum number of credits in content coursework which excludes Independent Study and Independent Research credits.

Required Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4920</td>
<td>Ethics-Psych &amp; Rsrch Practice</td>
</tr>
</tbody>
</table>

Total Credits 45

Minimum number of credits required for the degree: 45

Non-coursework Requirements

- Master’s research paper or thesis and oral defense

Courses

**PSYC 3020 Adolescence (4 Credits)**

Development, behavior, special problems, and characteristics of early and late adolescence. Prerequisites: PSYC 1001, PSYC 2070 or PSYC 2050 or PSYC 2051; must be a Psychology major/minor with sophomore standing.

**PSYC 3029 Imaging the Mind (4 Credits)**

Imaging Cognition is an introductory course to the basic theory and data analysis techniques used in functional magnetic resonance imaging (fMRI). It will cover basic brain anatomy, the basic physics of MRI, experimental design, data processing and the issues associated with data processing, and interpretation of fMRI data. Students in this course will receive hands-on experience in processing a data set from start to finish. They will apply different image preprocessing techniques, statistical design parameters, and statistical models to determine how these factors influence the outcome of the data and how these factors influence the interpretation of that data. In this manner, each student will be exposed individually to the decision issues and interpretation pitfalls involved in fMRI data analysis. In class, students will use the smart-to-the-seat classroom. Cross listed with PSYC 4255. Prerequisites: PSYC 1001 and PSYC 2031, must be a major or minor in psychology, must have at least sophomore standing.
**PSYC 3032 Introduction to Neural Networks (4 Credits)**
Introduction to basic principles and computational methods in artificial neural network modeling; neural models of cognitive and psychological processes examined and evaluated. Cross listed with PSYC 4254. Prerequisite: PSYC 1001, must be a major or minor in psychology, must have at least sophomore standing.

**PSYC 3035 Seminar: Cognitive Neuroscience (2 Credits)**
This seminar is for students in the cognitive neuroscience program. The goal of the seminar is to provide an opportunity for junior- and senior-level cognitive neuroscience majors to apply the knowledge and skills they have acquired in other courses to current cutting-edge topics in the field. Prerequisite: cognitive neuroscience concentration.

**PSYC 3050 Research Methods (4 Credits)**
Survey of research methods and research designs in psychology used to study behavior. Required for all students, especially those planning graduate work in psychology. Prerequisites: PSYC 1001, PSYC 2300, and INFO 1020.

**PSYC 3090 Infancy and Early Childhood (4 Credits)**
The objective of this course is to introduce the study of early development focusing on the prenatal and infant periods. This course considers the exciting changes that take place during pregnancy for both mom and fetus. This course considers biological, cognitive, social, and physical development. This course is part of the field of Developmental Science. The prominent theories and research in the filed are considered. Questions developmental psychologists currently and historically study and the research they conduct to help answer these questions are explored. Prerequisite: PSYC 1001 and PSYC 2070 or PSYC 2050 or PSYC 2051. Must be either a major or minor in psychology. Must at least have sophomore standing.

**PSYC 3150 Senior Honors Research Seminar (1-5 Credits)**
In conjunction with senior research thesis. Prerequisites: PSYC 2750, PSYC 2751 and PSYC 2752.

**PSYC 3151 Senior Honors Research Seminar (1-5 Credits)**
In conjunction with senior research thesis. Prerequisites: PSYC 2750, PSYC 2751 and PSYC 2752.

**PSYC 3152 Senior Honors Research Seminar (1-5 Credits)**
In conjunction with senior research thesis. Prerequisites: PSYC 2750, PSYC 2751 and PSYC 2752.

**PSYC 3350 Cultural Psychology (4 Credits)**
This seminar examines how people's sociocultural context shapes their thoughts, feelings, and behaviors. To approach this question, we read and discuss classic as well as recent theoretical and empirical articles from the field of cultural psychology. Topics include defining culture; dimensions of cultural variation; culture-biology interactions; methodological considerations; cultural influences on cognition, emotion, the self, moral judgment, and health; cultural neuroscience; cultural approaches to race and ethnicity; and mechanisms of cultural influence. Throughout, this course emphasizes sociocultural diversity in psychological processes. Students are encouraged to develop empirically tractable ways of asking and answering questions relating to cultural psychology and to apply concepts of cultural psychology to their own research. Prerequisite: PSYC 1001, must be either a major or minor in psychology, must at least have sophomore standing.

**PSYC 3440 Gender and Society (4 Credits)**
Prerequisites: PSYC 1001, must be a psychology major or minor, must have at least sophomore standing.

**PSYC 3666 Brain Development & Cognition (4 Credits)**
Examines what the brain tells us about development and what development tells us about the brain. Topics include subcortical and cortical developments to the acquisition of language and drawing. Prerequisites: PSYC 2050 or PSYC 3031 or BIOL 3640 and 15 quarter hours in psychology, junior or senior standing.

**PSYC 3701 Topics in Psychology (1-4 Credits)**

**PSYC 3702 Psychology of Sexual Minorities (4 Credits)**
This class is a thorough review of the state of the development, psychological and other social science knowledge of gay, lesbian, bisexual, transgendered, and other sexual minority individuals. The course will employ a developmental approach in examining the lives of GLBT persons, their special needs, concerns, and vulnerabilities. Topics explored will include the psychology of sexual orientation identity, homophobia, heterosexism, and hate crimes, GLBT adolescents, romantic relationships, couples, parenting, and families. Prerequisite: PSYC 1001.

**PSYC 3760 Field Experiences in Psychology (1-2 Credits)**
Students meet weekly with professor and complete an unpaid internship at a community organization. Prerequisites: PSYC 1001 or equivalent, PSYC 2500 or equivalent, 21 years old by October 1, psychology major, and permission of instructor. Corequisite: PSYC 3759.

**PSYC 3761 Field Experiences in Psychology (3-5 Credits)**
Students meet weekly with professor and complete an unpaid internship at a community organization. This class has a service learning component. Prerequisites: PSYC 1001 or equivalent, PSYC 2500 or equivalent, PSYC 3760, PSYC 3759, 21 years old by October 1, psychology major, and permission of instructor.

**PSYC 3762 Field Experiences in Psychology (1-5 Credits)**
Students meet weekly with professor and complete an unpaid internship at a community organization. This class has a service learning component. Prerequisites: PSYC 1001 or equivalent, PSYC 2500 or equivalent, PSYC 3760, PSYC 3759, PSYC 3761, 21 years old by October 1, psychology major, and permission of instructor.

**PSYC 3991 Independent Study (1-10 Credits)**
Maximum of 5 hours per quarter not to exceed a total of 10 quarter hours.
This course involves a required assessment of graduating psychology majors' knowledge of the discipline based on coursework taken one quarter prior to graduation. Prerequisites: at least any five of the following courses required for the major: PSYC 1001 or equivalent, PSYC 2300, 3050 or 2751-2752, PSYC 2500 or 2510 or 2520 or 2530, PSYC 2060 or 2040 or 3030, PSYC 2050 or PSYC 2055; PSYC 2031 or 2130, PSYC 2031 or 2150 or at least 163 total credit hours or at least 30 credits of psychology hours.

PSYC 4002 Prosemin in Memory and Cognition (5 Credits)
Theory/research on thinking, problem solving, language, creative thought, other aspects of knowing process.

PSYC 4011 Prosemin in Emotion (5 Credits)
Social/physiological aspects of emotions, including motivation, physiological processes, basic emotions, cognitive appraisal, cross-cultural issues, empathy, effects of emotions.

PSYC 4020 Prosemin in Personality (5 Credits)
Personality structure/dynamics, theory and findings, interrelationships between personality and socio-cultural determinants of behavior.

PSYC 4021 Prosemin in Social Psychology (5 Credits)
Major theoretical issues and empirical research in social psychology; topics include cultural, social structure, cognitive consistency, social neuroscience, social cognition, person perception, the self, social influence, attitudes, relationships, emotion, coping.

PSYC 4031 Developmental Prosemin: Cognition & Perception (5 Credits)
Problems/theories in developmental psychology including Piagetian theory, language, emotional, perceptual, personality development, learning, biological bases of behavior, genetic influences.

PSYC 4032 Developmental Prosemin: Social-Emotional (5 Credits)
Problems/theories in developmental psychology including Piagetian theory, language, emotional, perceptual, personality development, learning, biological bases of behavior, genetic influences.

PSYC 4033 Devel Proseminar: Biological (5 Credits)
This course provides an overview of major biological processes during development and their effects on physical, cognitive, and social development. Specific topics will include: history, concepts, and central themes of developmental psychology; theoretical and biological models of human development (e.g., developmental psychobiological systems view); brain development and plasticity; behavioral genetics; sleep and circadian rhythms; sexual differentiation and hormonal influences on behavior; stress and the HPA axis; effects of nutrition and toxic substances.

PSYC 4043 Clinical Approaches: Communities (5 Credits)
Community psychology; major theoretical/conceptual issues, assessment/intervention techniques.

PSYC 4045 The Developing Brain (4 Credits)
This course presents an overview of current research and methods in the field of developmental cognitive/affective/social neuroscience. The course examines what the brain tells us about development and what development tells us about the brain. Topics include sensitive periods for neuroplasticity, pediatric neuroimaging methods, attention, language, affective and social development. Cross-listed with course 3045. Prerequisite: Instructor permission.

PSYC 4050 Cultural Psychology (5 Credits)
This seminar examines how people's sociocultural context shapes their thoughts, feelings and behaviors. To approach this question, we read and discuss classic as well as recent, theoretical as well as empirical articles form the field of cultural psychology. Topics include: (1) defining culture; (2) dimensions of cultural variation; (3) culture-biology interactions; (4) methodological considerations; (5) cultural influences on cognition, emotion, the self, moral judgment, and health; (6) cultural neuroscience; (7) cultural approaches to race and ethnicity; and (8) mechanisms of cultural influence. Throughout, this course emphasizes sociocultural diversity in psychological processes. Students are encouraged to develop empirically tractable ways of asking and answering questions relating to cultural psychology and to apply concepts of cultural psychology to their own research.

PSYC 4055 The Neuroscience and Psychology of Parenthood and Parent-Child Relationships (4 Credits)
This course explores the theory, research and issues relevant to parenthood and parent-child relationships. The course overviews the evolutionary, neurobiological, and psychological perspective of parent-child relationships with a focus on the understanding of recent advances in neuroscience research. Topics include neuroplasticity of parental brain, maternal vs. paternal biology for parenting, and social and biological determinants of parent-child relationships. Emphasis is placed on discussion of current research, evaluation of the findings, and proposals and ideas of new research in the field. The goal is not to memorize facts but rather to learn to think like a developmental cognitive/social neuroscientist. Cross-listed with course PSYC 3055. Prerequisite: Instructor permission.

PSYC 4060 History and Systems of Psych (5 Credits)
General nature of scientific progress throughout history as relates to evolution of psychology as scientific/academic discipline; history explored by asking whether prevailing Zeitgeist, the appearance of the "Great Mind," or some combination of both factors was responsible for pivotal changes seen throughout psychology's history.

PSYC 4085 Stress & Health (5 Credits)
This course will serve as an introduction to the field of psychoneuroimmunology, with a focus on stress and development. The first section of the course will review basic immunology including immune system components and functions, and relations between the immune system and other systems. The later portion of the course will focus on effects of stress for different disease mechanisms (infection, allergy, cancer etc).
PSYC 4235 Teaching Psychology (1-5 Credits)
Experiential approach to learning techniques for teaching psychology.

PSYC 4241 Seminar-Discourse Processes (5 Credits)

PSYC 4249 Prosem in Reading and Language (5 Credits)

PSYC 4254 Intro to Neural Network Models (4 Credits)
Cross listed with PSYC 3032.

PSYC 4255 Imaging the Mind (4 Credits)
Imaging Cognition is an introductory course to the basic theory and data analysis techniques used in functional magnetic resonance imaging (fMRI). It will cover basic brain anatomy, the basic physics of MRI, experimental design, data processing and the issues associated with data processing, and interpretation of fMRI data. Students in this course will receive hands-on experience in processing a data set from start to finish. They will apply different image preprocessing techniques, statistical design parameters, and statistical models to determine how these factors influence the outcome of the data and how these factors influence the interpretation of that data. In this manner, each student will be exposed individually to the decision issues and interpretation pitfalls involved in fMRI data analysis. In class, students will use the smart-to-the-seat classroom. Cross listed with PSYC 3029.

PSYC 4256 Seminar:Cognitive Neuroscience (5 Credits)
Neural systems underlying human perception, memory, language, pathological syndromes that result from damage to these systems.

PSYC 4257 Psychophys & Neuroscience Lab (5 Credits)

PSYC 4258 Social Neuroscience (5 Credits)

PSYC 4260 Psychophysiology (5 Credits)
This course will serve as an introduction to the field of psychophysiology, with a focus on autonomic psychophysiology (e.g., measures of the electrodermal and the cardiovascular system). Such measures uniquely allow researchers to answer questions about mind-body interactions, emotions, cognition, and health, among others. The first section of the course will review theory of psychophysiology and relevant physiological systems as well as introduce students to the basics of psychophysiological measurement. The second section of the course will be hands-on, allowing students either to write a study proposal involving psychophysiological measurement or to use the psychophysiology lab to design and execute their own study using physiological measures.

PSYC 4262 Affective Neuroscience (4 Credits)
Affective neuroscience is the study of emotions in the brain. In this course, we explore how new frontiers in emotion research, from brain scans to psychoactive drugs to monkey colonies, have changed the way we think about emotions and moods. We aim to learn how scientists ask these new questions: how and what can we learn about emotion from animal models, patient studies, genetic studies, brain scans, and drugs? We learn and debate different theories about what emotions are: when are emotions helpful and harmful? Why do we have them? How many are there? Can we control how we feel? Finally, we learn how to think about emotions scientifically: What kind of evidence matters? How do emotion scholars talk about their work? What kind of questions can we ask, and what kind can we hope to answer?

PSYC 4265 Social Perception and Communication (5 Credits)
The way that people look and communicate evoke immediate and sometimes automatic responses from other people. Accordingly, this course includes topics such as facial structure and function, nonverbal communication, social categorization, behavioral mimicry, and thin-slices.

PSYC 4270 Seminar-Social Cognition (5 Credits)
Theory research in cognitive social psychology, including social knowledge structures, categorization of social information, social memory, judgment and inference, cognition-emotion links, effects on social behavior.

PSYC 4295 Research Design & Inference (5 Credits)

PSYC 4300 Correlation and Regression (5 Credits)
Theory/computational methods of major parametric/ nonparametric correlation techniques.

PSYC 4330 Analysis of Variance (5 Credits)
Complex analysis of variance, other quantitative methodologies. Prerequisite: PSYC 4300 or instructor’s permission.

PSYC 4350 Structural Equation Modeling for the Social Sciences (5 Credits)
This advanced course covers the basics of structural equation modeling and how this flexible approach to statistical analysis can be applied in the social sciences. Specific techniques that will covered will include testing for mediation, path analysis, confirmatory factor analysis, and the analysis of longitudinal data, as well as other related topics. There will be an emphasis on applying these techniques to students’ own research through hands-on demonstrations and homework assignments and an emphasis on interpreting and critiquing structural equation models in published research. A course on correlational methods and regression is a pre/co-requisite.

PSYC 4355 Multilevel Modeling for the Psychological Sciences: Theory and Applications (5 Credits)
This advanced course covers the basics of multilevel (hierarchical) linear modeling and how this flexible approach to statistical analysis can be applied to theory and data in the psychological sciences. Specific techniques that will be covered include the analysis of nested data, family and dyadic data, and longitudinal data as well as mediation and moderation. There will be an emphasis on applying these techniques to students’ own research through hands-on demonstrations and homework assignments. There will also be an emphasis on interpreting and critiquing multilevel modeling analyses in published research. Courses on analysis of variance as well as correlational methods and regression are pre/corequisites.
PSYC 4411 Child Assessment-Cognition (2-5 Credits)
PSYC 4413 Child Assessment-Personality (5 Credits)
Overview of evidence-based psychological assessment (emotional, behavioral, and social) of children and adolescents with a focus on integrating theory, research, and clinical practice.

PSYC 4511 Prosem in Psychopathology (5 Credits)
Theories of behavioral/personality disorders on children; survey of clinical/experimental literature.

PSYC 4512 Prosem in Psychopathology (5 Credits)

PSYC 4518 Readings in Family Therapy (5 Credits)
This course will survey major historical and contemporary theories from the field of family therapy. Basic family therapy techniques will be covered, and integrated with other modes of therapy (e.g. individual, marital). In the second half of the course, students will work with families and receive group supervision.

PSYC 4525 Prosem in Develop Neuropsych (5 Credits)
Normal brain development, functional neuroanatomy, clinical conditions that can affect brain functioning in children, adults.

PSYC 4526 Prosem in Cog Neuroscience (5 Credits)
This is a graduate-level introduction to cognitive neuroscience. It covers basic theories of cognition and their neurological support.

PSYC 4540 Adv Topics in Cognitive Devel (5 Credits)
Varying topics; theory/research in cognitive development including Piagetian work. Prerequisite: graduate status or instructor's permission.

PSYC 4545 Memory Dvlpmt:Nature & Nurture (5 Credits)
Theory & research in the field of memory development, with particular emphasis on neurobiological perspectives of memory development. Considers the role of biology (nature), as well as the socio-cultural context (nurture) in which memory develops. Specific topics in memory development will include: early memory development & infantile amnesia, infant visual recognition memory, procedural memory, episodic memory, autobiographical memory, and trauma & memory development. Since the course covers topics in systems level neuroscience (i.e., a class in behavioral or cognitive neuroscience). Classes that fulfill this prerequisite include PSYC 4255, PSYC 4256, PSYC 4257, PSYC 4525 or PSYC 4526 or instructor approval.

PSYC 4565 Systems of Psychotherapy (5 Credits)
The course provides an introduction to evidence-based treatment for children and adolescents. Conceptual and empirical underpinnings of youth therapies are examined. Treatments for three prominent child and adolescent disorders - disruptive behavior problems, depression, and anxiety disorders - are highlighted. Demonstration and practice of specific treatment components is included.

PSYC 4566 Systems of Psychotherapy II (5 Credits)
Conceptual/empirical foundations of interventions for clinical problems, including (but not limited to) parasuicidality, Borderline Personality Disorder, and substance abuse.

PSYC 4571 Multicult Issues & Ment Health (5 Credits)
Theory, research, and practice issues related to the mental health of racial/ethnic minority and other diverse groups.

PSYC 4579 Research Design (5 Credits)

PSYC 4587 Workshop in Marital Therapy (4 Credits)

PSYC 4612 Marital Conflict (1-10 Credits)

PSYC 4620 Advan in Couples Intervention (5 Credits)

PSYC 4625 Marital/Couples Thrpy-Div Popl (5 Credits)
This course will cover the complexities in couples research and intervention that are the focus of current investigations in labs around the world. The major issues revolve around the role that marital problems play in the development, maintenance and treatment of a variety of child and adult problems and vice versa. These will include, adult sexual problems, alcohol and drug use and abuse, anxiety disorders, depression, medical problems, and that marital discord and destructive conflict are generic risk factors for a wide range of child and adult mental health problems and that marital health is a protective factor.

PSYC 4660 Perception: A Cognitive Neuroscience Approach (4 Credits)
An introduction to human perception with a strong emphasis on visual perception. This course evaluates the current understanding of how neural activity in the brain allows people to perceive basic sensory features (e.g., brightness, color, size, position, depth, movement, loudness and pitch) as well as recognize and discriminate complex perceptual patterns (e.g., 2D-shapes, 3D-objects, faces, and scenes). The underlying mechanisms are discussed on the basis of behavioral, neurophysiological, and computational evidence.

PSYC 4688 Clinical Psychopharmacology (4 Credits)
This course offers an in-depth examination of medications used to treat mental disorders, including the neurobiology of these medications. Different options available for each disorder will be discussed, along with issues related to the effective use of psychiatric medications. Prerequisites: Instructor approval required.

PSYC 4920 Ethics-Psych & Rsrch Practice (2 Credits)
Ethical issues on psychological research. Teaching, practice.
PSYC 4925 Clinical Ethics and Professional Issues in Psychology (3 Credits)
Ethical topics related to clinical psychology; professional topics in clinical psychology such as supervision and consultation. Instructor permission required.

PSYC 4930 Psychology Practicum-Clinical (1-5 Credits)
On-the-job training in clinical psychology. May be repeated for a maximum of 24 quarter hours. Prerequisite: Admission to doctoral program.

PSYC 4931 Psychology Practicum-Teaching (1-5 Credits)
On-the-job training in teaching psychology. May be repeated for a maximum of 24 quarter hours. Prerequisite: Admission to doctoral program.

PSYC 4932 Psychology Practicum-Research (1-5 Credits)
On-the-job training in research psychology. May be repeated for a maximum of 24 quarter hours. Prerequisite: Admission to doctoral program.

PSYC 4934 Practicum: DCN Neuropsychology (1-10 Credits)

PSYC 4992 Directed Study (1-10 Credits)

PSYC 5991 Masters Independent Study (1-10 Credits)

PSYC 5995 Masters Independent Research (1-10 Credits)

PSYC 6981 APA Internship (8 Credits)
1 Year APA approved Internship in clinical psychology - the course is not graded.

PSYC 6991 Ph.D Independent Study (1-10 Credits)

PSYC 6995 Ph.D Independent Research (1-10 Credits)

Religious Studies
Office: Department of Religious Studies, Room 266
Mail Code: 2000 E. Asbury Ave., Denver, CO 80208
Phone: 303-871-2740
Email: rlgs@du.edu
Web Site: du.edu/ahss/religiousstudies/

The Department of Religious Studies offers a master of arts (MA) degree in Religious Studies and, together with the Iliff School of Theology, a doctor of philosophy (PhD) degree, as well as a graduate certificate in Religious Studies.

Why pursue an MA in Religious Studies at the University of Denver?
The Department of Religious Studies offers graduate students the opportunity to study with its distinguished faculty in a program that emphasizes breadth and depth. Religious Studies faculty members are well published and have won several distinguished teaching awards. They have served in leadership roles in national learned societies and have received grants from the National Endowment for the Humanities, the American Council of Learned Societies and the Guggenheim Foundation.

The program provides students with a substantive grounding in the major religious traditions of the world, as well as training in the discipline of religious studies. Through the areas of specialization, it provides students with the opportunity to develop a specific and scholarly expertise in one of the following particular fields of interest: Sacred Texts, Critical Theory and Religion, Religion and International Studies, Philosophy of Religion, Lived Religions, Biblical Studies, Theory of Religion, International and Multicultural Studies, Islamic Studies, and World Religions. Students can use these areas of specializations to deepen their own expertise in a particular area while preparing for thesis work or comprehensive exams.

As part of broader University mandates to support interdisciplinary work and internationalization (study and research abroad), the Department of Religious Studies expects students to embrace multiple disciplinary perspectives. It encourages students to enrich their graduate studies by taking courses in other departments and to work with faculty outside Religious Studies. For example, students in the MA program routinely take graduate-level courses in Anthropology, International Studies, Philosophy and Art History. Similarly, students in the MA program are encouraged to pursue advanced language training in the language(s) of their sub-field as well as modern research languages. Finally, the Department encourages students to study or conduct research abroad, as appropriate, and to seek external support in ways that will enhance their curriculum vitae as well as their scholarly and professional training.

Program advantages include the following:

• The opportunity to develop broad competencies in major religious traditions and the discipline of Religious Studies, while cultivating scholarly expertise in a particular area of specialization.
• Small classes that facilitate professor-student interaction, encouraging faculty mentoring while fostering community and collegiality with other graduate students.
• The opportunity to pursue interdisciplinary training and related interests by taking courses or working one-on-one with faculty in other University of Denver departments.
• Preparation either for doctoral work or for a professional career, with strong support from faculty and the University of Denver’s career counselors.
• Opportunities to engage with and conduct research within metropolitan Denver, a culturally and religiously diverse city with a high quality of life.
• Substantial scholarship packages, including tuition credits and opportunities to serve as a research assistant.

What do applicants need in order to qualify for the Religious Studies MA program?

Applicants must have an undergraduate degree from an accredited college, with a minimum grade point average (GPA) of 3.0. Applicants must meet the minimum performance standard set by the Office of Graduate Studies for the Graduate Record Examination (GRE) or the Test of English as a Foreign Language (TOEFL). Applicants must have an appropriate background in the study of the humanities. Undergraduate courses in Religious Studies are highly desirable, but all work in related areas will be taken into consideration.

In addition, successful applicants will have the following qualifications:
• Academically qualified for graduate level study
• Prepared to do coursework and conduct research that emphasizes engagement with local and global communities
• Motivated to work collegially with faculty and other students in a community of learning

What can graduates do with a MA in Religious Studies?
The MA degree in religious studies prepares students for PhD work or for teaching and careers in journalism, government, education, and nonprofit organizations in which cross-cultural analytical skills are important. The program provides broad competencies in several religious traditions, while offering students the opportunity to specialize in an area of particular interest.

Joint PhD Program in the Study of Religion
A number of graduates of the Department of Religious Studies’ MA program choose to continue their doctoral studies in the Joint PhD program.

The Joint PhD Program, which the Department of Religious Studies offers in partnership with the Iliff School of Theology, is taught by distinguished faculty from the University of Denver and Iliff. The program enrolls students from across the nation and around the world. The facilities and libraries of both institutions are open to all Joint PhD students, offering considerable research and academic resources. Please note that admission to the Joint Doctoral Program is a separate process, distinct from admission to the Department’s MA program. For more details, please visit the joint PhD website at www.du.edu/duiliffjoint/ (http://www.du.edu/duiliffjoint).

Why pursue a Graduate Certificate in Religious Studies at the University of Denver?
The graduate certificate in Religious Studies provides students with an opportunity to acquire graduate-level exposure to the academic study of religion and to several of the world’s major religious traditions. This certificate program provides students with the opportunity to do the following:

1. develop an introductory, graduate-level understanding of two major world religious traditions;
2. to gain a grasp of pertinent theoretical approaches to the study of religion; and
3. to engage major issues in a particular religious tradition or aspect of religion.

For students currently enrolled in graduate programs in fields other than religious studies or the study of religion - such as business, international studies, law or other AHSS disciplines - this certificate will augment the competencies gained in their primary program. For students currently pursuing a career, particularly those in consulting, journalism, the law, the non-profit sector, public policy, education, human resources, faith-based institutions/organizations or other professions where a knowledge of religious beliefs, practices and values can be important, this certificate will enhance their professional credentials or expand their expertise into a new arena.

What do applicants need in order to qualify for the Religious Studies graduate certificate program?
Successful applicants will have the following qualifications:
• Academically qualified for graduate level study
• Prepared to do coursework and conduct research that emphasizes engagement with local and global communities
• Motivated to work with faculty and other students in a community of learning

Why Pursue A graduate Certificate in Religion and International Affairs at the University of Denver?
The Graduate Certificate in Religion and International Affairs provides students pursuing MA degrees in the Department of Religious Studies (AHSS) or the Josef Korbel School of International Studies with the opportunity to enhance their home program of study with specific expertise in the scholarly and professional field of religion and international affairs. This certificate program emphasizes scholarly and practitioner approaches to understanding the intersections between religion and international affairs in the modern world, providing students with an interdisciplinary approach to contemporary case studies as well as theoretical issues.
MASTER OF ARTS IN RELIGIOUS STUDIES

Following are the simple steps to apply for the Master of Arts in Religious Studies at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies (http://www.du.edu/learn/graduates), by the program’s stated deadline: February 15, for fall admission to the master’s program. Late applications will be considered but priority consideration for admission and departmental scholarships will be given to applicants meeting the deadline. Students may apply at any time for winter, spring, and summer admission but will be considered on a space-available basis.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU with an appropriate undergraduate background in relevant arts, humanities or social science disciplines and a minimum “B” (3.0) grade point average. Meeting this and the minimum test score standard (noted below) does not guarantee admission, but no application will be seriously considered if such standards are not met.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official school abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.

- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and Scrip-Safe.
- Paper Transcripts should be sent to the following address:

  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802

- Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/ accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
- Students whose native language is not English and who are required to submit TOEFL/ IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation. IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
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• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores
• Master’s applicants are required to submit Graduate Record Examination (GRE) scores including a minimum 500/153 on the verbal section. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842. The GRE is not required for applicants to the certificate program.

Personal Statements / Writing Samples
• A personal statement that describes your interest in religious studies and your career goals is required. The statement, of at least 300 words, should include information concerning your life, education, practical experience, special interests and specific purpose for applying to the University of Denver. It should also include which of our six areas of specialization you would likely select, and why. The statement should be submitted via upload through the online application process.
• An academic writing sample of 3–10 pages is required. Applicants may submit all or part of a paper previously submitted for a course, or may submit another piece of written work. If submitting a section of a longer paper, please provide a brief (one paragraph) abstract (summary) of the larger work from which the excerpt is taken. The writing sample should be submitted via upload through the online application process.

Recommendation Letters
• Three letters of recommendation are required for master’s applicants. At least one should come from a professor or faculty member who can comment on your academic performance and potential. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent well in advance so the letters are on file by the application deadline.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
• The Department of Religious Studies offers various forms of financial support to master’s students including tuition credits and scholarships. Applicants are encouraged to apply early for consideration.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online. Applicants will receive login information post application submission.

Contact Information
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  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.
• For more information call (303) 871-2706.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://bulletin.du.edu/graduate/gradpolicy). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures (http://bulletin.du.edu/graduate/gradpolicy) provides complete details regarding admission requirements.

CERTIFICATE IN RELIGIOUS STUDIES
Following are the simple steps to apply for the certificate in Religious Studies at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
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• Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

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• A personal statement that describes your interest in religious studies and your career goals is required. The statement, of at least 300 words, should include information concerning your life, education, practical experience, special interests and specific purpose for applying to the University of Denver. It should also include which of our six areas of specialization you would likely select, and why. The statement should be submitted via upload through the online application process.
• An academic writing sample of 3–10 pages is required. Applicants may submit all or part of a paper previously submitted for a course, or may submit another piece of written work. If submitting a section of a longer paper, please provide a brief (one paragraph) abstract (summary) of the larger work from which the excerpt is taken. The writing sample should be submitted via upload through the online application process.
Recommendation Letters
• Certificate applicants are required to submit one letter of recommendation that can address both academic aptitude and career goals. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online. Applicants will receive login information post application submission.

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International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/financialaid/graduate). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures (http://bulletin.du.edu/graduate/gradpolicy) provides complete details regarding admission requirements.

Certificate in Religion and International Affairs
Interested applicants from the Religious Studies or the Korbel School of International Studies MA programs will submit an online application consisting of a 500-word personal statement, a CV, and undergraduate and graduate transcripts, which will be reviewed by a committee composed equally of Religious Studies and International Studies faculty. Applications must be enrolled and students in good standing in the Department of Religious Studies MA program or the Korbel School of International Studies MA program.

The Graduate Policies and Procedures (http://bulletin.du.edu/graduate/gradpolicy) provides complete details regarding admission requirements.

Master of Arts in Religious Studies
The MA in Religious Studies requires a minimum of 45 hours of coursework, including one theory and methods course.

Degree Requirements
Coursework Requirements

Course requirements:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>RLGS 4000</td>
<td>Theory and Methods in the Study of Religion</td>
<td>4</td>
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<tr>
<td>Select three of the following:</td>
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<td>12</td>
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<tr>
<td>RLGS 3814</td>
<td>Modern Hinduism</td>
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<td>or RLGS 3816</td>
<td>Hinduism Through Texts</td>
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<td>RLGS 3820</td>
<td>Buddhism</td>
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<td>RLGS 3001</td>
<td>Judaism</td>
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<tr>
<td>RLGS 3203</td>
<td>Christianity</td>
<td></td>
</tr>
<tr>
<td>RLGS 3500</td>
<td>Islam</td>
<td></td>
</tr>
</tbody>
</table>

Areas of specialization
Select at least 16 hours in one of the following ten areas of specialization: 16

Biblical Studies
Students must take in addition to the core requirements at least one course in Christianity, Judaism, and Islam plus at least one additional course in either Judaism or Christianity. Students will also be expected to meet minimum competency standards in either Hebrew or Koiné Greek.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLGS 3001</td>
<td>Judaism</td>
</tr>
<tr>
<td>RLGS 3102</td>
<td>Early Judaism</td>
</tr>
<tr>
<td>RLGS 3151</td>
<td>Dead Sea Scrolls</td>
</tr>
</tbody>
</table>
Critical Theory

Critical theory and religion brings post-World War II theories of religion from a range of disciplines in the social sciences and humanities into conversation with both the original discourses of "critical theory" as developed by the Frankfurt School and the so-called "new critical theory" in its interdisciplinary scope, which focuses on such topics as race, class, gender, ethnicity, and globalization. Students in this area of specialization may choose each year from a prescribed lists of courses both inside and outside the department, including those specifically listed for the university's own "critical theory" curriculum spanning a wide range of fields and departments. At least two courses taken for this area of specialization must have an RLGS prefix.

Sacred Texts

The Department of Religious Studies has faculty strength and research resources to support advanced study of sacred texts. Students who choose this concentration may focus on texts of one religious tradition, (e.g., Hebrew Bible, the Christian testament, the Qur’an, etc.) or may opt for a comparative approach. Students must acquire appropriate competency in the relevant language(s), minimally the equivalent of one full year of study, prior to matriculation or independently during the first year in the Program. The University does not offer introductory, graduate-level instruction in biblical Hebrew, koine Greek, Arabic, Sanskrit, Pāli, classical Chinese or Tibetan. Introductory language courses cannot be approved for credit to fulfill degree requirements.
RLGS 3318  Jesus on the Silver Screen
RLGS 3503  Quran and Hadith
RLGS 3740  Bodies and Souls
RLGS 3816  Hinduism Through Texts
RLGS 4105  Understanding the Bible: Old Testament
RLGS 4122  Augustine on Genesis
RLGS 4150  Biblical Aramaic
RLGS 4191  Early Christian Old Testament Interpretations
RLGS 5110  Hebrew Bible Seminar I
RLGS 5111  Hebrew Bible Seminar II
RLGS 5112  Hebrew Bible Seminar III
RLGS 5113  New Testament Seminar I
RLGS 5114  New Testament Seminar II
RLGS 5115  New Testament Seminar III

Religion and International Studies
The specialization in religion and international studies focuses on the role of religion in the interplay of different religions and cultures within a global context. Particular attention may be given to certain regions such as the Americas, Asia, or the Middle East, depending on the interest or availability of faculty. Students must take at least one course in a specific religious tradition beyond the core requirements as well as one course in the theory of religion that pertains to international and multicultural studies. The remaining courses can be chosen from the department’s approved list of courses for the area of specialization. Finally, students must take at least 4 hours of course work (including independent study, service learning, or field work) at a location outside the United States and Canada that meet the student’s curricular and long-term professional goals. Depending on the student’s program of study, the department may in certain instances require the passing of a competency exam in a language relevant to that program of study (e.g., if the focus is on the Middle East, the language would be Arabic; if on Latin America, Spanish).

RLGS 3204  Christianity in the British Isles
RLGS 3300  Psychology of Religion
RLGS 3302  Islamic Fundamentalism
RLGS 3350  Culture, Psyche, and Religion
RLGS 3381  Religion & Psychobiography
RLGS 3452  Political Theology
RLGS 3500  Islam
RLGS 3501  Pilgrimage in Islam
RLGS 3502  Contemporary Islam
RLGS 3601  Religion and Culture in Vienna
RLGS 3693  Religion and the Media
RLGS 3707  Religion and Film
RLGS 3760  Globalization and Religion: Theory and Methods
RLGS 3813  Ritual
RLGS 3814  Modern Hinduism
RLGS 3832  Religious Lives: The Dalai Lamas
RLGS 3890  Religion and Diaspora
RLGS 3892  Grant Writing as Research and Community Engagement
RLGS 4050  History of Islam
RLGS 4501  Intersections of Faith and Media
RLGS 4676  Latino Religious Cultures: Methods and Theories
ANTH 3020  Native Religions
INTS 4011  Comparative Genocide
INTS 4525  Religion-State Relations in Comparative Perspectives
INTS 4526  Modern Islamic Political Thought
INTS 4543  Religion and International Studies: The Apocalyptic Tradition

Lived Religions
In addition to the core requirements, students must take at least four courses (within or outside the department) in the historical, social, and cultural forms and practices of the world’s various religions, which can also include new, indigenous, or African religions. To satisfy requirements for this area of specialization, a student must have taken, transferred in, or waived at least one course during the program in Judaism, Christianity, Islam, Hinduism, Buddhism, or Latino religious traditions, regardless of whether these courses count for core credit or toward the area of specialization.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>RLGS 3001</td>
<td>Judaism</td>
</tr>
<tr>
<td>RLGS 3102</td>
<td>Early Judaism</td>
</tr>
<tr>
<td>RLGS 3203</td>
<td>Christianity</td>
</tr>
<tr>
<td>RLGS 3204</td>
<td>Christianity in the British Isles</td>
</tr>
<tr>
<td>RLGS 3302</td>
<td>Islamic Fundamentalism</td>
</tr>
<tr>
<td>RLGS 3381</td>
<td>Religion &amp; Psychobiography</td>
</tr>
<tr>
<td>RLGS 3500</td>
<td>Islam</td>
</tr>
<tr>
<td>RLGS 3501</td>
<td>Pilgrimage in Islam</td>
</tr>
<tr>
<td>RLGS 3502</td>
<td>Contemporary Islam</td>
</tr>
<tr>
<td>RLGS 3570</td>
<td>Religion and Morality in the American Public Square</td>
</tr>
<tr>
<td>RLGS 3601</td>
<td>Religion and Culture in Vienna</td>
</tr>
<tr>
<td>RLGS 3641</td>
<td>Religion and Race in America</td>
</tr>
<tr>
<td>RLGS 3680</td>
<td>American Religious Experience</td>
</tr>
<tr>
<td>RLGS 3830</td>
<td>Buddhist Lives</td>
</tr>
<tr>
<td>RLGS 3832</td>
<td>Religious Lives: The Dalai Lamas</td>
</tr>
<tr>
<td>RLGS 3813</td>
<td>Ritual</td>
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<tr>
<td>RLGS 3814</td>
<td>Modern Hinduism</td>
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<tr>
<td>RLGS 3820</td>
<td>Buddhism</td>
</tr>
<tr>
<td>RLGS 3890</td>
<td>Religion and Diaspora</td>
</tr>
<tr>
<td>RLGS 3899</td>
<td>International Service Learning Colloquium</td>
</tr>
</tbody>
</table>

Theory of Religion

Students must take approved courses in each of the three theoretical areas of the study of religion: philosophy of religion, psychology of religion, anthropology of religion. The remaining course, or courses, can be chosen from the department’s approved list of courses for the area of specialization.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLGS 3300</td>
<td>Psychology of Religion</td>
</tr>
<tr>
<td>RLGS 3302</td>
<td>Islamic Fundamentalism</td>
</tr>
<tr>
<td>RLGS 3315</td>
<td>Religion &amp; Moral Psychology</td>
</tr>
<tr>
<td>RLGS 3318</td>
<td>Jesus on the Silver Screen</td>
</tr>
<tr>
<td>RLGS 3350</td>
<td>Culture, Psyche, and Religion</td>
</tr>
<tr>
<td>RLGS 3370</td>
<td>Freud, Psychology, &amp; Religion</td>
</tr>
<tr>
<td>RLGS 3381</td>
<td>Religion &amp; Psychobiography</td>
</tr>
<tr>
<td>RLGS 3400</td>
<td>Philosophy of Religion</td>
</tr>
<tr>
<td>RLGS 3465</td>
<td>Derrida and Postmodernism</td>
</tr>
<tr>
<td>RLGS 3475</td>
<td>Deleuze and Semiotics</td>
</tr>
<tr>
<td>RLGS 3641</td>
<td>Religion and Race in America</td>
</tr>
<tr>
<td>RLGS 3693</td>
<td>Religion and the Media</td>
</tr>
<tr>
<td>RLGS 3707</td>
<td>Religion and Film</td>
</tr>
<tr>
<td>RLGS 3760</td>
<td>Globalization and Religion: Theory and Methods</td>
</tr>
<tr>
<td>RLGS 3813</td>
<td>Ritual</td>
</tr>
<tr>
<td>RLGS 3890</td>
<td>Religion and Diaspora</td>
</tr>
<tr>
<td>RLGS 4501</td>
<td>Intersections of Faith and Media</td>
</tr>
</tbody>
</table>

International and multicultural studies

This specialization focuses on the role of religion within the context of the globalization process. Particular attention may be given to certain regions such as the Americas, Europe, or Asia. Students must take at least one course in a specific religious tradition beyond the core requirements as well as one course in the theory of religion that pertains to international and multicultural studies. Finally, students must take at least four hours of course work (including independent study, an internship, service learning, or field work) at a location outside North America that meet the student’s curricular and long-term professional goals. Depending on the program of study, the department may require a competency exam in a relevant language.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>RLGS 3302</td>
<td>Islamic Fundamentalism</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
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<td>--------------------------------------------------</td>
</tr>
<tr>
<td>RLGS 3350</td>
<td>Culture, Psyche, and Religion</td>
</tr>
<tr>
<td>RLGS 3381</td>
<td>Religion &amp; Psychobiography</td>
</tr>
<tr>
<td>RLGS 3452</td>
<td>Political Theology</td>
</tr>
<tr>
<td>RLGS 3500</td>
<td>Islam</td>
</tr>
<tr>
<td>RLGS 3501</td>
<td>Pilgrimage in Islam</td>
</tr>
<tr>
<td>RLGS 3502</td>
<td>Contemporary Islam</td>
</tr>
<tr>
<td>RLGS 3570</td>
<td>Religion and Morality in the American Public Square</td>
</tr>
<tr>
<td>RLGS 3601</td>
<td>Religion and Culture in Vienna</td>
</tr>
<tr>
<td>RLGS 3641</td>
<td>Religion and Race in America</td>
</tr>
<tr>
<td>RLGS 3680</td>
<td>American Religious Experience</td>
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<tr>
<td>RLGS 3693</td>
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<td>Ritual</td>
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<tr>
<td>RLGS 3814</td>
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<tr>
<td>RLGS 3890</td>
<td>Religion and Diaspora</td>
</tr>
<tr>
<td>RLGS 3892</td>
<td>Grant Writing as Research and Community Engagement</td>
</tr>
<tr>
<td>RLGS 4501</td>
<td>Intersections of Faith and Media</td>
</tr>
<tr>
<td>RLGS 4676</td>
<td>Latino Religious Cultures: Methods and Theories</td>
</tr>
</tbody>
</table>

**Philosophy of religion**

Students must take at least two courses in the theory of religion plus one course in a specific philosopher, or philosophers, from each of the two historical periods: ancient and modern (Plato to Kant), late modern and postmodern (Hegel to the present). The remaining courses can be chosen from the department’s approved list of courses for this area of specialization, and will likely involve additional courses taken in the Philosophy Department.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLGS 3023</td>
<td>Great Thinkers: Maimonides</td>
</tr>
<tr>
<td>RLGS 3192</td>
<td>Christian Classics</td>
</tr>
<tr>
<td>RLGS 3350</td>
<td>Culture, Psyche, and Religion</td>
</tr>
<tr>
<td>RLGS 3370</td>
<td>Freud, Psychology, &amp; Religion</td>
</tr>
<tr>
<td>RLGS 3400</td>
<td>Philosophy of Religion</td>
</tr>
<tr>
<td>RLGS 3452</td>
<td>Political Theology</td>
</tr>
<tr>
<td>RLGS 3455</td>
<td>Phenomenology and Theology: Husserl to Marion</td>
</tr>
<tr>
<td>RLGS 3460</td>
<td>Nietzsche &amp; the Death of God</td>
</tr>
<tr>
<td>RLGS 3465</td>
<td>Derrida and Postmodernism</td>
</tr>
<tr>
<td>RLGS 3475</td>
<td>Deleuze and Semiotics</td>
</tr>
<tr>
<td>RLGS 3693</td>
<td>Religion and the Media</td>
</tr>
<tr>
<td>RLGS 4402</td>
<td>Plato: Postmodern Perspective</td>
</tr>
<tr>
<td>RLGS 4501</td>
<td>Intersections of Faith and Media</td>
</tr>
</tbody>
</table>

**Islamic studies**

This specialization introduces students to the textual foundations of Islamic theology and legal reasoning, as well as exposing them to major issues in the development of Islamic traditions, contemporary developments, and particularly questions of reform and fundamentalism. In addition to RLGS 3500, students must take a minimum of three additional courses dealing with Islam. Students must pass a competency examination in Arabic, equivalent to two years of coursework.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLGS 3302</td>
<td>Islamic Fundamentalism</td>
</tr>
<tr>
<td>RLGS 3500</td>
<td>Islam</td>
</tr>
<tr>
<td>RLGS 3501</td>
<td>Pilgrimage in Islam</td>
</tr>
<tr>
<td>RLGS 3502</td>
<td>Contemporary Islam</td>
</tr>
<tr>
<td>RLGS 3503</td>
<td>Quran and Hadith</td>
</tr>
</tbody>
</table>

**World religions**

This specialization focuses on the major world religious traditions, as well as enabling students to look comparatively at these traditions. In addition to the core requirements, students must take at least four courses in the world’s major religious traditions.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLGS 3001</td>
<td>Judaism</td>
</tr>
<tr>
<td>RLGS 3102</td>
<td>Early Judaism</td>
</tr>
<tr>
<td>RLGS 3203</td>
<td>Christianity</td>
</tr>
</tbody>
</table>
Minimum number of credits required for the degree: 45

Beginning Fall 2016, regardless of their area of specialization, all MA students are required prior to completing the degree to take at least 4 hours outside the department. The course cannot be independent or directed study. Students admitted prior to Fall 2016 do not need to meet this requirement.

Students must declare an area of specialization after completing 32 hours of course work.

Non-Coursework Requirements
In order to complete the MA degree, students must revise a research paper into a journal article, write a thesis, pass a set of comprehensive examinations, or complete a substantive research project.

- **Journal Article Track**: To be eligible for the journal article, students must have a 3.5 GPA; to be eligible for the thesis option, students must have a minimum 3.3 GPA. Students pursuing the journal article option will research religious studies journals and select an appropriate target journal with their advisor's approval. They will expand a course research paper into an article appropriate for the selected journal.

- **Thesis Track**: Students pursuing the thesis option will expand a course research paper into a graduate thesis of 50-60 pages. Both the article and the thesis should allow students to make an original contribution to the field of religious studies, as well as to demonstrate a mastery of relevant theories and background literature.

- **Comprehensive Exam Track**: The comprehensive examination will consist of three written exams over two successive days. Exam questions will deal respectively with two of the five major religious traditions (one drawn from Judaism, Christianity or Islam; one drawn from either Buddhism or Hinduism) and the theory of religion. General bibliographies for the exams, on which the student will be tested, must be worked out with the instructor administering the exam.

- **Project Track**: Students pursuing the project option will develop a project that will allow them to make an original contribution to the field of applied religious studies. It may take several forms but should include a substantive written component and a formal presentation.

Please note that all completion option defenses may only be scheduled during the regular academic year: Fall, winter or spring quarters.

The Department of Religious Studies allows graduate students to transfer up to 10 hours of previous graduate course work from another institution or another department at the University during the first quarter of the student's admission to the program. The transfer must be approved by the department as well as by the Office of Graduate Studies. Similarly, the Department allows students to earn waivers for the traditions requirements by submitting syllabi from similar courses taken at the undergraduate level.

Students may also take up to 15 hours in independent study, including independent studies with course numbers outside of the department.

In order for a course to fulfill degree requirements, students must earn a B- or better. The minimum grade for any elective course taken for the degree is a C.

Certificate in Religious Studies

The Graduate Certificate program allows students structured flexibility, providing exposure to religious traditions through the traditions requirement, training in the discipline of religious studies with the theory requirement, and the opportunity to pursue particular interests through elective courses. The certificate requires a minimum of 24 credit hours.

Program Requirements

Coursework Requirements

<table>
<thead>
<tr>
<th>Traditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLGS 3204 Christianity in the British Isles</td>
</tr>
<tr>
<td>RLGS 3475 Deleuze and Semiotics</td>
</tr>
<tr>
<td>RLGS 3500 Islam</td>
</tr>
<tr>
<td>RLGS 3501 Pilgrimage in Islam</td>
</tr>
<tr>
<td>RLGS 3502 Contemporary Islam</td>
</tr>
<tr>
<td>RLGS 3503 Quran and Hadith</td>
</tr>
<tr>
<td>RLGS 3680 American Religious Experience</td>
</tr>
<tr>
<td>RLGS 3740 Bodies and Souls</td>
</tr>
<tr>
<td>RLGS 3813 Ritual</td>
</tr>
<tr>
<td>RLGS 3814 Modern Hinduism</td>
</tr>
<tr>
<td>RLGS 3816 Hinduism Through Texts</td>
</tr>
<tr>
<td>RLGS 3820 Buddhism</td>
</tr>
<tr>
<td>RLGS 4676 Latino Religious Cultures: Methods and Theories</td>
</tr>
</tbody>
</table>

Elective Credits: 13

Total Credits: 45
Select two of the following:  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLGS 3814</td>
<td>Modern Hinduism</td>
</tr>
<tr>
<td>or RLGS 3816</td>
<td>Hinduism Through Texts</td>
</tr>
<tr>
<td>RLGS 3820</td>
<td>Buddhism</td>
</tr>
<tr>
<td>RLGS 3001</td>
<td>Judaism</td>
</tr>
<tr>
<td>RLGS 3203</td>
<td>Christianity</td>
</tr>
<tr>
<td>RLGS 3500</td>
<td>Islam</td>
</tr>
</tbody>
</table>

**Theory**  
Select one of the following:  
<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>RLGS 3300</td>
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<tr>
<td>RLGS 3452</td>
<td>Political Theology</td>
</tr>
<tr>
<td>RLGS 3760</td>
<td>Globalization and Religion: Theory and Methods</td>
</tr>
<tr>
<td>RLGS 4000</td>
<td>Theory and Methods in the Study of Religion</td>
</tr>
</tbody>
</table>

**Electives**  
Students choose three courses from RLGS 3000-level courses

**Total Credits**

**Minimum number of credits required for the degree: 24**

**Certificate in Religion and International Affairs**

The Graduate Certificate in Religion and International Affairs provides students pursuing MA degrees in the Department of Religious Studies (AHSS) or the Josef Korbel School of International Studies with the opportunity to enhance their home program of study with specific expertise in the scholarly and professional field of religion and international affairs. This certificate program emphasizes scholarly and practitioner approaches to understanding the intersections between religion and international affairs in the modern world, providing students with an interdisciplinary approach to contemporary case studies as well as theoretical issues. The certificate requires a minimum of 27 credit hours.

**Program Requirements**

**Coursework Requirements**

**Core courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4525</td>
<td>Religion-State Relations in Comparative Perspectives</td>
</tr>
<tr>
<td>RLGS 3760</td>
<td>Globalization and Religion: Theory and Methods</td>
</tr>
</tbody>
</table>

**Elective courses**

Choose from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4526</td>
<td>Modern Islamic Political Thought</td>
</tr>
<tr>
<td>INTS 4534</td>
<td>Topics in Middle East Politics</td>
</tr>
<tr>
<td>INTS 4543</td>
<td>Religion and International Studies: The Apocalyptic Tradition</td>
</tr>
<tr>
<td>INTS 4638</td>
<td>Modern Iranian History and Politics</td>
</tr>
<tr>
<td>RLGS 3302</td>
<td>Islamic Fundamentalism</td>
</tr>
<tr>
<td>RLGS 3452</td>
<td>Political Theology</td>
</tr>
<tr>
<td>RLGS 3570</td>
<td>Religion and Morality in the American Public Square</td>
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<tr>
<td>RLGS 3641</td>
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<td>Globalization and Religion: Theory and Methods</td>
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<tr>
<td>RLGS 3814</td>
<td>Modern Hinduism</td>
</tr>
<tr>
<td>RLGS 3890</td>
<td>Religion and Diaspora</td>
</tr>
</tbody>
</table>

**Total Credits**

**Minimum number of credits required for degree: 27**

**Courses**

**RLGS 3001 Judaism (4 Credits)**

A literary and historical journey through Judaism. This course examines the "Jewish story" from its roots to its modern-day manifestations, focusing on select, classic Jewish texts in their historical contexts. From them, students explore Jewish tradition and practice and actively engage with and in the vivid interpretive imagination of the authors of Judaism throughout the ages. Cross listed with JUST 3001.
RLGS 3023 Great Thinkers: Maimonides (4 Credits)
Using "The Guide for the Perplexed" as our central text, we explore the complex philosophical ideas of Moses Maimonides (1135-1204), one of the central figures in medieval philosophy and Jewish thought. Our study includes analyses of his ideas on principles of faith, human perfection, intellectual vs. "imaginational" approaches to truth, pedagogy and politics, reasons for the commandments, the nature of God and divine will, the limits of human knowledge, the mechanics of prophecy, and the parameters and implications of providence. Cross listed with PHIL 3023 and JUST 3023. Prerequisite: junior standing or instructor’s permission.

RLGS 3024 Maimonides: Greek, Islamic, and Christian Encounters (4 Credits)
Using the "Guide of the Perplexed" as our central text, we explore the complex philosophical ideas of Moses Maimonides (1135-1204), a central figure in the history of philosophy and in the history of Jewish thought. In this course, we examine in depth the relationship between Maimonides' core ideas and various Greek, Muslim and Christian thinkers, including: Aristotle, Plotinus, al-Farabi, Avicenna (Ibn Sina), al-Ghazali, Averroes (Ibn Rushd), and Aquinas. Topics to be explored include: what is "metaphysics"?; God's unity and essence as existence itself; the mystery of knowing and not knowing God (including a consideration of God's ways as well as "negative theology"—viz. the extent to which we do not know God); God as pure intellect; the nature of the cosmos and the "separate intellects"; creation vs. eternity vs. emanation; philosophical and religious perspectives on the origins of the universe and implications for "living in the world with/out God." In our study, we will also address the methodological implications of cross-religious and cross-language analyses, and how to spot and address (in your own work and in the work of others) tacit cultural biases at play in the interpretive process. Cross listed with JUST 3024 and PHIL 3024. Prerequisite: Junior standing or instructor’s permission.

RLGS 3102 Early Judaism (4 Credits)
This course traces the development of Judaism in history and literature from the Babylonian Exile and the end of the biblical period through the origins of Rabbinic Judaism and the completion of the Babylonian Talmud (c. 650 CE). However, special emphasis is placed on Jewish culture in the late Second Temple period (c. 200 BCE to 100 CE) and its impact on the early Christian movement, including Jewish literature from the time of Jesus, lost texts of the Bible, new evidence from the Dead Sea Scrolls, and the few surviving historical sources of the Second Temple Period. In addition, students analyze how the Bible came to be and understand how sacred texts and their interpretations eventually became the new center of both Judaism and Christianity. Cross listed with JUST 3102.

RLGS 3150 The Bible & Dead Sea Scrolls (4 Credits)
This course includes an advanced study of the Dead Sea Scrolls with a particular focus on the Bible as it appears in the Qumran library. We will discuss the variant versions of the Bible, some of which were previously unknown before the discovery of the Scrolls, and how the findings of the Scrolls may question the very idea of "Bible" itself in the context of the late Second Temple Judaism. Further, we will place particular emphasis on studying the way biblical texts were engaged, interpreted and even written by the authors of the Dead Sea Scrolls. In this way, we shall explore the origins of biblical interpretation and how the notion of the Bible came to be. Cross listed with JUST 3150. Prerequisites: One year of Hebrew language or equivalent or by special permission of the instructor.

RLGS 3151 Dead Sea Scrolls (4 Credits)
The Dead Sea Scrolls represent one of the greatest manuscript finds of the twentieth century and have been said to be the most important discovery in biblical archaeology. These scrolls offer a rare window into early Judaism and Christianity and offer us the earliest and most important witnesses to the (Hebrew) Bible. This course covers the Dead Sea Scrolls in their historical, literary and religious context in English translation, together with relevant scholarly research. Cross listed with JUST 3151.

RLGS 3192 Christian Classics (4 Credits)
Reading and discussion of influential historic books pertaining to Christian life and devotion.

RLGS 3203 Christianity (4 Credits)
This is an introductory course about the Christian religion, with a substantial component devoted to experiential learning. The primary goal of the course is to acquaint students with the richness, dynamism and diversity of one of the world’s largest and most influential religious traditions. Even those students who have some general knowledge of Christianity benefit from the disciplined approach of the academic study of religion.

RLGS 3204 Christianity in the British Isles (4 Credits)
It is the contention of this course that Christianity in the British Isles constitutes a singular chapter in the history of the religion and must be approached and appreciated as such. The circumstances surrounding Christianity’s introduction to Britain—as documented by the Venerable Bede in his Ecclesiastical History of the English People—presaged a destiny for the English Church that would be “peculiar.” With decidedly Roman sympathies, Bede’s reforming agenda is presented as historical fait accompli. The narrative nevertheless bears witness to the vibrant and resilient character of Celtic spirituality. Although Henry VIII officially brought the Protestant Reformation to England from the Continent in the 1530s when he severed the English Church from the Papacy, the extent to which the Reformation in England was ever as theologically “Protestant” as it was in Europe is open to debate. The Oxford movement— at once reforming and catholicizing—would otherwise seem incongruous were that not the case. Indeed, as we shall see, the notion of semper reformanda ecclesia is, perhaps, most suited to this geographical context. Not surprisingly, playwrights, novelists, and filmmakers have found no little inspiration in Anglican reform’s concomitant turmoil and intrigue.

RLGS 3212 Development of the New Testament: The Evolution and Transmission of Christian Scripture (4 Credits)
Using a variety of critical methods, this course explores the social, political, and religious influences that shaped the New Testament as it was written, copied, edited, canonized, and translated into its current forms. Students will perform a variety of exercises in class to illustrate the complicated process by which the New Testament was formed.

RLGS 3300 Psychology of Religion (4 Credits)
Beliefs, feelings and actions representing human religious response of experience; function of religion in individual life.
RLGS 3302 Islamic Fundamentalism (4 Credits)
This writing-intensive course introduces students to the history and scope of fundamentalist movements in the Muslim world, focusing on the Middle East. Beginning with a look at the internal traditions of renewal and reform built around the idea of a return to the fundaments or origins of Islam, the course examines the rise of major movements from the 1700s to the present. Students will engage with key questions, including the following: What distinguishes fundamentalism from radicalism? How do Sunni and Shi'i fundamentalisms differ? What roles have these movements played in politics and society, and how might these evolve in the future? How might policy makers and others best approach fundamentalist groups? A basic knowledge of Islam is assumed; students wishing to enroll without this background knowledge will be provided supplementary readings.

RLGS 3315 Religion & Moral Psychology (4 Credits)
Philosophical foundations and research strategies of psychological studies of moral thought; Aristotelian, Kantian and utilitarian thought included, as well as religious dimensions of morality.

RLGS 3318 Jesus on the Silver Screen (4 Credits)
First and foremost, this is a course in religious studies. It is a course about Jesus, a religious reformer of late ancient Judaism whose movement, by the end of the first century of the Common Era, gave rise to an identifiable separate tradition. It is a course about New Testament portrayals of Jesus in the Gospels. It is a course about contemporary, historical research on the figure of Jesus. It is also a course about film and cinematography, about reading film critically as a "text," and, in this context, the way in which film "translates" or "transforms" Jesus into another medium. Finally, it is a course about how Jesus films serve to convey modern cultural assumptions.

RLGS 3350 Culture, Psyche, and Religion (4 Credits)

RLGS 3370 Freud, Psychology, & Religion (4 Credits)
Readings, discussion, and papers help students learn about the life, intellectual and social environment, and clinical and theoretical work of Sigmund Freud. Attention is given to the influence of Freud's work on the understanding of religion at the beginning of the 21st century.

RLGS 3381 Religion & Psychobiography (4 Credits)
Use of different psychological theories to understand life and religious experience of individuals known through historical records.

RLGS 3400 Philosophy of Religion (4 Credits)
Inquiries into nature of religion, religious experience, language, methods of thinking.

RLGS 3452 Political Theology (4 Credits)
A general inquiry, focusing on the modern and postmodern eras, into various forms of philosophical reflection on the relationship between religion and political theory. Survey of the seminal ideas of such major thinkers as Kant, Hegel, Schmitt, Strauss, Derrida, Agamben, Asad, and Zizek.

RLGS 3455 Phenomenology and Theology: Husserl to Marion (4 Credits)
The implications of phenomenology for theology and the issue of theology in relation to phenomenology. The course starts with a reading of Husserl and 19th-century efforts to chart a "phenomenology of religion" in the work of Otto. It also explores the ideas of later figures such as Heidegger, Merleau-Ponty, Henry, Nancy, and Marion. Junior standing required or permission of the instructor. Cross listed with PHIL 3450.

RLGS 3460 Nietzsche & the Death of God (4 Credits)
This course will involve an intensive reading and discussion of Friedrich Nietzsche's 'Thus Spake Zarathustra,' together with relevant associated materials, especially 'The Gay Science.' Cross listed with PHIL 3460.

RLGS 3465 Derrida and Postmodernism (4 Credits)
Cross listed with PHIL 3465.

RLGS 3475 Deleuze and Semiotics (4 Credits)
Examines the development of the thought of the famous French postmodern thinker Gilles Deleuze with special attention to his cultural and semiotic theory to the degree that it is relevant to the philosophy of religion. The course also investigates how Deleuze's work has shaped, and is beginning to push in new directions, contemporary postmodern philosophy. Prerequisites: must be at least junior standing and have completed at least two undergraduate courses in philosophy.

RLGS 3500 Islam (4 Credits)
Introduction to the history, faith, practice, culture(s), and politics of Islam, starting with the Judeo-Christian Near Eastern context in which it emerged and tracing its theological development and geographic spread around the world. Proceeding thematically along a broad historical frame, the course ends with an examination of the numerous, often competing, trends in contemporary Muslim communities.

RLGS 3501 Pilgrimage in Islam (4 Credits)
Introduction to the ideas and practices of pilgrimage in Islam, focusing on the hajj as Islam's paradigmatic form of pilgrimage and the one to which all others are compared, but also considering other local or "lesser" pilgrimages, often known as ziyarat or visits. The course excavates the history of the practice of pilgrimage, situating it within the social, political, economic and cultural contexts that have helped frame Muslims' understandings of the spiritual and social meanings of various kinds of pilgrimages at different times and places across the Muslim world. The course includes consideration of the hajj experiences of non-Arab Muslims through documentary and news programs, investigates contemporary re-thinkings of the meaning of "hajj", and reflects on the key geo-political and religio-political issues that may surround Muslim pilgrimage in the 21st century.
RLGS 3502 Contemporary Islam (4 Credits)
This course introduces students to contemporary Islam. After a historical overview, the course looks thematically at different spheres of Muslim life. It considers changes that relate to political systems and forms of governance, styles of education, labor and professional work, changes in daily life habits such as timing and organization, changes in gender relations, and changes in religious authority. It also pays attention to the ways in which faith and practice are articulated through cultural practices like pop music and film.

RLGS 3503 Quran and Hadith (4 Credits)
This writing-intensive course introduces students to the key texts of Islam—the Qur'an and hadith—including their origins and meaning as well as how they have been interpreted by Muslims over time, and focusing as well on case studies that highlight issues of crucial relevance for today and the future.

RLGS 3570 Religion and Morality in the American Public Square (4 Credits)
Close focus on one or two moral issues in which religion is drawn into public debate in the contemporary U.S. Observation of the debate first hand at demonstrations, town meetings, and discussion groups, etc. Analysis of these observations is facilitated by readings on the subject and class discussion.

RLGS 3601 Religion and Culture in Vienna (4 Credits)
This course focuses on the cultural, religious and intellectual history of the city of Vienna as the hub of culture for Central Europe during the 19th and 20th centuries with special attention to the arts, philosophy, psychoanalysis, and the critique of Christianity. This course examines how religious past, particularly the influence of Judaism, shaped its rich cultural heritage and the birth of modernism. A special segment of the course is devoted to the Nazi period and the Holocaust, including a study of the resistance of religious groups. The course concludes with a history of the post-Nazi period with attention to the development of Vienna as the center of internation diplomacy and theories of globalization. The class combines lectures and online discussions with site visits to major cultural and historical sites as well as research centers around the city. The first week of the course is online.

RLGS 3604 Faith & Ethics-Religion Biography (4 Credits)
Modes of reconciling private (faith) and public (ethics) in thought and careers of selected modern individuals.

RLGS 3641 Religion and Race in America (4 Credits)
Explores the relationship between racism and religious activism by focusing on the biographies of activists.

RLGS 3680 American Religious Experience (4 Credits)
RLGS 3693 Religion and the Media (4 Credits)
Interactions between religion and all forms of communications media in American life.

RLGS 3701 Topics in Religious Studies (1-4 Credits)
An exploration of various topics and issues related to the academic study of religion. The subject matter of the course varies and may be taught by the regular faculty of the department or a visiting scholar. Some offerings may include a travel component.

RLGS 3707 Religion and Film (4 Credits)
Understanding religion requires us to take culture seriously. In doing so, we must consider products of culture, including popular culture. This course engages both classic and more recent films as "texts" to be analyzed, not as mere entertainments or diversions. We focus not only on those films that identify themselves explicitly as "religious" or reflect a particular religious tradition, but also moved that render the subject more obliquely, which reveal -- via image and sound -- religion as a complex human activity.

RLGS 3740 Bodies and Souls (4 Credits)
This course examines the unique place of the body in biblical religion. We ask how the Bible and its interpreters have shaped current views on sex and the gendered body in Western society. How has the Bible been (mis)used in relation to current understandings of the physical body? Is the saying that a "human" does not have a body, but is a body as true for the Hebrew Bible as the Christian New Testament? How have Judaism and Christianity (de)valued sexuality, procreation, and celibacy? How do the biblical traditions shape our modern opinions about the ideal physical body and body modifications? How can we understand "out-of-body" experiences and notions of death and afterlife in Western religion? Students are encouraged to interpret the Bible and their own beliefs from a uniquely embodied perspective. Cross listed with GWST 3740, JUST 3740.

RLGS 3760 Globalization and Religion: Theory and Methods (4 Credits)
This course explores how religious movements around the world both affect, and are affected by, the process of globalization. A major segment of the course is devoted to various theories of globalization and how they account for the increasingly important role of religion. Focus is largely on the relationship between Christianity, Judaism, and Islam.

RLGS 3813 Ritual (4 Credits)
Classical and contemporary theories about the meaning, functions, and processes of ritual, and its relationship to "religion.

RLGS 3814 Modern Hinduism (4 Credits)
Doctrines, practices and history of South Asian Hinduism; conceptions of Gods and gods; image worship and temples; and the influences of caste and gender on the experience of Hinduism. Cross listed with RLGS 3814.

RLGS 3816 Hinduism Through Texts (4 Credits)
History of ancient and medieval Hinduism, viewed through the lens of religious texts. Cross listed with ASIA 2706.

RLGS 3820 Buddhism (4 Credits)
Buddhist life and thought from origins to present in India, Tibet, Japan and China. Cross listed with ASIA 2704.
RLGS 3830 Buddhist Lives (4 Credits)
This course explores the literary canon of Buddhist life stories across time, traditions and cultures. Cross-listed with ASIA 3830.

RLGS 3832 Religious Lives: The Dalai Lamas (4 Credits)
This course explores the many lives of the Dalai Lamas and the transformation of a reincarnated religious teacher into the political leader of Tibet and, eventually, a worldwide religious personality. In order to understand that transformation, the course investigates the institution of the Dalai Lamas from historical, doctrinal, and ritual perspectives. We will look at the role of the Dalai Lama as an embodiment of the bodhisattva of compassion at the center of a tapestry of religious ceremony and ritual performances. The course will also consider the religious, ethical, and political thought of several of the most prominent Dalai Lamas, with significant attention given to the writings and work of the current, fourteenth, Dalai Lama. Cross listed with ASIA 3732.

RLGS 3890 Religion and Diaspora (4 Credits)
When forced to leave a homeland, displaced communities frequently turn to religion to maintain identity and adapt to—or resist—new surrounding culture(s). This course examines the role of religion and identity in three Jewish and Christian communities living in diaspora and poses questions such as the following: What is the relationship between religion and (home)land? How have the biblical themes of exodus, diaspora, promise and restoration been applied to contemporary experiences? And how have our American stories been interpreted through the lens of the Bible? As part of the service learning component, students have the opportunity to work with religious and immigrant aid organizations in the Denver community. Cross listed with JUST 3890.

RLGS 3891 Justice: A Biblical Perspective (4 Credits)
This is a service learning course designed for religious studies undergraduate majors, though non-majors are welcome to enroll. Cross listed with JUST 3891.

RLGS 3892 Grant Writing as Research and Community Engagement (4 Credits)
This service learning / community engagement course introduces student to non-profit work and to scholarship on non-profit activities. It connects students with community partners, continuing the department's commitment to experiential learning and to engagement with living faith communities. Students spend course time discussing scholarly research on grant writing and non-profit grant support and discussing logistical and other issues related to their service learning placements. This course is intended to help provide M.A. students with arenas for future research, including possible thesis topics, while also offering a unique practical opportunity for professional development. Experience in forming a 501(c)3 corporation and writing grant proposals will be an asset for students planning to work in non-profits as well as for those continuing on to doctoral work.

RLGS 3991 Independent Study (1-10 Credits)
RLGS 3992 Directed Study (1-10 Credits)
RLGS 3995 Independent Research (1-10 Credits)

RLGS 4000 Theory and Methods in the Study of Religion (4 Credits)
This course begins with a brief overview of the history of the study of religion in the west, from antiquity to the modern period. When it reaches the modern period, the course shifts to considering "representative" theories of religion, broken down roughly along ideological and/or disciplinary lines.

RLGS 4050 History of Islam (4 Credits)

RLGS 4100 Hebrew Bible Backgrounds: Seminar in Ancient Israelite Religion (4 Credits)
This course is designed to train the student in the method and means of engaging in archeo-historical study of the Hebrew Bible. The content of this course focuses on ancient Israelite religion in Iron Age Palestine, particularly on emergent ideas about God ('El) and the development and evolution of the priesthood. Cross listed with JUST 4100.

RLGS 4105 Understanding the Bible: Old Testament (4 Credits)

RLGS 4119 Ph.D. Colloquium: Biblical Interpretations (4 Credits)

RLGS 4122 Augustine on Genesis (4 Credits)

RLGS 4130 Prophets of Israel (4 Credits)

RLGS 4150 Biblical Aramaic (4 Credits)
Reading seminar in Biblical Aramaic. This course focuses on the vocabulary, syntax and expression of Aramaic in the Bible as well as in some related post-biblical texts (Targums, Dead Sea Scrolls, etc.).

RLGS 4191 Early Christian Old Testament Interpretations (4 Credits)

RLGS 4402 Plato: Postmodern Perspective (4 Credits)

RLGS 4404 PhD Tutorial (1-10 Credits)

RLGS 4501 Intersections of Faith and Media (4 Credits)
Using Islam and Muslim communities as case studies, this course examines the intersections between faith communities and media in the 20th and 21st centuries, looking at religious approaches to and use of print, radio, recorded voice and music, television, film, and the Internet.

RLGS 4676 Latino Religious Cultures: Methods and Theories (4 Credits)
A survey of the freshest texts, methods, and theories for the study of religiosity among Latinos in the United States.
RLGS 4980 Internship (1-4 Credits)
Designed to provide masters students with valuable experience in non-profit, educational, faith-based, governmental, and related organizations. It helps students translate the knowledge and analytical skills learned in Religious Studies courses into a professional context, while exploring potential career paths and professional opportunities. Students interested in pursuing an internship must meet with the Undergraduate Advisor at the start of the previous quarter to discuss internship goals and identify potential placements. Students meet weekly with a faculty supervisor to monitor their internship experience, and complete the internship by writing a reflective essay. For MA students only.

RLGS 4981 Internship in Religious Community (1-4 Credits)

RLGS 4982 Internship in Religious Community (1-4 Credits)

RLGS 4983 Internship in Religious Community (1-4 Credits)

RLGS 4991 Independent Study (1-10 Credits)

RLGS 4992 Directed Study (1-10 Credits)

RLGS 4995 Independent Research (1-10 Credits)

RLGS 5101 Ph.D. Colloquium: Biblical Interpretations (4 Credits)

RLGS 5110 Hebrew Bible Seminar I (4 Credits)

RLGS 5111 Hebrew Bible Seminar II (4 Credits)

RLGS 5112 Hebrew Bible Seminar III (4 Credits)

RLGS 5113 New Testament Seminar I (4 Credits)

RLGS 5114 New Testament Seminar II (4 Credits)

RLGS 5115 New Testament Seminar III (4 Credits)

RLGS 5301 Colloquium: Religion and Psychological Study (4 Credits)
The course serves two main functions: (1) to gather the students and faculty of the Religion and Psychological Studies concentration of the Joint Ph.D. Program to share research and examine trends in the field and (2) to study a topic of importance to the field, be it historical, contemporary, related to a cognate field, or oriented toward a sub-specialty. Students must be in a doctoral program in order to register.

RLGS 5601 Ph.D. Colloquium: Religion & Social Change (1 Credit)

RLGS 5980 Internship (1-4 Credits)
Designed to provide doctoral students with valuable experience in non-profit, educational, faith-based, governmental, and related organizations. It helps students translate the knowledge and analytical skills learned in Religious Studies courses into a professional context, while exploring potential career paths and professional opportunities. Students interested in pursuing an internship must meet with the Undergraduate Advisor at the start of the previous quarter to discuss internship goals and identify potential placements. Students meet weekly with a faculty supervisor to monitor their internship experience, and complete the internship by writing a reflective essay. For PhD students only.

RLGS 5991 Independent Study (1-10 Credits)

RLGS 5995 Independent Research (1-10 Credits)

School of Art and Art History
Office: Shwayder Art Building
Mail Code: 2121 E. Asbury Ave., Denver, CO 80208
Phone: 303-871-2846 or 800-876-3323
Email: saah-interest@du.edu
Web Site: http://du.edu/art

The School of Art and Art History offers two tracks in our Art History MA degree program: Art History and Art History with a Museum Studies concentration. Our program of about 20 students emphasizes a collegial student-faculty atmosphere. The Art History program offers courses in most areas of world art, with special emphasis on the arts of Europe and the Americas and global contemporary art. In addition to our own Vicki Myhren Gallery, our partnership with the Denver Art Museum provides opportunities for museum internships and exhibition-based courses.

Our graduates are competitive in sought-after positions. Some go on to doctoral studies in the United States or overseas; others hold respected jobs at distinguished art museums or take the road less traveled, entering careers with art-related nonprofit organizations.

At the School of Art and Art History we offer many advantages:

• small classes and personal attention
• in-depth training in Art History and research methods
• an on-site art gallery
• practical museum training
• museum internships in local and national institutions
• a strong alumni network
• vibrant and diverse cultural activities in Denver

Master of Arts in Arts and art history

Following are the simple steps to apply for Master of Art in the School of Art and Art History at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
• Applications for graduate study in the School of Art and Art History at the University of Denver must be submitted online (https://gradadmissions.du.edu/apply).
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline. For priority consideration all application materials must be received by January 31, for fall quarter. After the priority deadline, applications are considered on a rolling basis for fall admission only.
• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. Before applying, we recommend at least 5 undergraduate art history courses and 2 years of college-level language. Some nonwestern art history is encouraged and 2 studio are classes are preferred.

Transcripts
• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
• Paper Transcripts should be sent to the following address
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802
• Electronic Transcripts should be sent to gradinfo@du.edu.

Language Proficiency
• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

**Test Scores**
• The Graduate Record Examination (GRE) is required. Applicants are generally required to demonstrate a 153 on the GRE verbal section and 4.0 on the writing section. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

**Personal Statement / Writing Sample**
• A personal statement including relevant information concerning your education, practical experience, special interests, goals and specific purpose for applying to the MA program art and art history is required. The statement should be submitted via upload through the online application process.
• A research paper, preferably an Art History research paper, is required. A paper demonstrating the applicant’s research and writing abilities and the applicant's strengths in discussing images and art historical issues is most helpful. This should be submitted via upload through the online application process.

**Recommendation Letters**
• Three letters of recommendation are required. Letters from individuals familiar with the applicant’s research and writing skills are particularly useful. These letters should be solicited and uploaded recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

**Financial Support**
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
• The School of Art and Art History student can be considered for two types of financial aid: departmental financial aid, primarily merit-based aid such as graduate dean's tuition scholarships and graduate teaching assistantships; and, federal financial aid including student loans and work study.

**Application Status**
• We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

**Contact Information**
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.
• For more information call (303) 871-2706.

**International Applicants**
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

_The Graduate Policies and Procedures provides complete details regarding admission requirements._

**Master of Arts in Art History**

**Degree requirements**

**Coursework requirements**

**Core coursework requirements**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ARTH 4301</td>
<td>Seminar in Art History Methods</td>
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<tr>
<td>ARTH 4302</td>
<td>Research Practicum</td>
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Master of Arts in Art History with a Concentration in Museum Studies

Degree requirements
Coursework requirements

Core coursework requirements

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<td>ARTH 4302</td>
<td>Research Practicum</td>
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<tr>
<td>ARTH 4651</td>
<td>Museum Methods and Principles (required)</td>
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<tr>
<td>ARTH 4995</td>
<td>Master's Research Paper</td>
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Art History courses
Complete an additional 16 credits in ARTH courses

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Art History seminars
Complete an additional 8 credits in ARTH seminar courses

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</table>

Museum Studies courses
Complete an additional 16 credits in museum studies courses

<table>
<thead>
<tr>
<th>Credits</th>
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<tbody>
<tr>
<td>16</td>
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Total Credits

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<th>Credits</th>
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<td>56</td>
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</table>

Minimum number of credits required for degree: 56 credits

Non-coursework requirements:

- Qualifying Examination
- Language Requirement
Qualifying Examination

A qualifying examination is used by the faculty to determine the newly admitted student’s strengths and weaknesses and to facilitate program planning. The exam is normally taken on the Friday before the first week of classes.

Language Requirement

Demonstration of reading proficiency in one modern foreign language is required for all MA candidates. An exam is offered each quarter by the Department of Languages and Literatures, or the student may take the fourth semester (or sixth quarter) of a college language course and receive a grade of B+ or better to demonstrate reading proficiency. A language should be chosen, in consultation with the graduate adviser, that supports the student’s research interests and career plans, keeping in mind that some PhD programs still require French and German. This requirement must be met before the student advances to candidacy.

Comprehensive Examination

The comprehensive examination is designed to evaluate the student’s retention and synthesis of Art History course work taken at the University of Denver. Students are encouraged to take the test as soon as possible after the final quarter in which they are enrolled in course work. Planning for this examination takes place under supervision of the graduate adviser.

Master’s Research Paper

MA degree students are required to write a research paper of publishable quality. Although work on the master’s research paper should not begin prior to completion of the language requirement, students often choose subjects on which they have already conducted some research during prior seminars or lecture classes. Guidelines should be obtained from the School of Art and Art History.

Courses

ARTH 3656 Curatorial Practicum (4 Credits)
Students will work in curatorial teams to plan and execute an effective exhibition of contemporary art. This process may include choosing a theme and selecting works of art, researching artists and themes, budgets, scheduling, developing an exhibition checklist, modeling the gallery, visual exhibition design, conservation and collections management factors, shipping, installation, educational outreach to the public, publicity and other issues related to exhibition planning.

ARTH 3661 Learning in Museums (4 Credits)

ARTH 3701 Topics in Art History (1-4 Credits)
Selected themes and topics from the history of art. Content changes and course may be repeated to a maximum of 12 credits.

ARTH 3812 From New Republic to the Gilded Age: 19th Century American Art (4 Credits)
This is a thematic study of American art and architecture, 1790-1910, including national identity, domesticity, nature, industrialization, death and mourning, westward expansion, Civil War, spirituality, and internationalism. Lectures, discussions and field trips.

ARTH 3813 Arts of the American West (4 Credits)
This class covers a wide range of art objects and styles from the 17th century to the present in the West of the United States, from buffalo robe paintings and baskets to cowboy art and contemporary abstract landscapes. Particular attention is paid to the diversity of art traditions—Native American, Spanish and Mexican, European, Asian and Latin American—as they converge in this geographic space.

ARTH 3815 American Art and Religion (4 Credits)
This class examines sacred art forms, as well as art that documented or commented upon religious experience in the U.S., from the 17th century to the present. In includes fine, decorative, and popular arts as well as architecture, in slide-lecture-discussions and field trips. The diversity of religious experience and spirituality in American art is emphasized.

ARTH 3817 Gothic Art (4 Credits)
This course examines the art of the Late Middle Ages in Europe, from roughly 1140 to 1400. Gothic architecture, sculpture, painting, stained glass and the sumptuous arts (metal, textiles) are examined within their broader social, political and religious contexts. Particular attention is paid to the Gothic Cathedral - that quintessential window into the medieval world—its beliefs, aspirations, social and political realities.

ARTH 3818 Art of Renaissance Europe (4 Credits)
This course provides an examination of the artistic cultures in Europe during the Renaissance (15th and 16th centuries). Depending upon the quarter, this course will be a general survey of European art during the Renaissance or a more focused exploration of a sub-period, such as painting in fifteenth-century Italy. Chronological and geographic factors determine the overall theme and structure of the course. Students gain both a sound knowledge of key artistic monuments of the period, as well as a conceptual framework according to which they may organize their knowledge. This class may be repeated for a maximum of 8 credits.
ARTH 3822 Northern Renaissance Art (4 Credits)
This course explores the dramatic developments in the arts (particularly panel painting, manuscript illumination and sculpture) in Northern Europe from around 1350 to 1550. From lavishly decorated Books of Hours and the development of stunningly naturalistic oil paintings on panel in the early 15th century through the development of printing and the rise of self-portraiture, genre and landscape depictions, this class traces the important role played by Dutch, Flemish, German and French artists in the transition from late medieval to early modern artistic forms and practices. The role of art in shaping and expressing religious, civic, political and economic concepts are explored, as well as the rise of the social and intellectual standing of the artist. Among the artists examined include Jan van Eyck, Rogier van der Weyden, Albrecht Dürer, Hieronymus Bosch and Pieter Bruegel the Elder.

ARTH 3823 17th-Century European Art (4 Credits)
This course considers European arts of the 17th century. Depending upon the quarter it may be a general survey of European art during the seventeenth century or a more focused exploration of a sub-period, such as Italian Baroque or the Old Dutch Masters: Rembrandt, Vermeer and Frans Hals. This class may be repeated for a maximum of 8 credits.

ARTH 3832 19th-Century Art (4 Credits)
This course surveys the major art movements in Europe from the late 18th century to the end of the 19th century. Major painters, sculptors, printmakers and architects of the following movements will be presented: Neo-classicism, Romanticism, Academic Painting, Realism, the Pre-Raphaelites, Impressionism, Post-Impressionism, Symbolism and Art Nouveau. Their works will be studied in light of the social, political and cultural milieu in which they appeared. Special attention will be paid to representations of race, class, gender and colonialism.

ARTH 3833 20th-Century Art (4 Credits)
This class studies the development of early 20th-century art in Europe and the U.S., as the center of the avant-garde shifted to America around World War II. The class follows the development of modernism and its theories from 1900 to around 1960. Artists and movements will be considered according to stylistic and theoretical development, and also in relation to social, political and cultural developments of their time.

ARTH 3834 Contemporary Art (4 Credits)
This course surveys the development of contemporary art, focusing primarily on recent decades, but making connections to earlier movements from 1970 to the present. This includes painting, sculpture, performance art, installations and new media art. Students become familiar with various issues of recent art theory and criticism to put these works into a theoretical perspective. In addition to an in-depth look at the broad stylistic movements of the past forty years, this course also examines those figures whose work has come to define the major approaches and concerns for the art of our time.

ARTH 3838 Connoisseurship (4 Credits)
In this class the historical roots, theoretical and philosophical underpinnings, and actual practice of connoisseurship are studied using objects from the museum's collection.

ARTH 3839 Topics in Modern Art (4 Credits)
Selected themes and topics from the 18th century to the present. Topics change, and the course may be repeated to a maximum of 12 credits.

ARTH 3841 Topics in Chinese Art (4 Credits)
Selected topics in Chinese art. Content changes. This class may be used to fulfill the non-Western requirement for majors in the School of Art and Art History. Course may be repeated to a maximum of 12 credits. Cross listed with ASIA 2102.

ARTH 3842 Topics in Japanese Art (4 Credits)
Selected topics in Japanese art. Content changes. This class may be used to fulfill the non-Western requirement for majors in the School of Art and Art History. Course may be repeated to a maximum of 12 credits. Cross listed with ASIA 2105.

ARTH 3845 Chinese Painting: Masters and Masterpieces (4 Credits)
This course explores pictorial art in China from the third century BCE to the present. Cross listed with ASIA 2106.

ARTH 3846 Dada and Surrealism (4 Credits)
This course will survey the development of Dada and Surrealist art from 1916 through 1939, focusing on the painting, sculpture, graphics, photography and films of these movements. The relationships between Dada and Surrealist artists and literary figures will be discussed as well as their shared interests in psychoanalysis, dreams, sexuality and automatic methods of creativity. Cross listed with ASIA 2106.

ARTH 3850 Art and the History of Science (4 Credits)
This course explores the connections between art and the history of science, using a broad span of visual material, mainly European art from the Middle Ages to the present. Coverage of the material is thematic, focusing on three major categories: Art and the Natural World; Art and the Human Body; and Art and the Human Mind. We read a wide variety of art historical articles and selected chapters that examine works of art related in the first section to astrology, astronomy and alchemy; botanical, zoological and geological illustration; and color theory, perspective, optics, maps, contemporary earthworks and ecology. In the second section, we explore the evolution of anatomic illustration, as well as mythic, religious and genre images related to medicine, pharmacy and healing as well as works by contemporary artists who are concerned with genetic codes, hybridization and cloning. In the third section, we examine depictions of human temperaments, emotions and madness through the images of selected artists.
ARTH 3876 Mesoamerican Art (4 Credits)
This course is an introduction to the art and archaeology of the native peoples of Mesoamerica in Pre-Columbian times, or from about 2000 BC to AD 1521. Cultures covered include the Olmec, Teotihuacan, Mixtec, Zapotec, Aztec and others. This class presents the cultural sequence of Pre-Columbian Mesoamerica and explores how the various civilizations of Mesoamerica shared aspects of world-view, cosmology and daily life. Students will be able to identify and discuss how these elements manifested in the art and architecture of Mesoamerican cultures. Furthermore, the course investigates issues of shamanism, kingship and power, warfare, and human sacrifice. This class may be used to fulfill the non-Western requirement for majors in the School of Art and Art History.

ARTH 3863 Art of the Maya (4 Credits)
This course is an introduction to the art and archaeology of the Maya from about 300 BC to the present. The Maya are perhaps the most famous of the several cultures comprising what is known as Mesoamerica. A highly advanced culture, they built soaring temples, carved elaborate portraits of their kings and developed a complex writing system including a calendar. The course explores these things with a constant eye to understanding the Maya worldview, cosmology and daily life. By the conclusion of the class, students should be able to read their intricate pictures, discuss the strategies of powerful Maya rulers and understand how Maya art and architecture reflect their concepts of time and the cosmos. This class may be used to fulfill the non-Western requirement for majors in the School of Art and Art History.

ARTH 3864 Buddhism and the Fine Arts (4 Credits)
This survey examines the history, practices, ritual contexts, aesthetics and artistic traditions of Buddhism including architecture, calligraphy, sculpture and painting, in terms of its social and historical context, political and religious functions, as well as issues including artistic production, changing techniques and symbols, and the market/audience. The primary goal is to understand Buddhism as reflected in art and culture.

ARTH 3867 Native American Art (4 Credits)
This course is designed as an introduction to the art and architecture of the native peoples of North America from the earliest signs of humans in North America to the present. Cultures covered include those from the Southwest, the Northwest, the Southeast Ceremonial Complex, the Plains and contemporary Native American artists. By the conclusion of the class, students will understand the cultural sequence and geographic dispersion of native North America. Students will also understand how the various civilizations of North America shared aspects of world-view, cosmology and daily life, and be able to identify and discuss how these elements manifested in the art and architecture of native North American cultures. This class may be used to fulfill the non-Western requirement for majors in the School of Art and Art History.

ARTH 3868 Art of the Andes (4 Credits)
This course is designed as an introduction to the art and architecture of the native Pre-Columbian peoples of the Andes. Cultures covered include Chavin, Nasca, Wari and the Inca.

ARTH 3869 Twentieth-Century Art in Latin America (4 Credits)
This course explores twentieth-century art movements in Latin America. Topics include modernism, indigenism, surrealism, neo-concretism, conceptualism, censorship under dictatorships, and issues in exile and displacement. We also analyze the cultural production of Latinos in the United States and its representation in cultural institutions. Organized both chronologically and geographically, the material has been structured to provide a basic understanding of the methods of art history in relation to Latin American art and to familiarize students with the significant artistic movements and styles that emerged from Latin America in the Twentieth Century.

ARTH 3871 Women in Art (4 Credits)
This course considers the roles of women in art and explores the impact of race, class and gender on art produced from the Middle Ages to the present with discussions of women artists, women patrons and images of women. Cross listed with GWST 3871.

ARTH 3872 Introduction to Conservation (4 Credits)
This lecture course familiarizes the student with the concepts and challenges of conservation, its role in museums and the care of collections. Specific emphasis is given to the materials, structure, deterioration and preservation of material culture. Field trips to various museums and/or workshops to make appropriate display mounts and storage containers enhance the understanding gained from readings and lectures.

ARTH 3873 The Goddess in Art (4 Credits)
This course surveys the image of the goddess in art from prehistoric times until the present day from a feminist perspective. Beginning with anthropological and art historical theories about the numerous female figurines of Paleolithic and Neolithic times, the course continues to explore representations of female goddesses from ancient Mesopotamia, Egypt, Crete, Greece, and Rome. Polarized images of Eve, the Virgin Mary and several female saints during the Middle Ages will be examined. From the Renaissance through the Baroque periods, classical goddesses, especially Venus/Aphrodite, are revived and adapted to both Christian and secular contexts. Images of the sexualized female body will be explored, along with its counterpart, the witch, who was persecuted during the 16th and 17th centuries. This course is interspersed with examples of contemporary art inspired by the "Great Goddess," especially by feminist artists of the 1970s and 1980s. Some discussion of the goddess as she appears in contemporary popular culture concludes the class. Cross listed with GWST 3873.

ARTH 3875 History of Collections (4 Credits)
This course traces the history of collections from the Renaissance to the present, addressing the interconnections between artists, patrons, dealers, art markets, provenance, connoisseurship and the historical development of museums and private collections. Each week’s readings of journal articles and chapters focus on different types of collections or themes, including royal and imperial collections, cabinets of curiosities, excavating and transporting antiquities, British country estates and the Grand Tour, the establishment of national museums, the relationship between American collectors and dealers, ethnographic objects in Western collections, Nazi looting, restorers and forgers, and artists’ collections, to name a few.
ARTh 3910 Art History Travel (4 Credits)
A travel course to selected locations to study major monuments and collections of art and architecture. Location and content change. This class may be repeated for a maximum of 8 credits. Prerequisite: instructor's permission.

ARTh 3991 Independent Study (1-10 Credits)
This class should be used for individual study of a special topic that is not offered in the art history curriculum described in this catalog. Permission/registration form is available from the Office of the Registrar.

ARTh 3992 Directed Study (1-5 Credits)
This class should only be used when a required ARTh course listed in this catalog is not offered in the quarter in which the student must take it. Permission of an instructor and the Director of the School of Art and Art History are required. Permission/registration form is available from the Office of the Registrar.

ARTh 4301 Seminar in Art History Methods (4 Credits)
This seminar considers the history of art history and the development of various methods that art historians use to interpret and understand art. Required of all MA candidates in art history.

ARTh 4302 Research Practicum (4 Credits)
The goal in this course is to learn professional methods and resources for original research in areas of American art where little or no published research exists. Students learn through short exercises in biographical, object-oriented, internet, and archival research; by tackling a 10-week research project of their choice within the topic for the quarter; and by networking with each other to share resources and progress. Required of all MA candidates in art history.

ARTh 4312 Seminar in Precolumbian Art (4 Credits)
Selected topics in Precolumbian Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTh 4314 Seminar in Medieval Art (4 Credits)
Selected topics in Medieval Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTh 4321 Seminar in Renaissance Art (4 Credits)
Selected topics in Renaissance Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTh 4331 Seminar in 18th Century Art (4 Credits)
Selected topics in 18th century Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTh 4332 Seminar in 19th Century Art (4 Credits)
Selected topics in 19th century Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTh 4333 Seminar in 20th Century Art (4 Credits)
Selected topics in 20th century Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTh 4334 Selected Topics in Contemporary Art: Public Art (4 Credits)
Selected topics in contemporary art. Advanced research papers and presentations. Content changes. May be repeated for a maximum of 8 credits.

ARTh 4336 Seminar in American Art (4 Credits)
Selected topics in American Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTh 4345 Selected Topics in Latin American Art: Mexican Modernism (4 Credits)
Selected topics in Latin American art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTh 4651 Museum Methods and Principles (4 Credits)
This class surveys the major activities, goals, and organization of the art museum within today's world. Students meet with a variety of museum professionals to discuss the changing dynamics within art museums, as well as ethical and practical issues of museum work. The class reads both classic and current literature on museum issues and practice, and participates in research, collection, and exhibition projects. Required of all M.A. art history students pursuing the Museum Studies option.

ARTh 4652 Museum Internship (3-10 Credits)
Arranged internship in student's area of specialization. Students should take ARTh 4651 Museum Methods and Principles first. Prerequisite: instructor's permission.

ARTh 4656 Writing for Exhibitions (4 Credits)
This seminar focuses on the special skills required to create and articulate a compelling exhibit concept, drawing artworks primarily from contemporary art collections. This seminar offers an opportunity to take part in a major exhibition project. The major work products of the seminar are extended essays for a catalog to accompany an exhibition that will open the following year at the Victoria H. Myhren Gallery.

ARTh 4991 Independent Study (1-10 Credits)
This class should be used for individual study of a special topic that is not offered in the art history curriculum described in this catalog. Permission/registration form is available from the Office of the Registrar.

ARTh 4992 Directed Study (1-5 Credits)
This class should only be used when a required ARTh 4000-level course listed in this catalog is not offered in the quarter in which the student must take it. Permission of an instructor and the Director of the School of Art and Art History are required. Permission/registration form is available from the Office of the Registrar.
ARTH 4995 Master's Research Paper (1-5 Credits)
Students should see their advisor for guidelines regarding the Master’s Research Paper class.

Daniel Felix Ritchie School of Engineering and Computer Science

At the Daniel Felix Ritchie School of Engineering and Computer Science, our mission is to enhance the quality of life for the global society through scientific and technical innovation. With emphases in fields such as bioengineering, materials science, robotics, and humane games, our research teams are designing improved orthopaedic devices, new materials for high voltage transmission lines, robots for search and rescue, and computer programming that enhances information security and privacy. We also prioritize social responsibility and international perspectives as we tailor degrees to the needs and interests of our students.

Computer Science

Office: Department of Computer Science, Aspen Hall North, Room 100
Mail Code: 2280 S Vine Street, Denver, CO 80210
Phone: 303-871-2458
Email: info@cs.du.edu
Web Site: Computer Science (http://www.du.edu/rsecs/departments/cs)

Why study Computer Science at the University of Denver?
The Department of Computer Science is based in the University of Denver’s Daniel Felix Ritchie School of Engineering and Computer Science. The school reflects two of the University’s strongest traditions: academic integrity and a commitment to meeting student needs with dynamic new programs. The Department of Computer Science offers cutting-edge and innovative graduate degree programs:

• MS in Computer Science
• MS in Computer Science Systems Engineering
• MS in Cybersecurity
• PhD in Computer Science
• Dual degree Undergraduate/Graduate (BS+MS) in Computer Science

We are strong in research and particularly noted in software engineering, information security and privacy, and humane gaming.

Some of our other outstanding advantages include:

• Small classes taught by faculty, not teaching assistants
• Research-active faculty members who publish regularly, land impressive grants and win teaching awards
• An up-to-date curriculum that includes classes in modern software engineering, web technology, multimedia, mobile computing, networks, databases, cyber security and computer game development
• Students who create a peer culture defined by high expectations
• A small yet vital PhD program that enhances the department’s intellectual atmosphere

At the University of Denver, you will find opportunities to research, study leading-edge technology and tools, and gain an integrated knowledge. We emphasize interdisciplinary programs, so you will be ready to meet career challenges around the office or, if you choose, around the world.

In addition, Denver is a first-rate location for internships and jobs, as well as business and government partnerships. The campus is just minutes from the Denver Technological Center — home to many top tech companies — and we enjoy sweeping views of the Rocky Mountains.

doctor of philosophy in computer science

Following are the simple steps to apply for the Doctor of Philosophy in Computer Science at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies (http://www.du.edu/learn/graduates), by the program’s stated deadline: February 15, for the fall quarter. Applications received after the priority deadline will be accepted, processed and reviewed on a rolling basis for the fall, winter or spring quarters. International applicants are encouraged to have the admission application and all supporting documents in the Office of Graduate Studies by the deadline or no later than May 1, for fall admission.
• Students interested in competing for graduate teaching assistantships (GTAs) are encouraged to submit their applications by this deadline to ensure full consideration for an appointment in September of a given year.
A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants for the PhD in computer science program must have proof of a bachelor’s degree in any discipline from a regionally accredited college or university.
- Prerequisite courses for PhD include:

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>COMP 1671</td>
<td>Introduction to Computer Science I</td>
<td>4</td>
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<tr>
<td>COMP 1672</td>
<td>Introduction to Computer Science II</td>
<td>4</td>
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<tr>
<td>COMP 2673</td>
<td>Introduction to Computer Science III</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2300</td>
<td>Discrete Structures in Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2370</td>
<td>Introduction to Algorithms &amp; Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2691</td>
<td>Introduction to Computer Organization (or equivalent)</td>
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Transcripts

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.
- Mail official transcripts to
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802

Language Proficiency

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.
- In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, the Computer Science program may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through DU’s English Language Center to meet the English language requirement. English language training at centers outside of DU will not be counted toward meeting English language proficiency requirements. International applicants with a three-year baccalaureate degree or any other academic deficiencies cannot be granted English Conditional Admission.

Test Scores

- The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.
- Competitive GRE scores for students admitted to the Department of Computer Science are below.
• PhD: Verbal 146; Quantitative 156; Analytical Writing Section 3.5

• Minimum GRE Scores (Prior to November 2011) for Graduate Students:
  • PhD: Verbal 400; Quantitative 720; Analytical 4.5

Personal Statement
• A personal statement of at least 300 words is required. The statement should include information concerning your life, education, practical experience, special interests and specific purpose for applying to the University of Denver. The statement should be submitted via upload through the online application process.

Resume / C.V.
• A detailed resume or C.V. is required. This should include all educational achievements, relevant work experience, research and/or volunteer work. The resume or C.V. should be submitted via upload through the online application process.

Recommendation Letters
• Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
• The Department of Computer Science also offers a number of competitive graduate teaching assistantships (GTA) that provide full tuition remission along with a stipend for the nine-month academic year (three academic quarters).
• Other sources of financial support available include graduate research assistantships (GRA) either with or without partial tuition remission, scholarships and fellowships, and work opportunities from the department and from the School of Engineering and Computer Science. Contact the Computer Science department for more information about financial support.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.

• For more information call (303) 871-2706.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of science in Computer science or computer science systems engineering

Following are the simple steps to apply for the master’s programs in Computer Science at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
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Course and Degree Prerequisites and Requirements

- Applicants for the MS in computer science program must have proof of a bachelor's degree in any discipline from a regionally accredited college or university.
- Prerequisite courses for the MS include:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 1671</td>
<td>Introduction to Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>COMP 1672</td>
<td>Introduction to Computer Science II</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2673</td>
<td>Introduction to Computer Science III</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2300</td>
<td>Discrete Structures in Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2370</td>
<td>Introduction to Algorithms &amp; Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2691</td>
<td>Introduction to Computer Organization (or equivalent)</td>
<td>4</td>
</tr>
</tbody>
</table>

Transcripts  

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program's stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early.

- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.

- Mail official transcripts to

  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802

Language Proficiency

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

- Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

- In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, the Computer Science program may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through DU’s English Language Center to meet the English language requirement. English language training at centers outside of DU will not be counted toward meeting English language proficiency requirements. International applicants with a three-year baccalaureate degree or any other academic deficiencies cannot be granted English Conditional Admission.
Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

• The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

• Competitive GRE scores for students admitted to the Department of Computer Science are below.

  • MS: Quantitative 152; Analytical Writing Section 2.0

• Minimum GRE Scores (Prior to November 2011) for Graduate Students:

  • MS: Verbal None; Quantitative 600; Analytical 4.0

Personal Statement

• A personal statement of at least 300 words is required. The statement should include information concerning your life, education, practical experience, special interests and specific purpose for applying to the University of Denver. The statement should be submitted via upload through the online application process.

Resume / C.V.

• A detailed resume or C.V. is required. This should include all educational achievements, relevant work experience, research and/or volunteer work. The resume or C.V. should be submitted via upload through the online application process.

Recommendation Letters

• Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

• The Department of Computer Science also offers a number of competitive graduate teaching assistantships (GTA) that provide full tuition remission along with a stipend for the nine-month academic year (three academic quarters).

• Other sources of financial support available include graduate research assistantships (GRA) either with or without partial tuition remission, scholarships and fellowships, and work opportunities from the department and from the School of Engineering and Computer Science. Contact the Computer Science department for more information about financial support.

Application Status

• We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

Contact Information

• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

  • Electronic transcripts should be sent to gradinfo@du.edu.

  • For more information call (303) 871-2706.

International Applicants

• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Science in Cybersecurity

Following are the simple steps to apply for the master’s program in Cybersecurity at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: February 15, for the fall quarter. Applications received after the priority deadline will be accepted, processed and reviewed on a rolling basis for the fall, winter or spring quarters. International applicants are encouraged to have the admission application and all supporting documents in the Office of Graduate Studies (http://www.du.edu/learn/graduates) by the deadline or no later than May 1, for fall admission.

• Students interested in competing for graduate teaching assistantships (GTAs) are encouraged to submit their applications by this deadline to ensure full consideration for an appointment in September of a given year.

• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

• Applicants for the MS in computer science program must have proof of a bachelor’s degree in any discipline from a regionally accredited college or university.

• Applicants must have the prerequisite knowledge equivalent to the following courses below and are required to pass a computer science placement exam prior to matriculation into the graduate program. Students with deficiencies will be eligible to complete the bridge courses prior to matriculation and are required to retake and pass the computer science placement exam prior to matriculation:

<table>
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</tr>
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<td>4</td>
</tr>
</tbody>
</table>

• Or students without the prerequisite knowledge may successfully complete the following four bridge courses and are required to pass a computer science placement exam prior to matriculation into the graduate program. Students with deficiencies will be required to demonstrate prerequisite knowledge equivalent to the courses listed above prior to matriculation and are required to retake and pass the computer science placement exam prior to matriculation:

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 2001</td>
<td>Bridge Course I: Computer Science Theory Basics</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2002</td>
<td>Bridge Course II: Computer Science Theory Advanced</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2003</td>
<td>Bridge Course III: Computer Science Systems Basics</td>
<td>4</td>
</tr>
<tr>
<td>COMP 2004</td>
<td>Bridge Course IV: Computer Science Systems Advanced</td>
<td>4</td>
</tr>
</tbody>
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Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

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Computer Science

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DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE

The department currently has faculty to support PhD students in the following areas:

• Artificial Intelligence
• Computational Geometry
• Humane Games
• Graphics
• Networks
• Parallel and Distributed Algorithms
• Security and Privacy
• Software Systems Engineering

Degree Requirements
Coursework Requirements
Three quarters minimum of COMP 4600
COMP 4600 Seminar in Computer Science 1-4
At least 36 credits must be at the 4000-level courses
Up to 24 credits may be taken in other relevant disciplines, as approved by the Computer Science Department Graduate Committee.
Courses should be chosen in consultation with, and are subject to the approval of, the student’s advisor.

Total Credits 90

Minimum credit hours required: 90 beyond BA or BS degree

Additional Degree Requirements applicable to PhD Students without a Master’s Degree in Computer Science
• Must complete the requirements of the Computer Science Master’s Degree with a thesis option within 3 years (9 quarters).

Additional Degree Requirements applicable to PhD Students with a 2 year Master’s Degree in Computer Science or Related Field
• May take a proficiency test in the four required courses for Master’s Degree. The test may be offered at a time other than the official final exam time of the term. A grade of B+ (B plus) or better must be obtained in the test.
• If the student chooses not to take the proficiency test, the student must register and attend classes for the four required courses. A grade of B+ (B plus) or better must be obtained in the courses.

Non-coursework Requirements:
• Completion of a written dissertation that makes a significant contribution to the research literature in computer sciences.
• Completion of a tool requirement.
• Qualifying Examination
• Preliminary Examination

Qualifying & Dissertation Examinations
Qualifying Exam
Every PhD student must pass the Qualifying Exam. It consists of two parts, the Breadth Requirement and the Written and Oral exam.

1. Breadth Requirement: To fulfill the Breadth Requirement the student must take 5 graded courses (20 Quarter Credits) at the 3000 and 4000 level (not including independent study, internship, or independent research). At most, two may be at the 3000 level. At least three must be at the 4000 level. The course work should cover at least three distinct areas. Five areas should include a sequence of 3000 and 4000 level courses. The GPA in these courses must be at least 3.7/4.0. No course with a grade below a B may be used to fulfill this requirement. Graduate computer science courses taken at another university and transferred for credit at DU may be applied to the Breadth requirement up to a maximum of 2 courses (8 quarter credits).
2. Written and Oral Exam: Before being admitted to this exam, the student must have fulfilled the Breadth Requirement.

The student selects an area of examination from the list of areas in Table 1. The Written part of the exam is a take home exam. It is a handed out on a Friday and is due the following Tuesday. The Oral Exam is held the following Friday. The take home exam consists of a set of research questions, a set of related papers and instructions. The student should prepare a written report of at least 10 but no more than 20 pages with answers to the questions. Study guides or other relevant material to prepare for the exam can be obtained from the chair of the examination committee. The oral portion of the exam is based on a student presentation in which the student explains and defends his/her answers. During the Oral Exam, questions in other areas of computer science may also be asked.

A failed exam may be retaken once (in the same or another area). Sufficiently prior to the exam date, the department chair will appoint an examination committee of three tenure-track faculty. One of the committee members must be in the area in which the examination will be held. The student’s advisor is allowed to be on the committee. The committee creates the take home exam and grades it. After the Oral Exam, the committee makes a recommendation to the CS faculty on whether the student passes or fails. If the faculty agrees, the committee recommendation stands. If there is a disagreement, the faculty as a whole decides.

Preliminary Examination

Following successful completion of the Qualifying Examination, each student will prepare a dissertation proposal and take the Preliminary Examination. Passing this examination admits the student to Ph.D. candidacy. The dissertation proposal should be prepared in close consultation with the student’s advisor, and should be available to all committee members at least two weeks prior to the examination. It should reflect an extensive critical literature survey, and contain an accurate assessment of the state-of-the-art in the area of research, a precise statement of the problem to be solved, motivation for pursuing the research, and evidence to the effect that there is a good likelihood the problem is solvable with reasonable effort.

For full-time students, the Preliminary Examination must be taken within 5 quarters of passing the Qualifying Examination. Successful completion of the Preliminary Examination results in agreement between the student and the committee as to what will constitute successful completion of the dissertation research. The committee may choose to reconvene the examination to allow the student to further research the problem, complete additional course work, or revise the dissertation proposal document.

The examining committee consists of at least 3 Computer Science faculty members, including the advisor. The preliminary exam is a one hour oral closed exam. If a student passed the preliminary exam, but subsequently switches advisor and hence topic, the preliminary exam must be repeated within one year to ensure capability of the student and feasibility of the project.

Possible Thesis Proposal Outline

1. Intro
   a. Problem
   b. Research questions, scope

2. Background
   a. Lit search
   b. Open Problems
   c. Analysis with respect to research questions

3. Approach

4. Preliminary results

5. Plan for completion of work including timeline

6. Risks and risk mitigation

7. References

Dissertation Defense

After the dissertation has been completed, the student must defend it in a final examination, as specified by the Office of Graduate Studies.

Tool requirement

It is strongly recommended that students satisfy their tool requirement by demonstrating proficiency in a modern computer typesetting system suitable for writing technical papers that include mathematical equations and graphics. The faculty advisor must approve the specific system used to satisfy this requirement. Other options include reading competency in two languages selected from French, German, and Russian; a series of outside courses in another discipline; or significant laboratory experience involving computer science.

Master of Science in Computer Science

The MS program in computer science prepares students for advancement in academic or industrial careers. The program is designed to provide students with a breadth of advanced knowledge in computer science, while permitting them to achieve depth in areas of current interest within the computing field, as well as the emerging technologies that will be gaining importance in the future.
Degree Requirements

Coursework Requirements
Requires 48 quarter hours of graduate-level course work including:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 3351</td>
<td>Programming Languages</td>
<td>4</td>
</tr>
<tr>
<td>COMP 3361</td>
<td>Operating Systems I</td>
<td>4</td>
</tr>
<tr>
<td>COMP 3371</td>
<td>Advanced Data Structures &amp; Algorithms</td>
<td>4</td>
</tr>
<tr>
<td>COMP 3200</td>
<td>Discrete Structures</td>
<td>4</td>
</tr>
</tbody>
</table>

3 COMP courses at the 4000-level (other than COMP 499X) are required of which at least one must be a designated "theory" class.

Advanced programming requirement

Students must also choose and complete two courses from the following list of COMP courses that include an advanced programming component. Students must complete at least two of the courses listed below at the University of Denver. These courses must be approved by an advisor. The current pre-approved list includes:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 4362</td>
<td>Operating Systems II</td>
</tr>
<tr>
<td>COMP 3353</td>
<td>Compiler Construction</td>
</tr>
<tr>
<td>COMP 3621</td>
<td>Computer Networking</td>
</tr>
<tr>
<td>COMP 3801</td>
<td>Introduction Computer Graphics</td>
</tr>
</tbody>
</table>

Seminar attendance requirement

Students must complete three quarters of COMP 4600 - Seminar (0 credits). A passing grade is required for successful completion.

Non-thesis option

A maximum of 12 quarter hours may be earned in Independent Study (COMP 4991), provided the student can find an advisor for such independent study. No thesis is required. Not eligible for support (GTA, GRA)

Thesis option

A maximum of 12 credits may be earned for thesis credits (COMP 4995). A thesis is required. Students should also note the following: A maximum of 8 quarter hours may be earned in approved courses outside the COMP designation, including transfer credits from another university. Such credit must be approved in writing by an advisor from the computer science faculty. A student receiving any support from the department (GTA, GRA) must complete the degree requirements as per the Thesis option.

Total Credits

48

Minimum credits required for degree: 48

Non-coursework Requirements

- If the thesis option is chosen, a thesis and oral defense are required.

Master of Science in Computer Science Systems Engineering

Every candidate for the MS in computer science systems engineering degree must complete 45 quarter hours of credit, at least 36 of which must be completed at the University of Denver. To satisfy graduation requirements, candidates must maintain a course GPA of 3.0. In addition, a grade of C or better must be obtained in each course for that course to count toward the 45 quarter hour requirement. Six courses at the 4000-level are required. The degree is designed for the working professional. The prerequisites for this degree are the same as those for the MS in computer science.

Degree requirements

Coursework requirements

Required courses

<table>
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<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>COMP 3361</td>
<td>Operating Systems I</td>
<td>4</td>
</tr>
<tr>
<td>COMP 3381</td>
<td>Software Engineering I</td>
<td>4</td>
</tr>
<tr>
<td>COMP 3705</td>
<td>Topics in Computer Science</td>
<td>1-4</td>
</tr>
</tbody>
</table>

Application area core (pre-approval required)

The pre-approved application core:

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ENMT 4100</td>
<td>Systems Engineering</td>
</tr>
<tr>
<td>ENMT 4000</td>
<td>Space Systems Design I</td>
</tr>
<tr>
<td>or ENMT 4010</td>
<td>Space Systems Design II</td>
</tr>
<tr>
<td>Theory Course (e.g., COMP 3702)</td>
<td>4</td>
</tr>
<tr>
<td>COMP 3702</td>
<td>Topics in Database</td>
</tr>
</tbody>
</table>

Capstone

2

Independent study

2

Computer science electives

12
Total Credits

Minimum credits required for degree: 45

Non-coursework Requirements
- Capstone

Master of Science in Cybersecurity

The MS program in Cybersecurity prepares students for advancement in academic or industrial careers. The program is designed to provide students with a breadth of advanced knowledge in computer science, along with domain knowledge in the field of information security. Network storage that holds sensitive information – from personal identities to financial records and national secrets – are increasingly vulnerable to malicious attacks. We are witnessing growing concerns and interests in cybersecurity in our globally interconnected society. The increasing dependence of our lives on information technology infrastructures continues to stimulate strong support for this expertise.

Degree Requirements

Coursework Requirements
Requires a total of 48 quarter hours of graduate-level coursework

<table>
<thead>
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<th>Required Courses</th>
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<td>Computer Forensics</td>
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</tr>
<tr>
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<tr>
<td>COMP 4384</td>
<td>Secure Software Engineering</td>
</tr>
<tr>
<td>COMP 4721</td>
<td>Computer Security</td>
</tr>
<tr>
<td>COMP 4722</td>
<td>Network Security</td>
</tr>
<tr>
<td>COMP 4723</td>
<td>Ethical Hacking</td>
</tr>
</tbody>
</table>

8 credits from some combination of the following courses:

| COMP 3904 | Internship/Co-Op in Computing  |
| COMP 4995 | Independent Research  |
| COMP 4991 | Independent Study  |

12 Elective Credits
Students must choose and complete 12 credits of cybersecurity related electives. Elective credits need pre-approval from an advisor.

Total Credits

Minimum credits required for degree: 48

Non-coursework Requirements
- Capstone

Undergraduate + Graduate BS/MS

The Department of Computer Science at the University of Denver offers a Dual Degree Bachelor of Science and Masters in Computer Science. The BS/MS in Computer Science encompasses the theory and techniques by which information is encoded, stored, communicated, transformed, and analyzed. It is concerned with the theory of algorithms (that is, effective procedures or programs), with the structure of languages for the expression of algorithms, and with the design of algorithms for the solution of practical problems. A central concern is the study of the computer systems (hardware and software) for the automatic execution of these algorithms prepares students for advancement in academic or industrial careers. The program is designed to provide students with a breadth of advanced knowledge in computer science, while permitting them to achieve depth in areas of current interest within the computing field, as well as the emerging technologies that will be gaining importance in the future.

The degree is strongly based in mathematics and, in fact, a student will automatically acquire sufficient credits for a minor in mathematics. One additional minor is required. The second minor may be in any discipline other than mathematics or computer science.

Total Credit Hours: 183 at the undergraduate level (UG) for the Bachelor's degree + 36 at the graduate level (GR) for the master's of science degree

Required courses

| COMP 1671 | Introduction to Computer Science I  |
| COMP 1672 | Introduction to Computer Science II  |
| COMP 2300 | Discrete Structures in Computer Science  |
| COMP 2355 | Intro to Systems Programming  |
| COMP 2370 | Introduction to Algorithms & Data Structures  |
| COMP 2673 | Introduction to Computer Science III  |
COMP 2691  Introduction to Computer Organization  4
COMP 3351  Programming Languages  4
COMP 3361  Operating Systems I  4
COMP 3371  Advanced Data Structures & Algorithms  4
COMP 3200  Discrete Structures  4

Other Requirements
Students who intend to obtain a BS/MS in Computer Science must satisfy all the requirements of the Bachelor of Science degree as outlined in the University of Denver Undergraduate Bulletin. One of the two minor areas required in the B.S. program must be in mathematics. The other minor may be in any field. Upon completion of the BS requirements, the student must satisfy the 36 hours at the graduate level of required coursework for the MS.

The eleven courses listed above total 44 quarter hours. An additional 28 hours of 3000-level computer science electives are required. COMP 2400 or COMP 2901, or COMP 2555 may be used to satisfy 8 credits of the required 3000-level elective credits, but COMP 3904 may not be used in this way. In addition there are 3 COMP courses at the 4000-level (other than COMP 4991) are required of which at least one must be a designated “theory” class and one must be a designated “Advanced Programming” course and completion of three quarters of COMP 4600 Seminar (0 credits).

Advanced Programming Requirement
Students must also choose and complete two courses from the following list of COMP courses that include an advanced programming component. Students must complete at least two of the courses listed below at the University of Denver. These courses must be approved by an advisor. The current pre-approved list includes:

COMP 4362  Operating Systems II  4
COMP 3353  Compiler Construction  4
COMP 3621  Computer Networking  4
COMP 3801  Introduction Computer Graphics  4

Math Minor Requirement
Minimum of 20 quarter hours in MATH courses numbered 1951 or higher. Discrete Structures in Computer Science (COMP 2300) may be counted toward the math minor. Courses not covered by the foregoing two sentences must be approved in writing by a mathematics faculty advisor.

For students entering DU Fall 2010 or later: At least 50% of the required credit hours for minor must be completed at the University of Denver.

All electives, especially the MATH and COMP electives, should be selected in close consultation with an academic advisor from the Computer Science Department. The courses for the non-mathematics minor (see Minor courses above) should be selected in consultation with an academic advisor from the department in which the minor is administered.

Sample schedule

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<tr>
<th>First Year</th>
<th>Fall</th>
<th>Credits Winter</th>
<th>Credits Spring</th>
<th>Credits</th>
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<td>4 COMP 2673</td>
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<td>4 COMP 2300</td>
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<td>4 COMP Elective</td>
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<td>4 MATH 1953</td>
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<td>Minor Course 2</td>
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<td>SI-Society</td>
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<th>Credits Spring</th>
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<td>4 COMP 3200</td>
<td>4 COMP 3371</td>
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Courses

COMP 3200 Discrete Structures (4 Credits)
Discrete mathematical structures and non-numerical algorithms; graph theory, elements of probability, propositional calculus, Boolean algebras; emphasis on applications to computer science. Cross-listed as MATH 3200. Prerequisites: MATH 2200 or COMP 2300 and COMP 1672 or COMP 1771.

COMP 3341 Multimedia Systems (4 Credits)
This course covers fundamental issues in design and implementation of multimedia applications. This course also covers technologies in multimedia systems such as multimedia data representation, compression, coding, networking, data management, and I/O technologies. Prerequisite: COMP 3361.

COMP 3351 Programming Languages (4 Credits)
Programming language as a component of software development environment; binding, scope, lifetime, value and type of a variable; run-time structure–static, stack-based and dynamic languages; parameter passing–call by reference, value, result, value-result and name; subprogram parameters; role played by side effects, dangling pointers, aliases and garbage; garbage collection; data abstraction - study of object-oriented, functional, and logic languages. Prerequisites: COMP 2370, COMP 2691, and COMP 2355.

COMP 3353 Compiler Construction (4 Credits)
Design and implementation of a major piece of software relevant to compilers. Prerequisite: COMP 3352.

COMP 3361 Operating Systems I (4 Credits)
Operating systems functions and concepts; processes, process communication, synchronization; processor allocation, memory management in multiprogramming, time sharing systems. Prerequisites: COMP 2355, COMP 2370, and COMP 2691.

COMP 3371 Advanced Data Structures & Algorithms (4 Credits)
Design and analysis of algorithms; asymptotic complexity, recurrence equations, lower bounds; algorithm design techniques such as incremental, divide and conquer, dynamic programming, randomization, greedy algorithms, etc. Prerequisites: COMP 2370, MATH 3200.

COMP 3381 Software Engineering I (4 Credits)
An introduction to software engineering. Topics include software processes, requirements, design, development, validation and verification and project management. Cross listed with COMP 4381. Prerequisite: COMP 2370.

COMP 3382 Software Engineering II (4 Credits)
Continuation of COMP 3381. Topics include component-based software engineering, model-driven architecture, and service-oriented architecture. Prerequisite: COMP 3381.

COMP 3400 Advanced Unix Tools (4 Credits)
Design principles for tools used in a UNIX environment. Students gain experience building tools by studying the public domain versions of standard UNIX tools and tool-building facilities. Prerequisites: COMP 2400 and knowledge of C and csh (or another shell), and familiarity with UNIX.

COMP 3410 World Wide Web Programming (4 Credits)
Creating WWW pages with HTML, accessing user-written programs via CGI scripts, creating forms, imagemaps and tables, and Java programming principles and techniques. Prerequisite: COMP 2355.

COMP 3421 Database Organization & Management I (4 Credits)
An introductory class in databases explaining what a database is and how to use one. Topics include database design, ER modeling, database normalization, relational algebra, SQL, physical organization of records and clocks, heap files, sorted files, hashing, extendible hashing, linear hashing and B trees. Each student will design, load, query and update a nontrivial database using the Oracle DMBS. Prerequisite: COMP 2370.

COMP 3431 Data Mining (4 Credits)
Data Mining is the process of extracting useful information implicitly hidden in large databases. Various techniques from statistics and artificial intelligence are used here to discover hidden patterns in massive collections of data. This course is an introduction to these techniques and their underlying mathematical principles. Topics covered include: basic data analysis, frequent pattern mining, clustering, classification, and model assessment. Prerequisites: COMP 2370.

COMP 3501 Introduction to Artificial Intelligence (4 Credits)
Programming in LISP and Prolog with applications to artificial intelligence; fundamental concepts of artificial intelligence; emphasis on general problem-solving techniques including state-space representation, production systems, and search techniques. Prerequisites: MATH 2200, COMP 2370.
COMP 3621 Computer Networking (4 Credits)
An introduction to computer networks with an emphasis on Internet protocols. Topics include: network topologies, routing, Ethernet, Internet protocol, sockets, operating system impact and client/server implementations. Prerequisites: COMP 2355 and COMP 2370. Corequisite: COMP 3361.

COMP 3701 Topics in Computer Graphics (4 Credits)

COMP 3702 Topics in Database (4 Credits)

COMP 3703 Topics-Artificial Intelligence (4 Credits)

COMP 3704 Advanced Topics: Systems (4 Credits)

COMP 3705 Topics in Computer Science (1-4 Credits)

COMP 3731 Computer Forensics (4 Credits)
Computer Forensics involves the examination of information contained in digital media with the aim of recovering and analyzing latent evidence. This course will provide students an understanding of the basic concepts in preservation, identification, extraction and validation of forensic evidence in a computer system. The course covers many systems level concepts such as disk partitions, file systems, system artifacts in multiple operating systems, file formats, email transfers, and network layers, among others. Students work extensively on raw images of memory and disks, and in the process, build components commonly seen as features of commercial forensics tools (e.g. file system carver, memory analyzer, file carver, and steganalysis). Prerequisites: COMP 2355.

COMP 3801 Introduction Computer Graphics (4 Credits)
Fundamentals of graphics hardware, scan conversion algorithms, 2D and 3D viewing transformations, windows, viewports, clipping algorithms, mathematics for computer graphics, graphics programming using a standard API. Prerequisites: COMP 2370, MATH 1952 or 1962, and MATH 2060.

COMP 3821 Game Programming I (4 Credits)
An introduction to computer game programming. Use of a game engine to create 3D computer games. Topics to include game scripting, simple 3D asset creation, incorporation of assets, keyboard/mouse event handling, animation, game phases and score keeping. Prerequisite: COMP 2370.

COMP 3822 Game Programming II (4 Credits)
An introduction to computer game engine programming. Major class goal is to understand how game engines are created by building subsets of a game engine. Non-exhaustive set of topics include how terrains are generated, how animations are supported, how particle systems are implemented, how physics systems are coded, and how support is provided for higher level scripting languages. All coding will be done in low-level graphics languages. Prerequisites: COMP 3801 and COMP 3821.

COMP 3904 Internship/Co-Op in Computing (0-10 Credits)
Practical experience in designing, writing and/or maintaining substantial computer programs under supervision of staff of University Computing and Information Resources Center. Prerequisites: COMP 2370 and approval of internship committee (see department office).

COMP 3991 Independent Study (1-10 Credits)
Cannot be arranged for any course that appears in the regular course schedule for that particular year.

COMP 3992 Directed Study (1-10 Credits)

COMP 4362 Operating Systems II (4 Credits)
Continuation of COMP 3361. Case studies of existing operating systems programing. Prerequisite: COMP 3621.

COMP 4372 Theory of Algorithms (4 Credits)
NP-completeness; lower bound theory; approximation algorithms; amortized complexity and data structures, randomized algorithms. Assorted topics such as string algorithms, graph algorithms, linear programming, computational geometry. Prerequisite: COMP 3371.

COMP 4384 Secure Software Engineering (4 Credits)
This course is concerned with systematic approaches for the design and implementation of secure software. While topics such as cryptography, networking, network protocols and large scale software development are touched upon, this is not a course on those topics. Instead, this course is on identification of potential threats and vulnerabilities early in the design cycle. The emphasis in this course is on methodologies and paradigms for identifying and avoiding security vulnerabilities, formally establishing the absence of vulnerabilities, and ways to avoid security holes in new software. There are programming assignments designed to make students practice and experience secure software design and development. Prerequisites: COMP 3381 & COMP 4555. COMP 3621 is highly recommended. Students must be able to implement complex programs in C, C++ and Java.

COMP 4600 Seminar in Computer Science (0-4 Credits)
Preparation and presentation of lectures on some aspect of current research in computer science; topics not generally encountered in formal courses, may include robotics, pattern recognition, parallel processing, computer applications. 10- to 15- page paper with bibliography required.
COMP 4621 Computer Networking (1-4 Credits)
COMP 4701 Special Topics-Computer Graphics (1-4 Credits)
COMP 4702 Advanced Topics-Database (3 Credits)
COMP 4703 Adv Topics-Artificial Intell (1-4 Credits)
COMP 4704 Advanced Topics-Systems (3-4 Credits)
COMP 4705 Advanced Topics-Programming (1-4 Credits)
COMP 4708 Special Topics-VLSI (3 Credits)
COMP 4709 Special Topics-Computer Security (3 Credits)
COMP 4720 Applied Cryptography (4 Credits)
Block ciphers, one-way hashes, symmetric and asymmetric encryption, public-key infrastructure, digital signatures, security protocols, anonymity, and digital cash.

COMP 4721 Computer Security (4 Credits)
This course gives students an overview of computer and system security along with some cryptography. Some network security concepts are also included. Other concepts include coverage of risks and vulnerabilities, policy formation, controls and protection methods, role-based access controls, database security, authentication technologies, host-based and network-based security issues. Prerequisite: COMP 3361.

COMP 4722 Network Security (4 Credits)
Authentication and key establishment, web security, Internet worms, viruses, spyware, spam, phishing, botnets, distributed denial of service, TCP/IP and DNS security, firewalls and intrusion detection systems, and wireless security. Prerequisites: COMP 4621 and COMP 4721.

COMP 4723 Ethical Hacking (4 Credits)
Penetration testing, denial of service, social engineering, buffer overflow, hacking of sessions, bluetooth, smartphone, and wireless protocols. Web security including SQL injection and cross-site scripting is included as well. Prerequisites: COMP 4621 and COMP 4721.

COMP 4991 Independent Study (1-10 Credits)
Cannot be arranged for any course that appears in regular course schedule for that particular year.

COMP 4992 Directed Study (1-10 Credits)

COMP 4995 Independent Research (1-17 Credits)
Research projects undertaken in conjunction with a faculty member.

COMP 5991 Independent Study (1-17 Credits)

COMP 5995 Independent Research (1-17 Credits)

Electrical and Computer Engineering
Office: Ritchie School of Engineering and Computer Science
Mail Code: 2155 E Wesley Ave, Room 283, Denver, CO 80208
Phone: 303.871.6618
Email: eceinfo@du.edu
Web Site: ritchieschool.du.edu/departments/ECE

Master’s and Doctoral Degrees
Why study engineering at the University of Denver?
DU’s Department of Electrical and Computer Engineering (ECE) is creating the future of technology by providing a graduate education that emphasizes both multi-disciplinary and cross-disciplinary knowledge. The distinguished faculty is creating multi-disciplinary education programs that cover both depth and breadth, and research programs that incorporate and account for technological trends in research and development, along with industry. Graduate students join the faculty in conducting cutting-edge basic and applied research in emerging disciplines developing novel and unique solutions to old and new problems and opportunities.

All laboratories in the Department contain state-of-the-art equipment and software to support basic and applied research in hardware and software design, hardware/software interfacing, communications and signal processing, image processing, computer vision and pattern recognition, optoelectronics, power and energy systems, robotics, mechatronic systems, intelligent systems, unmanned systems, among other research areas. Small classes support our multi-disciplinary and real-time focus by providing close contact between students and faculty, which allows us to meet students’ individual career goals.

Denver is a first-rate location for business, government and laboratory partnerships, and technology employment. The Colorado Front Range is consistently rated as one of the top high-tech areas in the country, and DU is located just minutes from the Denver Technological Center, the site of
many top technology companies. The Department of Electrical and Computer Engineering is committed to active collaboration with these industry leaders. As a result, our students graduate with relevant research experience and a network of employment contacts in the technology sector that is second to none!

The ECE Department offers, among other degrees, a master's and a PhD degree in Mechatronic Systems Engineering (MSE). DU/ECE is the only University in the United States that offers BS, MS and PhD degrees in MSE.

Master of science in electrical engineering, computer engineering, mechatronics system engineering

Following are the simple steps to apply for graduate studies in Electrical and Computer Engineering at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

- Applications for graduate studies at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies (http://www.du.edu/learn/graduates), by the program's stated deadline: February 1, for admission in the fall quarter.
- Students interested in competing for graduate teaching assistantships (GTAs) are encouraged to submit their applications by this deadline to ensure full consideration for an appointment in September of a given year. GTAs are offered to students who have been admitted to the PhD program and rarely to master's students who have chosen the thesis option.
- Applications received after the priority deadline will be accepted, processed and reviewed on a rolling basis for the fall, winter or spring quarters. International applicants are encouraged to have the admission application and all supporting documents in the Office of Graduate Studies by the deadline or no later than February 1, for fall admission.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- A Bachelor of Science (BS) degree in computer engineering (BSCpE), electrical engineering (BSEE), or closely related field from a regionally accredited college or university is required for admission to the programs.
- Those students whose backgrounds differ significantly from EAC/ABET-accredited BS computer, electrical programs may be required to complete prerequisite undergraduate courses. Such courses are not considered part of the 45 quarter hour requirements for the degree.
- A competency examination may be required of candidates who do not possess a 3.0 GPA or a BS in electrical, electronic, or computer, from an EAC/ABET accredited program.
- Students with BS degrees in physics, mathematics, computer science, engineering science, electrical engineering technology, engineering physics, or similar BS degrees from a regionally accredited college or university may also be admitted. However, these students should be able to demonstrate competency in the following basic subjects by passing an appropriate competency examination:
  - MSCpE: Circuits and Electronics • Digital Systems • Computer Organization • A high- or low-level computer language
  - MSEE: Digital Design Methods • Physical Electronics • Introductory Electromagnetics • Signals and Systems • Principles of Communications • Circuits and Electronics
  - MSE: Controls • Robotics • Signals and Systems • Circuits and Electronics • Digital Design Methods • Mechanics • Electromagnetics

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades, and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be completed by the program's stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip Safe. Electronic transcripts should be sent to gradinfo@du.edu.
- Mail official transcripts to

  University of Denver
  Office of Graduate Studies
Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

- In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, the Electrical Engineering program may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through DU’s English Language Center to meet the English language requirement. English language training at centers outside of DU will not be counted toward meeting English language proficiency requirements. International applicants with a three-year baccalaureate degree or any other academic deficiencies cannot be granted English Conditional Admission.

Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

- Competitive GRE scores for MS students admitted to the Department of Electrical and Computer Engineering are as follows:
  - MS: Verbal 146; Quantitative 155; Analytical Writing Section 3.25

Personal Statement

- A personal statement of at least 300 words is required. The statement should be submitted via upload through the online application process. The statement should include information concerning your life, education, practical experience, special interests and specific purposes for furthering your studies in the Department of Electrical and Computer Engineering at the University of Denver.

Resume / C.V.

- A detailed resume or C.V. is required. This should include all educational achievements, relevant work experience, research and/or volunteer work. The resume or C.V. should be submitted via upload through the online application process.

Recommendation Letters

- Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Request for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

- The Department of Electrical and Computer Engineering also offers a number of competitive graduate teaching assistantships (GTA) that provide full tuition remission along with a stipend for the nine-month academic year (three academic quarters).

- Other sources of financial support available include graduate research assistantships (GRA) either with or without partial tuition remission, scholarships and fellowships, and work opportunities from the department and from the School of Engineering and Computer Science. Contact the Electrical and Computer Engineering department for more information about financial support.

Application Status

- We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.
Contact Information

• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

University of Denver
Office of Graduate Studies
Mary Reed Building, Room 5
2199 S. University Blvd.
Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.

• For more information call (303) 871-2706.

International Applicants

• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of Philosophy in electrical or computer engineering, mechatronic systems engineering

Following are the simple steps to apply for the Doctor of Philosophy programs in Electrical and Computer Engineering at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).

• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies (http://www.du.edu/learn/graduates), by the program’s stated deadline: February 1, for the fall quarter.

• Students interested in competing for graduate teaching assistantships (GTAs) are encouraged to submit their applications by this deadline to ensure full consideration for an appointment in September of a given year. GTAs are offered to students who have been admitted to the PhD program and rarely to master’s students who have chosen the thesis option.

• Applications received after the priority deadline will be accepted, processed and reviewed on a rolling basis for the fall, winter or spring quarters.

• International applicants are encouraged to have the admission application and all supporting documents in the Office of Graduate Studies by the deadline or no later than May 1, for fall admission.

• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree and, if applicable, a master’s degree from a regionally accredited institution prior to beginning graduate coursework at DU.

• Students with a MS in CpE, MS in MSE, MS in EE, MS in ME, or closely related areas may apply for admission to the PhD in ECE or PhD in MSE programs. Admission with only a BS in this field is also possible, but students with only a BS degree are strongly encouraged to enroll first in the MS (CpE, EE, MSE) programs.

• Admission to the PhD programs is based on review of the application and associated references. Normally, a GPA of at least 3.0 is required.

• All graduate engineering courses presuppose mastery of the subject matter of a modern ABET-accredited curriculum in engineering. Students with a BS in other engineering or related science fields and students with a BScpE, BSEE, or BSME who have not taken graduate academic work for some time may be required to complete preparatory courses that are prerequisites for the core courses of the engineering concentrations on which the qualifying exams are based. These courses carry no credit toward the graduate degree.

Transcripts

• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours or more (or one semester hour or more) were completed including study abroad and college coursework completed in high school.

• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.

• Official study abroad transcripts are required unless the course titles, grades, and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.

• Mail official transcripts to
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

• In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, the Electrical Engineering program may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through DU’s English Language Center to meet the English language requirement. English language training at centers outside of DU will not be counted toward meeting English language proficiency requirements. International applicants with a three-year baccalaureate degree or any other academic deficiencies cannot be granted English Conditional Admission.

Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

• The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

• Competitive GRE scores for students admitted to the Department of Electrical and Computer Engineering are as follows:
  • PhD: Verbal 146; Quantitative 155; Analytical Writing Section 3.25

Personal Statement

• A personal statement of at least 300 words is required. The statement should be submitted via upload through the online application process. The statement should include information concerning your life, education, practical experience, special interests and specific purposes for furthering your studies in the Department of Electrical and Computer Engineering at the University of Denver.

Resume / C.V.

• A detailed resume or C.V. is required. This should include all educational achievements, relevant work experience, research and/or volunteer work. The resume or C.V. should be submitted via upload through the online application process.

Recommendation Letters

• Three letters of recommendation are required. Letters should be solicited and uploaded by the recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

• The Department of Electrical and Computer Engineering also offers a number of competitive graduate teaching assistantships (GTA) that provide full tuition remission along with a stipend for the nine-month academic year (three academic quarters).

• Other sources of financial support available include graduate research assistantships (GRA) either with or without partial tuition remission, scholarships and fellowships, and work opportunities from the department and from the School of Engineering and Computer Science. Contact the Electrical and Computer Engineering department for more information about financial support.
Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.
• For more information call (303) 871-2706.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of Philosophy in Electrical and Computer Engineering
The objective of the PhD in Electrical and Computer Engineering degree program is to provide an educational environment that encourages students to develop the ability to contribute to the advancement of science, engineering and technology, through independent research. The PhD students of the 21st century may pursue academic, research, entrepreneurial, and/or industrial careers. We offer opportunities to develop individualized plans of study based on the students’ previous experience and desired research areas. The plan of study allows students to work on interdisciplinary research, while also satisfying the PhD in ECE degree requirements.

Research requires an in-depth study of engineering problems with a broad knowledge base in science and engineering. Therefore, advanced courses are offered to strengthen the fundamentals and to broaden the engineering and science perspective. The minimum credit requirements are different for individuals entering a program with a closely related master’s degree and for those entering with a bachelor’s only. All requirements for the degree must be completed within seven years (eight years without a master’s degree) from admission to candidacy. A grade of C or better must be obtained in each course in order for that course to count toward the credit hour requirements. An overall minimum GPA of 3.0 is also required for graduation.

The PhD in ECE is appealing to students because it offers the much needed specialization component and the ‘degree identity’ required to be competitive in the job market. Graduates from this program will be well equipped to follow academic careers, or be hired in federal laboratories, industry and the private sector.

Program requirements
All PhD students who have been admitted to the PhD in ECE program must successfully complete three milestones before the PhD degree can be conferred. These milestones refer to:

• Demonstrating that the student is qualified to begin PhD studies
• Demonstrating that the student may identify and formulate a research problem
• Demonstrating that the student can defend her/his dissertation

These three milestones are referred to as the “PhD Qualifying Exam”, the “Comprehensive Exam” (also known as the “PhD Proposal”), and the “Dissertation Defense”, respectively.

Coursework requirements
The PhD in ECE does not have specific course requirements. The coursework plan needs to approved by the student’s advisor and the department chair.

Minimum credit requirements
Students with a Bachelor of Science in Engineering/Science
For students admitted to the PhD program with a bachelor’s degree, 90 QH are required, 75 of which must be completed at the University of Denver. A minimum of 48 QH must be at the 4000-level or higher and may include as many dissertation research hours (Independent Research and Independent Study) as considered appropriate by the advisor and department chair. The student with his/her advisor will develop an appropriate plan of study with core requirements, an area of specialization (depth requirement), breadth requirement and advanced mathematics. The core will consist of 8 QH of
coursework. The area of specialization will consist of 16 QH of coursework. An additional 6 QH of coursework (excluding independent research) is required as related breadth requirement. The student must complete a minimum of 16 QH at the 4000-level courses, excluding independent research. Prior to completion of the comprehensive exam, the plan of study must be approved by the student’s PhD committee and the chair.

If a student is entering the PhD program without a relevant master’s degree, the student should work with his/her advisor in order to meet the degree requirements for a master’s degree. All requirements for the given master’s degree must be met.

A minimum of 48 QH must be at the 4000-level or higher, may include Independent Research or Independent Study as considered appropriate by advisor and assuming a minimum of 16 QH are earned excluding independent research

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirement</td>
<td>8</td>
</tr>
<tr>
<td>Depth Requirement - Specialization Area</td>
<td>16</td>
</tr>
<tr>
<td>Breadth Requirement (^1)</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td>90</td>
</tr>
</tbody>
</table>

\(^1\) The breadth requirement must be pre-approved by the student's advisor.

**Students with a Master of Science in Engineering/Science**

If a student is admitted with a closely related master’s degree, up to 45 hours may be transferred and applied to the doctorate degree. The student with his or her advisor will develop an appropriate program consisting of a minimum of 28 quarter hours at the 4000-level, which may include as many dissertation research hours (Independent Research and Independent Study) as considered appropriate by the advisor and the department chair. The student with his or her advisor will develop an appropriate plan of study with an area of specialization, breadth requirements and advanced mathematics. Prior to completion of the comprehensive exam, the student’s plan of study must be approved by the student’s PhD committee and the department chair.

A minimum of 36QH must be at the 4000-level or higher, may include Independent Research or Independent Study as considered appropriate by advisor

<table>
<thead>
<tr>
<th>Requirement</th>
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</tr>
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<tbody>
<tr>
<td>Student with his or her advisor will develop an appropriate plan of study with an area of specialization, breadth requirements and advanced mathematics</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td>90</td>
</tr>
</tbody>
</table>

**Non-coursework Requirements**

**Qualifying Examination**

Each student must demonstrate sufficient breadth and depth of basic engineering knowledge relevant to electrical and computer engineering and be able to demonstrate ability to organize and present her/his thoughts in a convincing manner. The PhD Qualifying Exam achieves this through two components: a written Common Exam of basic engineering knowledge (breadth) and two written Specific Area Exams (depth). Failure to pass any component of the PhD Qualifying Exam will prevent the student from continuing in the PhD program.

All PhD students who are admitted into the Department of Electrical and Computer Engineering must pass the PhD Qualifying Exam. There are two components of the PhD Qualifying Exam consisting of three test subject areas. The two components are

**PhD Common Exam**

This is a common two-hour written exam. Each student, with advice from his/her advisor must choose one of the three subject areas. The Common Exam will be graded as pass/fail. Minimum of 70% is required and serves as passing grade.

- Engineering Mathematics (Calculus, Engineering Analysis, Linear Algebra)
- Circuits and Electronics
- Digital Design, Computer Organization, and HDL

**PhD Specific Area Exam**

This part of the exam will consist of two written subject area texts lasting two hours each. Students must pick two specific subject areas and cannot be the same subject area as the topic chosen for the PhD Common Exam. The Specific Area Exam will be graded as pass/fail; Minimum of 70% is required and serves as passing grade.

- Digital Design, Computer Organization, and HDL (only if NOT taken for the common component)
- Circuits and Electronics (only if NOT taken for the common component)
- Microprocessors
- Data Structures, Algorithms, & Operating Systems
- Control, Signals & Systems
- Electromagnetics
- Power & Energy Systems
- Optoelectronics and Optical Fiber Communication
The key ingredient of studies.

Graduates of this program will lay the foundation for the modern engineering departments of the future, where ‘integration’ will be

This unique degree is appealing to students because they will acquire the knowledge and ability to deal with and solve highly complex problems where

The PhD in MSE is at the forefront and intersection of the coupled disciplines of Electrical, Mechanical, Computer Engineering, and Computer Science.

In each course in order for that course to count toward the credit hour requirements. An overall minimum GPA of 3.0 is also required for graduation.

Research requires an in-depth study of engineering problems with a broad knowledge base in science and engineering. Therefore, advanced courses are offered to strengthen the fundamentals and to broaden the engineering and science perspective. The minimum credit requirements are different for individuals entering a program with a closely related master’s degree and for those entering with a bachelor’s only. All requirements for the degree must be completed within seven years (eight years without a master’s degree) from admission to candidacy. A grade of C or better must be obtained in each course in order for that course to count toward the credit hour requirements. An overall minimum GPA of 3.0 is also required for graduation.

The purpose of the Comprehensive Examination is to ascertain the potential of the student for PhD quality research. At least two quarters prior to the final defense, the student shall schedule and take the Comprehensive Examination. This oral and written examination will be attended by a minimum of three faculty members, the same faculty who will attend the student’s final dissertation defense. The Comprehensive Exam may be open to other students based on the requirements of the student’s advisor. The student is expected to make a 30 to 40 minute concise presentation on her/his dissertation topic. The oral and written presentation will highlight previous work in this area, demonstrate a need for the given research, and explain how the given research will contribute to the advancement of the area. The student will also present completed work and results, and a detailed plan for project completion. In addition, the student will be expected to answer general fundamental questions in the area of her/his concentration and detailed questions in the area of the student’s graduate course work.

The PhD Qualifying Examination must be taken and passed prior to the student taking the Comprehensive Examination. The Comprehensive Examination can be taken at most 2 times. If the student does not pass the Comprehensive Exam on the second try, the student will be terminated from the program. The comprehensive exam will be graded on a pass/fail system.

The student is required to complete and defend a dissertation of publishable quality based on the student’s original research. The dissertation must be completed in written form in accordance with the University’s Graduate School guidelines. A summary of the dissertation must be presented in a public seminar and subsequently defended by the student in the final oral defense. The defense committee will consist of the student’s entire PhD committee.

The PhD committee should consist of at least four faculty members. Three faculty members must be from within the student’s specialty area; these can include the student’s advisor, other faculty in that degree program and, if necessary, off-campus experts. Finally, for the final oral defense of the dissertation, an oral defense chair, who must be a tenured faculty member outside the Department of Electrical and Computer Engineering and Mechanical and Materials Engineering, needs to be identified in consultation with the DU Graduate Studies Office. The PhD committee needs to be identified with the dissertation advisor and approved by the chair of the department and the Office of Graduate Studies.

The objective of the PhD in Mechatronics Systems Engineering (MSE) degree program is to provide an educational environment that encourages students to develop the ability to contribute to the advancement of science, engineering and technology, through independent research. The PhD students of the 21st century may pursue academic, research, entrepreneurial, and/or industrial careers. We offer opportunities to develop interdisciplinary plans of study based on the students’ previous experience and desired research areas. The plan of study allows students to work on interdisciplinary research, while also satisfying the PhD in MSE degree requirements.

Research requires an in-depth study of engineering problems with a broad knowledge base in science and engineering. Therefore, advanced courses are offered to strengthen the fundamentals and to broaden the engineering and science perspective. The minimum credit requirements are different for individuals entering a program with a closely related master’s degree and for those entering with a bachelor’s only. All requirements for the degree must be completed within seven years (eight years without a master’s degree) from admission to candidacy. A grade of C or better must be obtained in each course in order for that course to count toward the credit hour requirements. An overall minimum GPA of 3.0 is also required for graduation.

The PhD in MSE is at the forefront and intersection of the coupled disciplines of Electrical, Mechanical, Computer Engineering, and Computer Science. This unique degree is appealing to students because they will acquire the knowledge and ability to deal with and solve highly complex problems where integration is a key component. This degree provides a holistic approach to graduate education focusing on the ability to cover both breadth and depth of knowledge. Graduates of this program will lay the foundation for the modern engineering departments of the future, where ‘integration’ will be the key ingredient of studies.
Program requirements
All PhD students who have been admitted to the PhD in ECE or PhD in MSE programs must successfully complete three milestones before the PhD degree can be conferred. These milestones refer to:

- Demonstrating that the student is qualified to begin PhD studies
- Demonstrating that the student may identify and formulate a research problem
- Demonstrating that the student can defend her/his dissertation

These three milestones are referred to as the “PhD Qualifying Exam”, the “Comprehensive Exam” (also known as the “PhD Proposal”), and the “Dissertation Defense”, respectively.

Coursework requirements
The PhD in MSE does not have specific course requirements. The coursework plan needs to approved by the student’s advisor and the department chair.

Minimum credit requirements

Students with a Bachelor of Science in Engineering/Science
For students admitted to the PhD program with a bachelor’s degree, 90 QH are required, 75 of which must be completed at the University of Denver. A minimum of 48 QH must be at the 4000-level or higher and may include as many dissertation research hours (Independent Research and Independent Study) as considered appropriate by the advisor and department chair. The student with his/her advisor will develop an appropriate plan of study with core requirements, an area of specialization (depth requirement), breadth requirement and advanced mathematics. The core will consist of 8 QH of coursework. The area of specialization will consist of 16 QH of coursework. An additional 6 QH of coursework (excluding independent research) is required as related breadth requirement. The student must complete a minimum of 16 QH at the 4000-level courses, excluding independent research. Prior to completion of the comprehensive exam, the plan of study must be approved by the student’s PhD committee and the department chair.

If a student is entering the PhD program without a relevant master’s degree, the student should work with their advisor in order to meet the degree requirements for a master’s degree. All requirements for the given master’s degree must be met.

A minimum of 48 QH must be at the 4000-level or higher, may include Independent Research or Independent Study as considered appropriate by advisor and assuming a minimum of 16 QH are earned excluding independent research

<table>
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</tr>
<tr>
<td>Breadth Requirement</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td>90</td>
</tr>
</tbody>
</table>

1 The breadth requirement must be pre-approved by the student’s advisor.

Students with a Master of Science in Engineering/Science
If a student is admitted with a closely related master’s degree, up to 45 hours may be transferred and applied to the doctorate degree. The student with his or her advisor will develop an appropriate program consisting of a minimum of 28 quarter hours at the 4000-level, which may include as many dissertation research hours (Independent Research and Independent Study) as considered appropriate by the advisor. The student with his or her advisor will develop an appropriate plan of study with an area of specialization, breadth requirements and advanced mathematics. Prior to completion of the comprehensive exam, the student’s plan of study must be approved by the student’s PhD committee.

A minimum of 36QH must be at the 4000-level or higher, may include Independent Research or Independent Study as considered appropriate by advisor

| Student with his or her advisor will develop an appropriate plan of study with an area of specialization, breadth requirements and advanced mathematics | 36 |
| **Total Credits** | 90 |

Non-coursework Requirements
Qualifying Examination
Each student must demonstrate sufficient breadth and depth of basic engineering knowledge relevant to electrical and computer engineering and be able to demonstrate ability to organize and present her/his thoughts in a convincing manner. The PhD Qualifying Exam achieves this through two components: a written Common Exam of basic engineering knowledge (breadth) and two written Specific Area Exams (depth). Failure to pass any component of the PhD Qualifying Exam will prevent the student from continuing in the PhD program.

All PhD students who are admitted into the Department of Electrical and Computer Engineering must pass the PhD Qualifying Exam. There are two components of the PhD Qualifying Exam consisting of three test subject areas. The two components are
PhD Common Exam
This is a common two-hour written exam. Each student, with advice from his/her advisor must choose one of the three subject areas. The Common Exam will be graded as pass/fail; with 70% constituting as passing grade.

- Engineering Mathematics (Calculus, Engineering Analysis, Linear Algebra)
- Circuits and Electronics
- Digital Design, Computer Organization, and HDL

PhD Specific Area Exam
This part of the exam will consist of two written subject area texts lasting two hours each. Students must pick two specific subject areas and cannot be the same subject area as the topic chosen for the PhD Common Exam. The Specific Area Exam will be graded as pass/fail; with 70% constituting as passing grade.

- Digital Design, Computer Organization, and HDL (only if NOT taken for the common component)
- Circuits and Electronics (only if NOT taken for the common component)
- Microprocessors
- Data Structures, Algorithms, & Operating Systems
- Control, Signals & Systems
- Electromagnetics
- Power & Energy Systems
- Optoelectronics/Optical Fiber Communication
- Communication & DSP
- Robotics
- Image Processing & Computer Vision
- Pattern Recognition

*Students who will obtain a PhD in Mechatronic Systems Engineering may take both exams from the above list or they may elect to take ONE exam from the list below:

- Solid Mechanics*
- Materials Science*
- Fluids & Heat Transfer*
- Thermodynamics*

If a student is unable to pass the PhD Common Exam and/or any of the PhD Specific Area Exams, the student must take the same exam(s) during the second attempt; the student is not allowed to switch subject areas.

All PhD students must attempt the PhD Qualifying Exam by the end of their first year. If a student is unsuccessful at passing all three test areas, the student will be given an additional year to pass the PhD Qualifying Exam. All students must take and pass the PhD Qualifying Exam by the end of their second year. A student shall be considered to have passed the PhD Qualifying Exam only after all three test areas have been successfully completed within the given time constraints identified.

Comprehensive Examination
The purpose of the Comprehensive Examination is to ascertain the potential of the student for PhD quality research. At least two quarters prior to the final defense, the student shall schedule and take the Comprehensive Examination. This oral and written examination will be attended by a minimum of three faculty members, the same faculty who will attend the student’s final dissertation defense. The Comprehensive Exam may be open to other students based on the requirements of the student’s advisor. The student is expected to make a 30 to 40 minute concise presentation on her/his dissertation topic. The oral and written presentation will highlight previous work in this area, demonstrate a need for the given research, and explain how the given research will contribute to the advancement of the area. The student will also present completed work and results, anticipated work and results, and a detailed plan for project completion. In addition, the student will be expected to answer general fundamental questions in the area of her/his concentration and detailed questions in the area of the student’s graduate course work.

The PhD Qualifying Examination must be taken and passed prior to the student taking the Comprehensive Examination. The Comprehensive Examination can be taken at most 2 times. If the student does not pass the Comprehensive Exam on the second try, the student will be terminated from the program. The comprehensive exam will be graded on a pass/fail system.

Dissertation
The student is required to complete and defend a dissertation of publishable quality based on the student’s original research. The dissertation must be completed in written form in accordance with the University’s Graduate School guidelines. A summary of the dissertation must be presented in a public seminar and subsequently defended by the student in the final oral defense. The defense committee will consist of the student’s entire PhD committee.
Residence Requirement
Enrollment in at least six quarters (four semesters), including at least two consecutive quarters (one semester) of full-time attendance is required for graduation.

PhD Committee
The PhD committee should consist of at least four faculty members. Three faculty members must be from within the student’s specialty area; these can include the student's advisor, other faculty in that degree program and, if necessary, off-campus experts. Finally, for the final oral defense of the thesis, an oral defense chair, who must be a tenured faculty member outside the Department of Electrical and Computer Engineering and Mechanical and Materials Engineering, needs to be identified in consultation with the DU Graduate Studies Office. The PhD committee needs to be identified with the dissertation advisor and approved by the chair of the department and the Office of Graduate Studies.

Master of Science in Computer Engineering
The Master of Science in Computer Engineering (MSCpE) is designed to advance the student’s knowledge in several areas of engineering. This degree provides breadth while permitting the student to achieve depth in a specialization area. This specialization area, with thematic sequences of courses, has been selected to coincide with those of high current interest as well as those emerging technologies that hold promise of increasing importance for the future. The purpose of this program is to serve the profession of engineering and the Colorado community through advanced study in computer engineering, electrical engineering, and other related fields. This program prepares the student for academic and industrial advancement. The program offer a thesis and a non-thesis option.

The Department of ECE offers both part-time and full-time programs. The Department recognizes that a student may be employed full-time while studying for a degree. Therefore, most courses are offered at times and on days that will permit a student to complete the program by taking courses either late in the day or outside normal business hours. The MSCpE program can generally be completed in about four years if one course is taken each quarter, but it is usually possible to take two courses per quarter, bringing completion time closer to the more common duration of two years. Also, students who select the one-year non-thesis will be able to graduate within 12 months, four academic quarters. For part-time students who are working in industry positions and who have chosen the thesis option, a topic related to the job function may be acceptable as the thesis research topic. Furthermore, a qualified staff member at the place of employment may be approved to serve as an adjunct faculty on the thesis committee.

Students not interested in pursuing a degree but interested in taking an occasional course may register as special status students by following an abbreviated admissions process. However, only 15 QH earned as a special status student may be applied toward a MS degree.

Minimum CreditRequirements
Every candidate for the MS degree must complete 45 QH of credit, at least 36 of which must be completed at the University of Denver.

Program Structure
Candidates may elect either the thesis or non-thesis option. This choice may be made at any time, although a delay in declaration may impact the completion date. Students who are GTAs or who receive financial support from a University research grant, such as GRAs, are required to elect the thesis option. The program is designed to be completed in about six quarters if two courses (usually 8 QH) are taken each quarter.

Non-Thesis Option
The non-thesis option is the more flexible of the two options. This program is designed with the working professional in mind. For this option, a grade of B or better must be obtained in each course in order for that course to count toward the requirement of 45 QH. An overall minimum GPA of 3.0 is also required for graduation. Students may only take up to 8 quarter hours of independent study to be counted toward the degree, after approval by their advisor and the Chair. Each student must take a minimum of 24 quarter hours at the 4000-level.

One Year (four quarters) – Non-thesis Option
The Department of Electrical and Computer Engineering (ECE) offers a one-year, non-thesis option. Students who select the one-year program will be able to graduate within 12 months, four academic quarters, as there are enough courses offered in each specialization to meet the 20 QH depth requirement. The breadth requirement (14 QH) is fulfilled by taking courses offered in other specializations. In addition, every year courses that satisfy the mathematics requirement (3 QH) are offered. The MS non-thesis structure is shown below. QH in each category denote minimum requirements that must be satisfied. Any changes in the student’s plan of study must be approved a-prior by the student’s advisor.

The basic structure of the minimum 45 QH for the non-thesis option is as follows:

Requirements for Non-Thesis Option (minimum QH)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Minimum QH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirement</td>
<td>8</td>
</tr>
<tr>
<td>Depth Requirement - Specialization Area</td>
<td>20</td>
</tr>
<tr>
<td>Mathematics Requirement (requires one approved course at the 3000-level or higher)</td>
<td>3</td>
</tr>
<tr>
<td>Breadth Requirement</td>
<td>14</td>
</tr>
<tr>
<td>Total Credits</td>
<td>45</td>
</tr>
</tbody>
</table>

This indicates minimum number of quarter hours. Any credits over the 3 QH from the mathematics courses will count toward the breadth requirement.
Thesis Option

A thesis permits a candidate to obtain depth in an area of study and it is especially useful for individuals who seek to pursue a subsequent degree, for example, a PhD degree. Thesis candidates work closely with a thesis advisor. The thesis option is required for all GRAs and GTAs. For this option, a grade of C or better must be obtained in each course in order for that course to count toward the 45 QH hour requirements. An overall minimum GPA of 3.0 is also required for graduation. Students may only take up to 8 quarter hours of independent study to be counted toward the degree. Each student must take a minimum of 16 quarter hours at the 4000-level. The basic structure of the minimum 45 QH for the thesis option is as follows:

Requirements for Thesis Option (minimum QH)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
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<tbody>
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<td>6</td>
</tr>
<tr>
<td>Thesis</td>
<td>15</td>
</tr>
<tr>
<td>Total Credits</td>
<td>45</td>
</tr>
</tbody>
</table>

1. The breadth requirement must be pre-approved by the student's advisor.

If a student who has elected to pursue a thesis option, then at any time thereafter elects to change to a non-thesis option, all requirements for the non-thesis must be met. Any independent research taken may be forfeited and students must adhere to the grade requirements of the non-thesis option.

Breadth Requirement (Non-Thesis and Thesis Option)

Breadth Requirement courses (each with not less than 3 QH of credit) may be chosen from courses offered in other specialization areas. A course that appears in more than one specialization area may only be counted toward either the specialization requirement or the breadth requirement. The remaining courses are chosen from appropriate courses numbered 3000 or higher, offered by the Department Mechanical & Materials Engineering, Department of Computer Science or NSM (Natural Sciences and Mathematics). Prior approval by the student’s advisor is required. It is strongly recommended that students choose math related courses to satisfy the breadth requirement.

The MSCpE program offers one area of specialization:

- Computer Systems Engineering

The student’s degree program will be a combination of the core courses, specialization areas (depth requirement) and the breadth requirement. Each student is required to complete the 2 core courses. Students may choose from any of the courses from their area of specialization but should keep in mind the 4000-level requirement of the degree.

Core courses for all Computer Engineering Students

The following courses are required for all computer engineering students:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCE 4110</td>
<td>Modern Digital Systems Design</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 3620</td>
<td>Advanced Engineering Mathematics</td>
<td>4</td>
</tr>
</tbody>
</table>

Specialization in Computer Systems Engineering

This area of specialization prepares students with fundamental and working knowledge of methods for analysis, design, and implementation of intelligent systems (IS). Particular attention is given to signal and information processing in IS, design of IS, and implementation of IS using state-of-the-art technology. This is accomplished through several theoretical courses and applied courses. Students must choose from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCE 3321</td>
<td>Network Design</td>
<td>4</td>
</tr>
<tr>
<td>ENCE 4231</td>
<td>Embedded Systems Programming</td>
<td>4</td>
</tr>
<tr>
<td>ENCE 4250</td>
<td>Advanced Hardware Description Language (HDL) Modeling and Synthesis</td>
<td>4</td>
</tr>
<tr>
<td>ENCE 4620</td>
<td>Advanced Computer Vision</td>
<td>4</td>
</tr>
<tr>
<td>ENCE 4630</td>
<td>Advanced Pattern Recognition</td>
<td>4</td>
</tr>
<tr>
<td>ENEE 3670</td>
<td>Introduction to Digital Signal Processing</td>
<td>4</td>
</tr>
</tbody>
</table>

Master of Science in Electrical Engineering

The Master of Science in Electrical Engineering (MSEE) is designed to advance the student’s knowledge in several areas of engineering. This degree provides breadth while permitting the student to achieve depth in a specialization area. This specialization area, with thematic sequences of courses, has been selected to coincide with those of high current interest as well as those emerging technologies that hold promise of increasing importance for the future. The purpose of this programs is to serve the profession of engineering and the Colorado community through advanced study in computer engineering, electrical engineering, and other related fields. This program prepares the student for academic and industrial advancement. The program offer a thesis and a non-thesis option.

The Department of ECE offers both part-time and full-time programs. The Department recognizes that a student may be employed full-time while studying for a degree. Therefore, most courses are offered at times and on days that will permit a student to complete the program by taking courses either late in the day or outside normal business hours. The MS degree program can generally be completed in about four years if one course is taken
each quarter, but it is usually possible to take two courses per quarter, bringing completion time closer to the more common duration of two years. Also, students who select the one-year non-thesis will be able to graduate within 12 months, four academic quarters. For part-time students who are working in industry positions and who have chosen the thesis option, a topic related to the job function may be acceptable as the thesis research topic. Furthermore, a qualified staff member at the place of employment may be approved to serve as an adjunct faculty on the thesis committee.

Students not interested in pursuing a degree but interested in taking an occasional course may register as special status students by following an abbreviated admissions process. However, only 15 QH earned as a special status student may be applied toward a MS degree.

**Minimum Credit Requirements**
Every candidate for the MS degree must complete 45 QH of credit, at least 36 of which must be completed at the University of Denver.

**Program Structure**
Candidates may elect either the thesis or non-thesis option. This choice may be made at any time, although a delay in declaration may impact the completion date. Students who are GTAs or who receive financial support from a University research grant, such as GRAs, are required to elect the thesis option. The program is designed to be completed in about six quarters if two courses (usually 8 QH) are taken each quarter.

**Non-Thesis Option**
The non-thesis option is the more flexible of the two options. This program is designed with the working professional in mind. For this option, a grade of B or better must be obtained in each course in order for that course to count toward the requirement of 45 QH. An overall minimum GPA of 3.0 is also required for graduation. Students may only take up to 8 quarter hours of independent study to be counted toward the degree, after approval by their advisor and the Chair. Each student must take a minimum of 24 quarter hours at the 4000-level.

**One Year (four quarters) – Non-thesis Option**
The Department of Electrical and Computer Engineering (ECE) offers a one-year, non-thesis option. Students who select the one-year program will be able to graduate within 12 months, four academic quarters, as there are enough courses offered in each specialization to meet the 20 QH depth requirement. The breadth requirement (14 QH) is fulfilled by taking courses offered in other specializations. In addition, every year courses that satisfy the mathematics requirement (3 QH) are offered. The MS non-thesis structure is shown below. QH in each category denote minimum requirements that must be satisfied. Any changes in the student's plan of study must be approved a-prior by the student's advisor.

The basic structure of the minimum 45 QH for the non-thesis option is as follows:

**Requirements for Non-Thesis Option (minimum QH)**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Minimum QH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirement</td>
<td>8</td>
</tr>
<tr>
<td>Depth Requirement - Specialization Area</td>
<td>20</td>
</tr>
<tr>
<td>Mathematics Requirement (requires one approved course at the 3000-level or higher)</td>
<td>3</td>
</tr>
<tr>
<td>Breadth Requirement</td>
<td>14</td>
</tr>
<tr>
<td>Total Credits</td>
<td>45</td>
</tr>
</tbody>
</table>

1. This indicates minimum number of quarter hours. Any credits over the required 3 QH from the mathematics courses will count toward the breadth requirement.

**Thesis Option**
A thesis permits a candidate to obtain depth in an area of study and it is especially useful for individuals who seek to pursue a subsequent degree, for example, a PhD degree. Thesis candidates work closely with a thesis advisor. The thesis option is required for all GRAs and GTAs. For this option, a grade of C or better must be obtained in each course in order for that course to count toward the 45 QH hour requirements. An overall minimum GPA of 3.0 is also required for graduation. Students may only take up to 8 quarter hours of independent study to be counted toward the degree. Each student must take a minimum of 16 quarter hours at the 4000-level. The basic structure of the minimum 45 QH for the thesis option is as follows:

**Requirements for Thesis Option (minimum QH)**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Minimum QH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirement</td>
<td>8</td>
</tr>
<tr>
<td>Depth Requirement - Specialization Area</td>
<td>16</td>
</tr>
<tr>
<td>Thesis</td>
<td>6</td>
</tr>
<tr>
<td>Total Credits</td>
<td>15</td>
</tr>
</tbody>
</table>

1. The breadth requirement must be pre-approved by the student's advisor.

If a student who has elected to pursue a thesis option, then at any time thereafter elects to change to a non-thesis option, all requirements for the non-thesis must be met. Any independent research taken may be forfeited and students must adhere to the grade requirements of the non-thesis option.

**Breadth Requirement (Non-Thesis and Thesis Option)**
Breadth Requirement courses (each with not less than 3 QH of credit) may be chosen from courses offered in other specialization areas. A course that appears in more than one specialization area may only be counted toward either the specialization requirement or the breadth requirement. The
remaining courses are chosen from appropriate courses numbered 3000 or higher, offered by the Department Mechanical & Materials Engineering, Department of Computer Science or NSM (Natural Sciences and Mathematics). Prior approval by the student’s advisor is required. It is strongly recommended that students choose math related courses to satisfy the breadth requirement.

**The MSEE program offers three areas of specialization:**
- Control & Communication Systems
- Electric Power & Energy Systems
- Optics/Optoelectronics/Photonics

Each student must choose an area of specialization. The student's degree program will be a combination of the core courses, specialization areas (depth requirement) and the breadth requirement. Each student is required to complete the 2 core courses. Students may choose from any of the courses from their area of specialization but should keep in mind the 4000-level requirement of the degree.

**Core courses for all Electrical Engineering Students**
The following courses are required for all electrical engineering students, regardless of area of specialization:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENEE 4640</td>
<td>Electromagnetic Compatibility</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 3620</td>
<td>Advanced Engineering Mathematics</td>
<td>4</td>
</tr>
</tbody>
</table>

**Specialization in Control & Communication Systems**
This area of specialization prepares students for basic and applied research and development of complex systems, including, electrical, mechanical, bio-inspired, mechatronic systems, robotic systems, and unmanned systems. This is accomplished through several theoretical courses and applied courses. Students must choose from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCE 4231</td>
<td>Embedded Systems Programming</td>
<td>4</td>
</tr>
<tr>
<td>ENEE 3670</td>
<td>Introduction to Digital Signal Processing</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 3721 &amp; ENGR 3722</td>
<td>Controls and Control Systems Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>ENEE 4141</td>
<td>Digital Communications</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4350</td>
<td>Reliability</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4620</td>
<td>Optimization</td>
<td>3,4</td>
</tr>
<tr>
<td>ENGR 4730</td>
<td>Introduction to Robotics</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4735</td>
<td>Linear Systems</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4740</td>
<td>Adaptive Control Systems</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4745</td>
<td>Adv Non-Linear Control System</td>
<td>4</td>
</tr>
</tbody>
</table>

1 This course may count toward the specialization with advisors pre-approval. This course may not be offered on a regular basis.

**Specialization in Electric Power and Energy Systems**
This area of specialization prepares students with the basic foundation and advanced knowledge, required for the research and development in the area of power systems, renewable energy systems, and power electronic devices. This is accomplished through several theoretical courses and applied courses. Students must choose from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 3510</td>
<td>Renewable and Efficient Power and Energy Systems</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 3540</td>
<td>Electric Power Systems</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 3721 &amp; ENGR 3722</td>
<td>Controls and Control Systems Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4530</td>
<td>Intro to Power and Energy</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4545</td>
<td>Electric Power Economy</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4560</td>
<td>Power Generation Operation and Control</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4590</td>
<td>Power System Protection</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4735</td>
<td>Linear Systems</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4740</td>
<td>Adaptive Control Systems</td>
<td>4</td>
</tr>
</tbody>
</table>

**Specialization in Optics/Optoelectronics/Photonics**
This area of specialization prepares students for research, development, and design of devices and systems operating based on wave theory, focusing on laser, optics, light wave devises, and systems.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENEE 4030</td>
<td>Optoelectronics</td>
<td>4</td>
</tr>
<tr>
<td>ENEE 4141</td>
<td>Digital Communications</td>
<td>4</td>
</tr>
</tbody>
</table>
Master of Science in Mechatronic Systems Engineering

The Master of Science in Mechatronic Systems Engineering (MSMSE) is designed to advance the student’s knowledge in several areas of engineering. This degree provides breadth while permitting the student to achieve depth in a specialization area. This specialization area, with thematic sequences of courses, has been selected to coincide with those of high current interest as well as those emerging technologies that hold promise of increasing importance for the future. The purpose of this program is to serve the profession of engineering and the Colorado community through advanced study in computer engineering, electrical engineering, and other related fields. This program prepares the student for academic and industrial advancement. The program offers a thesis and a non-thesis option.

The Department of ECE offers both part-time and full-time programs. The Department recognizes that a student may be employed full-time while studying for a degree. Therefore, most courses are offered at times and on days that will permit a student to complete the program by taking courses either late in the day or outside normal business hours. The MS degree program can generally be completed in about four years if one course is taken each quarter, but it is usually possible to take two courses per quarter, bringing completion time closer to the more common duration of two years. Also, students who select the one-year non-thesis will be able to graduate within 12 months, four academic quarters. For part-time students who are working in industry positions and who have chosen the thesis option, a topic related to the job function may be acceptable as the thesis research topic. Furthermore, a qualified staff member at the place of employment may be approved to serve as an adjunct faculty on the thesis committee.

Students not interested in pursuing a degree but interested in taking occasional courses may register as special status students by following an abbreviated admissions process. However, only 15 QH earned as a special status student may be applied toward a MS degree.

Minimum Credit Requirements

Every candidate for the MS degree must complete 45 QH of credit, at least 36 of which must be completed at the University of Denver.

Program Structure

Candidates may elect either the thesis or non-thesis option. This choice may be made at any time, although a delay in declaration may impact the completion date. Students who are GTAs or who receive financial support from a University research grant, such as GRAs, are required to elect the thesis option. The program is designed to be completed in about six quarters if two courses (usually 8 QH) are taken each quarter.

Non-Thesis Option

The non-thesis option is the more flexible of the two options. This program is designed with the working professional in mind. For this option, a grade of B or better must be obtained in each course in order for that course to count toward the requirement of 45 QH. An overall minimum GPA of 3.0 is also required for graduation. Students may only take up to 8 quarter hours of independent study to be counted toward the degree, after approval by their advisor and the Chair. Each student must take a minimum of 24 quarter hours at the 4000-level.

One Year (four quarters) – Non-thesis Option

The Department of Electrical and Computer Engineering (ECE) offers a one-year, non-thesis option. Students who select the one-year program will be able to graduate within 12 months, four academic quarters, as there are enough courses offered in each specialization to meet the 20 QH depth requirement. The breadth requirement (14 QH) is fulfilled by taking courses offered in other specializations. In addition, every year courses that satisfy the mathematics requirement (3 QH) are offered. The MS non-thesis structure is shown below. QH in each category denote minimum requirements that must be satisfied. Any changes in the student’s plan of study must be approved a-priori by the student’s advisor.

The basic structure of the minimum 45 QH for the non-thesis option is as follows:

Requirements for Non-Thesis Option (minimum quarter hours)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Minimum QH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirement</td>
<td>8</td>
</tr>
<tr>
<td>Depth Requirement - Specialization Area</td>
<td>20</td>
</tr>
<tr>
<td>Mathematics Requirement (requires one approved course at the 3000-level or higher)</td>
<td>3</td>
</tr>
<tr>
<td>Breadth Requirement</td>
<td>14</td>
</tr>
<tr>
<td>Total Credits</td>
<td>45</td>
</tr>
</tbody>
</table>

1 This indicates minimum number of quarter hours. Any credits over the required 3 QH from the mathematics courses will count toward the breadth requirement.

Thesis Option

A thesis permits a candidate to obtain depth in an area of study and it is especially useful for individuals who seek to pursue a subsequent degree, for example, a PhD degree. Thesis candidates work closely with a thesis advisor. The thesis option is required for all GRAs and GTAs. For this option, a grade of C or better must be obtained in each course in order for that course to count toward the 45 QH hour requirements. An overall minimum
GPA of 3.0 is also required for graduation. Students may only take up to 8 quarter hours of independent study to be counted toward the degree. Each student must take a minimum of 16 quarter hours at the 4000-level. The basic structure of the minimum 45 QH for the thesis option is as follows:

### Requirements for Thesis Option (minimum quarter hours)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirement</td>
<td>8</td>
</tr>
<tr>
<td>Depth Requirement - Specialization Area</td>
<td>16</td>
</tr>
<tr>
<td>Breadth Requirement ^1</td>
<td>6</td>
</tr>
<tr>
<td>Thesis</td>
<td>15</td>
</tr>
<tr>
<td>Total Credits</td>
<td>45</td>
</tr>
</tbody>
</table>

^1 The breadth requirement must be pre-approved by the student's advisor.

If a student who has elected to pursue a thesis option, then at any time thereafter elects to change to a non-thesis option, all requirements for the non-thesis must be met. Any independent research taken may be forfeited and students must adhere to the grade requirements of the non-thesis option.

### Breadth Requirement (Non-Thesis and Thesis Option)

Breadth Requirement courses (each with not less than 3 QH of credit) may be chosen from courses offered in other specialization areas. A course that appears in more than one specialization area may only be counted toward either the specialization requirement or the breadth requirement. The remaining courses are chosen from appropriate courses numbered 3000 or higher, offered by the Department Mechanical & Materials Engineering, Department of Computer Science or NSM (Natural Sciences and Mathematics). Prior approval by the student’s advisor is required. It is strongly recommended that students choose math related courses to satisfy the breadth requirement.

### The MSE program offers one area of specialization:

- **Robotic Systems**

The student's degree program will be a combination of the core courses, specialization areas (depth requirement) and the breadth requirement. Each student is required to complete the 2 core courses. Students may choose from any of the courses from their area of specialization but should keep in mind the 4000-level requirement of the degree.

### Core courses for all Mechatronic Systems Engineering Students

The following courses are required for all mechatronic systems engineering students regardless of area of specialization:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENEE 4640</td>
<td>Electromagnetic Compatibility</td>
<td>4</td>
</tr>
<tr>
<td>or ENCE 4110</td>
<td>Modern Digital Systems Design</td>
<td></td>
</tr>
<tr>
<td>ENGR 3620</td>
<td>Advanced Engineering Mathematics</td>
<td>4</td>
</tr>
</tbody>
</table>

### Specialization in Robotics Systems

This area of specialization is designed to meet the needs of industry and federal research laboratories for engineers with multidisciplinary experience and ability to design and integrate complex systems requiring knowledge from diverse engineering disciplines. Said differently, mechatronic systems involve integration of mechanical, electrical, and computer engineering to design complex systems that perform real-world tasks. This program includes a broad set of common course requirements along with a selection of appropriate technical electives providing both breadth and depth of knowledge in a student's area of interest.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCE 4231</td>
<td>Embedded Systems Programming</td>
<td>4</td>
</tr>
<tr>
<td>ENCE 4250</td>
<td>Advanced Hardware Description Language (HDL) Modeling and Synthesis</td>
<td>4</td>
</tr>
<tr>
<td>ENCE 4620</td>
<td>Advanced Computer Vision</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 3350</td>
<td>Reliability ^1</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 3630</td>
<td>Finite Element Methods ^1</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4620</td>
<td>Optimization ^1</td>
<td>3,4</td>
</tr>
<tr>
<td>ENGR 4730</td>
<td>Introduction to Robotics</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4735</td>
<td>Linear Systems</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4740</td>
<td>Adaptive Control Systems</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4745</td>
<td>Adv Non-Linear Control System</td>
<td>4</td>
</tr>
</tbody>
</table>

^1 This course may count toward the specialization with advisors preapproval. This course may not or may not be offered on a regular basis.
Engineering, Computer Courses

ENCE 3220 Microprocessor Systems II (4 Credits)
Introduction to microprocessors and to the design and operation of computer systems. A study of the microprocessor and its basic support components. Analysis CPU architectures of modern computers. Assembly language programming. Use of an assembler and other development tools for programming and developing microprocessor-based systems. Laboratory. Prerequisite: ENCE 3210.

ENCE 3231 Embedded Systems Programming (4 Credits)
Design, construction and testing of microprocessor systems. Hardware limitations of the single-chip system. Includes micro-controllers, programming for small systems, interfacing, communications, validating hardware and software, microprogramming of controller chips, design methods and testing of embedded systems. Prerequisite: ENCE 3220.

ENCE 3250 HDL Modeling & Synthesis (3 Credits)
Introduction to Hardware Design Language (HDL). Language syntax and synthesis. Applications related to digital system implementation are developed. Project. Prerequisite: ENCE 2101 or instructor's permission.

ENCE 3261 Fault Tolerant Computing (3 Credits)

ENCE 3321 Network Design (4 Credits)
Introduction to network components. Layering of network architecture. Analysis of Local Area Network (LAN) concepts and architecture based on IEEE standards. Design principles including switching and multiplexing techniques, physical link, signal propagation, synchronization, framing and error control. Application of probability and statistics in error detecting and control. Ethernet, Token-ring, FDDI (Fiber Distributed Data Interface), ATM (Asynchronous Transfer Mode), ISDN (Integrated Service Data Networks). Prerequisite: ENEE 3111, ENCE 2101 or permission of instructor.

ENCE 3501 VLSI Design (3 Credits)
Design of Very Large Scale Integration systems. Examination of layout and simulation of digital VLSI circuits using a comprehensive set of CAD tools in a laboratory setting. Studies of layouts of CMOS combinational and sequential circuits using automatic layout generators. Fundamental structures of the layout of registers, adders, decoders, ROM, PLA's, counters, RAM and ALU. Application of statistics and probability to chip performance. CAD tools allow logic verification and timing simulation of the circuits designed. Cross listed with ENCE 4501. Prerequisite: ENCE 3220.

ENCE 3620 Computer Vision (4 Credits)
This course is an introduction to the basic concepts in image processing and computer vision. First, an introduction to low-level image analysis methods, including radiometry and geometric image formation, edge detection, feature detection, and image segmentation are presented. Then, geometric-based image transformations (e.g., image warping and morphing) for image synthesis will be presented in the course. Furthermore, methods for reconstructing three-dimensional scenes including camera calibration, Epipolar geometry, and stereo feature matching are introduced. Other important topics include optical flow, shape from shading, and three-dimensional object recognition. In conclusion, students learn and practice image processing and computer vision techniques that can be used in other areas such as robotics, pattern recognition, and sensor networks. Cross listed with ENCE 4620. Prerequisite: ENEE 3111.

ENCE 3630 Pattern Recognition (4 Credits)
This class provides an introduction to classical pattern recognition. Pattern recognition is the assignment of a physical object or event to one of several prescribed categories. Applications includes automated object recognition in image and videos, face identification, and optical character recognition. Major topics include Bayesian decision theory, Parametric estimation and supervised learning, Linear discriminant functions, Nonparametric methods, Feature extraction for representation and classification, Support Vector Machines. Cross listed with ENCE 4630.

ENCE 4100 High Speed Digital Design (4 Credits)
Fundamental topics related to the development of high speed digital systems. Topics include signal integrity and reliability related to crosstalk, parasitic, and electromagnetic interference caused by device clocking speed and system complexity. Project. Cross listed with ENCE 3110.

ENCE 4110 Modern Digital Systems Design (4 Credits)
This course focuses on the design of digital systems using combinational, sequential, and programmable logic devices and Hardware Description Languages (HDL). Techniques for logic design including asynchronous logic, physical world interfaces to digital systems, and system performance analysis methods are studied. Students also learn HDL-Verilog to program CPLD devices and FPGA systems. Cross listed with ENCE 3100.

ENCE 4210 Microprocessor Systems I (4 Credits)
Introduction to microprocessors and to the design and operation of computer systems. A study of the microprocessor and its basic support components. Analysis of CPU architectures of modern computers. Assembly language programming. Use of an assembler and other development tools for programming and developing microprocessor-based systems. Cross listed with ENCE 3210.

ENCE 4231 Embedded Systems Programming (4 Credits)
Design, construction and testing of microprocessor systems. Hardware limitations of the single-chip system. Includes micro-controllers, programming for small systems, interfacing, communications, validating hardware and software, microprogramming of controller chips, design methods and testing of embedded systems.
ENCE 4250 Advanced Hardware Description Language (HDL) Modeling and Synthesis (4 Credits)
This course covers advanced concepts in Hardware Description and Language (HDL) modeling and Synthesis. It covers topics including but not limited to digital system design, simulation, and synthesis using Verilog HDL and VHDL. The course also covers RTL design, behavioral description, system Verilog, and timing analysis using CAD tools.

ENCE 4501 Advanced VLSI Design (4 Credits)
Advanced techniques in the fabrication and design of VLSI circuits and systems. Modeling of parasitic components. Floor-planning, clock distribution, routing, and low power design. Cross listed with ENSE 3501. Prerequisite: ENSE 3501 or permission of instructor.

ENCE 4601 Detection and Estimation Theory (4 Credits)
The subject of the detection and estimation theory course is on signal and information processing for the purpose of making desired inferences. The purpose of this course is to provide the fundamentals of theory and principles underlying the techniques for such processing. The following topics are involved in this course: receiver operating characteristics, hypothesis testing, Neyman-Pearson theorem, detection of deterministic signals with known parameters in Gaussian noise, matched filters principles, detection of random signals with known characteristics, estimator-correlator, linear models, estimation bias, variance, Cramer-Rao bounds and Fisher matrix, Bayesian estimation, maximum likelihood estimation, minimum mean-squared estimation, detection of deterministic signals with unknown parameters, signal parameter estimation, Bayesian approach and generalized likelihood ratio test, detection of random signals with unknown characteristics, unknown noise parameters; signal processing applications. Prerequisite: basic understanding of probability theory and statistics, or permission of instructor.

ENCE 4620 Advanced Computer Vision (4 Credits)
This course covers advanced concepts in image processing and computer vision including but not limited to image radiometry and geometric formation, edge detection, geometric based transformations (e.g., image warping and morphing), camera calibration, Epipolar geometry, and stereo feature matching. Other advanced topics include optical flow, shape from shading, and three-dimensional object recognition. In conclusion, students learn and practice advanced topics in image processing and computer vision techniques that can be used in other areas such as robotics, pattern recognition, and sensor networks. Cross listed with ENSE 3620. Prerequisite: ENSE 3311.

ENCE 4630 Advanced Pattern Recognition (4 Credits)
This class covers advanced topics in pattern recognition including but not limited to Bayesian decision theory, parametric estimation and supervised learning, linear discriminant functions, nonparametric methods, feature extraction for representation and classification, manifold learning, bag of words, and Support Vector Machines. Cross listed with.

ENCE 4680 Time-Frequency Signal Analysis (4 Credits)
This course focuses on time-frequency signal processing methods. Many TFRs and their usefulness in many applications is covered. Course topics include: signals and signal properties; uncertainty principle. Review of 1-D transforms: Fourier transform (FT), group delay, instantaneous frequency. Desirable properties: linear vs. quadratic TFRs. Linear TFRs: Short-time Fourier transform (STFT); Wavelet transform; filter banks. Spectrogram: relation to STFT; tradeoff between TF resolution and cross-term attenuation; application examples. Wigner distribution (WD): definition; properties; signal examples; relation to narrowband ambiguity function; cross-term geometry; applications; Smoothed WDs. Scalogram: relation to wavelet transform; properties; TF resolution’ applications. Adaptive TFRs: adaptive spectrogram; positive TFRs; short-time techniques; time-frequency distribution series. Reassignment method; matching pursuit algorithms. TFRs in real-world applications: wireless communications, biomedicine, radar, sonar, detection, estimation, classification, speech processing, image processing, structural health monitoring, and many more. Prerequisites: basic knowledge of signal and systems, and digital signal processing, or permission of instructor.

ENCE 4800 Advanced Topics (CPE) (1-5 Credits)
Various topics in computer engineering as announced. May be taken more than once. Cross-listed with ENSE 3321, ENSE 3620.

ENCE 4900 Machine Learning (4 Credits)
This course provides a broad introduction to machine learning. Topics include: supervised learning (linear regression, logistic regression, parametric/ non-parametric, neural networks, support vector machines); unsupervised learning (clustering, dimensionality reduction, kernel methods); anomaly detection and recommender systems. The course also discusses recent applications of machine learning. Recommended prerequisite: basic probability theory and statistics.

ENCE 4991 Independent Study (1-10 Credits)
ENCE 4992 Directed Study (1-10 Credits)
ENCE 4995 Independent Research (1-18 Credits)

Engineering, Electrical Courses
ENCE 3011 Physical Electronics (4 Credits)
The basic physical concepts of electronics, electrons and holes in semiconductors, transport and optical processes. Concentration on device concepts, including material synthesis and device processing, P-N junction diodes, junctions with other materials, bipolar transistors, field effect transistors (JFET, MESFET, MOSFET) and optoelectronic effect transistors (JFET, MESFET, MOSFET) and optoelectronic devices (lasers, detectors). Prerequisites: CHEM 1010, CHEM 1610, PHYS 1213, PHYS 1214 or permission of instructor.
ENEE 3111 Signals & Systems (4 Credits)
Introduces continuous time and discrete time linear system analysis, Fourier series, Fourier transforms and Laplace transforms. Specific engineering tools for discrete time linear system analysis include discrete time convolution, Z-transform techniques, discrete Fourier transform and fast Fourier transform (DFT/FFT), and the design and analysis of analog and digital filters for real-world signal processing applications. Prerequisites: ENEE 2021, MATH 2070.

ENEE 3141 Digital Communications (3 Credits)
Introductory course on modern digital communication systems. The basic communication system theory, probability and random processes, baseband digital data transmission, coherent and non-coherent digital modulation techniques and analysis of bit error probability. Bandwidth efficiency and transmission of digital data through band-limited channels. Prerequisites: ENEE 3111, ENGR 3610 or permission of instructor.

ENEE 3611 Analysis and Design of Antennas and Antenna Arrays (4 Credits)
Maxwell's equations applied to antenna analysis and design. Topics include fundamental parameters of antennas, radiation integrals and auxiliary potential functions, analysis and design of linear wire antennas, loop antennas, arrays, broadband antennas, frequency independent antennas, aperture antennas and horns. Integrated lab included. Prerequisite: ENEE 2611.

ENEE 3620 Optical Fiber Communications (4 Credits)
A comprehensive treatment of the theory and behavior of basic constituents, such as optical fibers, light sources, photodetectors, connecting and coupling devices, and optical amplifiers. The basic design principles of digital and analog fiber transmission links. The operating principles of wavelength-division multiplexing (WDM) and the components needed for its realization. Descriptions of the architectures and performance characteristics of complex optical networks for connecting users with a wide range of transmission needs (SONET/SDH). Discussions of advanced optical communication techniques, such as soliton transmission, optical code-division multiplexing (optical CDMA) and ultra-fast optical time-division multiplexing (OTDM). Laboratory. Cross listed with ENEE 4620. Prerequisite: ENEE 3030 or permission of instructor.

ENEE 3641 Introduction to Electromagnetic Compatibility (4 Credits)
The study of the design of electronic systems so that they operate compatibly with other electronic systems and also comply with various governmental regulations on radiated and conducted emissions. Topics may include Electromagnetic Compatibility (EMC) requirements for electronic systems; non-ideal behavior of components; radiated emissions and susceptibility; conducted emissions and susceptibility; shielding and system design for EMC. Cross listed with ENEE 4640. Prerequisites: ENEE 3111, ENEE 2611 and ENEE 2223.

ENEE 3670 Introduction to Digital Signal Processing (4 Credits)
Introduction to the theory and applications of Digital Signal Processing. Special attention is paid to the fast Fourier transform and convolution and to the design and implementation of both FIR and IIR digital filters. Prerequisite: ENEE 3111.

ENEE 4030 Optoelectronics (4 Credits)
Optical fibers: structures, waveguiding, and fabrication; attenuation and dispersion; optical sources (LED, LASER, Fiber laser); power launching and coupling; photodetectors (APD, PIN, MSM); and practical optical transmitter and receivers. Cross listed with ENEE 3030.

ENEE 4035 Nanophotonics (4 Credits)
Nanophotonics provides high-speed, high-bandwidth, and ultra-small optoelectronic components. This course covers nanoscale processes, devices and their applications for harnessing and manipulating light on the nanoscale.

ENEE 4141 Digital Communications (4 Credits)
Introductory course on modern digital communication systems. The basic communication system theory, probability and random processes, baseband digital data transmission, coherent and non-coherent digital modulation techniques and analysis of bit error probability. Bandwidth efficiency and transmission of digital data through band-limited channels.

ENEE 4310 Information Theory and Coding (3 Credits)
Information and entropy; coding theory; error detection, correction codes; channel capacity; application to communications engineering.

ENEE 4416 Advanced Digital Signal Processing Topics (4 Credits)
Study of linear discrete-time systems used to perform operation on random processes for the purposes of signal detection, estimation, spectral estimation, enhancement and parametric modeling of signals and systems, linear difference equations, Z-transforms, random sequences, state variables, matched filtering, Wiener filtering. Prerequisite: ENEE 3670.

ENEE 4460 Real-Time Digital Signal Processing (4 Credits)
Digital signal processing algorithms and processing of discrete data, finite word length effects on filters, fixed point arithmetic and floating-point arithmetic. Overview of different architectures of digital signal processors. Programming of the DSP processor, implementation of DSP algorithms on DSP hardware in labs. Prerequisite: ENEE 3111, ENEE 3670, or ENE 3210.

ENEE 4620 Adv Optical Fiber Comm (4 Credits)
A comprehensive treatment of the theory and behavior of basic constituents, such as optical fibers, light sources, photodetectors, connecting and coupling devices, and optical amplifiers. The basic design principles of digital and analog optical fiber transmission links. The operating principles of wavelength-division multiplexing (WDM) and the components needed for its realization. Descriptions of the architectures and performance characteristics of complex optical networks for connecting users who have a wide range of transmission needs (SONET/SDH). Discussions of advanced optical communication techniques, such as soliton transmission, optical code-division multiplexing (optical CDMA) and ultra-fast optical time division multiplexing (OTDM). Advanced Project. Cross listed with ENEE 3620. Prerequisite: instructor permission.
ENEE 4625 Radio over Fiber Comms. (4 Credits)
This course provides comprehensive and technical foundation in Microwave photonic Applications: Radio over optical fiber communications (RoF) is a novel technology in the field of short-range communication applications. The main goal is to enable range extension of 1 to 3 orders of magnitude over a typical ultra wide band radio signal in the range of 3.1-10.6 GHz. This technology allows separation of low cost Base-Station (BS)s from the Central-Station (CS). In the RoF technology is targeting the Personal Area Network (PAN) market that is characterized by very low cost and low power (10 uW) access point. In RoF, the optical fiber is used to carry extremely wide RF signals (several GHz).

ENEE 4630 Optical Networking (4 Credits)
This course provides a technical overview of optical networking. It gives students a solid understanding of optical networking field principles and practice. Underlying principles are reviewed along with common optical solutions and practices. It explains and provides practical tips on how to design and implement Networks. Examples are used to demonstrate key concepts of ATM, SONET/SDH and DWDM implementation. Prerequisite: ENEE 3011 or instructor approval.

ENEE 4635 Optical Wireless Communications (OWC) (4 Credits)
This course addresses describing important issues in optical wireless theory, including coding and modulation techniques for optical wireless, wireless optical CDMA communication systems, Optical MIMO systems and optical wireless technology such as visible light communications, IR links and sensor networks. Project in OWC. No prerequisite.

ENEE 4640 Electromagnetic Compatibility (4 Credits)
The study of the design of electronic systems so that they operate compatibly with other electronic systems and also comply with various governmental regulations on radiated and conducted emissions. Topics may include: Electromagnetic Compatibility (EMC) requirements for electronic systems; non-ideal behavior of components; radiated emissions and susceptibility; conducted emissions and susceptibility; shielding and system design for EMC. Final Project. Cross listed with ENEE 3641.

ENEE 4650 Radio Frequency Design in the Wireless World (4 Credits)
Topics include the following: basic concepts in Radio Frequency design and communications, transceiver architectures, low-noise amplifiers, mixers, oscillators, phase-locked loops, power amplifiers, and transceiver design examples. Final Project. Prerequisites: ENEE 2611, ENEE 2222, and ENEE 3111 or equivalents.

ENEE 4800 Advanced Topics (EE) (1-5 Credits)
Various advanced topics in electrical engineering as announced. May be taken more than once. Cross-listed with ENEE 3035.

ENEE 4991 Independent Study (1-10 Credits)
ENEE 4992 Directed Study (1-10 Credits)
ENEE 4995 Independent Research (1-16 Credits)
ENEE 6991 Ph.D Independent Study (1-10 Credits)
ENEE 6995 Ph.D Independent Research (1-16 Credits)

Engineering
Office: Ritchie School of Engineering and Computer Science
Mail Code: 2155 E. Wesley Ave, Room 277, Denver, CO 80208
Phone: 303-871-2107
Email: mmeinfo@du.edu
Web Site: ritchieschool.du.edu/departments/mme/

Master's and Doctoral Degrees
Why study engineering at the University of Denver?
The University of Denver's Department of Mechanical and Materials Engineering (MME) is creating the future of technology by providing a graduate education emphasizing cross-disciplinary knowledge. A distinguished faculty is creating multidisciplinary education and research programs that anticipate technological trends in research and industry. Engineering graduate students join the faculty in conducting cutting-edge research in emerging disciplines to develop unique solutions to old and new problems and opportunities.

The well-equipped laboratories in the department contain state-of-the-art equipment and software to support research in biomedical engineering, advanced materials, atmospheric aerosol science, and mechanical design among others. Small classes support our multidisciplinary and real-time focus by providing close contact between students and faculty, which allows us to meet students’ individual career goals.

Recognizing the different aims and goals of students, we offer joint degree programs in management and engineering for students who wish to add to their technical skills and acquire business skills. The general engineering graduate student can choose courses from mechanical engineering, electrical engineering, computer engineering, computer science, nanoscale science and engineering, materials science, and bioengineering.

Denver is a first-rate location for business, governmental and laboratory partnerships, and technology employment. The Colorado Front Range is consistently rated as one of the top high-tech areas in the country, and the University of Denver is located just minutes from the Denver Technological Center, site of many top technology companies. The Department of Mechanical and Materials Engineering is committed to active collaboration with
these industry leaders. As a result, our students graduate with relevant research experience and a network of employment contacts in the technology sector.

**Time Commitment**

Our department recognizes that a student may be employed full-time while studying for a degree. Therefore, most courses are offered at times and on days that will permit a student to complete the program by taking courses either late in the day or outside normal business hours. Many employers will permit additional flexibility by releasing employees early to attend classes.

The master’s program offers thesis and non-thesis options and can be completed in one (non-thesis track only) to four years depending on the number of courses taken per quarter. The choice of thesis or non-thesis can be made at any time, although a delay in declaration may impact the completion date.

The doctoral program is generally completed in three to seven years, depending on the number of courses taken per quarter and whether the student enters with a BS or MS.

A student not interested in pursuing a degree, but interested in taking an occasional course, may register as a special status student (http://www.du.edu/learn/graduates) by following an abbreviated admissions process. If at a later time the student chooses to enter a graduate degree program at DU, you may apply up to 15 special status credits to your degree, with departmental approval. Just follow the regular graduate application requirements, including submitting the application fee, to get started.

master of science in engineering, master of science in engineering with a concentration in management

Following are the simple steps to apply for the master’s programs in Engineering at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

**Apply Online / Application Deadlines**

- Application for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies by the program’s stated deadline: February 1, for the fall quarter.
- Students interested in competing for graduate teaching assistantships (GTAs) are encouraged to submit their applications by this deadline to ensure full consideration for an appointment in September of a given year. GTAs are offered to students who have been admitted to the PhD program and rarely to master’s students who have chosen the thesis option.
- Applications received after the priority deadline will be accepted, processed and reviewed on a rolling basis for the fall, winter or spring quarters. International applicants are encouraged to have the admission application and all supporting documents in the Office of Graduate Studies by the deadline or no later than May 1, for fall admission.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

**Course and Degree Prerequisites and Requirements**

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- A Bachelor of Science degree in Mechanical Engineering (BS ENME) or closely related field is required for admission to the MS ENME program. Those students whose backgrounds differ significantly from EAC/ABET-accredited BS computer/electrical/mechanical engineering programs may be required to complete prerequisite undergraduate courses.
- A bachelor’s degree in materials science or closely related field (physics, metallurgy, engineering, or chemistry) is usually required for admission to the Materials Science program. If the student did not receive adequate preparation for studying materials, they may need to take several prerequisite courses in materials science.
- The interdisciplinary nature of Nanoscale Science and Engineering mandates certain flexibility in order to accommodate students with a variety of backgrounds. The program accepts students with a Bachelor of Science, Bachelor of Arts, Master of Science, or Master of Arts in biological sciences, chemistry, biochemistry, computer science, engineering, physics or related discipline. As a minimum, to be admitted into the program, students are expected to have earned as a part of their undergraduate degree: 1 year of calculus, 1 year of algebra- or calculus-based physics with accompanying laboratory, 1 quarter of general chemistry with accompanying laboratory. Furthermore, the program accepts students with a Master of Science or Master of Arts degrees in biological sciences, biophysics, chemistry, biochemistry, computer science, engineering, physics or related discipline.

**Transcripts** (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours or one semester hour or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be
complete by the program’s stated deadline. Therefore, **applicants with a degree from outside of the U.S. are encouraged to apply early.** Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.

- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.

- Mail official transcripts to
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802

**Language Proficiency** ([http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers](http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers))

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

- Students whose native language is not English and who are required to submit TOEFL/IELTS ([http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers](http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

- In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, the Anthropology program may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through DU’s English Language Center to meet the English language requirement. English language training at centers outside of DU will not be counted toward meeting English language proficiency requirements. International applicants with a three-year baccalaureate degree or any other academic deficiencies cannot be granted English Conditional Admission.

**Test Scores** ([http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers](http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers))

- The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

- GRE score requirements are a minimum score of 140 verbal AND 154 quantitative

**Personal Statement**

- A personal statement of at least 300 words is required. The statement should be submitted via upload through the online application process.

**Resume / C.V.**

- A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume or C.V. should be submitted via upload through the online application process.

**Recommendation Letters**

- Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

**Financial Support**

- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid ([http://www.du.edu/financialaid/graduate](http://www.du.edu/financialaid/graduate)) website. International students are not eligible for federal financial aid.

- The Department of Mechanical and Materials Engineering also offers a number of competitive graduate teaching assistantships (GTA) that provide full tuition remission along with a stipend for the nine-month academic year (three academic quarters). Priority for these GTAs is given to PhD and masters-thesis students whose undergraduate degrees are in engineering.

- Graduate research assistantships (GRAs), either with or without tuition remission, are awarded by individual faculty based on available funding.
Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802  

  • Electronic transcripts should be sent to gradinfo@du.edu.

  • For more information call (303) 871-2706.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Degree Programs
The following are our general engineering degrees. Please see the Mechanical and Materials Engineering Programs for our other graduate engineering degrees.

  • Master of Science in Engineering (MS ENGE)
  • Master of Science in Engineering with a Concentration in Management (MS ENGE (CM))
  • Doctor of Philosophy in Engineering (PhD ENME)

Doctor of Philosophy in Engineering
The objective of the Doctor of Philosophy in Engineering (PhD ENGE) program is to provide an educational environment that encourages students to develop the ability to contribute to the advancement of science, engineering, and technology through independent research. The PhD students of the 21st century may pursue academic, research, entrepreneurial and/or industrial careers. Individualized plans of study are based on students’ previous experience and desired research areas. The plan of study allows students to work on interdisciplinary research, while also satisfying the PhD in engineering degree requirements.

The interdisciplinary Engineering PhD program offers opportunities for a student to develop a plan of study combining engineering and a complementary discipline (e.g. natural sciences). In the plan of study, coursework in the complementary discipline can be included up to the maximum number of technical elective credits. The student’s plan of study must be approved by the PhD committee and the department chair. When the student is completing research and coursework in a complementary discipline, the student’s PhD committee must include a faculty member from the related department or division/school.

For a part-time student who is working in an industry position, a topic related to the job function may be acceptable as the dissertation research topic. Furthermore, a student may request for a qualified staff member at the place of employment to serve as a special committee member on the dissertation committee.

Exam Structure:
1. Each student must pass the qualifying exam to continue in the PhD program. In consultation with the advisor, students should expect to take the qualifying exam about one year (24 credits) into their academic study. Students must take exams in three subject areas. The Design exam is required for all participants, and is an open-book exam, where the student will have one week to prepare a written and oral response to an open-ended design problem. The other two exams are closed-book, written exams and should be related to the student’s research area. The exam is offered twice a year: once in the summer interterm (usually in June) and once in the winter interterm (usually in December or early January). The qualifying exam can be retaken only once, and must be completed within one year after the first qualifying comprehensive exam was attempted.
2. After completion of the qualifying exam and coursework, the student should schedule and take the comprehensive exam attended by the student’s PhD committee. The student will be expected to make a concise presentation on his/her dissertation topic. The presentation will highlight previous work in this area, demonstrate a need for the research, and explain how the research will contribute to the advancement of the area. The student
will also present completed work and results, anticipated work and results, and a detailed plan for project completion. The comprehensive exam can be retaken only once.

3. After successful completion of the qualifying exam and the comprehensive exam, the student is required to complete and defend a dissertation of publishable quality based on the student's original research. The dissertation must be completed in written form in accordance with the University's guidelines, and must be defended by the student in the final oral defense. The defense committee members will consist of the student's entire PhD committee. The dissertation defense can be retaken only once.

PhD Residence Requirement
Enrollment in at least six quarters, including two consecutive quarters of full-time attendance is required for graduation.

PhD Students with a Bachelor of Science Degree

Program Structure
1. For students entering with a bachelor's degree, 90 credits are required, at least 75 of which must be completed at the University of Denver.
2. A minimum of 48 credits must be at the 4000- or 5000-level and may include as many dissertation research credits as considered appropriate by the advisor.
3. No courses at the 1000- or 2000-level are acceptable.
4. An overall GPA of 3.0 is required for the degree.
5. Any individual grade lower than C- renders the credit unacceptable.
6. Students who have completed the required 90 credits and are still working on the dissertation are eligible for Continuous Enrollment to maintain active student status at the University.
7. Students must complete all requirements for the doctoral degree no later than eight years after doctoral studies begin.

Course Requirements:
1. Candidates who hold only a bachelor's degree on entering the doctoral program are expected to meet all degree requirements of the corresponding master's degree program (as part of the doctoral requirements).
2. Students are required to take ENME 4950 Graduate Assessment in the last quarter of study. NOTE: Students are required to complete a written self-reflection on their dissertation and upload the report to Assess-It along with dissertation, defense presentation slides, and the completed and signed degree program plan before graduation.
3. PhD students who enter the program with a bachelor's are required to take ENME 4900 Graduate Professional Development in the first year (this is offered once a year; usually in winter quarter).

Required Core Courses
- ENME 4900 Grad Professional Development (Graduate Professional Development) 1
- ENME 4950 Graduate Assessment (Graduate Assessment) 0

Mechanical Engineering Core Courses
- ENGR 3630 Finite Element Methods 4
- ENME 3545 Mechanisms 4
- ENME 3651 Computational Fluid Dynamics 4
- ENME 4020 Adv Finite Element Analysis 4
- ENME 4520 Intermediate Dynamics (Intermediate Dynamics) 4
- ENME 4541 Advanced Mechanics of Materials (Advanced Mechanics of Materials) 4
- ENME 4630 Viscous Flow (Viscous Flow) 4
- ENME 4670 Advanced Computational Fluid Dynamics 4
- ENME 4800 Advanced Topics (ME) (Convective Heat Transfer) 4

Bioengineering Core Courses
- ENBI 4500 Biofluids 4
- ENBI 4510 Biomechanics 4
- ENBI 4520 Introduction to Cardiovascular Engineering (Intro to Cardiovascular Engineering) 4
- ENBI 4800 Adv Topics (Bioengineering) (Computational Biomechanics) 4

Materials Science Core Courses
- ENGR 4200 Introduction to Nanotechnology 4
- ENME 4400 Fatigue 4
- MTSC 4010 Mechanical Behavior of Materials 4
- MTSC 4020 Composite Materials I 4
- MTSC 4215 Composite Materials II 4
PhD Students with a Master of Science

1. A minimum of 36 credits must be completed at the 4000- or 5000-level, which may include as many research credits as considered appropriate by the advisor.

2. For students entering with a master's degree, up to 45 credits may be transferred and applied to the doctorate degree. In addition, a minimum of 45 credits must be completed at DU. The total number of credits required for the degree is 90.

3. No courses at the 1000- or 2000-level are acceptable.

4. An overall GPA of 3.0 is required for the degree.

5. Any individual grade lower than C- renders the credit unacceptable.

6. A student who holds a master’s degree on entering the doctoral program is expected to complete all requirements for the degree no later than seven years after beginning the program.

Course Requirements:

1. Students are required to take ENME 4950 Graduate Assessment in the last quarter of study. **NOTE:** Students are required to complete a written self-reflection on their dissertation and upload the report to Assess-It along with dissertation, defense presentation slides, and the completed and signed degree program plan before graduation.

2. If a PhD student fails his/her qualifying exam on the first try, he/she will be required to take ENME 4900 Graduate Professional Development as well. ENME 4900 will be offered once a year, usually in winter quarter.

Master of Science in Engineering

The Master of Science in Engineering (MS ENGE) is designed to advance the knowledge of students in areas differing from those in which they received their bachelor’s degree. The program is particularly intended for students with bachelor’s degrees in the natural sciences, mathematics, computer science or engineering who are making a change of discipline or wanting to develop expertise in an engineering area, often one that is of emerging importance or interdisciplinary in nature. The program combines a solid background in an area of engineering with a distinctly personal specialization. It enables the student to focus on a particular area of engineering, while providing breadth through its technical elective requirement addressing the student’s specific interests.

A Master of Science in Engineering with a concentration in Management (CM) is also offered (see below). These engineering and management courses are focused on developing core knowledge and competencies in innovation and entrepreneurship, and providing concrete tools to successfully translate ideas and initiative into marketplace success.

Program Structure (non-management)

1. Every candidate for this degree must complete 45 credits, at least 36 of which must be completed at the University of Denver.

2. A minimum of six 4000-level courses of at least three credits each are required for non-thesis track; four 4000-level courses of at least three credits each are required for thesis track.

3. No courses at the 1000- or 2000-level are acceptable.

4. An overall GPA of 3.0 is required for the degree.

5. Any individual grade lower than C- renders the credit unacceptable.

6. Students who have completed the required 45 credits and are still working on a thesis or project are eligible for Continuous Enrollment to maintain active student status at the University.

7. Master’s degree candidates are expected to complete degree requirements no later than five years after beginning their programs. These programs are designed to be completed in about six quarters if two courses (eight credits) are taken each quarter.

Course Requirements

1. **Core Courses:** a minimum of nine credits (two courses from ENME, MTSC, ENBI or ECE Core Course List; no more than one course from a single discipline) plus the required courses.

2. **Required Courses:** All master’s students are required to take ENME 4900 Graduate Professional Development in the first year (this will be offered once a year; usually in winter quarter) and ENME 4950 Graduate Assessment in the last quarter of study. **NOTE:** Students on the thesis track are required to complete a written self-reflection on their thesis and upload the report to Assessment.du.edu along with thesis, defense presentation slides, and the completed and signed degree program plan before graduation. Students on the non-thesis track are required to upload
to Assessment.du.edu an assembled portfolio that includes reports from at least two course projects or homework from the core courses, a mini-
proposal and presentation slides from ENME 4950 along with the completed and signed degree program plan.

3. **Technical Electives**: a minimum of 16 credits for thesis track and 28 credits for non-thesis track. These do not include independent research credits.
   a. Technical electives must be in engineering (bioengineering, mechanical engineering, materials science, etc.) or related areas (mathematics, computer science, physics, chemistry, etc.) and are at the advisor’s discretion.
   b. A student may take one business/management course as a technical elective. Special permission should be obtained in writing from the advisor **PRIOR TO REGISTRATION** if more than one business/management course is taken.

4. **Advanced Math Requirement**: a minimum of three credits for thesis track and six credits for non-thesis track from the Core Course List or advisor approval.

5. **Thesis Hours**: not allowed for non-thesis track.

**MS ENGE Thesis/Non-thesis Minimum Credit Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Thesis</th>
<th>Non-Thesis</th>
<th>CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>9</td>
<td>9</td>
<td>NA</td>
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<tr>
<td>Technical Electives</td>
<td>16</td>
<td>28</td>
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</tr>
<tr>
<td>Advanced Math</td>
<td>3</td>
<td>6</td>
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<tr>
<td>Thesis</td>
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<td>NA</td>
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<tr>
<td>Total Credits Required</td>
<td>45</td>
<td>45</td>
<td>NA</td>
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**Required Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENME 4900</td>
<td>Grad Professional Development (Graduate Professional Development)</td>
<td>1</td>
</tr>
<tr>
<td>ENME 4950</td>
<td>Graduate Assessment (Graduate Assessment)</td>
<td>0</td>
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**Mechanical Engineering Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 3630</td>
<td>Finite Element Methods</td>
<td>4</td>
</tr>
<tr>
<td>ENME 3545</td>
<td>Mechanisms</td>
<td>4</td>
</tr>
<tr>
<td>ENME 3651</td>
<td>Computational Fluid Dynamics</td>
<td>4</td>
</tr>
<tr>
<td>ENME 4020</td>
<td>Adv Finite Element Analysis</td>
<td>4</td>
</tr>
<tr>
<td>ENME 4520</td>
<td>Intermediate Dynamics (Intermediate Dynamics)</td>
<td>4</td>
</tr>
<tr>
<td>ENME 4541</td>
<td>Advanced Mechanics of Materials (Advanced Mechanics of Materials)</td>
<td>4</td>
</tr>
<tr>
<td>ENME 4630</td>
<td>Viscous Flow (Viscous Flow)</td>
<td>4</td>
</tr>
<tr>
<td>ENME 4670</td>
<td>Advanced Computational Fluid Dynamics</td>
<td>4</td>
</tr>
<tr>
<td>ENME 4800</td>
<td>Advanced Topics (ME) (Convective Heat Transfer)</td>
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</tbody>
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**Bioengineering Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENBI 4500</td>
<td>Biofluids</td>
<td>4</td>
</tr>
<tr>
<td>ENBI 4510</td>
<td>Biomechanics</td>
<td>4</td>
</tr>
<tr>
<td>ENBI 4520</td>
<td>Introduction to Cardiovascular Engineering (Intro to Cardiovascular Engineering)</td>
<td>4</td>
</tr>
<tr>
<td>ENBI 4800</td>
<td>Adv Topics (Bioengineering) (Computational Biomechanics)</td>
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**Materials Science Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 4200</td>
<td>Introduction to Nanotechnology</td>
<td>4</td>
</tr>
<tr>
<td>ENME 4400</td>
<td>Fatigue</td>
<td>4</td>
</tr>
<tr>
<td>MTSC 4010</td>
<td>Mechanical Behavior of Materials</td>
<td>4</td>
</tr>
<tr>
<td>MTSC 4020</td>
<td>Composite Materials I</td>
<td>4</td>
</tr>
<tr>
<td>MTSC 4215</td>
<td>Composite Materials II</td>
<td>4</td>
</tr>
<tr>
<td>MTSC 4450</td>
<td>Fracture Mechanics</td>
<td>4</td>
</tr>
</tbody>
</table>

**Electrical & Computer Engineering - Any 4XXX level ENEE or ENCE course**

**Advanced Math Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 3620</td>
<td>Advanced Engineering Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4300</td>
<td>Advanced Numerical Methods (Advanced Numerical Methods)</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4350</td>
<td>Reliability</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4620</td>
<td>Optimization</td>
<td>4</td>
</tr>
</tbody>
</table>
Master of Science in Engineering with a Concentration in Management

The degree of Master of Science in Engineering allows students to pursue a concentration in management (MS ENGE (CM)). This is an engineering degree with both engineering and management focuses. The concentration in management is designed to meet the increasing needs of students to enhance their career opportunities as managers or as entrepreneurs by supplementing advanced engineering knowledge with a fundamental understanding of business principles within the context of technology enterprises. Drawing upon the strengths of both RSECS and the Daniels College of Business, the program provides the relevant content for graduates to lead technology enterprises. Candidates for the degree of master of science with a concentration in management will be on the non-thesis track only.

Program Structure (management focus)
1. Every candidate for this degree must complete 45 credits, at least 36 of which must be completed at the University of Denver.
2. A minimum of six 4000-level courses of at least three credits each are required for non-thesis track; four 4000-level courses of at least three credits each are required for thesis track. No courses at the 1000- or 2000-level are acceptable.
3. An overall GPA of 3.0 is required for the degree.
4. Any individual grade lower than C- renders the credit unacceptable.
5. Students who have completed the required 45 credits and are still working on a thesis or project are eligible for Continuous Enrollment to maintain active student status at the University. Students working on internships are not eligible for Continuous Enrollment.
6. Master’s degree candidates are expected to complete degree requirements no later than five years after beginning their programs.

Course Requirements:
1. **Core Courses**: a minimum of nine credits (one course from ENME, ENBI, MTSC or ECE Core Course List AND one course from Management Concentration Core Course List) plus required courses.
2. **Required Courses**: All master’s students are required to take ENME 4900 Graduate Professional Development in the first year (this will be offered once a year; usually in winter quarter) and ENME 4950 Graduate Assessment in the last quarter of study. NOTE: Students on this non-thesis track are required to upload to Assessment.du.edu an assembled portfolio that includes reports from at least two course projects or homework from the core courses, a mini-proposal and presentation slides from ENME 4900, along with the completed and signed degree program plan.
3. **Technical Electives**: a minimum of 16 credits should be selected from ENME, ENBI, MTSC or ECE Core Course List.
4. **Management Electives**: a minimum of 12 credits should be selected from the following provided all prerequisites are met: any 4XXX level ACTG, CMGT, FIN, INFO, INFOR, MGNT, MKTG or REAL courses. These management electives are in addition to the management core credit requirement.
5. **Advanced Math Requirement**: a minimum of three credits from Core Course List or advisor approval.

### MS ENGE with a Concentration in Management Minimum Credit Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Thesis</th>
<th>Non-Thesis</th>
<th>CM</th>
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<tbody>
<tr>
<td>Core</td>
<td>NA</td>
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<td>9</td>
</tr>
<tr>
<td>Technical Electives</td>
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</tr>
<tr>
<td>Management Electives</td>
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<td>NA</td>
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</tr>
<tr>
<td>Advanced Math</td>
<td>NA</td>
<td>NA</td>
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</tr>
<tr>
<td>Total Credits Required</td>
<td>NA</td>
<td>NA</td>
<td>45</td>
</tr>
</tbody>
</table>

#### Required Core Courses
- ENME 4900: Grad Professional Development (Graduate Professional Development) 1
- ENME 4950: Graduate Assessment (Graduate Assessment) 0

#### Concentration in Management Core Courses - see note 4 above

#### Mechanical Engineering Core Courses
- ENGR 3630: Finite Element Methods 4
- ENME 3545: Mechanisms 4
- ENME 3651: Computational Fluid Dynamics 4
- ENME 4020: Adv Finite Element Analysis 4
- ENME 4520: Intermediate Dynamics (Intermediate Dynamics) 4
- ENME 4630: Viscous Flow (Viscous Flow) 4
- ENME 4670: Advanced Computational Fluid Dynamics 4
- ENME 4800: Advanced Topics (ME) (Convective Heat Transfer) 4

#### Bioengineering Core Courses
- ENBI 4500: Biofluids 4
Engineering, Bio Courses

ENBI 4500 Biofluids (4 Credits)
The application of fluid dynamics theory and design to problems within the biomedical community. Specific topics covered include the mechanics of inhaled therapeutic aerosols, basic theory of circulation and blood flow, foundations in biotechnology and bioprocessing, and controlled drug delivery. Cross listed with ENBI 3500.

ENBI 4510 Biomechanics (4 Credits)
An introduction to the mechanical behavior of biological tissues and systems. Specific topics covered include: Analysis of the human musculoskeletal system as sensors, levers, and actuators; Joint articulations and their mechanical equivalents; Kinematic and kinetic analysis of human motion; Introduction to modeling human body segments and active muscle loading for analysis of dynamic activities; Mechanical properties of hard and soft tissues; Mechanical and biological consideration for repair and replacement of soft and hard tissue and joints; Orthopedic implants. Cross listed with ENBI 3510.

ENBI 4520 Introduction to Cardiovascular Engineering (4 Credits)
An introduction to cardiovascular mechanics with a focus on the quantitative understanding of the mechanical phenomena that governs the cardiovascular system. Specific topics covered include: basic principles of circulation including macro and micro circulation, soft tissue mechanics, applications to cardiovascular diseases, modelling techniques, clinical and experimental methods, and design of cardiovascular devices. Recommended prerequisites: ENME 2541 and ENME 2661.

ENBI 4800 Adv Topics (Bioengineering) (1-5 Credits)
Various topics in Bioengineering as announced. May be taken more than once. Prerequisite: varies with offering.

Engineering, Mechanical Courses

ENME 3511 Machine Design (3 Credits)
Application of statics, dynamics, mechanics of materials and manufacturing processes to the design of machine elements and systems. Properties of materials and design criteria. Synthesis and analysis of a machine design project. Prerequisites: ENME 2520 and ENME 2541.

ENME 3545 Mechanisms (4 Credits)
Synthesis, analysis and use of mechanisms. Mechanisms studied include cams, gears and planar linkages, with an emphasis on planar linkages. Prerequisites: ENME 2530 and ENGR 1572.

ENME 3651 Computational Fluid Dynamics (4 Credits)
This course introduces principles and applications of computational methods in fluid flow and topics chosen from heat transfer, mass transfer or two phase flow. The conservation equations, their discretations and solutions, are presented. Convergence and validity of solutions along with computational efficiency are explored. Students learn to apply these techniques using the latest software packages. Prerequisites: ENME 2671.
ENME 3661 Mechanical Energy Systems Engineering (4 Credits)
This course covers energy systems engineering analysis from a mechanical and materials engineering perspective. This course covers energy production from traditional energy systems that use fossil fuel combustion such as internal combustion engines, coal-fired plants, and natural gas turbines, to nuclear energy and renewable energy methods such as wind, solar, hydraulic, and geothermal. Lastly, the course will survey emerging technologies for future (21st century) energy systems. Students should have taken at a minimum Thermodynamics, Dynamics, and Fluid Dynamics courses. Prerequisites: ENME 2720, ENME 2510, ENME 2651.

ENME 3720 Introduction to Aerospace Engineering (4 Credits)
This course provides and introduction to aerospace engineering analysis and design. In the atmospheric domain, the basics of aerodynamics are covered, followed by flight mechanics. The approach is from a practical perspective in which analysis and design are intertwined. Students should have taken at a minimum Thermodynamics and Dynamics courses. Prerequisites: ENME 2710 and ENME 2510 or Graduate standing.

ENME 3810 Mechanical Engineering Capstone Laboratory (3 Credits)
This course is the capstone mechanical engineering laboratory course requiring independent experimental design by student teams. Using experimental equipment available in heat transfer, fluid mechanics, solid mechanics, thermodynamics, and measurement and control, the student team is required to design experiments to solve given problems which will be unique to each team. This course encourages students to develop experimental design and research techniques while continuing to improve skills in fundamental lab notebook keeping, uncertainty analysis in measurements, data acquisition, data analysis, report writing, oral presentations, and laboratory safety and procedures. Prerequisite: ENME 2810.

ENME 4020 Adv Finite Element Analysis (4 Credits)
ENME 4310 Computational Methods for Mechanics and Materials (4 Credits)
An introductory course for the general-purpose computational methods in advanced multiscale materials and mechanics. Students learn the fundamentals on the numerical methods used in mechanical and materials engineering. Cross listed with ENME 3310.

ENME 4360 Elasticity (4 Credits)
Students will be able to apply the fundamental principles of elasticity to solve two- and three-dimensional mechanical engineering problems involved in modern applications of elastic structures, composite materials, tribology and contact mechanics. Dependence on previous knowledge of solid mechanics, continuum mechanics or mathematics is minimized. The emphasis is placed on the engineering applications of elasticity. Suggested prerequisite: ENME 2541.

ENME 4400 Fatigue (4 Credits)
A detailed overview of fatigue. Topics include: stress life and strain life approaches, fracture mechanics, constant amplitude and spectrum loading, life prediction, fatigue at notches, microstructural effects, environmentally assisted fatigue, retardation and acceleration, multi-axial fatigue, design against fatigue and reliability. Cross listed with ENME 3400.

ENME 4520 Intermediate Dynamics (4 Credits)
Development and analysis of dynamic systems through classical and modern approaches. Topics include: reference frames, particle kinematics, Newtonian particle mechanics, Phase Portraits, rigid-body kinematics, Euler’s laws, Lagrange’s Equations, Lagrange Multipliers, and Kane’s Equations. Recommended prerequisites: MATH 2070 and MATH 2080.

ENME 4541 Advanced Mechanics of Materials (4 Credits)
This is a second-level course in mechanics of materials with an emphasis on techniques that are useful for mechanical design. Topics may include energy methods, non-symmetrical and nonlinear bending, shear and torsion of closed and open sections, beams in elastic foundations, membrane stress in axisymmetric shells, axisymmetric bending of cylindrical shells, thick-walled cylinders and disks, curved beams, and elastic stability. Recommended prerequisite: ENME 2541.

ENME 4630 Viscous Flow (4 Credits)
Course covers the fundamentals of fluid mechanics from an advanced point of view with emphasis on the mathematical treatment of viscous-flow phenomena. Topics cover the Navier-Stokes equations and its exact and similarity solutions, laminar boundary layer theory, free-shear flows, and the phenomena of instability and transition to turbulence. Recommended prerequisite: ENME 2661.

ENME 4650 Adv. Fluid Dynamics (4 Credits)
Physical properties of liquids and gases; turbulence and closure models; surface waves and instabilities; non-Newtonian fluid behavior; conformal mapping and airfoil theory.

ENME 4660 Micro Heat Exchangers (4 Credits)
Explores the advance principles and applications of fluid dynamics and heat transfer through the application to micro fluidic heat exchanger design and optimization. Students utilize Mathcad extensively to seek optimized exchanger performance within a clearly defined design space. Students also build small scale heat exchangers from their optimized designs. Prerequisite: ENME 2670.

ENME 4670 Advanced Computational Fluid Dynamics (4 Credits)
Building on the principles and applications of computational methods in fluid flow and topics chosen from heat transfer, mass transfer and two phase flow. Specifically, Monte Carlo and volume of fluid techniques are discussed at length. Additionally, students learn how to set up automated design optimization using the latest software packages. Time permitting, students also are introduced to fluid-solid interaction modeling. Prerequisite: ENME 3651.
ENME 4671 Convective Heat Transfer (4 Credits)
The objective of this course is to examine the physical phenomena associated with heat transfer in the presence of fluid flow. We will develop a mathematical description of the processes (fluid flow and heat transfer) for laminar and turbulent flows for both internal and external situations. Exposure to the fundamentals of fluid mechanics and heat transfer is expected before taking this course.

ENME 4800 Advanced Topics (ME) (1-5 Credits)
Determined by interest and demand. May be taken more than once for credit.

ENME 4900 Grad Professional Development (1 Credit)
This course is required for all MME MS graduate students and all MME PhD graduate students who enter with a BS or enter with an MS but fail their first qualifying exam. One of our objectives is for all graduating students to have good written and verbal communication skills. This course is set up to meet those objectives. During this course, students write a mini-proposal and/or literature review. Students follow guidelines for a funding agency (e.g. NSF or NIH) for the mini-proposal. If students have a research advisor, students can coordinate with their advisor. If students do not have a research advisor, students may pick a topic that most interests them. Both a written proposal and an oral presentation are required of all students. Graduate standing is required.

ENME 4950 Graduate Assessment (0 Credits)
This graduate assessment course is required for all MME graduate students to be taken in their last quarter. All required assessment materials are uploaded to DU Assessment to meet the course requirements. Students will receive emails through the DU Assessment system notifying you of what is required to be uploaded.

ENME 4991 Independent Study (1-10 Credits)
ENME 4992 Directed Study (1-10 Credits)
ENME 4995 Independent Research (1-16 Credits)
ENME 5991 Independent Study (1-10 Credits)
ENME 5995 Independent Research (1-16 Credits)

Engineering Courses
ENGR 3210 Intro Nano-Electro-Mechanics (4 Credits)
Familiarize science and engineering students with the electromechanical aspects of the emerging field of Nanotechnology (NEMS). NEMS is a relatively new and highly multidisciplinary field of science and technology with applications to state of the art and future sensors, actuators, and electronics. Starting with an overview of nanotechnology and discussion on the shifts in the electromechanical behavior and transduction mechanisms when scaling the physical dimensions from centimeters to micro-meters and then down to nanometers. Several electromechanical transduction mechanisms at the micro and nanoscale are presented and discussed in an application based context. New electromechanical interactions appearing in the nano and molecular scale, such as intra-molecular forces and molecular motors, are discussed. A detailed discussion and overview of nanofabrication technologies and approaches are also provided. Cross listed with ENGR 4210. Prerequisite: must be an engineering or science major of at least junior standing.

ENGR 3510 Renewable and Efficient Power and Energy Systems (4 Credits)
This course introduces the current and future sustainable electrical power systems. Fundamentals of renewable energy sources and storage systems are discussed. Interfaces of the new sources to the utility grid are covered. Prerequisite: ENEE 2021.

ENGR 3520 Introduction to Power Electronics (4 Credits)
This covers fundamentals of power electronics. We discuss various switching converters topologies. Basic knowledge of Efficiency and small-signal modeling for the DC-DC switching converters is covered. Furthermore, magnetic and filter design are introduced. Prerequisites: ENEE 2211 and ENGR 3722.

ENGR 3525 Power Electronics and Renewable Energy Laboratory (1 Credit)
In this course the fundamentals of switching converters and power electronics in a real laboratory set-up are covered. The course incorporates hardware design, analysis, and simulation of various switching converters as a power processing element for different energy sources. The energy sources are power utility, batteries, and solar panels. Prerequisite: ENGR 3520.

ENGR 3540 Electric Power Systems (4 Credits)
This course covers methods of calculation of a comprehensive idea on the various aspects of power system problems and algorithms for solving these problems. Prerequisite: ENGR 3530.

ENGR 3550 Introduction to Machine Drive Control (4 Credits)
This course provides the basic theory for the analysis and application of adjustable-speed drive systems employing power electronic converters and ac or dc machines. Prerequisites: ENGR 3520 and ENGR 3530.

ENGR 3610 Engineering Analysis (3 Credits)
Applied mathematics for engineers. Generalized Fourier analysis, complex variables, vector calculus, introduction to Bessel functions, and applied probability and statistics. Cross listed with ENGR 3620. Prerequisites: MATH 2070, MATH 2080.
ENGR 3620 Advanced Engineering Mathematics (4 Credits)

ENGR 3621 Advanced Engineering Mathematics (4 Credits)
Applied mathematics for engineers. Topics include vector spaces, normed vector spaces, inner product spaces, linear transformations, finite-dimensional linear transformations, linear operators, finite-dimensional linear operators, linear differential systems, linear difference systems, orthogonal transformations, amplitude estimation, fundamentals of real and functional analysis, and introduction to partial differential equations, and applications to engineering systems.

ENGR 3630 Finite Element Methods (4 Credits)
Introduction to the use of finite element methods in one or two dimensions with applications to solid and fluid mechanics, heat transfer and electromagnetic fields; projects in one or more of the above areas. Prerequisites: ENME 2541 AND ENGR 1572.

ENGR 3721 Controls (3,4 Credits)
Modeling, analysis and design of linear feedback control systems using Laplace transform methods. Techniques and methods used in linear mathematical models of mechanical, electrical, thermal and fluid systems are covered. Feedback control system models, design methods and performance criteria in both time and frequency domains. A linear feedback control system design project is required. Prerequisites: ENEE 2021, ENGR 3610 or permission of instructor.

ENGR 3722 Control Systems Laboratory (1 Credit)
This laboratory course serves as supplement to ENGR 3721. It aims at providing "hands on" experience to students. It includes experiments on inverted pendulum, gyroscopes, motor control, feedback controller design, time-domain and frequency domain. Corequisite: ENGR 3721.

ENGR 3730 Robotics (3 Credits)
Introduction to the analysis, design, modeling and application of robotic manipulators. Review of the mathematical preliminaries required to support robot theory. Topics include forward kinematics, inverse kinematics, motion kinematics, trajectory control and planning, and kinetics. Cross listed with ENGR 4730. Prerequisites: ENME 2520 and MATH 2060 or MATH 2200 or permission of instructor.

ENGR 3731 Robotics Lab (1 Credit)
Laboratory that complements the analysis, design, modeling and application of robotic manipulators. Implementation of the mathematical structures required to support robot operation. Topics include forward kinematics, inverse kinematics, motion kinematics, trajectory control and planning and kinetics. Applications include programming and task planning of a manufacturing robot manipulator. Corequisite: ENGR 3730 or permission of instructor.

ENGR 3742 LabVIEW Programming, a primer for certification as an Application Developer (4 Credits)
The LabVIEW course covers numeric, Boolean, and string controls; programming structures include loops, sequences, formula, and case structures. VISA (virtual instrumentation and software structure) and SCPI (standard commands for programmable instruments) are used to control test equipment and acquire data via the GPIB (general purpose interface bus, IEEE488 standard). Vis (virtual instruments) for data acquisition and analysis are developed utilizing mathematical, signal processing, and statistical LabVIEW programming modules. LabVIEW structures will be used to mathematically model and solve second order differential equations and Laplace transforms.

ENGR 3800 Topics (ENGR) (1-4 Credits)
Special topics in engineering as announced. May be taken more than once. Prerequisite: varies with offering.

ENGR 3900 Engineering Internship (0-4 Credits)
Students in engineering may receive elective credit for engineering work performed for engineering employers with the approval of the chair or associate chair of the department. At the end of the term, a student report on the work is required, and a recommendation will be required from the employer before a grade is assigned. Junior, senior, or graduate status in engineering is normally required. May not be used to satisfy technical requirements. May be taken more than one for a maximum of 6 quarter hours. Prerequisite: permission of instructor.

ENGR 3970 Entrepreneurship for Engineers and Computer Scientists (4 Credits)
The course presents an overview of fundamentals of understanding entrepreneurship and entrepreneurial characteristics; the focus is on aspects of engineering entrepreneurship, technology-based innovation and new product development. Topics to be covered: learning an industry; recognizing and creating opportunities; new product development process, phases and cycle, risks and benefits; "testing" of an engineering-focused business concept; marketing, organizational plan strategies and financing for new start ups. Special attention is given to technological innovation, considering both incremental or routine innovation, and more radical or revolutionary changes in products and processes. Prerequisite: ENGR 3610 or permission of the instructor.

ENGR 4100 Instrumentation and Data Acquisition (4 Credits)
This course examines different instrumentation techniques and describes how different measurement instruments work. Measurement devices include length, speed, acceleration, force, torque, pressure, sound, flow, temperature, and advanced systems. This course also examines the acquisition, processing, transmission and manipulation of data. Final project or paper. Cross listed with ENGR 3100. Prerequisites: PHYS 1213 OR PHYS 1214.
ENGR 4200 Introduction to Nanotechnology (4 Credits)
The most important recent accomplishments so far in the application of nanotechnology in several disciplines are discussed. Then a brief overview of the most important instrumentation systems used by nanotechnologists is provided. The nature of nanoparticles, nanoparticle composites, carbon nanostructures, including carbon nanotubes and their composites is subsequently discussed. The course also deals with nanopolymers, nanobiological systems, and nanoelectronic materials and devices. The issues of modeling of nanomaterials and nanostructures is also covered. Multiscale modeling based on finite element simulations, Monte Carlo methods, molecular dynamics and quantum mechanics calculations are briefly addressed. Most importantly, students should obtain appreciation of developments in nanotechnology outside their present area of expertise. Cross listed with ENGR 3200.

ENGR 4210 Introduction to Nano-Electro-Mechanical-Systems (4 Credits)
This course familiarizes science and engineering students to the electromechanical aspects of the emerging field of Nanotechnology (NEMS). NEMS is a relatively new and highly multidisciplinary field of science and technology with applications in the state of the art and future sensors, actuators, and electronics. This course starts with an overview of nanotechnology and discussion on the shifts in the electromechanical behavior and transduction mechanisms when scaling the physical dimensions from centimeters to micro-meters and then down to nanometers. Several electromechanical transduction mechanisms at the micro and nanoscale are presented and discussed in an application based context. New electromechanical interactions appearing in the nano and molecular scale, such as intra-molecular forces and molecular motors, are discussed. A detailed discussion and overview of nanofabrication technologies and approaches are also provided. Cross listed with ENGR 3210.

ENGR 4215 Nanoscale Electromechanical Systems and Nanofabrication Laboratory (4 Credits)
This course provides science and engineering students with comprehensive hands-on experience in design, fabrication and characterization of Nanoscale Electromechanical Systems (NEMS). This laboratory-based course starts with a number of sessions including brief lectures reviewing the fundamentals and theories followed by pre-designed lab experiments. The students are then provided with a choice of different comprehensive design and implementation projects to be performed during the quarter. The projects include design, layout, fabrication, and characterization of the devices potentially resulting in novel findings and publications.

ENGR 4220 Introduction to Micro-Electro-Mechanical-Systems (4 Credits)
This course introduces students to the multi-disciplinary field of Micro-Electro-Mechanical-Systems (MEMS) technology. MEMS and Microsystem technology is the integration of micro-scale electro-mechanical elements, sensors, actuators, and electronics on a common substrate or platform through semiconductor microfabrication technologies. The course gives a brief overview of the involved physical phenomena, electromechanical transduction mechanisms, design principles, as well as fabrication and manufacturing technologies. Cross listed with ENGR 3220.

ENGR 4300 Advanced Numerical Methods (4 Credits)
Fundamental and advanced numerical methods to approximate mathematical problems for engineering applications using modern software such as Matlab. Topics include numerical differentiation and integration, solution to linear and non-linear equations, ordinary and partial differential equations, and initial, boundary, and eigen value problems. Recommended prerequisite: MATH 2070.

ENGR 4350 Reliability (4 Credits)
An overview of reliability-based design. Topics include: fundamentals of statistics, probability distributions, determining distribution parameters, design for six sigma, Monte Carlo simulation, first and second order reliability methods (FORM, SORM). Most Probable Point (MPP) reliability methods, sensitivity factors, probabilistic design. Cross listed with ENGR 3350.

ENGR 4530 Intro to Power and Energy (4 Credits)
Basic concepts of AC systems, single-phase and three-phase networks, electromechanical energy conversion, electric power generation, transformers, transmission lines, AC machinery, DC motors, and contemporary topics in power and energy conversion. Cross listed with ENGR 3530.

ENGR 4545 Electric Power Economy (4 Credits)
This course covers economy aspects of electric power industry and the implications for power and energy engineering in the market environment. Cross listed with ENGR 3545.

ENGR 4550 Probabilistic Methods in Electric Power Systems (4 Credits)
The course covers techniques for probabilistic power system analysis and design, power system reliability, probabilistic structural design and analysis of transmission lines, analysis and assessment of transmission line reliability, probability-based power system design criteria, probabilistic load-flow studies and probabilistic power system stability. Prerequisites: ENGR 3540 or equivalent; permission of instructor; knowledge of MATLAB/Simulink is required.

ENGR 4560 Power Generation Operation and Control (4 Credits)
This course covers economic dispatch of thermal units and methods of solution; transmission system effects; generate with limited energy supply; production cost models; control of generation; interchange of power and energy; power system security; state estimation in power systems; optimal power flow. Prerequisite: ENGR 4540.

ENGR 4590 Power System Protection (4 Credits)
This course covers methods of calculation of fault currents under different types of fault; circuit breakers, current transformers, potential transformers; basic principles of various types of relays; applications of relays in the protection of generator, transformer, line, and bus, etc. Prerequisite: ENGR 4540.
ENGR 4620 Optimization (3,4 Credits)
Engineering problems will be formulated as different programming problems to show the wide applicability and generality of optimization methods. The development, application, and computational aspects of various optimization techniques will be discussed with engineering examples. The application of nonlinear programming techniques will be emphasized. A design project will be assigned.

ENGR 4730 Introduction to Robotics (4 Credits)
Introduction to the analysis, design, modeling and application of robotic manipulators. Review of the mathematical preliminaries required to support robot theory. Topics include forward kinematics, inverse kinematics, motion kinematics, trajectory control and planning, and kinetics. Applications include programming and task planning of a manufacturing robot manipulator. Cross listed with ENGR 3730. Prerequisites: ENME 2520 and MATH 2060 or MATH 2200 or instructor approval.

ENGR 4735 Linear Systems (4 Credits)
This course focuses on linear system theory in time domain. It emphasizes linear and matrix algebra, numerical matrix algebra and computational issues in solving systems of linear algebraic equations, singular value decomposition, eigenvalue-eigenvector and least-squares problems, linear spaces and linear operator theory. It studies modeling and linearization of multi-input/multi-output dynamic physical systems, state-variable and transfer function matrices, analytical and numerical solutions of systems of differential and difference equations, structural properties of linear dynamic physical systems, including controllability, observability and stability. It covers canonical realizations, linear state-variable feedback controller and asymptotic observer design, and the Kalman filter. Cross listed with ENGR 3735. Prerequisites: ENGR 3610, ENGR 3721/3722, or permission of the instructor.

ENGR 4740 Adaptive Control Systems (4 Credits)
Theoretical and application aspects of robust adaptive control design for uncertain dynamical systems. Topics include: parameter estimation, stability, model reference adaptive systems, self-tuning regulators, gain scheduling, design for robustness against unmodeled dynamics and disturbance signals. Examples will be given from aerospace engineering (changes in the dynamics of aircraft), process control, and robotics. Modern alternatives to traditional adaptive control will be discussed (switching multi-model/multi-controller adaptive schemes). Prerequisites: ENEE 3111, ENGR 3610, and ENGR 3721, or permission of instructor. Familiarity with MATLAB/Simulink.

ENGR 4745 Adv Non-Linear Control System (4 Credits)

ENGR 4750 Networked Control Systems (4 Credits)
Fundamental tools and recent advances in networked control. Topics include the control of multi-agent networks found in multi-vehicle coordination, control of sensor networks, unmanned vehicles, and energy systems. Network models, distributed control and estimation, distributed control under limited communications and sensing, formation control, coverage control in mobile sensor networks. Prerequisites: linear algebra, linear control systems, differential equations, familiarity with MATLAB, or permission of instructor.

ENGR 4755 Optimal Control (4 Credits)
Introduction to optimal control theory (control laws that maximize a specified measure of a dynamical system's performance). Topics include: optimality conditions and constraints; calculus of variations; review of mathematical programming (Language multipliers, convexity, Kuhn-Tucker theorem); Pontryagin's maximum principle (constraints, Hamiltonians, bang-bang control); dynamic programming and Linear Quadratic Regulation (Riccati, Hamilton-Jacobi equation). Prerequisites: ENGR 3721 (Controls) and ENGR 3735/4735 (Linear Systems) or equivalent courses.

ENGR 4810 Advanced Topics (ENGR) (1-5 Credits)

ENGR 4885 Graduate Project for non-Thesis Option Master's Degree (1-4 Credits)
This course is required for all Master of Science graduate students with major in Electrical Engineering, Computer Engineering, and Mechatronic Systems Engineering, who choose the non-thesis option. The student will be supervised by his or her faculty advisor to conduct original and independent research with project topic closely related to the student's depth requirement of the specialization area. The student will deliver a final comprehensive project report and an oral defense for the project. The examination committee for the Master's project shall consist of at least two faculty members.

ENGR 4991 Independent Study (1-5 Credits)
ENGR 4992 Directed Study (1-10 Credits)
ENGR 4995 Independent Research (1-16 Credits)
ENGR 5991 Independent Study (1-5 Credits)
ENGR 5995 Independent Research (1-16 Credits)

Materials Science Courses
MTSC 4010 Mechanical Behavior of Materials (4 Credits)
Effects of microstructure on mechanical behavior of material; emphasis on recent developments in materials science, fracture, fatigue, creep, wear, corrosion, stress rupture, deformation and residual stress. Cross listed with MTSC 3010.
MTSC 4020 Composite Materials I (4 Credits)

MTSC 4215 Composite Materials II (4 Credits)
A continuation of MTSC 4210: Strength and toughness of composites, thermal behavior, fabrication methods, examples of applications. Prerequisite: MTSC 4210.

MTSC 4450 Fracture Mechanics (4 Credits)
Topics include stress field at a crack tip, linear elastic fracture mechanics, energy release rate, stress intensity factors, plastic zones, plane stress, plane strain, fracture toughness, Airy stress functions, elastic-plastic fracture mechanics, J integral, crack tip opening displacements, experimental testing, fatigue, life prediction, crack closure, weight functions, failure analysis. Cross listed with MTSC 3450.

MTSC 4800 Advanced Topics (MTSC) (1-5 Credits)
Selected topics (depending on student and faculty interest): fracture mechanics, fatigue, nonlinear constitutive models, dynamic behavior of materials, corrosion resistant design, thermodynamics of solids II.

MTSC 4900 Materials Science Seminar (1 Credit)
Weekly presentations by graduate students, faculty, outside speakers, etc., on research in progress or other topics of interest.

MTSC 4991 Independent Study (1-10 Credits)
MTSC 4992 Directed Study (1-10 Credits)
MTSC 4995 Independent Research (1-16 Credits)

Mechanical and Materials Engineering
Office: Ritchie School of Engineering and Computer Science
Mail Code: 2155 E Wesley Ave, Room 277, Denver, CO 80208
Phone: 303-871-2107
Email: mmeinfo@du.edu
Web Site: http://ritchieschool.du.edu/departments/mme/

Master’s and Doctoral Degrees Offered
Why study engineering at the University of Denver?
The University of Denver’s Department of Mechanical and Materials Engineering (MME) is creating the future of technology by providing a graduate education emphasizing cross-disciplinary knowledge. A distinguished faculty is creating multidisciplinary education and research programs that anticipate technological trends in research and industry. Engineering graduate students join the faculty in conducting cutting-edge research in emerging disciplines to develop unique solutions to old and new problems and opportunities.

Recognizing the different aims and goals of students, we offer several degree programs for students who wish to add to their technical skills in various areas: MS in Bioengineering; MS and PhD in Materials Science; and MS and PhD in Mechanical Engineering.

Denver is a first-rate location for business, governmental and laboratory partnerships, and technology employment. The Colorado Front Range is consistently rated as one of the top high-tech areas in the country, and the University of Denver is located just minutes from the Denver Technological Center, site of many top technology companies. The Department of Mechanical and Materials Engineering is committed to active collaboration with these industry leaders. As a result, our students graduate with relevant research experience and a network of employment contacts in the technology sector.

Time Commitment
Our department recognizes that a student may be employed full-time while studying for a degree. Therefore, most courses are offered at times and on days that will permit a student to complete the program by taking courses either late in the day or outside normal business hours. Many employers will permit additional flexibility by releasing employees early to attend classes.

The master’s program offer thesis and non-thesis options and can be completed in one (non-thesis track only) to four years depending on the number of courses taken per quarter. The choice of thesis or non-thesis can be made at any time, although a delay in declaration may impact the completion date.

The doctoral program is generally completed in three to seven years, depending on the number of courses taken per quarter and whether the student enters with a BS or MS.
A student not interested in pursuing a degree, but interested in taking an occasional course, may register as special status students (http://www.du.edu/learn/graduates/degreetruequirements) by following an abbreviated admissions process. If at a later time the student chooses to enter a graduate degree program at DU, you may apply up to 15 special status credits to your degree, with departmental approval. Just follow the regular graduate application requirements, including submitting the application fee, to get started.

**Master of Science in Mechanical Engineering, Bioengineering, Materials Science, Nanoscale Science and Engineering**

Following are the simple steps to apply for the master’s programs in Mechanical and Materials Engineering at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

**Apply Online / Application Deadlines**

- Application for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies by the program’s stated deadline: February 1, for the fall quarter.
- Applications received after the priority deadline will be accepted, processed and reviewed on a rolling basis for the fall, winter or spring quarters. International applicants are encouraged to have the admission application and all supporting documents in the Office of Graduate Studies by the deadline or no later than May 1, for fall admission.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

**Course and Degree Prerequisites and Requirements**

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- A Bachelor of Science degree in Mechanical Engineering (BS ENME) or closely related field is required for admission to the MS ENME program. Those students whose backgrounds differ significantly from EAC/ABET-accredited BS computer/electrical/mechanical engineering programs may be required to complete prerequisite undergraduate courses.
- A bachelor’s degree in materials science or closely related field (physics, metallurgy, engineering, or chemistry) is usually required for admission to the Materials Science program. If the student did not receive adequate preparation for studying materials, they may need to take several prerequisite courses in materials science.
- The interdisciplinary nature of Nanoscale Science and Engineering mandates certain flexibility in order to accommodate students with a variety of backgrounds. The program accepts students with a Bachelor of Science, Bachelor of Arts, Master of Science, or Master of Arts in biological sciences, chemistry, biochemistry, computer science, engineering, physics or related discipline. As a minimum, to be admitted into the program, students are expected to have earned as a part of their undergraduate degree: 1 year of calculus, 1 year of algebra- or calculus-based physics with accompanying laboratory, 1 quarter of general chemistry with accompanying laboratory. Furthermore, the program accepts students with a Master of Science or Master of Arts degrees in biological sciences, biophysics, chemistry, biochemistry, computer science, engineering, physics or related discipline.

**Transcripts** (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, **applicants with a degree from outside of the U.S. are encouraged to apply early**. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufile/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.
- Mail official transcripts to
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802

**Language Proficiency** (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS
scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

- In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, the Anthropology program may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through DU's English Language Center to meet the English language requirement. English language training at centers outside of DU will not be counted toward meeting English language proficiency requirements. International applicants with a three-year baccalaureate degree or any other academic deficiencies cannot be granted English Conditional Admission.

Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

- GRE score requirements are a minimum score of 140 verbal AND 154 quantitative

Personal Statement

- A personal statement of at least 300 words is required. The statement should be submitted via upload through the online application process.

Resume / C.V.

- A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume or C.V. should be submitted via upload through the online application process.

Recommendation Letters

- Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

- The Department of Mechanical and Materials Engineering also offers a number of competitive graduate teaching assistantships (GTA) that provide full tuition remission along with a stipend for the nine-month academic year (three academic quarters). Priority for these GTAs is given to PhD and masters-thesis students whose undergraduate degrees are in engineering.

- Graduate research assistantships (GRAs), either with or without tuition remission, are awarded by individual faculty based on available funding.

Application Status

- We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

Contact Information

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- Electronic transcripts should be sent to gradinfo@du.edu.

- For more information call (303) 871-2706.
International Applicants

- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of philosophy in mechanical engineering, Materials science, nanoscale science and engineering

Following are the simple steps to apply for the doctoral programs in Mechanical and Materials Engineering at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

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- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- A bachelor’s degree or master’s degree in materials science or closely related field (physics, metallurgy, engineering or chemistry) is usually required for admission to Materials Science. If the student did not receive adequate preparation for studying materials, they are encouraged to apply for the master’s degree.
- The Nanoscale Science and Engineering program accepts students with a Master of Science or Master of Arts degrees in biological sciences, biophysics, chemistry, biochemistry, computer science, engineering, physics or related discipline. A maximum of 45 quarter hours of credits could be transferred toward the total quarter-hour requirement.
- Students with a master’s degree in mechanical engineering or closely related areas may apply for the PhD program in mechanical engineering. Admission with only a Bachelor of Science in this field is also possible, but students with only a BS degree are strongly encouraged to enroll first in the MS ENME program.

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Recommendation Letters
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Program-Specific Admission Requirements
- We recommend PhD applicants contact faculty to find a research advisor BEFORE submitting the application. If we receive an application and there is no research advisor commitment, we will consider the applicant for the master’s program only.
- To learn more about the faculty research being conducted, a list of our most recent grants (http://ritchieschool.du.edu/departments/mme) and faculty contact information can be found on our Research (http://www.du.edu/rsecs/departments/mme/research) tab.

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Degree Programs

Below are our graduate engineering degrees:

- Master of Science in Bioengineering (MS ENBI)
- Master of Science in Engineering (MS ENGE) (p. 250) (See Department of Engineering program listing)
- Master of Science in Engineering with a Concentration in Management (MS ENGE (CM)) (p. 250) (See Department of Engineering program listing)
- Master of Science in Materials Science (MS MTSC)
- Master of Science in Mechanical Engineering (MS ENME)
- Doctorate of Philosophy in Engineering (PhD ENGE) (p. 250) (See Department of Engineering program listing)
- Doctorate of Philosophy in Materials Science (PhD MTSC)
- Doctorate of Philosophy in Mechanical Engineering (PhD ENME)

Doctor of Philosophy in Materials Science

The Doctor of Philosophy in Materials Science (PhD MTSC) is designed to prepare the student for research or faculty position in the materials field. The program is multidisciplinary and involves the Departments of Physics and Astronomy, Chemistry and Biochemistry, Electrical and Computer Engineering, and Mechanical and Materials Engineering (MME), with MME as the administering department. The programs reflect the multidisciplinary nature by providing a thorough grounding in each of the basic disciplines of the field. Depth in specialized areas is achieved through the research interests of faculty in each of the participating departments. With an increasing number of technological fields becoming materials-limited in various ways, the program seeks to prepare students to meet the challenges of property improvement and new materials development, with a broad-based curriculum that stresses fundamentals.

PhD Residence Requirement

Enrollment in at least six quarters, including at least two consecutive quarters of full-time attendance is required for graduation.

Exam Structure

1. Each student must pass the qualifying exam to obtain official entrance into the PhD program. In consultation with the advisor, students should expect to take the qualifying exam about one year (24 credits) into their academic study. Students must take exams in three subject areas. The design exam is required for all participants, and is an open book exam, where the student will have one week to prepare a written and oral response to an open ended design problem. The other two exams are closed-book written exams and should be related to the student’s research area. The exam is offered twice a year: once in the summer interterm (usually in June) and once in the winter interterm (usually in December or early January). The qualifying exam can be retaken only once, and must be completed within one year after the first qualifying exam was attempted.

2. After completion of the qualifying exam and coursework, the student should schedule and take the comprehensive exam attended by the student’s PhD committee. The student will be expected to make concise presentation on his/her dissertation topic. The presentation will highlight previous work in this area, demonstrate a need for the research, and explain how the research will contribute to the advancement of the area. The student will also present completed work and results, anticipated work and results, and a detailed plan for project completion. The comprehensive exam can be retaken only once.

3. After successful completion of the qualifying exam and the comprehensive exam, the student is required to complete and defend a dissertation of publishable quality based on the student’s original research. The dissertation must be completed in written form in accordance with the University’s Graduate School guidelines, and must be defended by the student in the final oral defense. The defense committee members will consist of the student’s entire PhD committee. The dissertation defense can be retaken only once.

PhD Students with a Bachelor of Science

Program Structure:

1. For students entering with a bachelor’s degree, 90 credits are required, at least 75 of which must be completed at the University of Denver.
2. A minimum of 48 credits must be at the 4000 or 5000 level and may include as many dissertation research credits as considered appropriate by the advisor.
3. No courses at the 1000 or 2000 level are acceptable.
4. An overall GPA of 3.0 is required for the degree.
5. Any individual grade lower than C- renders the credit unacceptable.
6. Students who have completed the required 90 credits and are still working on the dissertation are eligible for Continuous Enrollment to maintain active student status at the University. Students working on internships are not eligible for Continuous Enrollment.
7. Students must complete all requirements for the doctoral degree no later than eight years after doctoral studies begin.

Course Requirements:

1. Candidates who hold only a bachelor’s degree on entering the doctoral program are expected to meet all degree requirements of the corresponding master’s degree program (as part of the doctoral requirements).
2. Students are required to take ENME 4950 Graduate Assessment in the last quarter of study. **NOTE**: Students are required to complete a written self-reflection on their thesis and upload the report to Assess-it along with thesis, defense presentation slides, and the completed and signed degree program plan before graduation.
3. PhD students who enter the program with a bachelor’s are required to take ENME 4900 Graduate Professional Development in the first year (this will be offered once a year; usually in winter quarter).

### Required Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENME 4900</td>
<td>Grad Professional Development</td>
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<tr>
<td>ENME 4950</td>
<td>Graduate Assessment</td>
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### Materials Science Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 4200</td>
<td>Introduction to Nanotechnology</td>
<td>4</td>
</tr>
<tr>
<td>ENME 4400</td>
<td>Fatigue</td>
<td>4</td>
</tr>
<tr>
<td>MTSC 4010</td>
<td>Mechanical Behavior of Materials</td>
<td>4</td>
</tr>
<tr>
<td>MTSC 4020</td>
<td>Composite Materials I</td>
<td>4</td>
</tr>
<tr>
<td>MTSC 4215</td>
<td>Composite Materials II</td>
<td>4</td>
</tr>
<tr>
<td>MTSC 4450</td>
<td>Fracture Mechanics</td>
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### Advanced Math Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>ENGR 3620</td>
<td>Advanced Engineering Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4300</td>
<td>Advanced Numerical Methods (Advanced Numerical Methods)</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4350</td>
<td>Reliability</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 4620</td>
<td>Optimization</td>
<td>4</td>
</tr>
</tbody>
</table>

### PhD Students with a Master of Science

**Program Structure**

1. A minimum of 36 credits must be completed at the 4000- or 5000-level, which may include as many research credits as considered appropriate by the advisor.
2. For students entering with a master’s degree, up to 45 credits may be transferred and applied to the doctorate degree. In addition, a minimum of 45 credits must be completed at DU. The total number of credits required for the degree is 90.
3. No courses at the 1000- or 2000-level are acceptable.
4. An overall GPA of 3.0 is required for the degree.
5. Any individual grade lower than C- renders the credit unacceptable.
6. Students who have completed the required 90 credits and are still working on the dissertation are eligible for Continuous Enrollment to maintain active student status at the University. Students working on internships are not eligible for Continuous Enrollment.
7. A student who holds a master’s degree on entering the doctoral program is expected to complete all requirements for the degree no later than seven years after beginning the program.

**Course Requirements**

1. Students are required to take ENME 4950 Graduate Assessment in the last quarter of study. **NOTE**: Students are required to complete a written self-reflection on their thesis and upload the report to Assess-it along with thesis, defense presentation slides, and the completed and signed degree program plan before graduation.
2. If a PhD student fails his/her qualifying exam on the first try, he/she will be required to take ENME 4900 Graduate Professional Development as well. ENME 4900 will be offered once a year, usually in winter quarter.

### Doctor of Philosophy in Mechanical Engineering

The objective of the Doctor of Philosophy in Mechanical Engineering (PhD ENME) program is to provide an educational environment that encourages students to develop the ability to contribute to the advancement of mechanical engineering through independent research.
PhD Residence Requirement
Enrollment in at least six quarters, including at least two consecutive quarters of full-time attendance is required for graduation.

Exam Structure
1. Each student must pass the **qualifying exam** to obtain official entrance into the PhD program. In consultation with the advisor, students should expect to take the qualifying exam about one year (24 credits) into their academic study. Students must take exams in three subject areas. The design exam is required for all participants, and is an open book exam, where the student will have one week to prepare a written and oral response to an open ended design problem. The other two exams are closed-book written exams and should be related to the student’s research area. The exam is offered twice a year: once in the summer interterm (usually in June) and once in the winter interterm (usually in December or early January). The qualifying exam can be retaken only once, and must be completed within one year after the first qualifying exam was attempted.

2. After completion of the qualifying exam and coursework, the student should schedule and take the **comprehensive exam** attended by the student’s PhD committee. The student will be expected to make concise presentation on his/her dissertation topic. The presentation will highlight previous work in this area, demonstrate a need for the research, and explain how the research will contribute to the advancement of the area. The student will also present completed work and results, anticipated work and results, and a detailed plan for project completion. The comprehensive exam can be retaken only once.

3. After successful completion of the qualifying exam and the comprehensive exam, the student is required to complete and **defend a dissertation** of publishable quality based on the student’s original research. The dissertation must be completed in written form in accordance with the University’s Graduate School guidelines, and must be defended by the student in the final oral defense. The defense committee members will consist of the student’s entire PhD committee. The dissertation defense can be retaken only once.

PhD Students with a Bachelor of Science

Program Structure
1. For students entering with a bachelor’s degree, 90 credits are required, at least 75 of which must be completed at the University of Denver.
2. A minimum of 48 credits must be at the 4000- or 5000-level and may include as many dissertation research credits as considered appropriate by the advisor.
3. No courses at the 1000- or 2000-level are acceptable.
4. An overall GPA of 3.0 is required for the degree.
5. Any individual grade lower than C- renders the credit unacceptable.
6. Students who have completed the required 90 credits and are still working on the dissertation are eligible for Continuous Enrollment to maintain active student status at the University. Students working on internships are not eligible for Continuous Enrollment.
7. Students must complete all requirements for the doctoral degree no later than eight years after doctoral studies begin.

Course Requirements
1. Candidates who hold only a bachelor’s degree on entering the doctoral program are expected to **meet all degree requirements of the corresponding master’s degree program** (as part of the doctoral requirements).
2. Students are required to take ENME 4950 Graduate Assessment in the last quarter of study. **NOTE**: Students are required to complete a written self-reflection on their thesis and upload the report to Assess-it along with thesis, defense presentation slides, and the completed and signed degree program plan before graduation.
3. PhD students who enter the program with a bachelor’s are required to take ENME 4900 Graduate Professional Development in the first year (this will be offered once a year; usually in winter quarter).

<table>
<thead>
<tr>
<th>Required Core Courses</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ENME 4900 Grad Professional Development (Graduate Professional Development)</td>
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</tr>
<tr>
<td>ENME 4950 Graduate Assessment (Graduate Assessment)</td>
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</table>

<table>
<thead>
<tr>
<th>Mechanical Engineering Core Mechanical Courses</th>
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</thead>
<tbody>
<tr>
<td>ENGR 3630 Finite Element Methods</td>
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<tr>
<td>ENME 3545 Mechanisms</td>
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</tr>
<tr>
<td>ENME 3651 Computational Fluid Dynamics</td>
<td>4</td>
</tr>
<tr>
<td>ENME 4020 Adv Finite Element Analysis</td>
<td>4</td>
</tr>
<tr>
<td>ENME 4520 Intermediate Dynamics (Intermediate Dynamics)</td>
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<tr>
<td>ENME 4541 Advanced Mechanics of Materials (Advanced Mechanics of Materials)</td>
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<td>ENME 4630 Viscous Flow (Viscous Flow)</td>
<td>4</td>
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<td>ENME 4670 Advanced Computational Fluid Dynamics</td>
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<tr>
<td>ENME 4800 Advanced Topics (ME) (Convective Heat Transfer)</td>
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</table>

<table>
<thead>
<tr>
<th>Advanced Math Courses</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>
PhD Students with a Master of Science

Program Structure:

1. A minimum of 36 credits must be at the 4000- or 5000-level and may include as many dissertation research credits as considered appropriate by the advisor. The total number of credits required for the degree is 90.
2. For students entering with a master's degree, up to 45 credits may be transferred and applied to the doctorate degree. In addition, a minimum of 45 credits must be completed at DU. The total number of credits required for the degree is 90.
3. No courses at the 1000- or 2000-level are acceptable.
4. An overall GPA of 3.0 is required for the degree.
5. Any individual grade lower than C- renders the credit unacceptable.
6. Students who have completed the required 90 credits and are still working on the dissertation are eligible for Continuous Enrollment to maintain active student status at the University. Students working on internships are not eligible for Continuous Enrollment.
7. Students must complete all requirements for the doctoral degree no later than seven years after doctoral studies begin.

Course Requirements:

1. Students are required to take ENME 4950 Graduate Assessment in the last quarter of study. NOTE: Students are required to complete a written self-reflection on their thesis and upload the report to Assess-It along with thesis, defense presentation slides, and the completed and signed degree program plan before graduation.
2. If a PhD student fails his/her qualifying exam on the first try, he/she will be required to take ENME 4900 Graduate Professional Development as well. ENME 4900 will be offered once a year, usually in winter quarter.

Master of Science in Bioengineering

The Master of Science in Bioengineering (MS ENBI) integrates engineering sciences with biomedical sciences and clinical practice to provide the skill set needed by bioscience companies. The Department of Mechanical and Materials Engineering—in collaboration with the Departments of Electrical and Computer Engineering, Chemistry & Biochemistry, Biological Sciences, and Physics & Astronomy—has designed a cross-disciplinary master of science program to address industrial requirements and the desired qualifications of a 21st century workforce in bioengineering businesses. Students with bachelor's degrees in chemistry, biological sciences or physics, as well as those with accredited engineering degrees, acquire a specialized expertise in bioengineering by designing programs which leverage the individual students’ undergraduate experience and expertise resident at DU.

Program Structure

1. Every candidate for this degree must complete 45 credits, at least 36 of which must be completed at the University of Denver.
2. A minimum of six 4000-level courses of at least three credits each are required for non-thesis track; four 4000-level courses of at least three credits each are required for thesis track.
3. No courses at the 1000- or 2000-level are acceptable.
4. An overall GPA of 3.0 is required for the degree.
5. Any individual grade lower than C- renders the credit unacceptable.
6. Students who have completed the required 45 credits and are still working on a thesis or project are eligible for Continuous Enrollment to maintain active student status at the University. Students working on internships are not eligible for Continuous Enrollment.
7. Master’s degree candidates are expected to complete degree requirements no later than five years after beginning their programs.

Course Requirements

1. Core Courses: a minimum of nine credits (two courses from the Bioengineering Core Course List plus required courses) for both thesis and non-thesis tracks.
2. Required Courses: All master’s students are required to take ENME 4900 Graduate Professional Development in the first year (this will be offered once a year; usually in winter quarter) and ENME 4950 Graduate Assessment in the last quarter of study. NOTE: Students on the thesis track are required to complete a written self-reflection on their thesis and upload the report to Assess-It along with thesis, defense presentation slides, and the completed and signed degree program plan before graduation. Students on the non-thesis track are required to upload to Assess-It an assembled portfolio that includes reports from at least two course projects or homework from the core courses, a mini-proposal and presentation slides from ENME 4900, along with the completed and signed degree program plan.
3. Minor Elective Courses: minimum of eight credits for thesis track; eight credits for non-thesis track. A minor is required by each student and is intended to provide bioengineering students with additional knowledge in an area unassociated with their undergraduate degree. Candidates with non-engineering undergraduate degrees must take courses in engineering chosen from regular engineering course offerings numbered 3000
or higher and must be approved by the advisor. Candidates with engineering undergraduate degrees must take graduate-level coursework in biological sciences or chemistry and biochemistry.

4. **Technical Electives**: a minimum of eight credits for thesis track and 20 credits for non-thesis track. These do not include independent research credits.
   a. Technical elective courses are intended to provide bioengineering students an opportunity to take additional coursework that will expand their knowledge of advanced engineering topics. The courses must be chosen primarily from engineering course offerings numbered 3000 or higher and approved by the student's advisor.
   b. Students may take one business/management course as a technical elective. Special permission should be obtained in writing from the advisor PRIOR TO REGISTRATION if more than one business/management course is taken.

5. **Advanced Math Requirement**: a minimum of three credits for both thesis track and non-thesis track from Core Course List or advisor approval.
7. **Tool Requirement**: As employers of graduates of this degree will inherently expect a basic competency in foundational engineering skills, students must demonstrate these before advancing to candidacy. Candidates with BS degrees from accredited engineering schools will be exempt from the tool requirement because their degree is sufficient proof of foundational engineering skills. Candidates with undergraduate degrees from non-engineering majors will be required to pass a tool requirement. This will consist of an exam based on the topics in the Fundamentals of Engineering General Exam.

<table>
<thead>
<tr>
<th>MS ENBI Minimum</th>
<th>Thesis (QH)</th>
<th>Non-Thesis (QH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Minor Electives</td>
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<tr>
<td>Technical Electives</td>
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<td>20</td>
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<tr>
<td>Advanced Math</td>
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<tr>
<td>Thesis</td>
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<td>N/A</td>
</tr>
<tr>
<td>Total Credits Required</td>
<td>45</td>
<td>45</td>
</tr>
</tbody>
</table>

**Required Core Courses for MS**
- ENME 4900 Grad Professional Development (Graduate Professional Development) 1
- ENME 4950 Graduate Assessment (Graduate Assessment) 0

**Bioengineering Core Courses**
- ENBI 4500 Biofluids 4
- ENBI 4510 Biomechanics 4
- ENME 4520 Intermediate Dynamics (Intro to Cardiovascular Engineering) 4
- ENBI 4800 Adv Topics (Bioengineering) (Computational Biomechanics) 4

**Advanced Math Courses**
- ENGR 3620 Advanced Engineering Mathematics 4
- ENGR 4300 Advanced Numerical Methods (Advanced Numerical Methods) 4
- ENGR 4350 Reliability 4
- ENGR 4620 Optimization 4

**Master of Science in Materials Science**

The Master of Science in Materials Science (MS MTSC) program is designed to prepare the student for research and development work in the materials field. The program is multidisciplinary and involves the Departments of Physics, Chemistry and Engineering, with the Mechanical and Materials Engineering Department administering the degree. The programs reflect the multidisciplinary nature by providing a thorough grounding in each of the basic disciplines of the field. Depth in specialized areas is achieved through the research interests of faculty in each of the participating departments. With an increasing number of technological fields becoming materials-limited in various ways, the program seeks to prepare students to meet the challenges of property improvement and new materials development, with a broad-based curriculum that stresses fundamentals.

**MS Program Structure**
1. Every candidate for this degree must complete 45 credits, at least 36 of which must be completed at the University of Denver.
2. A minimum of six 4000-level courses of at least three credits each are required for non-thesis track; four 4000-level courses of at least three credits each are required for thesis track.
3. No courses at the 1000- or 2000-level are acceptable.
4. An overall GPA of 3.0 is required for the degree.
5. Any individual grade lower than C- renders the credit unacceptable.
6. Students who have completed the required 45 credits and are still working on a thesis or project are eligible for Continuous Enrollment to maintain active student status at the University. Students working on internships are not eligible for Continuous Enrollment.
7. Master’s degree candidates are expected to complete degree requirements no later than five years after beginning their programs.

8. **International students** must enroll in at least eight credits each quarter to maintain full-time status, except during the annual vacation term (usually the summer quarter) or the final quarter of study that requires fewer credits than the minimum full-time enrollment to complete the program. Failure to maintain full-time enrollment is a violation of student status and may result in the termination from the program. Based on the recommendation of the academic advisor, an international student advisor may authorize the student to drop below full-time status for academic reasons specifically permitted under immigration regulations. However, academic authorizations may only be given once per degree level and are usually issued during the first term of study.

**Course Requirements**

1. **Core Courses**: a minimum of nine credits (two courses from the Materials Science Core Course List plus required courses) for both thesis and non-thesis tracks.

2. **Required Courses**: All master’s students are required to take ENME 4900 Graduate Professional Development in the first year (this will be offered once a year; usually in winter quarter) and ENME 4950 Graduate Assessment in the last quarter of study. **NOTE**: Students on the thesis track are required to complete a written self-reflection on their thesis and upload the report to Assess-It along with thesis, defense presentation slides, and the completed and signed degree program plan before graduation. Students on the non-thesis track are required to upload to Assess-It an assembled portfolio that includes reports from at least two course projects or homework from the core courses, a mini-proposal and presentation slides from ENME 4900, along with the completed and signed degree program plan.

3. **Technical Electives**: a minimum of 16 credits for thesis track and 28 credits non-thesis track. These do not include independent research credits.
   a. Technical electives must be in engineering (bioengineering, mechanical engineering, materials science, etc.) or related areas (mathematics, computer science, physics, chemistry, etc.) and are at the advisor’s discretion.
   b. Students may take one business/management course as a technical elective. Special permission should be obtained in writing from the advisor **PRIOR TO REGISTRATION** if more than one business/management course is taken.

4. **Advanced Math Requirement**: a minimum of three credits for thesis track and six credits for non-thesis track from Core Course List or advisor approval.

5. **Thesis Hours**: not allowed for non-thesis track.

<table>
<thead>
<tr>
<th>MS MTSC Minimum</th>
<th>Thesis (QH)</th>
<th>Non-Thesis (QH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
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<tr>
<td>Technical Electives</td>
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<td>Total Credits Required</td>
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**Required Core Courses for MS**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>ENME 4950</td>
<td>Graduate Assessment (Graduate Assessment)</td>
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</table>

**Materials Science Core Courses**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGR 4200</td>
<td>Introduction to Nanotechnology</td>
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</tr>
<tr>
<td>ENME 4400</td>
<td>Fatigue</td>
<td>4</td>
</tr>
<tr>
<td>MTSC 4010</td>
<td>Mechanical Behavior of Materials</td>
<td>4</td>
</tr>
<tr>
<td>MTSC 4020</td>
<td>Composite Materials I</td>
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**Advanced Math Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ENGR 3620</td>
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<td>ENGR 4350</td>
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<td>4</td>
</tr>
<tr>
<td>ENGR 4620</td>
<td>Optimization</td>
<td>4</td>
</tr>
</tbody>
</table>

**Master of Science in Mechanical Engineering**

The Master of Science in Mechanical Engineering (MS ENME) is designed to advance the student’s knowledge in several areas of engineering. Each degree provides breadth through its flexible technical elective requirement, while permitting the student to achieve depth in one of several areas of specialization; fluid mechanics and heat transfer, mechanical design and analysis, and structure and behavior of materials. These areas of specialization have been selected to coincide with those of high current interest as well as those emerging technologies that hold promise of increasing importance for the future. The purpose of these programs is to serve the profession of engineering and the Colorado community through advanced study in mechanical engineering and related fields. Each program prepares the student for academic and industrial advancement.
Program Structure
1. Every candidate for this degree must complete 45 credits, at least 36 of which must be completed at the University of Denver.
2. A minimum of six 4000-level courses of at least three credits each are required for non-thesis track; four 4000-level courses of at least three credits each are required for thesis track.
3. No courses at the 1000- or 2000-level are acceptable.
4. An overall GPA of 3.0 is required for the degree.
5. Any individual grade lower than C- renders the credit unacceptable.
6. Students who have completed the required 45 credits and are still working on a thesis or project are eligible for Continuous Enrollment to maintain active student status at the University. Students working on internships are not eligible for Continuous Enrollment.
7. Master’s degree candidates are expected to complete degree requirements no later than five years after beginning their programs.
8. International students must enroll in at least eight credits each quarter to maintain full-time status, except during the annual vacation term (usually the summer quarter) or the final quarter of study that requires fewer credits than the minimum full-time enrollment to complete the program. Failure to maintain full-time enrollment is a violation of student status and may result in the termination from the program. Based on the recommendation of the academic advisor, an international student advisor may authorize the student to drop below full-time status for academic reasons specifically permitted under immigration regulations. However, academic authorizations may only be given once per degree level and are usually issued during the first term of study.

Course Requirements
1. Core Courses: a minimum of nine credits (two courses from the Mechanical Engineering Core Course List plus required courses) for both thesis and non-thesis tracks.
2. Required Courses: All master's students are required to take ENME 4900 Graduate Professional Development in the first year (this will be offered once a year; usually in winter quarter) and ENME 4950 Graduate Assessment in the last quarter of study. **NOTE:** Students on the thesis track are required to complete a written self-reflection on their thesis and upload the report to Assess-It along with thesis, defense presentation slides, and the completed and signed degree program plan before graduation. Students on the non-thesis track are required to upload to Assess-It an assembled portfolio that includes reports from at least two course projects or homework from the core courses, a mini-proposal and presentation slides from ENME 4900 along with the completed and signed degree program plan.
3. Technical Electives: a minimum of 16 credits for thesis track and 28 credits non-thesis track. These do not include independent research credits.
   a. Technical electives must be in engineering (bioengineering, mechanical engineering, materials science, etc.) or related areas (mathematics, computer science, physics, chemistry, etc.) and are at the advisor’s discretion.
   b. Students may take one business/management course as a technical elective. Special permission should be obtained in writing from the advisor **PRIOR TO REGISTRATION** if more than one business/management course is taken.
4. Advanced Math Requirement: a minimum of three credits for thesis track and six credits for non-thesis track from Core Course List or advisor approval.

<table>
<thead>
<tr>
<th>MS ENME Minimum</th>
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<tr>
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<td>28</td>
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<tr>
<td>Advanced Math</td>
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<td>6</td>
</tr>
<tr>
<td>Thesis</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Total Credits Required</td>
<td>45</td>
<td>45</td>
</tr>
</tbody>
</table>

**Required Core Courses**
- ENME 4900 Graduate Professional Development (Graduate Professional Development) 1
- ENME 4950 Graduate Assessment (Graduate Assessment) 0

**Mechanical Engineering Core Courses**
- ENGR 3630 Finite Element Methods 4
- ENME 3545 Mechanisms 4
- ENME 3651 Computational Fluid Dynamics 4
- ENME 4020 Adv Finite Element Analysis 4
- ENME 4520 Intermediate Dynamics (Intermediate Dynamics) 4
- ENME 4541 Advanced Mechanics of Materials (Advanced Mechanics of Materials) 4
- ENME 4630 Viscous Flow (Viscous Flow) 4
- ENME 4670 Advanced Computational Fluid Dynamics 4
- ENME 4800 Advanced Topics (ME) (Convective Heat Transfer) 4

**Advanced Math Courses**
## Engineering, Bio Courses

**ENBI 4500 Biofluids (4 Credits)**
The application of fluid dynamics theory and design to problems within the biomedical community. Specific topics covered include the mechanics of inhaled therapeutic aerosols, basic theory of circulation and blood flow, foundations in biotechnology and bioprocessing, and controlled drug delivery. Cross listed with ENBI 3500.

**ENBI 4510 Biomechanics (4 Credits)**
An introduction to the mechanical behavior of biological tissues and systems. Specific topics covered include: Analysis of the human musculoskeletal system as sensors, levers, and actuators; Joint articulations and their mechanical equivalents; Kinematic and kinetic analysis of human motion; Introduction to modeling human body segments and active muscle loading for analysis of dynamic activities; Mechanical properties of hard and soft tissues; Mechanical and biological consideration for repair and replacement of soft and hard tissue and joints; Orthopedic implants. Cross listed with ENBI 3510.

**ENBI 4520 Introduction to Cardiovascular Engineering (4 Credits)**
An introduction to cardiovascular mechanics with a focus on the quantitative understanding of the mechanical phenomena that governs the cardiovascular system. Specific topics covered include: basic principles of circulation including macro and micro circulation, soft tissue mechanics, applications to cardiovascular diseases, modelling techniques, clinical and experimental methods, and design of cardiovascular devices. Recommended prerequisites: ENME 2541 and ENME 2661.

**ENBI 4800 Adv Topics (Bioengineering) (1-5 Credits)**
Various topics in Bioengineering as announced. May be taken more than once. Prerequisite: varies with offering.

**ENBI 4991 Independent Study (1-5 Credits)**

**ENBI 4992 Directed Study (1-5 Credits)**

**ENBI 4995 Independent Research (1-18 Credits)**

## Engineering, Mechanical Courses

**ENME 3511 Machine Design (3 Credits)**
Application of statics, dynamics, mechanics of materials and manufacturing processes to the design of machine elements and systems. Properties of materials and design criteria. Synthesis and analysis of a machine design project. Prerequisites: ENME 2520 and ENME 2541.

**ENME 3545 Mechanisms (4 Credits)**
Synthesis, analysis and use of mechanisms. Mechanisms studied include cams, gears and planar linkages, with an emphasis on planar linkages. Prerequisites: ENME 2530 and ENGR 1572.

**ENME 3651 Computational Fluid Dynamics (4 Credits)**
This course introduces principles and applications of computational methods in fluid flow and topics chosen from heat transfer, mass transfer or two phase flow. The conservation equations, their discretations and solutions, are presented. Convergence and validity of solutions along with computational efficiency are explored. Students learn to apply these techniques using the latest software packages. Prerequisites: ENME 2671.

**ENME 3661 Mechanical Energy Systems Engineering (4 Credits)**
This course covers energy systems engineering analysis from a mechanical and materials engineering perspective. This course covers energy production from traditional energy systems that use fossil fuel combustion such as internal combustion engines, coal-fired plants, and natural gas turbines, to nuclear energy and renewable energy methods such as wind, solar, hydraulic, and geothermal. Lastly, the course will survey emerging technologies for future (21st century) energy systems. Students should have taken at a minimum Thermodynamics, Dynamics, and Fluid Dynamics courses. Prerequisites: ENME 2720, ENME 2510, ENME 2651.

**ENME 3720 Introduction to Aerospace Engineering (4 Credits)**
This course provides and introduction to aerospace engineering analysis and design. In the atmospheric domain, the basics of aerodynamics are covered, followed by flight mechanics. The approach is from a practical perspective in which analysis and design are intertwined. Students should have taken at a minimum Thermodynamics and Dynamics courses. Prerequisites: ENME 2710 and ENME 2510 or Graduate standing.

**ENME 3810 Mechanical Engineering Capstone Laboratory (3 Credits)**
This course is the capstone mechanical engineering laboratory course requiring independent experimental design by student teams. Using experimental equipment available in heat transfer, fluid mechanics, solid mechanics, thermodynamics, and measurement and control, the student team is required to design experiments to solve given problems which will be unique to each team. This course encourages students to develop experimental design and research techniques while continuing to improve skills in fundamental lab notebook keeping, uncertainty analysis in measurements, data acquisition, data analysis, report writing, oral presentations, and laboratory safety and procedures. Prerequisite: ENME 2810.
ENME 4020 Adv Finite Element Analysis (4 Credits)

ENME 4310 Computational Methods for Mechanics and Materials (4 Credits)
An introductory course for the general-purpose computational methods in advanced multiscale materials and mechanics. Students learn the fundamentals on the numerical methods used in mechanical and materials engineering. Cross listed with ENME 3310.

ENME 4360 Elasticity (4 Credits)
Students will be able to apply the fundamental principles of elasticity to solve two- and three-dimensional mechanical engineering problems involved in modern applications of elastic structures, composite materials, tribology and contact mechanics. Dependence on previous knowledge of solid mechanics, continuum mechanics or mathematics is minimized. The emphasis is placed on the engineering applications of elasticity. Suggested prerequisite: ENME 2541.

ENME 4400 Fatigue (4 Credits)
A detailed overview of fatigue. Topics include: stress life and strain life approaches, fracture mechanics, constant amplitude and spectrum loading, life prediction, fatigue at notches, microstructural effects, environmentally assisted fatigue, retardation and acceleration, multi-axial fatigue, design against fatigue and reliability. Cross listed with ENME 3400.

ENME 4520 Intermediate Dynamics (4 Credits)
Development and analysis of dynamic systems through classical and modern approaches. Topics include: reference frames, particle kinematics, Newtonian particle mechanics, Phase Portraits, rigid-body kinematics, Euler’s laws, Lagrange's Equations, Lagrange Multipliers, and Kane’s Equations. Recommended prerequisites: MATH 2070 and MATH 2080.

ENME 4541 Advanced Mechanics of Materials (4 Credits)
This is a second-level course in mechanics of materials with an emphasis on techniques that are useful for mechanical design. Topics may include energy methods, non-symmetrical and nonlinear bending, shear and torsion of closed and open sections, beams in elastic foundations, membrane stress in axisymmetric shells, axisymmetric bending of cylindrical shells, thick-walled cylinders and disks, curved beams, and elastic stability. Recommended prerequisite: ENME 2541.

ENME 4630 Viscous Flow (4 Credits)
Course covers the fundamentals of fluid mechanics from an advanced point of view with emphasis on the mathematical treatment of viscous-flow phenomena. Topics cover the Navier-Stokes equations and its exact and similarity solutions, laminar boundary layer theory, free-shear flows, and the phenomena of instability and transition to turbulence. Recommended prerequisite: ENME 2661.

ENME 4650 Adv. Fluid Dynamics (4 Credits)
Physical properties of liquids and gases; turbulence and closure models; surface waves and instabilities; non-Newtonian fluid behavior; conformal mapping and airfoil theory.

ENME 4660 Micro Heat Exchangers (4 Credits)
Explores the advance principles and applications of fluid dynamics and heat transfer through the application to micro fluidic heat exchanger design and optimization. Students utilize Mathcad extensively to seek optimized exchanger performance within a clearly defined design space. Students also build small scale heat exchangers from their optimized designs. Prerequisite: ENME 2671.

ENME 4670 Advanced Computational Fluid Dynamics (4 Credits)
Building on the principles and applications of computational methods in fluid flow and topics chosen from heat transfer, mass transfer and two phase flow. Specifically, Monte Carlo and volume of fluid techniques are discussed at length. Additionally, students learn how to set up automated design optimization using the latest software packages. Time permitting, students also are introduced to fluid-solid interaction modeling. Prerequisite: ENME 3651.

ENME 4671 Convective Heat Transfer (4 Credits)
The objective of this course is to examine the physical phenomena associated with heat transfer in the presence of fluid flow. We will develop a mathematical description of the processes (fluid flow and heat transfer) for laminar and turbulent flows for both internal and external situations. Exposure to the fundamentals of fluid mechanics and heat transfer is expected before taking this course.

ENME 4800 Advanced Topics (ME) (1-5 Credits)
Determined by interest and demand. May be taken more than once for credit.

ENME 4900 Grad Professional Development (1 Credit)
This course is required for all MME MS graduate students and all MME PhD graduate students who enter with a BS or enter with an MS but fail their first qualifying exam. One of our objectives is for all graduating students to have good written and verbal communication skills. This course is set up to meet those objectives. During this course, students write a mini-proposal and/or literature review. Students follow guidelines for a funding agency (e.g. NSF or NIH) for the mini-proposal. If students have a research advisor, students can coordinate with their advisor. If students do not have a research advisor, students may pick a topic that most interests them. Both a written proposal and an oral presentation are required of all students. Graduate standing is required.

ENME 4950 Graduate Assessment (0 Credits)
This graduate assessment course is required for all MME graduate students to be taken in their last quarter. All required assessment materials are uploaded to DU Assessment to meet the course requirements. Students will receive emails through the DU Assessment system notifying you of what is required to be uploaded.
ENME 4991 Independent Study (1-10 Credits)
ENME 4992 Directed Study (1-10 Credits)
ENME 4995 Independent Research (1-16 Credits)
ENME 5991 Independent Study (1-10 Credits)
ENME 5995 Independent Research (1-16 Credits)

Engineering Courses

ENGR 3210 Intro Nano-Electro-Mechanics (4 Credits)
Familiarize science and engineering students with the electromechanical aspects of the emerging field of Nanotechnology (NEMS). NEMS is a relatively new and highly multidisciplinary field of science and technology with applications to state of the art and future sensors, actuators, and electronics. Starting with an overview of nanotechnology and discussion on the shifts in the electromechanical behavior and transduction mechanisms when scaling the physical dimensions from centimeters to micro-meters and then down to nanometers. Several electromechanical transduction mechanisms at the micro and nanoscale are presented and discussed in an application based context. New electromechanical interactions appearing in the nano and molecular scale, such as intra-molecular forces and molecular motors, are discussed. A detailed discussion and overview of nanofabrication technologies and approaches are also provided. Cross listed with ENGR 4210. Prerequisite: must be an engineering or science major of at least junior standing.

ENGR 3510 Renewable and Efficient Power and Energy Systems (4 Credits)
This course introduces the current and future sustainable electrical power systems. Fundamentals of renewable energy sources and storage systems are discussed. Interfaces of the new sources to the utility grid are covered. Prerequisite: ENEE 2021.

ENGR 3520 Introduction to Power Electronics (4 Credits)
This covers fundamentals of power electronics. We discuss various switching converters topologies. Basic knowledge of Efficiency and small-signal modeling for the DC-DC switching converters is covered. Furthermore, magnetic and filter design are introduced. Prerequisites: ENEE 2211 and ENGR 3722.

ENGR 3525 Power Electronics and Renewable Energy Laboratory (1 Credit)
In this course the fundamentals of switching converters and power electronics in a real laboratory set-up are covered. The course incorporates hardware design, analysis, and simulation of various switching converters as a power processing element for different energy sources. The energy sources are power utility, batteries, and solar panels. Prerequisite: ENGR 3520.

ENGR 3540 Electric Power Systems (4 Credits)
This course covers methods of calculation of a comprehensive idea on the various aspects of power system problems and algorithms for solving these problems. Prerequisite: ENGR 3530.

ENGR 3610 Engineering Analysis (3 Credits)
Applied mathematics for engineers. Generalized Fourier analysis, complex variables, vector calculus, introduction to Bessel functions, and applied probability and statistics. Cross listed with ENGR 3620. Prerequisites: MATH 2070, MATH 2080.

ENGR 3620 Advanced Engineering Mathematics (4 Credits)

ENGR 3621 Advanced Engineering Mathematics (4 Credits)
Applied mathematics for engineers. Topics include vector spaces, normed vector spaces, inner product spaces, linear transformations, finite-dimensional linear transformations, linear operators, finite-dimensional linear operators, linear differential systems, linear difference systems, orthogonal transformations, amplitude estimation, fundamentals of real and functional analysis, and introduction to partial differential equations, and applications to engineering systems.

ENGR 3630 Finite Element Methods (4 Credits)
Introduction to the use of finite element methods in one or two dimensions with applications to solid and fluid mechanics, heat transfer and electromagnetic fields; projects in one or more of the above areas. Prerequisites: ENME 2541 AND ENGR 1572.

ENGR 3721 Controls (3,4 Credits)
Modeling, analysis and design of linear feedback control systems using Laplace transform methods. Techniques and methods used in linear mathematical models of mechanical, electrical, thermal and fluid systems are covered. Feedback control system models, design methods and performance criteria in both time and frequency domains. A linear feedback control system design project is required. Prerequisites: ENEE 2021, ENGR 3610 or permission of instructor.

ENGR 3722 Control Systems Laboratory (1 Credit)
This laboratory course serves as supplement to ENGR 3721. It aims at providing "hands on" experience to students. It includes experiments on inverted pendulum, gyroscopes, motor control, feedback controller design, time-domain and frequency domain. Corequisite: ENGR 3721.
ENGR 3730 Robotics (3 Credits)
Introduction to the analysis, design, modeling and application of robotic manipulators. Review of the mathematical preliminaries required to support robot theory. Topics include forward kinematics, inverse kinematics, motion kinematics, trajectory control and planning, and kinetics. Cross listed with ENGR 4730. Prerequisites: ENME 2520 and MATH 2060 or MATH 2200 or permission of instructor.

ENGR 3731 Robotics Lab (1 Credit)
Laboratory that complements the analysis, design, modeling and application of robotic manipulators. Implementation of the mathematical structures required to support robot operation. Topics include forward kinematics, inverse kinematics, motion kinematics, trajectory control and planning and kinetics. Applications include programming and task planning of a manufacturing robot manipulator. Corequisite: ENGR 3730 or permission of instructor.

ENGR 3742 LabVIEW Programming, a primer for certification as an Applicaitons Developer (4 Credits)
The LabVIEW course covers numeric, Boolean, and string controls; programming structures include loops, sequences, formula, and case structures. VISA (virtual instrumentation and software structure) and SCPI (standard commands for programmable instruments) are used to control test equipment and acquire data via the GPIB (general purpose interface bus, IEEE488 standard). Vis (virtual instruments) for data acquisition and analysis are developed utilizing mathematical, signal processing, and statistical LabVIEW programming modules. LabVIEW structures will be used to mathematically model and solve second order differential equations and Laplace transforms.

ENGR 3800 Topics (ENGR) (1-4 Credits)
Special topics in engineering as announced. May be taken more than once. Prerequisite: varies with offering.

ENGR 3900 Engineering Internship (0-4 Credits)
Students in engineering may receive elective credit for engineering work performed for engineering employers with the approval of the chair or associate chair of the department. At the end of the term, a student report on the work is required, and a recommendation will be required from the employer before a grade is assigned. Junior, senior, or graduate status in engineering is normally required. May not be used to satisfy technical requirements. May be taken more than one for a maximum of 6 quarter hours. Prerequisite: permission of instructor.

ENGR 3970 Entrepreneurship for Engineers and Computer Scientists (4 Credits)
The course presents an overview of fundamentals of understanding entrepreneurship and entrepreneurial characteristics; the focus is on aspects of engineering entrepreneurship, technology-based innovation and new product development. Topics to be covered: learning an industry; recognizing and creating opportunities; new product development process, phases and cycle, risks and benefits; ‘testing’ of an engineering-focused business concept; marketing, organizational plan strategies and financing for new start ups. Special attention is given to technological innovation, considering both incremental or routine innovation, and more radical or revolutionary changes in products and processes. Prerequisite: ENGR 3610 or permission of the instructor.

ENGR 4100 Instrumentation and Data Acquisition (4 Credits)
This course examines different instrumentation techniques and describes how different measurement instruments work. Measurement devices include length, speed, acceleration, force, torque, pressure, sound, flow, temperature, and advanced systems. This course also examines the acquisition, processing, transmission and manipulation of data. Final project or paper. Cross listed with ENGR 3100. Prerequisites: PHYS 1213 OR PHYS 1214.

ENGR 4200 Introduction to Nanotechnology (4 Credits)
The most important recent accomplishments so far in the application of nanotechnology in several disciplines are discussed. Then a brief overview of the most important instrumentation systems used by nanotechnologists is provided. The nature of nanoparticles, nanoparticle composites, carbon nanostructures, including carbon nanotubes and their composites is subsequently discussed. The course also deals with nanopolymers, nanobiological systems, and nanoelectronic materials and devices. The issues of modeling of nanomaterials and nanostructures is also covered. Multiscale modeling based on finite element simulations, Monte Carlo methods, molecular dynamics and quantum mechanics calculations are briefly addressed. Most importantly, students should obtain appreciation of developments in nanotechnology outside their present area of expertise. Cross listed with ENGR 3200.

ENGR 4210 Introduction to Nano-Electro-Mechanical-Systems (4 Credits)
This course familiarizes science and engineering students to the electromechanical aspects of the emerging field of Nanotechnology (NEMS). NEMS is a relatively new and highly multidisciplinary field of science and technology with applications in the state of the art and future sensors, actuators, and electronics. This course starts with an overview of nanotechnology and discussion on the shifts in the electromechanical behavior and transduction mechanisms when scaling the physical dimensions from centimeters to micro-meters and then down to nanometers. Several electromechanical transduction mechanisms at the micro and nanoscale are presented and discussed in an application based context. New electromechanical interactions appearing in the nano and molecular scale, such as intra-molecular forces and molecular motors, are discussed. A detailed discussion and overview of nanofabrication technologies and approaches are also provided. Cross listed with ENGR 3210.

ENGR 4215 Nanoscale Electromechanical Systems and Nanofabrication Laboratory (4 Credits)
This course provides science and engineering students with comprehensive hands-on experience in design, fabrication and characterization of Nanoscale Electromechanical Systems (NEMS). This laboratory-based course starts with a number of sessions including brief lectures reviewing the fundamentals and theories followed by pre-designed lab experiments. The students are then provided with a choice of different comprehensive design and implementation projects to be performed during the quarter. The projects include design, layout, fabrication, and characterization of the devices potentially resulting in novel findings and publications.
ENGR 4220 Introduction to Micro-Electro-Mechanical-Systems (4 Credits)
This course introduces students to the multi-disciplinary field of Micro-Electro-Mechanical-Systems (MEMS) technology. MEMS and Microsystem technology is the integration of micro-scale electro-mechanical elements, sensors, actuators, and electronics on a common substrate or platform through semiconductor microfabrication technologies. The course gives a brief overview of the involved physical phenomena, electromechanical transduction mechanisms, design principles, as well as fabrication and manufacturing technologies. Cross listed with ENGR 3220.

ENGR 4300 Advanced Numerical Methods (4 Credits)
Fundamental and advanced numerical methods to approximate mathematical problems for engineering applications using modern software such as Matlab. Topics include numerical differentiation and integration, solution to linear and non-linear equations, ordinary and partial differential equations, and initial, boundary, and eigen value problems. Recommended prerequisite: MATH 2070.

ENGR 4350 Reliability (4 Credits)
An overview of reliability-based design. Topics include: fundamentals of statistics, probability distributions, determining distribution parameters, design for six sigma, Monte Carlo simulation, first and second order reliability methods (FORM, SORM). Most Probable Point (MPP) reliability methods, sensitivity factors, probabilistic design. Cross listed with ENGR 3350.

ENGR 4530 Intro to Power and Energy (4 Credits)
Basic concepts of AC systems, single-phase and three-phase networks, electromechanical energy conversion, electric power generation, transformers, transmission lines, AC machinery, DC motors, and contemporary topics in power and energy conversion. Cross listed with ENGR 3530.

ENGR 4545 Electric Power Economy (4 Credits)
This course covers economy aspects of electric power industry and the implications for power and energy engineering in the market environment. Cross listed with ENGR 3545.

ENGR 4550 Probabilistic Methods in Electric Power Systems (4 Credits)
The course covers techniques for probabilistic power system analysis and design, power system reliability, probabilistic structural design and analysis of transmission lines, analysis and assessment of transmission line reliability, probability-based power system design criteria, probabilistic load-flow studies and probabilistic power system stability. Prerequisites: ENGR 3540 or equivalent; permission of instructor; knowledge of MATLAB/Simulink is required.

ENGR 4560 Power Generation Operation and Control (4 Credits)
This course covers economic dispatch of thermal units and methods of solution; transmission system effects; generate with limited energy supply; production cost models; control of generation; interchange of power and energy; power system security; state estimation in power systems; optimal power flow. Prerequisite: ENGR 4540.

ENGR 4590 Power System Protection (4 Credits)
This course covers methods of calculation of fault currents under different types of fault; circuit breakers, current transformers, potential transformers; basic principles of various types of relays; applications of relays in the protection of generator, transformer, line, and bus, etc. Prerequisite: ENGR 4540.

ENGR 4620 Optimization (3, 4 Credits)
Engineering problems will be formulated as different programming problems to show the wide applicability and generality of optimization methods. The development, application, and computational aspects of various optimization techniques will be discussed with engineering examples. The application of nonlinear programming techniques will be emphasized. A design project will be assigned.

ENGR 4730 Introduction to Robotics (4 Credits)
Introduction to the analysis, design, modeling and application of robotic manipulators. Review of the mathematical preliminaries required to support robot theory. Topics include forward kinematics, inverse kinematics, motion kinematics, trajectory control and planning, and kinematics. Applications include programming and task planning of a manufacturing robot manipulator. Cross listed with ENGR 3730. Prerequisites: ENME 2520 and MATH 2060 or MATH 2200 or instructor approval.

ENGR 4735 Linear Systems (4 Credits)
This course focuses on linear system theory in time domain. It emphasizes linear and matrix algebra, numerical matrix algebra and computational issues in solving systems of linear algebraic equations, singular value decomposition, eigenvalue-eigenvector and least-squares problems, linear spaces and linear operator theory. It studies modeling and linearization of multi-input/multi-output dynamic physical systems, state-variable and transfer function matrices, analytical and numerical solutions of systems of differential and difference equations, structural properties of linear dynamic physical systems, including controllability, observability and stability. It covers canonical realizations, linear state-variable feedback controller and asymptotic observer design, and the Kalman filter. Cross listed with ENGR 3735. Prerequisites: ENGR 3610, ENGR 3721/3722, or permission of the instructor.

ENGR 4740 Adaptive Control Systems (4 Credits)
Theoretical and application aspects of robust adaptive control design for uncertain dynamical systems. Topics include: parameter estimation, stability, model reference adaptive systems, self-tuning regulators, gain scheduling, design for robustness against unmodeled dynamics and disturbance signals. Examples will be given from aerospace engineering (changes in the dynamics of aircraft), process control, and robotics. Modern alternatives to traditional adaptive control will be discussed (switching multi-model/multi-controller adaptive schemes). Prerequisites: ENEE 3111, ENGR 3610, and ENGR 3721, or permission of instructor. Familiarity with MATLAB/Simulink.
**ENGR 4745 Adv Non-Linear Control System (4 Credits)**

**ENGR 4750 Networked Control Systems (4 Credits)**
Fundamental tools and recent advances in networked control. Topics include the control of multi-agent networks found in multi-vehicle coordination, control of sensor networks, unmanned vehicles, and energy systems. Network models, distributed control and estimation, distributed control under limited communications and sensing, formation control, coverage control in mobile sensor networks. Prerequisites: linear algebra, linear control systems, differential equations, familiarity with MATLAB, or permission of instructor.

**ENGR 4755 Optimal Control (4 Credits)**
Introduction to optimal control theory (control laws that maximize a specified measure of a dynamical system's performance). Topics include: optimality conditions and constraints; calculus of variations; review of mathematical programming (Language multipliers, convexity, Kuhn-Tucker theorem); Pontryagin's maximum principle (constraints, Hamiltonians, bang-bang control); dynamic programming and Linear Quadratic Regulation (Riccati, Hamilton-Jacobi equation). Prerequisites: ENGR 3721 (Controls) and ENGR 3735/4735 (Linear Systems) or equivalent courses.

**ENGR 4810 Advanced Topics (ENGR) (1-5 Credits)**

**ENGR 4885 Graduate Project for non-Thesis Option Master's Degree (1-4 Credits)**
This course is required for all Master of Science graduate students with major in Electrical Engineering, Computer Engineering, and Mechatronic Systems Engineering, who choose the non-thesis option. The student will be supervised by his or her faculty advisor to conduct original and independent research with project topic closely related to the student’s depth requirement of the specialization area. The student will deliver a final comprehensive project report and an oral defense for the project. The examination committee for the Master’s project shall consist of at least two faculty members.

**ENGR 4991 Independent Study (1-5 Credits)**

**ENGR 4992 Directed Study (1-10 Credits)**

**ENGR 4995 Independent Research (1-16 Credits)**

**Materials Science Courses**

**MTSC 4010 Mechanical Behavior of Materials (4 Credits)**
Effects of microstructure on mechanical behavior of material; emphasis on recent developments in materials science, fracture, fatigue, creep, wear, corrosion, stress rupture, deformation and residual stress. Cross listed with MTSC 3010.

**MTSC 4020 Composite Materials I (4 Credits)**

**MTSC 4215 Composite Materials II (4 Credits)**
A continuation of MTSC 4210: Strength and toughness of composites, thermal behavior, fabrication methods, examples of applications. Prerequisite: MTSC 4210.

**MTSC 4450 Fracture Mechanics (4 Credits)**
Topics include stress field at a crack tip, linear elastic fracture mechanics, energy release rate, stress intensity factors, plastic zones, plane stress, plane strain, fracture toughness, Airy stress functions, elastic-plastic fracture mechanics, J integral, crack tip opening displacements, experimental testing, fatigue, life prediction, crack closure, weight functions, failure analysis. Cross listed with MTSC 3450.

**MTSC 4800 Advanced Topics (MTSC) (1-5 Credits)**
Selected topics (depending on student and faculty interest): fracture mechanics, fatigue, nonlinear constitutive models, dynamic behavior of materials, corrosion resistant design, thermodynamics of solids II.

**MTSC 4900 Materials Science Seminar (1 Credit)**
Weekly presentations by graduate students, faculty, outside speakers, etc., on research in progress or other topics of interest.

**MTSC 4991 Independent Study (1-10 Credits)**

**MTSC 4992 Directed Study (1-10 Credits)**

**MTSC 4995 Independent Research (1-16 Credits)**

**MTSC 5995 Independent Research (1-16 Credits)**
Daniels College of Business

The Daniels College of Business is dedicated to educating ethical business leaders, advancing the theory and practice of business, and making a positive global impact. As the eighth-oldest business college in the country, we have helped graduates achieve their career aspirations for more than a century. The College is ranked among the best of the world’s top business schools. We are proud to be one of the 655 business schools accredited by the Association to Advance Collegiate Schools of Business (AACSB). Daniels is the only business school in Colorado to receive high rankings and recognition from Businessweek, the Financial Times, U.S. News & World Report, and Forbes. Daniels is internationally recognized for integrating social, environmental and ethical issues into our traditional curricula. Committed to diversity, we welcome all who want to hone their skills, improve their knowledge, and gain a lasting foundation.

Business Ethics and Legal Studies

Office: Daniels College of Business,
Mail Code: Daniels College of Business, 2101 S. University Blvd., Denver, CO 80208
Phone: 303-871-3411
Web Site: daniels.du.edu/faculty-research/ethics-legal-studies/

Certificate in Global Business and Corporate Social Responsibility

As a joint offering between the Daniels College of Business and the Korbel School of International Studies, this certificate focuses specifically on the challenges and opportunities businesses confront in a globalized and developing world.

A certificate in Global Business and Corporate Social Responsibility (CSR) will enable students to leverage the unique course offerings at Daniels and Korbel to learn about theory and practice related to: economic development, business ethics, CSR strategy, social entrepreneurship, business and human rights, sustainability, impact investing, as well as considerations with regards to hard and soft law mechanisms that govern transnational space. These courses will give students the practical content they need to embrace and navigate the complexity of business and governance issues.

Certificate in Global Business and Corporate Social Responsibility

This Certificate program is reserved for students who are co-enrolled in a Master’s level program within the Daniels College of Business or the Josef Korbel School of International Studies. Those who have been accepted to a Master’s level program and are interested in applying to the certificate program should contact their department for more information.

Certificate in Global Business and Corporate Social Responsibility

Program Requirements

Coursework Requirements

<table>
<thead>
<tr>
<th>Required Courses</th>
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</thead>
<tbody>
<tr>
<td>BUS 4445</td>
<td>International Business: Strategy and Practice 4</td>
</tr>
<tr>
<td>or INTS 4029</td>
<td>International Business: Strategy and Practice 4</td>
</tr>
<tr>
<td>BUS 4444</td>
<td>Global Bus, Governance &amp; CSR 4</td>
</tr>
<tr>
<td>or INTS 4459</td>
<td>Global Business, Governance &amp; Corporate Social Responsibility 4</td>
</tr>
<tr>
<td>INTS 4324</td>
<td>Int’l Political Economy 5</td>
</tr>
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</table>

Elective Courses

Choose a minimum of 13-14 credits from the following list. Students must complete one elective outside of their primary college:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTG 4610</td>
<td>Financial Accounting and Reporting 1</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4630</td>
<td>Managerial Finance 1</td>
<td>4</td>
</tr>
<tr>
<td>MBA 4130</td>
<td>Corporate Financial Reporting 2</td>
<td>2</td>
</tr>
<tr>
<td>MBA 4230</td>
<td>Managing Cost Information 2</td>
<td>2</td>
</tr>
<tr>
<td>MBA 4280</td>
<td>Mastering Managerial Financial Competencies I 2</td>
<td>2</td>
</tr>
<tr>
<td>MBA 4285</td>
<td>Mastering Managerial Financial Competencies II 2</td>
<td>2</td>
</tr>
<tr>
<td>FIN 4700</td>
<td>Topics in Finance</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 4705</td>
<td>Topics in Marketing</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4700</td>
<td>Topics in Management (NGOs &amp; Business, Intro to Management Consulting)</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4700</td>
<td>Special Topics in Business (Global Corruption)</td>
<td>4</td>
</tr>
<tr>
<td>IMBA 4142</td>
<td>Global Management</td>
<td>4</td>
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<td>FIN 4180</td>
<td>Global Finance</td>
<td>2</td>
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<tr>
<td>INTS 4210</td>
<td>Multinational Corporations</td>
<td>5</td>
</tr>
<tr>
<td>INTS 4330</td>
<td>International Business Transactions</td>
<td>5</td>
</tr>
</tbody>
</table>
INTS 4339  Microfinance and Sustainable Development  5
INTS 4549  Managing Microfinance: Balancing Business with Development  5
INTS 4566  Global and Sustainable Development (Case of Coffee & Chocolate)  5
INTS 4653  Political Economy of the Resource Curse  5
INTS 4622  Global Governance  5
INTS 4710  Topics in International Studies  5
INTS 4972  Global Environmental Governance  5

Total credits required: 25-28

1 These courses are open to Korbel students. Students in the Denver MBA do not take ACTG 4610 Financial Accounting and Reporting or FIN 4630 Managerial Finance.

2 These courses are only open to students in the Denver MBA. MBA 4130 Corporate Financial Reporting and MBA 4230 Managing Cost Information together are the equivalent of the 4-credit course ACTG 4610 Financial Accounting and Reporting. MBA 4280 Mastering Managerial Financial Competencies I and MBA 4285 Mastering Managerial Financial Competencies II together are the equivalent of the 4-credit course FIN 4630 Managerial Finance.

Minimum number of credits required: 25-28

Courses

LGST 3730 Values Based Leadership in Practice (4 Credits)
This course is a practical focus on leadership culture through analysis of real leaders applying theory to their personal experiences and practice. The course utilizes speakers in the Voices of Experience Speaker Series and outstanding literature to facilitate discussion. The course is offered in two-credit-hour sequences over two quarters. Prerequisites: LGST 2000 and degree checkpoint 2.

LGST 4198 E-Commerce Law and Ethics (4 Credits)
The changes in technology and business over the past 20 years have been dramatic and far-reaching. Navigating the even more astonishing changes in the future requires some perspective on the developments of the recent past. How did we get to where we are? What technological, economic and political forces have generated the current state of e-commerce? How are these forces likely to change into the future? What are the basic features of e-commerce as its exists today?

LGST 4550 Business Law for Accountants (4 Credits)
This course provides students with a detailed review of the legal considerations in forming, operating, and dissolving the most common forms of business entities: partnerships, limited liability companies, and corporations. The rights, duties and liabilities of the managers, owners and accountants (internal and external) of these entities are extensively examined. The course also provides an overview of federal securities laws impacting these organizations. Prerequisite: ACTG 4620 or BUS 4620 or LGST 2000 (concurrent registration OK).

LGST 4700 International Law (4 Credits)
Offers both an introduction to public international law (the rights and duties of states and intergovernmental organizations [IGOs]) and to private international law (the rights and duties of individuals, businesses, and non-governmental organizations [NGOs] in their international affairs). Majority of course devoted to key international issues of business law and public policy such as alternative dispute resolution (ADR), privatization, intellectual property, international sales, the Foreign Corrupt Practices Act, trade (GATT and WTO), and the international facilities that deal with the adjudication and resolution of legal issues related to business.

LGST 4701 Topics in Ethics & Legal Study (1-5 Credits)
This course examines complexities, paradoxes, and dangers of leadership. The platform for the course is a Core Leadership Model (and logical deviations from it) which can result in Great Leadership. At the heart of Great Leadership one finds a values base. Through in-depth analysis of the key dimensions of the Core Model and its accompanying deviations, participants gain a deep understanding of - and practical experience with - Values Based Leadership in today's world.

LGST 4730 Values Based Leadership in Practice (4 Credits)
The course examines the complexities, paradoxes, and dangers of leadership. The platform for the course is a Core Leadership Model (and logical deviations from it) which can result in Great Leadership. Through in-depth analysis of the key dimensions of the Core Model and its accompanying deviations, participants will gain a deep understanding of - and practical experience with - Values-Based Leadership in today's world.

LGST 4740 Science & Mgmt. of Org. Ethics (4 Credits)
This course examines our knowledge regarding ethical decision making and behavior in organizational contexts. The course also explores the implications of such knowledge for effectively creating and managing ethical organizations. The course will be conducted as a graduate seminar with students playing a central role in identifying topics, researching content areas, and deciding on course outcomes. We will examine conceptual and theoretical models of ethical behavior in organizations, research empirical studies, and develop managerial implications. The overarching goal is to increase knowledge and understanding so as to strengthen capacities to be ethical leaders and managers. Prerequisite: BUS 4100. Non-business students may take the course with permission.
LGST 4760 CEOs and Corporate Governance (4 Credits)
In the wake of the Sarbanes-Oxley and Dodd-Frank laws, corporate governance has become a compelling issue for business students and executives. Corporate board members and leaders of institutional investors share their insights concerning corporate governance from strategic, financial, and legal perspectives. CEO/board dynamics are explored, along with leadership development and executive succession policies. The roles of major board committees, such as the audit, compensation, nominating, and legal compliance committees are given special emphasis. Board responsibilities in corporate crises and restructuring are examined, along with the legal liabilities of executives, board members, and the corporation. Public policy pressures on corporate governance, including the roles played by the Securities and Exchange Commission and other regulatory bodies are discussed, along with the responses by business organizations, political interest groups, and self-regulatory bodies. Shareholder activism and litigation, along with pressures from other corporate stakeholders are also emphasized in the course. Examples of topics include corporate scandals, executive compensation, global corporate governance systems, and governance reforms. Students engage in a number of case analyses over the course of the quarter, produce a four-part case study, and discuss actual real world solutions with business leaders who have been involved in the issues. Cross-listed with ACTG 4760.

LGST 4775 The Leader’s Compass (4 Credits)
This course qualifies for the four course requirement for the MBA Values Based Leadership concentration. By reading the works of great philosophers and using the Socratic Method, students come to understand the role of values in business and society, and learn to respectfully listen to, and learn from, those with different values. Students synthesize the readings and class discussions by writing a paper describing what (a) “a good society” and (b) “a good work organization” would look like to them personally, and what would be needed in terms of leadership to create each condition. Prerequisite: BUS 4620.

LGST 4780 Leadership, Teams & Values (4 Credits)
This course is designed for Daniel Scholars (who have completed the first quarter of their MBA program including Value Based Leadership) to provide both challenging intellectual discussion and physical engagement around the fundamental ethical dilemma of competition and/or cooperation. The venue for the course is Harbor Island, San Diego, California, and the adjacent waters of San Diego Bay and the Pacific Ocean. Both traditional classrooms and the untraditional learning environment of the off-shore sail boat provide the context of dynamic learning about values, teams and self. Prerequisite: BUS 4100.

LGST 4790 Entrepreneur & Family Business-Organization, Governance Ethics & Leadership (4 Credits)
This course covers the most current legal and ethical issues involving the creation of value, strengthening and growing family businesses through the process of best practices in business governance, coupled with ethical conduct and values based leadership, and legal compliance. Cross listed with LGST 3790. Prerequisite: BUS 4100.

LGST 4980 Internship (1-5 Credits)

LGST 4991 Independent Study (1-10 Credits)

LGST 4992 Directed Study (1-4 Credits)

LGST 4995 Independent Research (1-10 Credits)

Business Information and Analytics

Master of Science in Business Analytics

The University of Denver’s Daniels College of Business Masters of Science in Business Analytics program balances the three pillars of business intelligence: data management, analytics, and business decisions. Graduates will be able to inform through evidence-driven decision making. During the program, students work with companies on actual problems by leveraging data to produce real outcomes for real implementation. Through partnerships with IBM/SPSS, Tableau, Microsoft and other leading technology vendors, Daniels is able to provide the most relevant tools in analytics in our classrooms. This gives students an edge in solving complex statistical problems and keeps them ahead of the curve. This is a STEM designated degree and is a 12-36-month, full or part-time, 58-credit program with two components: Business Analytics Core (50 credits) and Electives (8 credits).

Daniels has been continuously accredited by the Association to Advance Collegiate Schools of Business International (AACSB) since 1923.

Master of Science in Business Analytics

Admission Requirements

- Application fee $100 non-refundable.
- GMAT or GRE Scores required. Applicants who wish to be considered for merit-based scholarships or graduate assistantships are encouraged to take the GMAT. To have your GMAT or GRE scores reported to Daniels, please use the following codes: GMAT code MZR-GT-43 and the GRE code is 4842.
- Official Transcripts. Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
- Submit a resume that focuses on your unique strengths and accomplishments.
- Two letters of recommendation are required from individuals (nonrelatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
• Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.

• Admissions Interview: Applicants are contacted by a Daniels representative to schedule the admissions interview, which will be conducted in person, by phone, or via web cam.

• Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Language Proficiency
• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency.

• A minimum of an 88 TOEFL (no less than a 20 on any section) or a minimum of a 6.5 IELTS (no less than 6.0 on any section) is required to apply.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution’s language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC).

Master of Science in Business Analytics

Degree Requirements
Core coursework requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 4100</td>
<td>Survey of Business Analytics</td>
<td>4</td>
</tr>
<tr>
<td>INFO 4120</td>
<td>Python for Business Analytics</td>
<td>4</td>
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<tr>
<td>INFO 4140</td>
<td>Business Databases</td>
<td>4</td>
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<tr>
<td>STAT 4610</td>
<td>Business Statistics</td>
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<tr>
<td>INFO 4200</td>
<td>Business Analytics Capstone Planning</td>
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<tr>
<td>INFO 4240</td>
<td>Data Warehousing</td>
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</tr>
<tr>
<td>INFO 4280</td>
<td>Project Management</td>
<td>4</td>
</tr>
<tr>
<td>INFO 4300</td>
<td>Predictive Analytics</td>
<td>4</td>
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<tr>
<td>INFO 4340</td>
<td>Data Mining and Visualization</td>
<td>4</td>
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<tr>
<td>INFO 4360</td>
<td>Complex Data Analytics</td>
<td>4</td>
</tr>
<tr>
<td>INFO 4380</td>
<td>Decision Processes</td>
<td>4</td>
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<tr>
<td>INFO 4400</td>
<td>Business Analytics Capstone</td>
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</tr>
<tr>
<td>INFO 4590</td>
<td>Optimization</td>
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</tbody>
</table>

Elective requirements
8 credits in electives required in 4000 level Daniels courses.

Total Credits
58

Minimum Number of Credits Required: 58

Courses
INFO 4100 Survey of Business Analytics (4 Credits)
This course provides an overview of business analytics: how data are generated, collected, actively warehoused and analyzed to support decision making. It addresses how to combine data with corporate processes and culture to gain new insights to empower corporate strategy and improve daily operations.

INFO 4120 Python for Business Analytics (4 Credits)
Python is a popular general purpose programming language which is well suited to a wide range of problems. With the right set of add-ons, it is comparable to domain-specific languages such as R and MATLAB. Python is a scripting language. The following topics will be covered: Importing data, Reading and writing files, Cleaning and Managing Data, Merging and joining DataFrame objects, Plotting and Visualization, Statistical Analysis, Fitting data to probability distributions and Linear models. Packages: Pandas, NumPy, matplotlib, statsmodels, Scikit-learn, and IPython. Principal Content Elements: 1. Introduction to Programming Logic and Design Using Python 2. Data Management 3. Statistical Analysis 4. Advanced Data Management and Statistical Analysis Prerequisites: STAT 4610.
INFO 4140 Business Databases (4 Credits)
This is an introductory database course which covers enterprise database design, modeling and implementation.

INFO 4200 Business Analytics Capstone Planning (2 Credits)
This course provides the foundation for the capstone course. Students begin the planning phase for their culminating project, identifying a business need and company with which to partner. Students then outline the problem, determine objectives and project deliverables, create a document of understanding, and produce a work plan. Prerequisite: STAT 4610.

INFO 4240 Data Warehousing (4 Credits)
This course addresses how to extract and time stamp data from many different business databases, transform it into a common compatible format, and load it into the data warehouse. The course includes using the data warehouse for real time queries as well as generating longer period reports for strategy considerations. Data marts and data mining are also included as part of this course. Prerequisites: INFO 4100 and INFO 4140.

INFO 4250 Data Driven Decision Making (4 Credits)
Businesses make decisions and improve processes using their own and external data and a variety of modeling and analytic techniques. This course introduces students to the business data landscape, data management in organizations, the data-driven decision-making process, and the fundamental concepts behind statistical inference and analytic modeling to support decision-making.

INFO 4280 Project Management (4 Credits)
In this course students examine the science, practice the art, and discuss the folklore or project management to enable them to contribute to and manage projects as well as to judge when to apply this discipline. The course also covers the use of MS Project Professional as a management tool and Crystal Ball as a Monte Carlo simulator for project exercises. Students also learn the fundamentals of process and project simulation for business decision-making. Prerequisite: INFO 4100.

INFO 4300 Predictive Analytics (4 Credits)
This course is designed to prepare students for managerial data analysis and data mining, predictive modeling, model assessment and implementation using large data sets. The course addresses the how, when, why and where of data mining. The emphasis is on understanding the application of a wide range of modern techniques to specific decision-making situations, rather than on mastering the theoretical underpinnings of the techniques. The course covers methods that are aimed at prediction, forecasting, classification, clustering and association. Students gain hands-on experience in using computer software to mine business data sets. Prerequisite: STAT 4610.

INFO 4340 Data Mining and Visualization (4 Credits)
In this course, students create business intelligence tools such as balanced scorecards, data visualization and dashboards to inform business decisions. The course focuses on the identification of metrics, measures, indicators and key performance indicators for a variety of business operations. The focus is on the advantages and disadvantages of various modeling methodologies and implementations moving towards performance improvement. Prerequisite: STAT 4610.

INFO 4360 Complex Data Analytics (4 Credits)
This course explores the concepts of the considerations and management of big data projects. It also explores technical aspects of performing text analytics and natural language processing, network analysis, as well as geographic data analysis. We will focus on social data for some of the examples and also explore how disparate data sources can be combined to provide insight for business decisions. Prerequisite: STAT 4610 preferred but not required.

INFO 4380 Decision Processes (4 Credits)
This course addresses the process of decision making in the enterprise: who makes what decisions based on what information and for what purpose. Business Intelligence is premised on the HP motto: “in God we trust. All others bring data.” But what is the cost of collecting and analyzing the data and presenting the results, and what decisions justify that cost? Is the transformation from data to decision always rational, and what are the common pitfalls for human decision makers? We examine the results of recent experiments from behavior economics and their relevance to making business decisions. Prerequisite: INFO 4100.

INFO 4400 Business Analytics Capstone (4 Credits)
This course gives students an opportunity to apply the knowledge and skills learned in this program to a real-world problem submitted by a partner business. Students take a business problem from model construction and data collection through an analysis and presentation of results to recommendations for specific business decisions. Prerequisite: INFO 4200.

INFO 4401 Business Analytics (2 Credits)
Businesses can never have perfect information; therefore, they must employ statistical techniques to improve the decision-making process. This course introduces students to managerial decision-making using probability and other statistical techniques to support and validate the chosen decision. A student project will focus on data collection (primary research), data analysis, decision analysis, written/oral presentation skills, and the development of an infographic.
INFO 4520 Health Informatics (4 Credits)
Annual health care spending in the United States exceeds 16% of GDP ($2 Trillion) and is expected to continue to increase. The effective use of information technology is perceived as an important tool in increasing the access to and quality of health care delivery in a cost effective manner. This course examines the role of health informatics in the health care delivery and management process. The objectives of this course are to familiarize students with the critical issues and challenges faced by those in the health care environment, what technologies are or will soon be available to potentially address these issues and challenges, potential barriers professionals employed in the health care field may face deploying and managing these technologies, and possible strategies to assist these professionals in addressing and overcoming these barriers. This course focuses on four major areas related to health informatics: the role of electronic health records, clinical decision support systems, analytics, and other e-health initiatives such as mobile technologies and telehealth.

INFO 4590 Optimization (4 Credits)
This course introduces students to the basic optimization modeling techniques and tools as practiced by business analysts, operations research analysts, data analysts, data scientists, decision scientists, decision support scientists, business intelligence analysts, quants, actuaries, financial analysts, marketing analysts, and anyone else interested in using analytics to improve the bottom line. The course will focus on problem definitions, problem configuration, spreadsheet solution, LP Software (LINGO) solutions, and interpreting and implementing results.

INFO 4700 Topics in Business Analytics (0-10 Credits)
Exploration of current trends and topics in business analytics. Prerequisite: INFO 4100.

INFO 4991 Independent Study (1-10 Credits)
INFO 4992 Directed Study (1-4 Credits)

Daniels College General
Office: Daniels College of Business, Suite 255, 2101 S. University Blvd., Denver, CO 80208
Phone: 303.871.3416
Web Site: http://daniels.du.edu/graduate/

Master of Business Administration in General Business
The Daniels College of Business Full-time MBA is a comprehensive 20-month program that immerses students in the study and practice of business. Students will gain the technical expertise and leadership skills required to navigate complex business situations with confidence and integrity.

Daniels has been continuously accredited by the Association to Advance Collegiate Schools of Business International (AACSB) since 1923.

Cohort
Cohort program—experience the MBA core classes with the same set of peers to maximize cross-learning, collaboration and networking.

Concentrations/Electives
Students will have 24 credits to concentrate on a specific business discipline. These concentrations include: Accounting, Business Analytics, Customized, Finance, Marketing, and Real Estate and the Built Environment.

Master of Business Administration in General Business in the Executive MBA Program
The Daniels Executive MBA (EMBA) at the University of Denver is a highly selective academic program designed for the mid-to-senior level professional. Strategically focused and integrated in approach, the EMBA classroom is a dynamic environment of leaders from a wide array of backgrounds and industries. Although the pace of the EMBA experience is accelerated and academically rigorous, it is offered in an efficient once-a-week format which allows for balance between career, school and personal life.

Daniels has been continuously accredited by the Association to Advance Collegiate Schools of Business International (AACSB) since 1923.

Cohort
A cohort MBA program with an integrated, lockstep curriculum of 24 courses (60 credit hours).

Class Schedule
Alternating Fridays and Saturdays once a week, from 8 a.m. to 5 p.m. 18 calendar months.

Master of Business Administration in General Business in the Professional MBA Program
The Daniels Professional MBA (PMBA) is an ideal fit for early- to mid-career professionals. It holds the same quality and rigor as our Full-time MBA with a curriculum focus suited for those with five to nine years of professional work experience. Students in the cohort-based PMBA program are fully employed and enjoy a network of like-experienced peers. Gaining exposure to one another’s industries and challenges is a key benefit of this MBA option, as is the global business travel seminar.

Daniels has been continuously accredited by the Association to Advance Collegiate Schools of Business International (AACSB) since 1923.
Cohort
A 24-month, cohort program with a sequential curriculum of 62 lockstep credit hours followed by 8 elective credits.

Evening or Saturday PMBA Class Schedule
We offer two options for completing your PMBA: Two classes per evening, on Mondays and Wednesdays from 6 p.m. to 10 p.m., starting either Fall or Spring. Saturdays from 8 a.m. to 5 p.m. (Fall enrollment only.)

Master of Business Administration in General Business in the One-Year MBA Program
The One-year MBA is an intense, 11-month program for students seeking to immediately build upon their undergraduate business degree to acquire the MBA-level knowledge sought after in today’s competitive marketplace.

The Daniels College of Business is one of the few business colleges that offers a One-year MBA to recent college graduates.

Daniels has been continuously accredited by the Association to Advance Collegiate Schools of Business International (AACSB) since 1923.

Cohort
A 56-hour, 11-month, full-time program with 8 credit hours of intensive business review, 12 credit hours of advanced core classes, 12 credit hours of Daniels Compass courses and 24 credit hours of electives in a selected concentration. Experience the MBA core classes with the same set of peers to maximize cross-learning, collaboration and networking.

Concentrations/Electives
Students will have 24 credits to concentrate on a specific business discipline. These concentrations include: Accounting, Business Analytics, Customized, Finance, Marketing, Real Estate and the Built Environment.

Program Start date: August

MASTER OF BUSINESS ADMINISTRATION IN GENERAL BUSINESS

Admission Requirements
- Application fee $100 non-refundable.
- A minimum two years of work experience is required and three years is recommended. In reviewing your work experience, we consider your achievements, managerial or leadership potential, contributions to the community, personal ethics and values and motivation for a graduate business degree.
- Official Transcripts: Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
- GMAT or GRE Scores required. Applicants who wish to be considered for merit-based scholarships or graduate assistantships are encouraged to take the GMAT. To have your GMAT or GRE scores reported to Daniels, please use the following codes: GMAT code MZR-GT-43 and the GRE code is 4842.
- Submit a resume that focuses on your unique strengths and accomplishments.
- Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
- Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.
- Admissions Interview: Applicants are contacted by a Daniels representative to schedule the admissions interview, which will be conducted in person, by phone, or via web cam.
- Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Language Proficiency
- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency and are considered official only when received directly from the testing agency.
- A minimum of an 88 TOEFL (no less than a 20 on any section) or a minimum of a 6.5 IELTS (no less than 6.0 on any section) is required to apply.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution’s language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.
MASTER OF BUSINESS ADMINISTRATION IN GENERAL BUSINESS IN THE EXECUTIVE MBA PROGRAM

Admission Requirements
- Application fee $100 non-refundable
- Ten or more years of professional work and management experience are required. Management is defined as people, project, financial or sales territory management experience, or a combination.
- GMAT or GRE Scores not required for candidates who have the required work and management experience.
- Official Transcripts: Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
- Submit a resume that focuses on your unique strengths and accomplishments.
- Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
- Admissions Interview: Applicants are contacted by a Daniels representative to schedule the admissions interview, which will be conducted in person, by phone, or via webcam
- Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Language Proficiency
- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency.
- A minimum of an 88 TOEFL (no less than a 20 on any section) or a minimum of a 6.5 IELTS (no less than 6.0 on any section) is required to apply.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution's language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.
- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC).

MASTER OF BUSINESS ADMINISTRATION IN GENERAL BUSINESS IN THE PROFESSIONAL MBA PROGRAM

Admission Requirements
- Application fee $100 non-refundable
- GMAT or GRE Scores required. All applicants who wish to be considered for merit-based scholarships must submit a GMAT score. To have your GMAT or GRE scores reported to Daniels, please use the following codes: GMAT code MZR-GT-43 and the GRE code is 4842.
  - The PMBAs selection committee will consider GMAT waiver requests from candidates who meet one of the following standards (on a case-by-case basis):
    - Identified as a high-potential employee by your company and have some combination of the above factors.
    - A business or quantitative undergraduate background.
    - Significant work experience.
- Official Transcripts: An undergraduate degree from a regionally accredited college or University is required. Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
- Submit a resume that focuses on your unique strengths and accomplishments.
- Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
- Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.
• Admissions Interview: Applicants are contacted by a Daniels representative to schedule the admissions interview, which will be conducted in person, by phone, or via web cam.

• PMBA applicants are commonly identified as early career, high potential employees. In reviewing your work experience we consider your achievements, managerial or leadership potential, contributions to community, personal ethics and values and motivation for a graduate business degree. The average PMBA student has about six years of professional work experience, although the range is generally three to nine years.

• Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Language Proficiency

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency.

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MASTER OF BUSINESS ADMINISTRATION IN GENERAL BUSINESS IN THE ONE-YEAR MBA PROGRAM

Admission Requirements

• Application fee $100 non-refundable

• GMAT or GRE Scores required. Applicants who wish to be considered for merit-based scholarships or graduate assistantships are encouraged to take the GMAT. To have your GMAT or GRE scores reported to Daniels, please use the following codes: GMAT code MZR-GT-43 and the GRE code is 4842.

• An undergraduate business degree from any AACSB-accredited university is a prerequisite. Enrollment in the One-Year MBA must begin within one year of undergraduate graduation.

• Official Transcripts: Submit one official transcript from each higher educational institution you attended in officially sealed envelopes.

• Submit a resume that focuses on your unique strengths and accomplishments.

• Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.

• Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.

• Admissions Interview: Applicants are contacted by a Daniels representative to schedule the admissions interview, which will be conducted in person, by phone, or via web cam.

• Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Language Proficiency

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency.

• A minimum of an 88 TOEFL (no less than a 20 on any section) or a minimum of a 6.5 IELTS (no less than 6.0 on any section) is required to apply.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution's language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.
Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC).

### Master of Business Administration in General Business

#### Degree Requirements

**Core coursework requirements**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>MBA 4110</td>
<td>Enterprise Challenge</td>
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<tr>
<td>MBA 4120</td>
<td>Strategic Transitioning from Uncertainty to Risk</td>
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<td>MBA 4130</td>
<td>Corporate Financial Reporting</td>
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<td>MBA 4140</td>
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<td>MBA 4620</td>
<td>Leadership Capstone: Integration and Transition</td>
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</tbody>
</table>

**Elective requirements**

Students will complete 24 credits in 4000-level general business courses.

**Total Credits**

80

Minimum number of credits required: 80

### Master of Business Administration in General Business with a Concentration in Accounting

#### Degree Requirements

**Core coursework requirements**

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**Elective requirements**

24 credits in electives/concentration courses required.

**Concentration requirements**

A minimum of 16 of the 24 elective credits must be completed in 4000 level ACTG courses to complete a concentration. Must work directly with the ACTG Department on course selection.

**Total Credits**

80

**Minimum number of credits required: 80**

**Master of Business Administration in General Business with a Concentration in Business Analytics**

**Degree Requirements**

**Core coursework requirements**

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</table>
Elective requirements
24 credits in electives/concentration courses required.

Concentration requirements
A minimum of 16 of the 24 elective credits must be completed in 4000 level INFO courses to complete a concentration, including:

- INFO 4100 Survey of Business Analytics
- INFO 4140 Business Databases
- INFO 4300 Predictive Analytics
- INFO 4340 Data Mining and Visualization

Other 4000-level INFO courses could be substituted for INFO 4300 and INFO 4340 with faculty approval.

Minimum number of credits required: 80

Master of Business Administration in General Business with a Concentration in Business - Customized

Degree Requirements

Core coursework requirements

- MBA 4110 Enterprise Challenge 2
- MBA 4120 Strategic Transitioning from Uncertainty to Risk 2
- MBA 4130 Corporate Financial Reporting 2
- MBA 4140 Ethics in Practice 2
- MBA 4150 Understanding Your Market 2
- MBA 4160 Opportunities with Data Skills I 2
- MBA 4170 Navigating the Global Economy 2
- MBA 4210 Foundations I 2
- MBA 4220 High Performance Management I 2
- MBA 4230 Managing Cost Information 2
- MBA 4235 Profit Planning and Measuring Performance 2
- MBA 4280 Mastering Managerial Financial Competencies I 2
- MBA 4285 Mastering Managerial Financial Competencies II 2
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- MBA 4550 Strategic Marketing Decision-Making 2
- MBA 4670 Global Issues 2
- MBA 4980 MBA Internship 4
- MBA 4620 Leadership Capstone: Integration and Transition 2

Elective requirements
24 credits in electives/concentration courses required.
Concentration requirements
A minimum of 16 of the 24 elective credits must be completed in 4000 level Graduate courses approved by Advisor for specified customized concentration.

| Total Credits | 80 |

Minimum number of credits required: 80

Master of Business Administration in General Business with a Concentration in Finance

Degree Requirements

Core coursework requirements

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Elective requirements
24 credits in electives/concentration courses required.

Concentration requirements
A minimum of 16 of the 24 elective credits from either Corporate Finance or Investments:

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<th>Course Code</th>
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<tbody>
<tr>
<td>FIN 4410</td>
<td>Financial Planning &amp; Analysis</td>
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<td>FIN 4870</td>
<td>Strategic Finance</td>
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In addition, choose two courses from the following:

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<td>FIN 4140</td>
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<tr>
<td>FIN 4150</td>
<td>Advanced Business Valuation</td>
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<tr>
<td>FIN 4420</td>
<td>Capital Expenditure Analysis</td>
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<td>FIN 4885</td>
<td>Investment Banking and External Financing</td>
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Investment Courses

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<tbody>
<tr>
<td>FIN 4200</td>
<td>Financial Investments and Markets</td>
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FIN 4320  Security Analysis and Valuation

In addition, choose two courses from the following:

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<tr>
<td>FIN 4120</td>
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<td>FIN 4130</td>
<td>Financial Risk Management Strategies</td>
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<td>FIN 4710</td>
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<td>FIN 4860</td>
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<td>FIN 4890</td>
<td>Fixed Income Analysis</td>
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Total Credits: 80

Minimum number of credits required: 80

Master of Business Administration in General Business with a Concentration in Marketing

Degree Requirements

Core coursework requirements

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Elective requirements

24 credits in electives/concentration courses required

Concentration requirements

A minimum of 16 of the 24 elective credits must be completed from the Digital Marketing or Brand Management tracks below:

Digital Marketing Courses

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<tr>
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<td>MKTG 4825</td>
<td>Mobile Marketing</td>
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<td>MKTG 4835</td>
<td>Search Engine Marketing</td>
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<tr>
<td>MKTG 4845</td>
<td>Tech in Marketing: Design Tools and Digital Foundations</td>
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<td>MKTG 4220</td>
<td>Customer Experience Management</td>
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<td>Marketing Research &amp; Analytics</td>
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<td>Brand Management</td>
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Total Credits: 80

Minimum number of credits required: 80

Master of Business Administration in General Business with a Concentration in Real Estate and the Built Environment

Degree Requirements

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</tr>
<tr>
<td>MBA 4360</td>
<td>Opportunities w/ Data Skill II</td>
</tr>
<tr>
<td>MBA 4410</td>
<td>Global Challenge I</td>
</tr>
<tr>
<td>MBA 4415</td>
<td>Global Challenge Trip</td>
</tr>
<tr>
<td>MBA 4470</td>
<td>International Business Theory in Practice</td>
</tr>
<tr>
<td>MBA 4490</td>
<td>Global Macroeconomics</td>
</tr>
<tr>
<td>MBA 4510</td>
<td>Global Challenge II</td>
</tr>
<tr>
<td>MBA 4540</td>
<td>Business, Government and Society</td>
</tr>
<tr>
<td>MBA 4550</td>
<td>Strategic Marketing Decision-Making</td>
</tr>
<tr>
<td>MBA 4670</td>
<td>Global Issues</td>
</tr>
<tr>
<td>MBA 4980</td>
<td>MBA Internship</td>
</tr>
<tr>
<td>MBA 4620</td>
<td>Leadership Capstone: Integration and Transition</td>
</tr>
</tbody>
</table>

Elective requirements

24 credits in electives/concentration courses required.

Concentration requirements

A minimum of 16 of the 24 elective credits must be completed in 4000 level REBE courses to complete a concentration, including:

Real Estate Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>REAL 4407</td>
<td>Income Property Finance</td>
</tr>
<tr>
<td>REAL 4007</td>
<td>Real Estate Financial Analysis</td>
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</table>
Select two courses from the following:

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>REAL 4477</td>
<td>Income Property Investment</td>
</tr>
<tr>
<td>REAL 4417</td>
<td>Income Property Valuation and Appraisal</td>
</tr>
<tr>
<td>REAL 4467</td>
<td>Property Development and Feasibility</td>
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</table>

Property Development Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>REAL 4407</td>
<td>Income Property Finance</td>
</tr>
<tr>
<td>REAL 4467</td>
<td>Property Development and Feasibility</td>
</tr>
<tr>
<td>REAL 4210</td>
<td>Planning, Entitlements, and Public Finance</td>
</tr>
<tr>
<td>CMGT 4480</td>
<td>Const Project Management</td>
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Integrated Project Delivery Courses

<table>
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<tr>
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<tr>
<td>CMGT 4110</td>
<td>Preconstruction Integration and Planning</td>
</tr>
<tr>
<td>CMGT 4200</td>
<td>Lean Construction Project Management</td>
</tr>
<tr>
<td>CMGT 4230</td>
<td>Design Management and Schedule Control</td>
</tr>
<tr>
<td>CMGT 4310</td>
<td>Cost Modeling and Trend Management</td>
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</table>

Total Credits 80

Minimum number of credits required: 80

Master of Business Administration in General Business in the Executive MBA Program

Degree Requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>XMBA 4102</td>
<td>Business &amp; Economic Context</td>
<td>2.5</td>
</tr>
<tr>
<td>XMBA 4340</td>
<td>Executive Leadership I</td>
<td>2.5</td>
</tr>
<tr>
<td>XMBA 4330</td>
<td>Financial Accounting</td>
<td>2.5</td>
</tr>
<tr>
<td>XMBA 4350</td>
<td>Executive Leadership II</td>
<td>2.5</td>
</tr>
<tr>
<td>XMBA 4341</td>
<td>Power and Influence</td>
<td>2.5</td>
</tr>
<tr>
<td>XMBA 4332</td>
<td>Accounting/Financial Reporting</td>
<td>2.5</td>
</tr>
<tr>
<td>XMBA 4331</td>
<td>Foundations of Financial Analysis</td>
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</tr>
<tr>
<td>XMBA 4360</td>
<td>Strategic Marketing</td>
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<tr>
<td>XMBA 4333</td>
<td>Statistical Decision Analysis</td>
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<td>XMBA 4351</td>
<td>Innovation</td>
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<td>XMBA 4336</td>
<td>Financial Decision Making</td>
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<td>XMBA 4231</td>
<td>Achieving Strategic Advtg II</td>
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<td>XMBA 4337</td>
<td>Strategic Finance</td>
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<td>XMBA 4720</td>
<td>Executive Business Law</td>
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<td>XMBA 4334</td>
<td>Strategic Management of Costs</td>
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<td>XMBA 4342</td>
<td>Human Capital Management</td>
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</tr>
<tr>
<td>XMBA 4353</td>
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<tr>
<td>XMBA 4362</td>
<td>Strategic Management</td>
<td>2.5</td>
</tr>
<tr>
<td>XMBA 4354</td>
<td>Global Business II</td>
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<td>XMBA 4365</td>
<td>Entrepreneurship</td>
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<td>XMBA 4361</td>
<td>Customer Relationship Management</td>
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<td>XMBA 4355</td>
<td>Sustainability</td>
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<tr>
<td>XMBA 4343</td>
<td>The Discipline of Execution</td>
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<tr>
<td>XMBA 4364</td>
<td>Business Data &amp; Analytics</td>
<td>2.5</td>
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</table>

Total Credits 60

Minimum number of credits required: 60
Master of Business Administration in General Business in the Professional MBA Program

**Degree Requirements**

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 4610</td>
<td>The Essence of Enterprise</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4620</td>
<td>Ethics for the 21st Century Professional</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4740</td>
<td>Managerial Microeconomics</td>
<td>2</td>
</tr>
<tr>
<td>FIN 4750</td>
<td>Managerial Macroeconomics</td>
<td>2</td>
</tr>
<tr>
<td>ACTG 4610</td>
<td>Financial Accounting and Reporting</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4630</td>
<td>Managerial Finance</td>
<td>4</td>
</tr>
<tr>
<td>MBA 4610</td>
<td>Law and Public Policy</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 4100</td>
<td>Marketing Concepts</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4240</td>
<td>Global Business Imperative</td>
<td>4</td>
</tr>
<tr>
<td>STAT 4610</td>
<td>Business Statistics</td>
<td>4</td>
</tr>
<tr>
<td>ACTG 4660</td>
<td>Strategic Cost Management</td>
<td>4</td>
</tr>
<tr>
<td>EVM 4355</td>
<td>Entrepreneurial Mindset</td>
<td>4</td>
</tr>
<tr>
<td>INFO 4250</td>
<td>Data Driven Decision Making</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4625</td>
<td>Managing Human Capital</td>
<td>6</td>
</tr>
<tr>
<td>MGMT 4545</td>
<td>Leadership, Team, and Career Development</td>
<td>2</td>
</tr>
<tr>
<td>MGMT 4690</td>
<td>Strategic Management</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4600</td>
<td>Professional MBA Capstone Project</td>
<td>4</td>
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</tbody>
</table>

**Elective requirements**

8 credits in 4000 level courses

Total Credits 70

Minimum number of credits required: 70

Master of Business Administration in General Business in the Professional MBA Program with a Concentration in Accounting

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 4610</td>
<td>The Essence of Enterprise</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4620</td>
<td>Ethics for the 21st Century Professional</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4740</td>
<td>Managerial Microeconomics</td>
<td>2</td>
</tr>
<tr>
<td>FIN 4750</td>
<td>Managerial Macroeconomics</td>
<td>2</td>
</tr>
<tr>
<td>ACTG 4610</td>
<td>Financial Accounting and Reporting</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4630</td>
<td>Managerial Finance</td>
<td>4</td>
</tr>
<tr>
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<td>Law and Public Policy</td>
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</tr>
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<td>MGMT 4240</td>
<td>Global Business Imperative</td>
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<tr>
<td>STAT 4610</td>
<td>Business Statistics</td>
<td>4</td>
</tr>
<tr>
<td>ACTG 4660</td>
<td>Strategic Cost Management</td>
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<td>EVM 4355</td>
<td>Entrepreneurial Mindset</td>
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<tr>
<td>INFO 4250</td>
<td>Data Driven Decision Making</td>
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</tr>
<tr>
<td>MGMT 4625</td>
<td>Managing Human Capital</td>
<td>6</td>
</tr>
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</tr>
<tr>
<td>MGMT 4690</td>
<td>Strategic Management</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4600</td>
<td>Professional MBA Capstone Project</td>
<td>4</td>
</tr>
</tbody>
</table>

**Concentration requirements**

A minimum of 16 credits must be completed in 4000-level ACTG courses to complete a concentration. Must work directly with the ACTG Department on course selection.

Total Credits 78
### Master of Business Administration in General Business in the Professional MBA Program with a Concentration in Business Analytics

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 4610</td>
<td>The Essence of Enterprise</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4620</td>
<td>Ethics for the 21st Century Professional</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4740</td>
<td>Managerial Microeconomics</td>
<td>2</td>
</tr>
<tr>
<td>FIN 4750</td>
<td>Managerial Macroeconomics</td>
<td>2</td>
</tr>
<tr>
<td>ACTG 4610</td>
<td>Financial Accounting and Reporting</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4630</td>
<td>Managerial Finance</td>
<td>4</td>
</tr>
<tr>
<td>MBA 4610</td>
<td>Law and Public Policy</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 4100</td>
<td>Marketing Concepts</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4240</td>
<td>Global Business Imperative</td>
<td>4</td>
</tr>
<tr>
<td>STAT 4610</td>
<td>Business Statistics</td>
<td>4</td>
</tr>
<tr>
<td>ACTG 4660</td>
<td>Strategic Cost Management</td>
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</tr>
<tr>
<td>EVM 4355</td>
<td>Entrepreneurial Mindset</td>
<td>4</td>
</tr>
<tr>
<td>INFO 4250</td>
<td>Data Driven Decision Making</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4625</td>
<td>Managing Human Capital</td>
<td>6</td>
</tr>
<tr>
<td>MGMT 4545</td>
<td>Leadership, Team, and Career Development</td>
<td>2</td>
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<tr>
<td>MGMT 4690</td>
<td>Strategic Management</td>
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</tr>
<tr>
<td>BUS 4600</td>
<td>Professional MBA Capstone Project</td>
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**Concentration requirements**

A minimum of 16 credits must be completed in 4000-level INFO courses to complete a concentration, including:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>INFO 4100</td>
<td>Survey of Business Analytics</td>
</tr>
<tr>
<td>INFO 4140</td>
<td>Business Databases</td>
</tr>
<tr>
<td>INFO 4300</td>
<td>Predictive Analytics</td>
</tr>
<tr>
<td>INFO 4340</td>
<td>Data Mining and Visualization</td>
</tr>
</tbody>
</table>

Other 4000-level INFO courses could be substituted for INFO 4300 and INFO 4340 with faculty approval.

**Total Credits**: 78

---

### Master of Business Administration in General Business in the Professional MBA Program with a Concentration in Business - Customized

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BUS 4610</td>
<td>The Essence of Enterprise</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4620</td>
<td>Ethics for the 21st Century Professional</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4740</td>
<td>Managerial Microeconomics</td>
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<td>FIN 4750</td>
<td>Managerial Macroeconomics</td>
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<tr>
<td>ACTG 4610</td>
<td>Financial Accounting and Reporting</td>
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<tr>
<td>FIN 4630</td>
<td>Managerial Finance</td>
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<tr>
<td>MBA 4610</td>
<td>Law and Public Policy</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 4100</td>
<td>Marketing Concepts</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4240</td>
<td>Global Business Imperative</td>
<td>4</td>
</tr>
<tr>
<td>STAT 4610</td>
<td>Business Statistics</td>
<td>4</td>
</tr>
<tr>
<td>ACTG 4660</td>
<td>Strategic Cost Management</td>
<td>4</td>
</tr>
<tr>
<td>EVM 4355</td>
<td>Entrepreneurial Mindset</td>
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<tr>
<td>INFO 4250</td>
<td>Data Driven Decision Making</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4625</td>
<td>Managing Human Capital</td>
<td>6</td>
</tr>
<tr>
<td>MGMT 4545</td>
<td>Leadership, Team, and Career Development</td>
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<tr>
<td>MGMT 4690</td>
<td>Strategic Management</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4600</td>
<td>Professional MBA Capstone Project</td>
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</tbody>
</table>

**Concentration requirements**
A minimum of 16 credits must be completed in 4000-level graduate courses approved by Advisor for specified customized concentration.

Total Credits 78

Master of Business Administration in General Business in the Professional MBA Program with a Concentration in Finance

Core coursework requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 4610</td>
<td>The Essence of Enterprise</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4620</td>
<td>Ethics for the 21st Century Professional</td>
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</tr>
<tr>
<td>FIN 4740</td>
<td>Managerial Microeconomics</td>
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<tr>
<td>FIN 4750</td>
<td>Managerial Macroeconomics</td>
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</tr>
<tr>
<td>ACTG 4610</td>
<td>Financial Accounting and Reporting</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4630</td>
<td>Managerial Finance</td>
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<tr>
<td>MBA 4610</td>
<td>Law and Public Policy</td>
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<tr>
<td>MKTG 4100</td>
<td>Marketing Concepts</td>
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<td>EVM 4355</td>
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<td>Data Driven Decision Making</td>
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<tr>
<td>MGMT 4545</td>
<td>Leadership, Team, and Career Development</td>
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<tr>
<td>MGMT 4690</td>
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<tr>
<td>BUS 4600</td>
<td>Professional MBA Capstone Project</td>
<td>4</td>
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</tbody>
</table>

Concentration requirements

A minimum of 16 credits from either Corporate Finance or Investments:

Corporate Finance Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FIN 4410</td>
<td>Financial Planning &amp; Analysis</td>
<td></td>
</tr>
<tr>
<td>FIN 4870</td>
<td>Strategic Finance</td>
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</tr>
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In addition, choose two courses from the following:

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FIN 4140</td>
<td>Enterprise Risk Management</td>
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</tr>
<tr>
<td>FIN 4150</td>
<td>Advanced Business Valuation</td>
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</tr>
<tr>
<td>FIN 4420</td>
<td>Capital Expenditure Analysis</td>
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</tr>
<tr>
<td>FIN 4885</td>
<td>Investment Banking and External Financing</td>
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</table>

Investment Courses

<table>
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<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FIN 4200</td>
<td>Financial Investments and Markets</td>
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</tr>
<tr>
<td>FIN 4320</td>
<td>Security Analysis and Valuation</td>
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</tr>
</tbody>
</table>

In addition, choose two courses from the following:

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FIN 4120</td>
<td>Quantitative Methods in Stock Selection</td>
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<tr>
<td>FIN 4130</td>
<td>Financial Risk Management Strategies</td>
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</tr>
<tr>
<td>FIN 4330</td>
<td>Portfolio Management and Risk Analytics</td>
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</tr>
<tr>
<td>FIN 4710</td>
<td>Marsico Investment Fund I</td>
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<tr>
<td>FIN 4720</td>
<td>Marsico Investment Fund II</td>
<td></td>
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<tr>
<td>FIN 4860</td>
<td>Derivatives</td>
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<tr>
<td>FIN 4890</td>
<td>Fixed Income Analysis</td>
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</tbody>
</table>

Total Credits 78

Master of Business Administration in General Business in the Professional MBA Program with a Concentration in Marketing

Core coursework requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 4610</td>
<td>The Essence of Enterprise</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4620</td>
<td>Ethics for the 21st Century Professional</td>
<td>4</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>FIN 4740</td>
<td>Managerial Microeconomics</td>
<td>2</td>
</tr>
<tr>
<td>FIN 4750</td>
<td>Managerial Macroeconomics</td>
<td>2</td>
</tr>
<tr>
<td>ACTG 4610</td>
<td>Financial Accounting and Reporting</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4630</td>
<td>Managerial Finance</td>
<td>4</td>
</tr>
<tr>
<td>MBA 4610</td>
<td>Law and Public Policy</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 4100</td>
<td>Marketing Concepts</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4240</td>
<td>Global Business Imperative</td>
<td>4</td>
</tr>
<tr>
<td>STAT 4610</td>
<td>Business Statistics</td>
<td>4</td>
</tr>
<tr>
<td>ACTG 4660</td>
<td>Strategic Cost Management</td>
<td>4</td>
</tr>
<tr>
<td>EVM 4355</td>
<td>Entrepreneurial Mindset</td>
<td>4</td>
</tr>
<tr>
<td>INFO 4250</td>
<td>Data Driven Decision Making</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4625</td>
<td>Managing Human Capital</td>
<td>6</td>
</tr>
<tr>
<td>MGMT 4545</td>
<td>Leadership, Team, and Career Development</td>
<td>2</td>
</tr>
<tr>
<td>MGMT 4690</td>
<td>Strategic Management</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4600</td>
<td>Professional MBA Capstone Project</td>
<td>4</td>
</tr>
</tbody>
</table>

**Concentration requirements**

A minimum of 16 credits must be completed from the Digital Marketing or Brand Management tracks below:

### Digital Marketing Courses
- MKTG 4815: Social Media Marketing  
- MKTG 4825: Mobile Marketing  
- MKTG 4835: Search Engine Marketing  
- MKTG 4845: Tech in Marketing: Design Tools and Digital Foundations

### Brand Management Courses
- MKTG 4220: Customer Experience Management  
- MKTG 4530: Marketing Research & Analytics  
- MKTG 4820: Brand Management

In addition, choose one course from the following:
- MKTG 4815: Social Media Marketing  
- MKTG 4825: Mobile Marketing  
- MKTG 4835: Search Engine Marketing  
- MKTG 4845: Tech in Marketing: Design Tools and Digital Foundations

**Total Credits**: 78

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**Master of Business Administration in General Business in the Professional MBA Program with a Concentration in Real Estate and the Built Environment**

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 4610</td>
<td>The Essence of Enterprise</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4620</td>
<td>Ethics for the 21st Century Professional</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4740</td>
<td>Managerial Microeconomics</td>
<td>2</td>
</tr>
<tr>
<td>FIN 4750</td>
<td>Managerial Macroeconomics</td>
<td>2</td>
</tr>
<tr>
<td>ACTG 4610</td>
<td>Financial Accounting and Reporting</td>
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<td>FIN 4630</td>
<td>Managerial Finance</td>
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</tr>
<tr>
<td>MGMT 4690</td>
<td>Strategic Management</td>
<td>4</td>
</tr>
</tbody>
</table>
Concentration requirements
A minimum of 16 credits must be completed in 4000 level REBE courses to complete a concentration, including:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REAL 4407</td>
<td>Income Property Finance</td>
<td></td>
</tr>
<tr>
<td>REAL 4007</td>
<td>Real Estate Financial Analysis</td>
<td></td>
</tr>
<tr>
<td>REAL 4477</td>
<td>Income Property Investment</td>
<td></td>
</tr>
<tr>
<td>REAL 4417</td>
<td>Income Property Valuation and Appraisal</td>
<td></td>
</tr>
<tr>
<td>REAL 4467</td>
<td>Property Development and Feasibility</td>
<td></td>
</tr>
</tbody>
</table>

Property Development Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REAL 4407</td>
<td>Income Property Finance</td>
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<td>REAL 4467</td>
<td>Property Development and Feasibility</td>
<td></td>
</tr>
<tr>
<td>REAL 4210</td>
<td>Planning, Entitlements, and Public Finance</td>
<td></td>
</tr>
<tr>
<td>CMGT 4480</td>
<td>Const Project Management</td>
<td></td>
</tr>
</tbody>
</table>

Integrated Project Delivery Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMGT 4110</td>
<td>Preconstruction Integration and Planning</td>
<td></td>
</tr>
<tr>
<td>CMGT 4200</td>
<td>Lean Construction Project Management</td>
<td></td>
</tr>
<tr>
<td>CMGT 4230</td>
<td>Design Management and Schedule Control</td>
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</tr>
<tr>
<td>CMGT 4310</td>
<td>Cost Modeling and Trend Management</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 78

Master of Business Administration in General Business in the One-Year MBA Program

Degree Requirements

Core Coursework Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA 4050</td>
<td>Bus Innovation Challenge I</td>
<td></td>
</tr>
<tr>
<td>MBA 4060</td>
<td>Bus Innovation Challenge II</td>
<td></td>
</tr>
<tr>
<td>BUS 4610</td>
<td>The Essence of Enterprise</td>
<td></td>
</tr>
<tr>
<td>BUS 4620</td>
<td>Ethics for the 21st Century Professional</td>
<td></td>
</tr>
<tr>
<td>BUS 4630</td>
<td>Creating Sustainable Enterprises</td>
<td></td>
</tr>
<tr>
<td>MBA 4205</td>
<td>Strategic Career Management</td>
<td></td>
</tr>
<tr>
<td>MBA 4690</td>
<td>Enterprise Solutions</td>
<td></td>
</tr>
<tr>
<td>MGMT 4280</td>
<td>Business Design</td>
<td></td>
</tr>
</tbody>
</table>

Elective requirements
24 credits in electives/concentration courses required.

Concentration requirements
A minimum of 16 of the 24 elective credits must be completed in 4000 level concentration courses to fulfill a concentration. The additional 8 credits may be 4000-level business electives or additional concentration courses.

Total Credits: 56

Minimum number of credits required: 56

Master of Business Administration in General Business in the One-Year MBA Program with a Concentration in Accounting

Degree Requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA 4050</td>
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<td></td>
</tr>
<tr>
<td>BUS 4630</td>
<td>Creating Sustainable Enterprises</td>
<td></td>
</tr>
<tr>
<td>MBA 4205</td>
<td>Strategic Career Management</td>
<td></td>
</tr>
</tbody>
</table>
### Master of Business Administration in General Business in the One-Year MBA Program with a Concentration in Business Analytics

#### Degree Requirements

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA 4050</td>
<td>Bus Innovation Challenge I</td>
<td>4</td>
</tr>
<tr>
<td>MBA 4060</td>
<td>Bus Innovation Challenge II</td>
<td>4</td>
</tr>
<tr>
<td>BUS 4610</td>
<td>The Essence of Enterprise</td>
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<td>Ethics for the 21st Century Professional</td>
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<td>BUS 4630</td>
<td>Creating Sustainable Enterprises</td>
<td>4</td>
</tr>
<tr>
<td>MBA 4205</td>
<td>Strategic Career Management</td>
<td>4</td>
</tr>
<tr>
<td>MBA 4690</td>
<td>Enterprise Solutions</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4280</td>
<td>Business Design</td>
<td>4</td>
</tr>
</tbody>
</table>

**Elective requirements**

24 credits in electives/concentration courses required.

**Concentration requirements**

A minimum of 16 of the 24 credits must be completed in 4000 level ACTG courses to complete a concentration.

Total Credits: 56

Minimum number of credits required: 56

### Master of Business Administration in General Business in the One-Year MBA Program with a Concentration in Business - Customized

#### Degree Requirements

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA 4050</td>
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<td>MBA 4060</td>
<td>Bus Innovation Challenge II</td>
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<td>BUS 4610</td>
<td>The Essence of Enterprise</td>
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</tr>
<tr>
<td>BUS 4620</td>
<td>Ethics for the 21st Century Professional</td>
<td>4</td>
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<tr>
<td>BUS 4630</td>
<td>Creating Sustainable Enterprises</td>
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</tr>
<tr>
<td>MBA 4205</td>
<td>Strategic Career Management</td>
<td>4</td>
</tr>
<tr>
<td>MBA 4690</td>
<td>Enterprise Solutions</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4280</td>
<td>Business Design</td>
<td>4</td>
</tr>
</tbody>
</table>

**Elective requirements**

24 credits in electives/concentration courses required.

**Concentration requirements**

Requires a minimum of 16 of the 24 credits in advisor-approved concentration courses.
Minimum number of credits required: 56

Master of Business Administration in General Business in the One-Year MBA Program with a Concentration in Finance

Degree Requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MBA 4050</td>
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<td>Bus Innovation Challenge II</td>
<td>4</td>
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<td>BUS 4610</td>
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<td>BUS 4620</td>
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<tr>
<td>MBA 4690</td>
<td>Enterprise Solutions</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4280</td>
<td>Business Design</td>
<td>4</td>
</tr>
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</table>

Elective requirements

24 credits in electives/concentration courses required.

Concentration requirements

A minimum of 16 of the 24 elective credits must be completed in 4000 level FIN courses to complete a concentration, including:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 4200</td>
<td>Financial Investments and Markets</td>
</tr>
<tr>
<td>FIN 4320</td>
<td>Security Analysis and Valuation</td>
</tr>
<tr>
<td>FIN 4330</td>
<td>Portfolio Management and Risk Analytics</td>
</tr>
<tr>
<td>FIN 4410</td>
<td>Financial Planning &amp; Analysis</td>
</tr>
<tr>
<td>FIN 4420</td>
<td>Capital Expenditure Analysis</td>
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<tr>
<td>FIN 4500</td>
<td>Financial Modeling</td>
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<tr>
<td>FIN 4610</td>
<td>Multinational Financial Management</td>
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<tr>
<td>FIN 4700</td>
<td>Topics in Finance</td>
</tr>
<tr>
<td>FIN 4710</td>
<td>Marsico Investment Fund I</td>
</tr>
<tr>
<td>FIN 4720</td>
<td>Marsico Investment Fund II</td>
</tr>
<tr>
<td>FIN 4730</td>
<td>Marsico Investment Fund III</td>
</tr>
<tr>
<td>FIN 4740</td>
<td>Managerial Microeconomics</td>
</tr>
<tr>
<td>FIN 4750</td>
<td>Managerial Macroeconomics</td>
</tr>
<tr>
<td>FIN 4860</td>
<td>Derivatives</td>
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<tr>
<td>FIN 4870</td>
<td>Strategic Finance</td>
</tr>
<tr>
<td>FIN 4885</td>
<td>Investment Banking and External Financing</td>
</tr>
<tr>
<td>FIN 4890</td>
<td>Fixed Income Analysis</td>
</tr>
</tbody>
</table>

Total Credits

Minimum number of credits required: 56

Master of Business Administration in General Business in the One-Year MBA Program with a Concentration in Marketing

Degree Requirements

Core coursework requirements

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</tr>
<tr>
<td>MBA 4690</td>
<td>Enterprise Solutions</td>
<td>4</td>
</tr>
</tbody>
</table>
The document outlines the elective and concentration requirements for a degree program, detailing the necessary courses and their credits. It specifies the minimum number of credits required for completion and includes a table listing various courses and their corresponding credits. Additionally, it mentions the Master of Business Administration in General Business in the One-Year MBA Program with a Concentration in Real Estate and the Built Environment. The degree requirements are divided into core coursework and elective requirements, each with their respective credits.
Real Estate Courses

REAL 4407  Income Property Finance
REAL 4007  Real Estate Financial Analysis

Select two courses from the following:

REAL 4477  Income Property Investment
REAL 4417  Income Property Valuation and Appraisal
REAL 4467  Property Development and Feasibility

Property Development Courses

REAL 4407  Income Property Finance
REAL 4467  Property Development and Feasibility
REAL 4210  Planning, Entitlements, and Public Finance
CMGT 4480  Const Project Management

Integrated Project Delivery Courses

CMGT 4110  Preconstruction Integration and Planning
CMGT 4200  Lean Construction Project Management
CMGT 4230  Design Management and Schedule Control
CMGT 4310  Cost Modeling and Trend Management

Total Credits 56

Minimum number of credits required: 56

Accounting Courses

ACTG 4155  Accounting Information Technology Systems and Business Environment (4 Credits)
The course will give students a basic understanding of how to develop a beginning-to-intermediate AIS system. Process flowcharts and entity-relationship diagrams will be used to document the system in Microsoft Visio. The course will explore the database structure used in various accounting IT systems. Students will be Microsoft Access certified by the end of the course. The course will also cover the IT topics contained in the BEC portion of the CPA exam.

ACTG 4176  Accounting Data Analytics (4 Credits)
In this course, students explore overarching trends in big data and the impact to accounting and auditing fields while also gaining hands on experience working with business data sets. In today’s information world, accountants must be well equipped to understand and utilize the vast and varying data systems that feed a company’s decision making process. This course allows students to develop big data skills by learning the SQL language to query data from mock clients. Students execute Computer Assisted Auditing Techniques (CAATs) using both the SQL language as well as the audit data mining tool, IDEA. Students simulate the process to request client data files, load complex data sets, design and execute query procedures and summarize results for management.

ACTG 4201  Financial Accounting for Management (2 Credits)
This course introduces the student to the fundamentals of financial accounting and reporting with an emphasis on the needs of the user, both internal and external. The goal is to enable the student to become a knowledgeable reader and user of financial statements.

ACTG 4220  Financial Actg & Analysis (4 Credits)
Cross-listed with ACTG 3230.

ACTG 4222  Understanding Financial Statements (4 Credits)
At the conclusion of this course the student should understand: (1) management decisions that impact published financial statements, (2) the fundamentals of interpretation and analysis of financial statements, (3) economic and ethical issues relating to financial reporting, and (4) management attempts to enhance reported operating results. The course addresses the needs of managers and analysts, hence does not cover promulgated financial reporting rules in depth. The financial reporting topics expand on material presented in introductory Accounting and Finance courses. The focus is on the substance of the reported information. This course is not an approved elective for the MACC degree. Cross listed with ACTG 3220.

ACTG 4240  Topics & Cases in Financial Accounting (4 Credits)
This course develops a greater awareness of contemporary accounting issues, focusing on financial reporting. The course is designed to enhance each student’s ability to identify, discuss, and resolve open-ended problems (i.e., those having no single “correct” answer) faced by accounting professionals. Each student must commit to being an active participant in the class discussions. Through the use of numerous cases involving all aspects of financial reporting, students identify issues, conduct authoritative research, then present and defend their conclusions using both oral and written presentation formats. Students also write an original research paper on a topic of their choice.
ACTG 4281 Intermediate Financial Accounting I (4 Credits)
The focus of this course is the foundation and content of published financial statements. Specifically it covers the following broad topics: (1) Conceptual Framework of Financial Reporting; (2) Financial Statements and Related Disclosures; (3) Assets: Recognition and Measurement; and (4) Liabilities: Recognition and Measurement. Common to each of the topics is an emphasis on reading GAAP and applying GAAP guidance to fact patterns. At the conclusion of the course, students should be aware of the proper accounting treatment for many common situations; moreover, students should be fully comfortable interpreting GAAP literature to address scenarios involving assets, liabilities, and income that were not specifically covered in the class.

ACTG 4282 Intermediate Financial Accounting II (4 Credits)
This course is a continuation of Intermediate Financial Accounting. The focus of this course is the application of Generally Accepted Accounting Principles to complex business transactions. In this final course of the sequence, we finish our examination of the balance sheet by exploring the issues involved with stockholders’ equity, followed by in-depth study of some of the most complex accounting issues, including revenue recognition, accounting for income taxes, pensions and post-employment benefits, leases, and accounting changes and errors.

ACTG 4284 Consolidated Financial Statements (2 Credits)
This course introduces the student to the preparation of financial statements in compliance with GAAP when the reporting entity has investments in other entities that are other than passive investments. This module explores the financial reporting issues relating to partial or full ownership of one business entity by another. It includes use of the equity method as well as issues involved in reporting the financial results of consolidated entities, both at and subsequent to acquisition or formation.

ACTG 4285 Accounting for Foreign Operations (2 Credits)
Topics covered in this course include the financial statement impact of doing business in a foreign currency, having foreign subsidiaries or operations, and certain hedging activities.

ACTG 4340 Topics & Cases in Managerial Accounting (4 Credits)
This course focuses upon innovative forensic, management control, productivity and business valuation approaches used by forensic and managerial accountants. Such strategies and techniques are evaluated through classroom discussion of cases and related articles.

ACTG 4354 Cost Accounting (4 Credits)
Accounting information in manufacturing enterprises, standard costs, and budgets. Open to students not having ACTG 3354 or equivalent. Prerequisite: MBA 4110, MBA 4111, or equivalent.

ACTG 4400 Taxation for Business and Investment Planning (4 Credits)
Social awareness & ethics uses a fresh integrated approach to applying the basic fundamentals of marketing to complex and evolving scenarios involving social change and insight, cultural trends and topics, and tricky, often emotional, ethical situations. This course also helps students learn skills in a safe environment and leverage their experience and knowledge to investigate business situations and opportunities in a thoughtful and sophisticated manner. This course develops a student’s ability to make sound business planning decisions using real information from the external environment. This course will combine business ethics’ overarching intent to protect employees, the environment, and their customers with marketing ethics’ principles of honesty, fairness, responsibility, and respect. As part of this, students will learn about and apply Daniels Fund Initiate Principles: http://www.danielsfund.org/_Assets/files/Ethics%20Initiative%20Principles.pdf.

ACTG 4410 Federal Income Taxation (4 Credits)
The course is designed for graduate accounting students that wish to study federal income taxation. This is the first course in taxation, which introduces the federal taxation system, the importance of tax authorities, the concepts of gross income and tax deductions and the tax implications of common property transactions. The course generally focuses on property transactions, but the taxation of individuals is emphasized with an objective of students being able to properly prepare complex individual tax returns.

ACTG 4462 Corporate and Partnership Taxation (4 Credits)
The course is designed for graduate accounting, finance or other business students in their study of advanced topics in federal income taxation. This is the second course in taxation which concentrates on taxation of corporations, limited liability corporations, S corporations and partnerships.

ACTG 4520 Forensic Accounting and Auditing (4 Credits)
Students will have an opportunity to learn, study, and discuss practical aspects of accounting as it is used to detect and prosecute fraud. Students will be exposed to improprieties, common fraud schemes, illegalities, and harassments.

ACTG 4551 Auditing (4 Credits)
This course is designed to provide you with a thorough understanding of auditing and related attest services. This includes gaining requisite knowledge about AICPA (U.S. GAAS) and PCAOB auditing standards and how they are applied in conducting a financial statement audit. Application of these standards applies to planning an audit, the risk assessment process including gaining an understanding of internal control, gathering and evaluating evidence, sampling, and issuing an audit report.

ACTG 4552 Advanced Auditing (4 Credits)
This course is designed to build on the foundation of auditing knowledge developed in ACTG 4551 and apply that knowledge to specific accounts and assertions in a financial statement audit. Students also examine selected SEC enforcement actions and discuss what audit procedures may have been beneficial to prevent the misstatement. Prerequisite: ACTG 4551 or ACTG 3551.
ACTG 4557 Fair Value Auditing (4 Credits)
The purpose of this course is to expose students to the accounting, economic and valuation concepts and challenges that are relevant to auditing fair value measurements and disclosures in financial statements. The role of the FASB, PCAOB, SEC and other standards setters on fair value accounting and measurements are explored. Prerequisite: ACTG 4551 or ACTG 3551.

ACTG 4575 Accounting Information System Risk, Control and Audit (4 Credits)
The purpose of this course is to engage students in topics covering the risk, audit and control of Accounting Information Systems. It is no longer possible to “audit around” an IT system. Today’s accounting professionals must possess a strong understanding of accounting information system risks and controls. This course will cover both 1) auditing of the IT controls that support an accounting information system and 2) using auditing and data mining tools to assist in financial statement audit techniques.

ACTG 4607 Not-for-Profit & Governmental Accounting (4 Credits)
The course will focus on Not-for-Profit (NFP) and Governmental (Govt) financial accounting standards and practices employed by governmental and nonprofit organizations. Upon successful completion of the course, students will master the fundamentals of financial reporting of various kinds of governmental accounting and nonprofit organizations. Social, environmental, and ethical issues are addressed in this course. The content of Governmental and Nonprofit Accounting will be linked to sustainability, leadership and governance.

ACTG 4610 Financial Accounting and Reporting (4 Credits)
The purpose of this course is to provide students with an understanding of the financial statements issued by companies to external parties, such as shareholders and creditors. The course covers the fundamentals of accounting, from recording economic events in the accounting records to the preparation of the company’s financial statements. In addition, the course examines major transaction categories, accounting policy choices of business firms and their financial statement implications, as well as the content of publicly-traded companies’ Form 10-K annual reports.

ACTG 4620 Accounting Ethics (4 Credits)
This course focuses on the idea of community and the ethical and social relationships of accounting leaders and business organizations in their communities. The course focus is on the role of the accounting professional and the unique and special responsibilities associated with that role. This is examined by analyzing a variety of issues that students will face during their careers. The goal is to provide students with generalized understanding and skills that can be employed in dealing with other issues that emerge directly relate to the state Code of Professional Conduct applicable to CPAs, the Code provisions are discussed and analyzed.

ACTG 4660 Strategic Cost Management (4 Credits)
Strategic cost management methods and practices focus on how to help the firm succeed in contemporary business. Topics in the course include balanced scorecard, cost-volume-profit analysis, target costing, standard costing, and management control. The course will enable students to apply strategic thinking to management planning, decision-making, and management reporting.

ACTG 4700 Graduate Seminar in Accounting (1-17 Credits)

ACTG 4701 Special Topics in Accounting (1-5 Credits)

ACTG 4702 Special Topics in Accounting (1-5 Credits)

ACTG 4703 Special Topics in Accounting (1-5 Credits)

ACTG 4704 Special Topics in Accounting (1-5 Credits)

ACTG 4705 Topics in Accounting (1-4 Credits)

ACTG 4710 Managing the Family Business (4 Credits)
Family enterprises have a tremendous impact on our local, national and global economies. Today, the definition of the family enterprise extends beyond just the business entity. It includes family offices, family “banks,” family councils, trusts, and family foundations, just to name a few. Further, what happens in, and how decisions are made by, family enterprise affects not only the active family members but other key stakeholders such as inactive family members, in-laws, non-family managers and employees, professional advisors, customers, suppliers and competitors. This course gives students insight into the universe of possibilities that families, enterprises and their advisors face when engaged in systemic transition planning. This highly interdisciplinary course is appropriate for anyone who intends to work in or with family enterprises. This includes family members, accountants, attorneys, estate planners, financial or wealth managers, family office professionals, insurance consultants, business advisors, management consultants, organizational and leadership development experts, international business professionals, psychologists, social workers, and family therapists.

ACTG 4740 Valuation and Modeling (4 Credits)
The ultimate purpose of the course is to improve professional decision-making skills. Professional decisions are made using a combination of judgment and analysis. Even skilled professionals (in any field) will make incorrect decisions when working with incorrect or insufficient information. Thus, one key to improving decision-making is improving analytical insights and skills. This course emphasizes the definition, construction, uses and limitations of popular financial models and instruments. Further, the class focuses on how the instruments are used, why they are used and how decisions to use such instruments and tools/techniques to value them are made.

ACTG 4750 Valuing a Business (4 Credits)
This course explores all major aspects of business valuation. Students not only study valuation theory, they appraise an actual business and draft a valuation report in compliance with the American Institute of Certified Public Accountants Statement on Standards for Valuation Services (SSVS) and Reporting Standards of the National Association of Certified Valuation Analysts (NACVA). Prerequisite: ACTG 3068 or ACTG 4282.
ACTG 4760 CEOs and Corporate Governance (4 Credits)
This course examines the current and pressing issue of corporate governance, in its ethical, legal, and social dimensions. Students read the latest views of scholars and experts and gain the perspectives of corporate CEOs and other organization leaders. Topics explored include the history of various governance models, public policy on corporate governance, corporate board functions and responsibilities, the dynamics between CEOs and boards, ethical leadership and corporate culture, ethics and compliance programs, executive liability, nonprofit corporate governance, board and audit committee responsibilities, restructuring and governance, executive compensation problems and solutions, shareholder activism, and corporate governance reforms. Cross-listed with LGST 4760.

ACTG 4795 Graduate Research Sem-Actg (1-17 Credits)
ACTG 4880 Internship - Graduate (0-4 Credits)
Hours and times arranged by student.
ACTG 4991 Independent Study (1-10 Credits)
Hours and times arranged by student.
ACTG 4992 Directed Study (1-10 Credits)

Business Core Courses
BUS 4101 Base Camp Self and Team Training (0 Credits)
The Base Camp is the launch event for the new MS Management program. During the one-week Base Camp, students will become familiar with other members of their cohort, work on their team skills, get to know themselves better both as individuals as well as potential managers. In this week students will take a battery of tests to help them explore their strengths and limitations both individually and as members of a team. Students will work with the staff of the Daniels Career Center to establish their career goals, polish their job search portfolios, and create LinkedIn professional profiles. They will also recognize the importance of personal branding and professional projection in dealing with colleagues, other professionals, and potential employers.

BUS 4102 Base Camp Program Launch Team Challenge (0 Credits)
The Base Camp is the launch event for the new MS Management program. During the one-week Base Camp, students will work in teams to create business ideas, develop the ideas, prepare a business plan, and professionally present and pitch to a panel of judges consisting of academics and business professionals. Teams will compete with each other in the Base Camp Launch Challenge.

BUS 4310 Business Communication for Accounting Professionals (4 Credits)
This course emphasizes critical communications skills for future accounting, tax, auditing and consulting professionals. The course develops written communication skills including but not limited to technical writing, reporting the results of research and explaining complex issues. Oral communication assignments include formal presentations, development of debate skills and boardroom presence. Assignments incorporate business etiquette and teambuilding.

BUS 4330 International Business (2 Credits)
BUS 4444 Global Bus, Governance & CSR (4 Credits)
In an increasingly globalized world, civil society, states and businesses are trying to discern how to govern business conduct across the borders of nation-states. Many of the issues our society faces today—global financial crises, environmental degradation, and corruption, to name a few—are impossible to tackle within a given country. Instead, these issues require collaboration and coordination across a variety of actors spread around the globe. Within this framework, businesses are aware of increased pressure to behave responsibly and adopt a corporate social responsibility (CSR) approach to their conduct. Yet, businesses are unsure how to integrate these goals into their business strategy and engage meaningfully with stakeholders. Likewise, governments recognize the importance of having business at the table, but do not have a clear understanding of how to best engage with the private sector. The response to this conundrum is a focus on global governance, which refers broadly to the way in which global affairs are managed. After a brief overview of economic trends and trajectories around the globe, the course will focus on global governance as a mechanism for change. The class will first explore the opportunities and shortcomings of global governance efforts. The class will build on this scholarship by discussing the role business plays in global governance mechanisms. As society has become aware of, and is acutely concerned with, business conduct, the role of the manager and business strategy in these realms has also changed. Students will analyze these trends and study their implications for government, business, or civil society strategy and practice. The final portion of the course will focus on specific issue areas, including: human rights, labor standards, the natural environment, corruption, and microfinance.

BUS 4445 International Business: Strategy and Practice (4 Credits)
This course focuses on applied issues in international business. Students will learn to think strategically about international business issues, and will in turn be able to apply that thinking to best practices. The following subject areas will be covered: country selection, entry mode theory, exporting, born-global businesses, organizational structures internationally, negotiation, consumption, culture and demand. Other potential topics include global supply chain management/sourcing, country of origin effects, etc. This course focuses on applied issues in international business. Students will learn to think strategically about international business issues, and will in turn be able to apply that thinking to best practices. The following subject areas will be covered: country selection, entry mode theory, exporting, born-global businesses, organizational structures internationally, negotiation, consumption, culture and demand. Other potential topics include global supply chain management/sourcing, country of origin effects, etc.
BUS 4600 Professional MBA Capstone Project (4 Credits)
The Capstone Project enables the practical application of organizational leadership and management competencies necessary to demonstrate mastery of the core content of the Professional MBA program and provide students with a material edge in the development of their professional capabilities. The capstone Project effectively integrates Daniels’ desired learning outcomes and professional work experiences and applies them to “real-world” business challenges, problems and dilemmas, to support the development and presentation of proposed solutions for the client enterprise.

BUS 4610 The Essence of Enterprise (4 Credits)
Today’s business environment is increasing characterized by complex questions without clear black and white answers that span well beyond the historically narrow focus on the enterprise. Managers of tomorrow must be equipped with analytical and conceptual skills that allow them to see connections between social and environmental challenges and opportunities from local to global levels and how they interact and influence enterprise level value creation and innovation in a responsible manner. This course provides a perspective, i.e. worldview, that appropriately places the enterprise in the context of an interconnected world where success, organizationally and personally, is determined by how well one applies the necessary functional skills and organizational understanding to opportunities and challenges framed by globalization, both shared and disparate values, and the need for creativity, innovation, and entrepreneurial spirit. This course draws on the history of business practice and leadership to provide a foundation for personal self-discovery and professional direction.

BUS 4615 Leading at the Edge (2 Credits)
Connects values, globalization, and innovation through a mix of classroom and outdoor experiential learning formats. The course is a two credit hour complement to The Essence of Enterprise course. Using the metaphor of the 10th Mountain Division, the course builds a foundation for learning at Daniels through introductory looks at leadership, team building, and creative problem solving. Through metaphor and experience, the course bonds the cohorts to each other and enhance self confidence to succeed under difficult and changing conditions. The 10th Mountain Division was created out of a global crisis and trained at Camp Hale Colorado, located between Leadville and Vail, during the 1940s. This experience resulted in fourteen patents, including predecessors to the snow cat, snowmobile, and various other forms of outdoor equipment. Following WWII, members of the 10th were responsible for building the country’s most famous ski resorts, such as Aspen and Vail, along with the 10th Mountain Hut System. Individual members became successful businessmen, social entrepreneurs, and civil servants forming companies such as NIKE, leading organizations like the Sierra Club, and founding the Colorado Outdoor Education Center (where training for this course takes place). The group is renowned for exemplary leadership, passion, team dynamics, innovation, and ethics within a global environment.

BUS 4620 Ethics for the 21st Century Professional (4 Credits)
A fundamental purpose is to engage students in ongoing reflection and dialogue about their responsibilities as managers and leaders. Of particular emphasis are the ethical, professional and social responsibilities of managers and leaders, especially as it relates to numerous stakeholders and communities. This course focuses on the idea of ‘community’ and the social relationships of managers and business organizations in their communities. Roles and responsibilities of managers and business firms are examined by analyzing a variety of issues that managers will face during their careers. These specific issues will be examined in terms of their legal, public policy, and ethical dimensions. The goal is to provide students with generalized understanding and skills that can be employed in dealing with other issues that may emerge in their business careers. Cross-listed with ACTG 4620.

BUS 4630 Creating Sustainable Enterprises (4 Credits)
A sustainable enterprise is defined as any human endeavor with integrity in three interconnected dimensions (environmental, cultural, and economic) and whose collective actions meet the needs of the enterprise and its stakeholders today without compromising the ability of future generations to meet their needs. The fundamental purpose of this course is to help prepare students for careers in which success requires a worldview that extends beyond the enterprise level in order for managers to create sustainable cultural, social, and financial value for the organization and society in a responsible manner.

BUS 4635 Global Enterprise Challenges (2 Credits)
As students complete the integration of material from the Compass sequence, this class provides an opportunity for the students to extensively apply the material through: case analysis, presentation, critique of other presentations, and integration of MBA Compass material and first year MBA Core material as appropriate.

BUS 4640 Innovation Design & Execution (4 Credits)
In the last century, the technologies of the industrial age (telegraph, railroads, electricity, radio, telephone, television, automobiles, airplanes, computers) have dramatically altered not only the way business is conducted, but the way we live and learn. These technologies have also enabled undesirable and unintended consequences: urban sprawl, global warming, terrorism, weapons of mass destruction, stress, obesity. Where is technology taking us? In this course, students look at innovation, creativity, entrepreneurship and design, and the role each can play in creating a better business world, a business world less driven by science fiction than inspired by social fiction, a business world which begins to shift from an industrial age of ever more encompassing technology to a creative economic environment based less on stuff and more on people and their needs.
BUS 4700 Special Topics in Business (1-4 Credits)
BUS 4701 Special Topics in Business (1-6 Credits)
BUS 4702 Special Topics in Business (1-6 Credits)
BUS 4703 Special Topics in Business (1-6 Credits)
BUS 4704 Topics in Business (1-6 Credits)
BUS 4705 Topics in Business (1-6 Credits)
BUS 4802 Executing in a PM Enterprise (4 Credits)

This course is the second course in a three-part required series. Prerequisite: Must be a Lockheed employee.

BUS 4804 Kaiser Leadership Edge - People Leadership (4 Credits)
The People Leadership course is part of the Leadership Edge program designed specifically for the Kaiser Permanente Colorado organization. The program grows the internal leadership capacity necessary to reach their goal of becoming the best solution in health care. By exploring topics and cases from multiple perspectives and across business areas, participants develop a deeper understanding of the challenges and opportunities that Kaiser faces. Signature needed to register. Must be a Kaiser employee to register.

BUS 4805 Kaiser Leadership Edge - Financial Acumen (4 Credits)
The Financial Acumen course is part of the Leadership Edge program designed specifically for the Kaiser Permanente Colorado organization. The program grows the internal leadership capacity necessary to reach their goal of becoming the best solution in health care. By exploring topics and cases from multiple perspectives and across business areas, participants develop a deeper understanding of the challenges and opportunities that Kaiser faces. Signature required to register. Must be a Kaiser employee to register.

BUS 4806 Kaiser Permanente Strategy, Innovation, and Execution (4 Credits)
The Strategy, Innovation and Execution course is part of the Leadership Edge program designed specifically for the Kaiser Permanente Colorado organization. The program grows the internal leadership capacity necessary to reach their goal of becoming the best solution in health care. By exploring topics and cases from multiple perspectives and across business areas, participants develop a deeper understanding of the challenges and opportunities that Kaiser faces. Signature required to register. Must be a Kaiser employee to register.

BUS 4980 Internship (0-10 Credits)
Faculty supervised Internship.

BUS 4991 Independent Study (1-10 Credits)

BUS 4995 Independent Thesis (6 Credits)

BUS 9000 Study Abroad Tongji University (0-18 Credits)
This course facilitates study abroad through an exchange agreement with Tongji University School of Economics and Management in Shanghai China. University of Denver exchange students may take only graduate level courses at Tongji University and only graduate level courses from Tongji are counted for graduate credit at the University of Denver.

BUS 9001 Study Abroad Doshisha University (0-18 Credits)
This course facilitates study abroad through an exchange agreement with Doshisha University, Global Business and Management Studies, Kyoto, Japan.

BUS 9002 Study Abroad University of Stockholm (0-18 Credits)
This course facilitates study abroad through an exchange agreement with the University of Stockholm Business School, Stockholm, Sweden.

Business Ethics Legal Studies Courses

LGST 3730 Values Based Leadership in Practice (4 Credits)
This course is a practical focus on leadership culture through analysis of real leaders applying theory to their personal experiences and practice. The course utilizes speakers in the Voices of Experience Speaker Series and outstanding literature to facilitate discussion. The course is offered in two-credit-hour sequences over two quarters. Prerequisites: LGST 2000 and degree checkpoint 2.

LGST 4198 E-Commerce Law and Ethics (4 Credits)
The changes in technology and business over the past 20 years have been dramatic and far-reaching. Navigating the even more astonishing changes in the future requires some perspective on the developments of the recent past. How did we get to where we are? What technological, economic and political forces have generated the current state of e-commerce? How are these forces likely to change into the future? What are the basic features of e-commerce as its exists today?

LGST 4550 Business Law for Accountants (4 Credits)
This course provides students with a detailed review of the legal considerations in forming, operating, and dissolving the most common forms of business entities: partnerships, limited liability companies, and corporations. The rights, duties and liabilities of the managers, owners and accountants (internal and external) of these entities are extensively examined. The course also provides an overview of federal securities laws impacting these organizations. Prerequisite: ACTG 4620 or BUS 4620 or LGST 2000 (concurrent registration OK).
LGST 4700 International Law (4 Credits)
Offers both an introduction to public international law (the rights and duties of states and intergovernmental organizations [IGOs]) and to private international law (the rights and duties of individuals, businesses, and non-governmental organizations [NGOs] in their international affairs). Majority of course devoted to key international issues of business law and public policy such as alternative dispute resolution (ADR), privatization, intellectual property, international sales, the Foreign Corrupt Practices Act, trade (GATT and WTO), and the international facilities that deal with the adjudication and resolution of legal issues related to business.

LGST 4701 Topics in Ethics & Legal Study (1-5 Credits)
This course examines complexities, paradoxes, and dangers of leadership. The platform for the course is a Core Leadership Model (and logical deviations from it) which can result in Great Leadership. At the heart of Great Leadership one finds a values base. Through in-depth analysis of the key dimensions of the Core Model and its accompanying deviations, participants gain a deep understanding of - and practical experience with - Values Based Leadership in today's world.

LGST 4730 Values Based Leadership in Practice (4 Credits)
The course examines the complexities, paradoxes, and dangers of leadership. The platform for the course is a Core Leadership Model (and logical deviations from it) which can result in Great Leadership. Through in-depth analysis of the key dimensions of the Core Model and its accompanying deviations, participants will gain a deep understanding of - and practical experience with - Values Based Leadership in today's world.

LGST 4740 Science & Mgmt. of Org. Ethics (4 Credits)
This course examines our knowledge regarding ethical decision making and behavior in organizational contexts. The course also explores the implications of such knowledge for effectively creating and managing ethical organizations. The course will be conducted as a graduate seminar with students playing a central role in identifying topics, researching content areas, and deciding on course outcomes. We will examine conceptual and theoretical models of ethical behavior in organizations, research empirical studies, and develop managerial implications. The overarching goal is to increase knowledge and understanding so as to strengthen capacities to be ethical leaders and managers. Prerequisite: BUS 4100. Non-business students may take the course with permission.

LGST 4760 CEOs and Corporate Governance (4 Credits)
In the wake of the Sarbanes-Oxley and Dodd-Frank laws, corporate governance has become a compelling issue for business students and executives. Corporate board members and leaders of institutional investors share their insights concerning corporate governance from strategic, financial and legal perspectives. CEO/board dynamics are explored, along with leadership development and executive succession policies. The roles of major board committees, such as the audit, compensation, nominating, and legal compliance committees are given special emphasis. Board responsibilities in corporate crises and re-structuring are examined, along with the legal liabilities of executives, board members, and the corporation. Public policy pressures on corporate governance, including the roles played by the Securities and Exchange Commission and other regulatory bodies are discussed, along with the responses by business organizations, political interest groups, and self-regulatory bodies. Shareholder activism and litigation, along with pressures from other corporate stakeholders are also emphasized in the course. Examples of topics include corporate scandals, executive compensation, global corporate governance systems, and governance reforms. Students engage in a number of case analyses over the course of the quarter, produce a four-part case study, and discuss actual real world solutions with business leaders who have been involved in the issues. Cross-listed with ACTG 4760.

LGST 4775 The Leader’s Compass (4 Credits)
This course qualifies for the four course requirement for the MBA Values Based Leadership concentration. By reading the works of great philosophers and using the Socratic Method, students come to understand the role of values in business and society, and learn to respectfully listen to, and learn from, those with different values. Students synthesize the readings and class discussions by writing a paper describing what (a) "a good society" and (b) "a good work organization" would look like to them personally, and what would be needed in terms of leadership to create each condition. Prerequisite: BUS 4620.

LGST 4780 Leadership, Teams & Values (4 Credits)
This course is designed for Daniel Scholars (who have completed the first quarter of their MBA program including Value Based Leadership) to provide both challenging intellectual discussion and physical engagement around the fundamental ethical dilemma of competition and/or cooperation. The venue for the course is Harbor Island, San Diego, California, and the adjacent waters of San Diego Bay and the Pacific Ocean. Both traditional classrooms and the untraditional learning environment of the off-shore sail boat provide the context of dynamic learning about values, teams and self. Prerequisite: BUS 4100.

LGST 4790 Entrepreneur & Family Business-Organization, Governance Ethics & Leadership (4 Credits)
This course covers the most current legal and ethical issues involving the creation of value, strengthening and growing family businesses through the process of best practices in business governance, coupled with ethical conduct and values based leadership, and legal compliance. Cross-listed with LGST 3790. Prerequisite: BUS 4100.

LGST 4980 Internship (1-5 Credits)

LGST 4991 Independent Study (1-10 Credits)

LGST 4992 Directed Study (1-4 Credits)

LGST 4995 Independent Research (1-10 Credits)
**Business Information Analytics Courses**

**INFO 4100 Survey of Business Analytics (4 Credits)**
This course provides an overview of business analytics: how data are generated, collected, actively warehoused and analyzed to support decision making. It addresses how to combine data with corporate processes and culture to gain new insights to empower corporate strategy and improve daily operations.

**INFO 4120 Python for Business Analytics (4 Credits)**
Python is a popular general purpose programming language which is well suited to a wide range of problems. With the right set of add-ons, it is comparable to domain-specific languages such as R and MATLAB. Python is a scripting language. The following topics will be covered: Importing data, Reading and writing files, Cleaning and Managing Data, Merging and joining DataFrame objects, Plotting and Visualization, Statistical Analysis, Fitting data to probability distributions and Linear models. Packages: Pandas, NumPy, matplotlib, statsmodels, Scikit-learn, and IPython. Principal Content Elements: 1. Introduction to Programming Logic and Design Using Python 2. Data Management 3. Statistical Analysis 4. Advanced Data Management and Statistical Analysis Prerequisites: STAT 4610.

**INFO 4140 Business Databases (4 Credits)**
This is an introductory database course which covers enterprise database design, modeling and implementation.

**INFO 4200 Business Analytics Capstone Planning (2 Credits)**
This course provides the foundation for the capstone course. Students begin the planning phase for their culminating project, identifying a business need and company with which to partner. Students then outline the problem, determine objectives and project deliverables, create a document of understanding, and produce a work plan. Prerequisite: STAT 4610.

**INFO 4240 Data Warehousing (4 Credits)**
This course addresses how to extract and time stamp data from many different business databases, transform it into a common compatible format, and load it into the data warehouse. The course includes using the data warehouse for real time queries as well as generating longer period reports for strategy considerations. Data marts and data mining are also included as part of this course. Prerequisites: INFO 4100 and INFO 4140.

**INFO 4250 Data Driven Decision Making (4 Credits)**
Businesses make decisions and improve processes using their own and external data and a variety of modeling and analytic techniques. This course introduces students to the business data landscape, data management in organizations, the data-driven decision-making process, and the fundamental concepts behind statistical inference and analytic modeling to support decision-making.

**INFO 4280 Project Management (4 Credits)**
In this course students examine the science, practice the art, and discuss the folklore or project management to enable them to contribute to and manage projects as well as to judge when to apply this discipline. The course also covers the use of MS Project Professional as a management tool and Crystal Ball as a Monte Carlo simulator for project exercises. Students also learn the fundamentals of process and project simulation for business decision-making. Prerequisite: INFO 4100.

**INFO 4300 Predictive Analytics (4 Credits)**
This course is designed to prepare students for managerial data analysis and data mining, predictive modeling, model assessment and implementation using large data sets. The course addresses the how, when, why and where of data mining. The emphasis is on understanding the application of a wide range of modern techniques to specific decision-making situations, rather than on mastering the theoretical underpinnings of the techniques. The course covers methods that are aimed at prediction, forecasting, classification, clustering and association. Students gain hands-on experience in using computer software to mine business data sets. Prerequisite: STAT 4610.

**INFO 4340 Data Mining and Visualization (4 Credits)**
In this course, students create business intelligence tools such as balanced scorecards, data visualization and dashboards to inform business decisions. The course focuses on the identification of metrics, measures, indicators and key performance indicators for a variety of business operations. The focus is on the advantages and disadvantages of various modeling methodologies and implementations moving towards performance improvement. Prerequisite: STAT 4610.

**INFO 4360 Complex Data Analytics (4 Credits)**
This course explores the concepts of the considerations and management of big data projects. It also explores technical aspects of performing text analytics and natural language processing, network analysis, as well as geographic data analysis. We will focus on social data for some of the examples and also explore how disparate data sources can be combined to provide insight for business decisions. Prerequisite: STAT 4610 preferred but not required.

**INFO 4380 Decision Processes (4 Credits)**
This course addresses the process of decision making in the enterprise: who makes what decisions based on what information and for what purpose. Business Intelligence is premised on the HP motto: "in God we trust. All others bring data." But what is the cost of collecting and analyzing the data and presenting the results, and what decisions justify that cost? Is the transformation from data to decision always rational, and what are the common pitfalls for human decision makers? We examine the results of recent experiments from behavior economics and their relevance to making business decisions. Prerequisite: INFO 4100.

**INFO 4400 Business Analytics Capstone (4 Credits)**
This course gives students an opportunity to apply the knowledge and skills learned in this program to a real-world problem submitted by a partner business. Students take a business problem from model construction and data collection through an analysis and presentation of results to recommendations for specific business decisions. Prerequisite: INFO 4200.
INFO 4401 Business Analytics (2 Credits)
Businesses can never have perfect information; therefore, they must employ statistical techniques to improve the decision-making process. This course introduces students to managerial decision-making using probability and other statistical techniques to support and validate the chosen decision. A student project will focus on data collection (primary research), data analysis, decision analysis, written/oral presentation skills, and the development of an infographic.

INFO 4520 Health Informatics (4 Credits)
Annual health care spending in the United States exceeds 16% of GDP ($2 Trillion) and is expected to continue to increase. The effective use of information technology is perceived as an important tool in increasing the access to and quality of health care delivery in a cost effective manner. This course examines the role of health informatics in the health care deliver and management process. The objectives of this course are to familiarize students with the critical issues and challenges faced by those in the health care environment, what technologies are or will soon be available to potentially address these issues and challenges, potential barriers professionals employed in the health care field may face deploying and managing these technologies, and possible strategies to assist these professionals in addressing and overcoming these barriers. This course focuses on four major areas related to health informatics: the role of electronic health records, clinical decision support systems, analytics, and other e-health initiatives such as mobile technologies and telehealth.

INFO 4590 Optimization (4 Credits)
This course introduces students to the basic optimization modeling techniques and tools as practiced by business analysts, operations research analysts, data analysts, data scientists, decision scientists, decision support scientists, business intelligence analysts, quants, actuaries, financial analysts, marketing analysts, and anyone else interested in using analytics to improve the bottom line. The course will focus on problem definitions, problem configuration, spreadsheet solution, LP Software (LINGO) solutions, and interpreting and implementing results.

INFO 4700 Topics in Business Analytics (0-10 Credits)
Exploration of current trends and topics in business analytics. Prerequisite: INFO 4100.

INFO 4991 Independent Study (1-10 Credits)
INFO 4992 Directed Study (1-4 Credits)

Construction Management Courses

CMGT 4110 Preconstruction Integration and Planning (4 Credits)
This course examines the role of preconstruction services, team integration, and joint design planning in various Integrated Project Delivery (IPD) approaches. Various tools and techniques associated with preconstruction services and design planning from the proposal stage through the design stages of a project are considered.

CMGT 4120 Construction Planning and Scheduling (4 Credits)
Understanding and applying scheduling and control to construction projects is essential to successful construction management. Project scheduling emphasizes network-based schedules, such as critical path management (CPM), network calculations, critical paths, resource scheduling, probabilistic scheduling and computer applications. Project control focuses on goals, flow of information, time and cost control, and change management. Prerequisite: CMGT 4410.

CMGT 4155 Sustainable Development/LEED (4 Credits)
The course includes many case studies of historic and contemporary structures exemplifying various sustainability features. Emphasis is placed on how LEED project certification influences the overall construction project. Topics include LEED certification techniques for sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and design. The following topics are covered from a LEED perspective: ventilation, air conditioning, heating, electrical lighting, energy efficiency, and building control systems. The student studies and analyzes how management and LEED techniques are applied to current construction projects.

CMGT 4177 Environmental Systems and MEP Coordination (4 Credits)
A study of electrical and mechanical systems used in the construction of buildings. Course content includes system design, component selection and utilization for energy conservation, cost estimating or systems, coordination and management of installation. Specific systems included are electrical, air conditioning, heating, ventilation and plumbing, fire protection, life safety, communication, power systems and lighting. The course also considers coordination of MEP systems and explores emerging technology and environmental issues related to mechanical and electrical systems in buildings. Cross listed with CMGT 3177 and XRCM 4177.

CMGT 4180 Construction Layout/Surveying (4 Credits)
Designed to provide the student with the theory, principles and techniques of construction layout and surveying. Includes field procedures in fundamental land surveying as well as site and foundation layout. Cross listed with CMGT 3180.

CMGT 4200 Lean Construction Project Management (4 Credits)
This advanced course focuses on cutting edge lean tools and other productive strategies for the management of people and processes in the construction industry. The tools and strategies presented draw on the very successful Toyota Production System adapted to the construction industry. Lean construction methodologies such as the Last Planner System, the Lean Project Delivery System, and Integrated Project Delivery are discussed. Topics also include sustainability and the emerging interest in "green construction," as well as the use of Building Information Modeling to enhance the development and management of integrated projects. This course also looks at the human element in relation to motivation, safety, and environmental stresses. A number of case studies are presented to highlight best practices in Lean Construction Project Management.
CMGT 4230 Design Management and Schedule Control (4 Credits)
This course examines the various strategies and techniques associated with managing the design delivery process to align with the construction budget and schedule needs in an integrated fashion. Design planning, scheduling, and resource allocation are considered along with design value determination and management of the design-construct interfaces. Constructability, value engineering, design performance.

CMGT 4250 Construction Job Site Management (4 Credits)
This course addresses how a successful construction project is managed and administered from design through construction to closeout. Emphasis will focus on how to unite the key stakeholders (contractors, architects, engineers, etc.) to provide them with a workable system for operating as an effective project team. The latest technology, laws and regulations associated with contract administration will be presented. Topics pertinent to each stage of a project are introduced and discussed as they occur throughout the life of the project. Numerous real-world examples will be utilized throughout the course. Various electronic project administration tools and techniques will be demonstrated including Building Information Modeling.

CMGT 4310 Cost Modeling and Trend Management (4 Credits)
This course covers various approaches to construction cost estimating at the conceptual stages of planning and design through detailed construction. Students learn parametric estimating techniques and how they are applied to construct and predict reliable budgets at the earliest stages of design. Students build cost models and refine those models with greater detail as design develops through a project. Building information modeling is introduced and used to create massing models to demonstrate design impacts on project costs. Cost trending techniques are presented to manage, monitor and document project performance relative to cost.

CMGT 4320 Architectural Planning and Design Management (4 Credits)
This course introduces students to the significant value that architecture brings to real estate and the various services and professions associated with it. Students will be introduced to principles, protocols and the planning process related to the design function and the link between the architect’s vision and the finished physical structure. Students will be introduced to design, thinking, theory and application. Student will learn to read and interpret the various graphical and written construction documents as well as know how they are developed and what information they contain. Architectural, structural, mechanical, electrical, plumbing and civil drawings and specifications are covered. The business model for design services will be explored as well as the unique risks and challenges associated with managing the design through the various stages of development and construction.

CMGT 4401 Residential Practicum I (4 Credits)
A three course sequence designed to emphasize the practical application of the theories and concepts of residential development. The courses provide a capstone experience for seniors. Students are expected to apply their knowledge of general business, real estate and construction management practices by forming a student business entity, acquiring land, building and selling a residential property. Students will apply accounting, finance, marketing, real estate and construction management techniques in the development of a single family residence. Cross listed with CMGT 3401.

CMGT 4410 Construction Building Systems (4 Credits)
A survey of residential and commercial construction materials, means, and methods associated with the various structural and architectural systems used to design and construct buildings. Project plans and specifications are incorporated to teach the basic sequencing and overall construction process. The influence of sustainability in construction is introduced.

CMGT 4420 Construction Estimating (4 Credits)
Integrated approach addressing construction accounting, estimating, purchasing, and management reporting systems. Cross listed with CMGT 3100, XRCM 4420. Prerequisite: CMGT 4400 or permission of instructor.

CMGT 4438 Legal Issues & Risk Management (4 Credits)
General contract and real estate law, including property rights, title concepts, deeds, purchase contracts, law of agency, environmental issues and disclosures, basics finance concerns, tax law, landlord-tenant law, construction contracts, indemnity agreements, rights and remedies of property owners, contractors and subcontractors issues, and various areas of liability for real estate practitioners and property owners.

CMGT 4480 Const Project Management (4 Credits)
Principles and techniques of construction project management, use of systems analysis, internal and external procedures, planning, programming, budgeting and staffing, controlling major projects, emphasis on construction scheduling techniques with case application. Cross listed with CMGT 3120.

CMGT 4490 Residential Development (4 Credits)
A seminar-style capstone course that integrates various aspects of the construction management curriculum. Emphasis is on topics in the construction and development industries. Cross listed with CMGT 3190. Prerequisite: CMGT 4410.

CMGT 4560 Relational Contracting and Risk Mitigation (4 Credits)
Relational contracting is a construction project delivery framework for multidisciplinary, integrated projects that focuses on aligned goals, high performance, innovation, mutual respect, open communication and a "no blame" culture between Client, Contractor, and Design Team. This approach to contracting, also known as Alliance Contracting, is becoming more prevalent in the United States and is often applied when using integrated project delivery systems. This course compares and contrasts transactional contracting methods with relational contracting methods and the influences on the project team and projects outcomes. Relational contracting is also considered in the context of risk mitigation and project optimization.
CMGT 4580 Integrated Teaming and Project Leadership (4 Credits)
This course examines the unique leadership skills and talents associated with leading and facilitating multidisciplinary, integrated design and construction teams. The focus of the course is on applying strategic intelligence and a system of leadership in the development of integrated solutions for the built environment. This leadership model is driven by a compelling purpose and supported by people who share practical values and have excellent processes, to look into the future, create a vision, and bring that vision to reality. Effective strategies for supporting high performance teams are explored.

CMGT 4700 Topics in Construction Mgmt (1-4 Credits)
CMGT 4980 Construction Mgmt Internship (0-10 Credits)
CMGT 4991 Independent Study (1-10 Credits)
CMGT 4992 Directed Study (1-10 Credits)
CMGT 4995 Independent Research (1-10 Credits)

Entrepreneurship Venture Mgt Courses
EVM 4040 Social Entrp in Global Mrkt (4 Credits)
This is a dynamic hybrid course with online readings, cases, quizzes, and blogs, as well as in-class experiential interactions with social enterprises in the community. The distance component of this course is guest speakers from other countries. Students will have the opportunity to network, interact, and work with local social enterprises. A value added component of this course is the coverage of global and cross-cultural concepts and issues critical for successfully running social enterprises in a global context.

EVM 4350 Big Challenges, Big Solutions: The Emerging Start-Up (4 Credits)
Students in the experiential course will start a firm in which they formulate an idea, gather basic data, formulate hypotheses, and then test these hypotheses with potential market participants. Students are likely to pivot several times in this course as the experimentation process helps them shape the emerging firm.

EVM 4351 Designing the Start-Up (4 Credits)
In this class, students will develop an executive summary that outlines the core business concept and the type of governance that will be needed, how the business will scale both in terms of product/service and customers. This executive summary will be used to fund the business and determine how the business will be funded-friends and family, credit cards, second mortgages, crowd funding, angel, or VC.

EVM 4355 Entrepreneurial Mindset (4 Credits)
A sustainable enterprise creates value for stakeholders along environmental, cultural/social, and economics dimensions. Based on a belief in the power of entrepreneurs to change the world, this course is designed as a general introduction to the basic concepts of entrepreneurship as a business discipline, whether you are interested in starting a business, working for an entrepreneurial company, launching an entrepreneurial venture within an existing organization, or working with entrepreneurial firms as an investor or advisor. The course is a broad overview of entrepreneurial activities and issues, including identifying business opportunities, developing those business models using the business model canvas, structuring and funding, early stage operations and exit strategies. The class will attempt to support the development of innovative and sustainable business models by students which, hopefully, will become successful entrepreneurial ventures which positively impact the earth.

EVM 4700 Funding the Business (2,4 Credits)
This course will focus exclusively on financing the business, including crowdfunding, angel investments, and private equity, the documents needed for such funding and the valuation of the firm as a result of funding.

EVM 4704 Topics in EVM (1-8 Credits)
EVM 4710 Innovation/Creativity-Business (4 Credits)
Cross listed with EVM 3710.

EVM 4980 Internship (1-5 Credits)
EVM 4991 Independent Study (1-10 Credits)
EVM 4992 Directed Study (1-4 Credits)

Finance Courses
FIN 4000 Financial Modeling and Databases Bootcamp (1 Credit)
This bootcamp is designed to equip students with a firm foundation in financial modeling as well as acquire an adequate command of Excel functionality and efficiency. This course also serves as an introduction to financial databases, mainly centered on the Capital IQ platform, which the student will be using throughout his or her academic and professional career. Topics covered include: Excel modeling best practices, keyboard shortcuts and common functions, financial datasets, and practical modeling applications in finance.
FIN 4110 Ethics in Finance (4 Credits)
This second course in the Compass is specifically designed for the Master of Science Finance (MSF) curriculum and focuses on the ethical, professional, social, and legal responsibilities of finance professionals, organizations and markets. Financial institutions are facing a crisis of confidence. Trust is an essential ingredient to maintaining efficient and effective financial markets. The finance industry has acquired a reputation for unethical and unsavory activity and has lost the trust of much of society. Many financial professionals believe they are encouraged and rewarded for engaging in unethical activity. We discuss the ethical issues facing financial institutions and professionals and explore solutions for resolving these issues and restoring trust.

FIN 4120 Quantitative Methods in Stock Selection (4 Credits)
This course introduces quantitative methods and techniques applied to alpha generation in stock selection. It enables students to better understand and conceptualize the entire quantitative investment process in the context of a simulated long/short equity portfolio. The student learns to set investment objectives, test investment hypotheses, define security selection criteria and construct portfolios using quantitative techniques. This is a practical class held in a lab environment using financial industry tools and data with a strong emphasis on student participation. Students have to define and defend a quantitative investment strategy and implement it in a simulated portfolio environment. Prerequisites: FIN 4200.

FIN 4130 Financial Risk Management Strategies (4 Credits)
This course applies risk management, quantitative approaches and investment theoretical models to derivatives markets. It examines the proven risk management and revenue enhancement strategies in derivatives and equity markets, creates innovated derivatives investment styles, validates quantitative strategies in options markets, and implements investment models. This course is to offer advanced graduates in finance a well-rounded exposure to the theory and practice of risk management and derivatives investment strategies. It focuses on four aspects: (1) essential risk management theories regarding asset pricing, portfolio construction, and financial statistics; (2) the approaches to develop risk management and derivatives investment strategies based on the fundamental analysis, statistical analysis, and behavioral finance; (3) the rigorous test of various options investment strategies; and (4) the implementation of risk management and investment strategies based on The Reiman Fund. Prerequisites: FIN 4200 and FIN 4500.

FIN 4140 Enterprise Risk Management (4 Credits)
This course introduces the fundamentals of enterprise risk management (ERM). The purpose of this course is to give students an overview of the current approaches used to identify, evaluate and monitor the key risks that an organization faces. Students learn that there are numerous approaches that organizations take in addressing ERM. Over the course of the quarter, a number of outside ERM experts address the class on various aspects of ERM. Students then apply newly gained ERM knowledge to a mock risk assessment developed from a real-life corporate scenario from Newmont Mining Corporation.

FIN 4150 Advanced Business Valuation (4 Credits)
The objective of this course is to present advanced valuation techniques to deepen students' understanding and enhance their knowledge of valuation theory and practical application.

FIN 4160 Treasury Management (4 Credits)
The objective of the course is to provide students with a comprehensive understanding of how various treasury functions are managed in a corporation and build students’ capabilities to assume the role of a proficient treasury manager.

FIN 4170 Quantitative Methods in Finance (4 Credits)
This course introduces students to the mathematical and statistical methods needed in order to succeed in the quantitative discipline of modern finance. Topics include differential calculus, optimization techniques, linear algebra, probability, and statistical methods. Data analysis software is used when appropriate to facilitate the analysis. Emphasis is on applications, analytic reasoning, and proper interpretation of results.

FIN 4180 Global Finance (2 Credits)
This course explores financial management in the international arena. Principal content elements include: The market for foreign exchange, interest rate parity, hedging currency risk, international portfolio management. Upon completion of this course, students should be able to accomplish the following objectives: Explain the determinants of foreign exchange rates; Explain and identify the financial difficulties and opportunities faced by corporations when operating internationally; Apply forwards and options for hedging currency risk; Identify the determinants of the expected returns on international investments; Discuss current issues in international finance. Prerequisites: FIN 4630.

FIN 4200 Financial Investments and Markets (4 Credits)
Introduction to financial markets, securities, instruments, and other factors that determine the financial environment. Prerequisites: FIN 4630 and STAT 4610 or Fin 4170.

FIN 4201 MS Management Managerial Finance (2 Credits)
FIN 4201 introduces concepts and analytical techniques to identify and solve financial management problems. The focus on Performance Metrics (Ratios and Du Pont Analysis), Time Value of Money and Opportunity Costs, and Project Analysis prepares managers to operate in an environment that can at times be driven by the financial performance of the company.

FIN 4320 Security Analysis and Valuation (4 Credits)
Examination of statistical and theoretical foundation for determination of market prices and market returns. Includes theoretical implications for investment management of options, futures, stocks and bonds. Prerequisite: FIN 4200.

FIN 4330 Portfolio Management and Risk Analytics (4 Credits)
Case and project approach to foundation of investment portfolio management. Prerequisite: FIN 4200.
FIN 4410 Financial Planning & Analysis (4 Credits)
Advanced course in financial planning and decision-making focusing on capital structure, working capital management, long-range and short-term financial planning, and mergers. Prerequisite: MBA 4112.

FIN 4420 Capital Expenditure Analysis (4 Credits)
Advanced course in capital budgeting examining capital allocation processes and procedures and the theory and applied techniques of capital spending and divestment under conditions of certainty and uncertainty. Related issues of cost of capital and leasing also included. Prerequisite: FIN 4630.

FIN 4500 Financial Modeling (4 Credits)
Use of erect functions and macros to construct financial models from corporate finance, investments and financial markets. Prerequisites: FIN 4170.

FIN 4610 Multinational Financial Management (4 Credits)
Financial analysis of multinational corporation operating in international markets, including exchange rates, international instruments, markets, institutions and futures. Prerequisite: MBA 4112.

FIN 4620 Financial Forecasting (4 Credits)

FIN 4630 Managerial Finance (4 Credits)
Analytical skills and tools of finances; theoretical concepts and practical applications. Topics include ratio analysis, breakeven analysis and leverage, securities valuation, capital budgeting, financial forecasting, and working capital management.

FIN 4700 Topics in Finance (4 Credits)
Topics vary each quarter. Course may be taken more than once if topics are different.

FIN 4701 Topics in Finance (1-10 Credits)
Topics vary. For new/experimental courses taught within the Reiman School of Finance.

FIN 4710 Marsico Investment Fund I (4 Credits)
A securities analysis and portfolio management practicum in which students manage a University endowment gift donated by Tom and Cydney Marsico. Prerequisite: Permission of instructor. (First part of two-quarter course.).

FIN 4720 Marsico Investment Fund II (4 Credits)
A securities analysis and portfolio management practicum in which students manage a University endowment gift donated by Tom and Cydney Marsico. Prerequisite: FIN 4710. (Second part of two-quarter course.).

FIN 4730 Marsico Investment Fund III (4 Credits)
This course is an elective course that is the third in the series of classes involving the Graduate investment fund class: Marsico Investment Fund I & II. This course allows students to apply the investment, security analysis, and portfolio management tools and techniques that they have learned in their Finance classes. The students manage an actual portfolio, a portion of the University's endowment originally gifted by Tom and Cydney Marsico. The selection of students for this class is competitive. Students must agree to participate for 2 consecutive quarters, and they must be willing to address portfolio issues during the between-quarter periods if necessary. Because the course involves the application of tools and concepts learned in other classes, the best time to take the course is in the last year of a student's program. Prerequisites: FIN 4710 and FIN 4720.

FIN 4740 Managerial Microeconomics (2 Credits)
This course combines the standard tools of microeconomic analysis with a well-rounded appreciation of the important perspectives that form the business environment in the contemporary world. The goal is to provide students with the tools from microeconomics, game theory, and industrial organization that they need to make sound managerial decisions. The course uses case studies to develop practical insights into managing the firm's resources to achieve competitive advantage. The course is divided into two principle modules based on market structure: perfect competition and imperfect competition. Both modules cover optimal behavior and strategies.

FIN 4750 Managerial Macroeconomics (2 Credits)
This course covers the theory and practice of modern macroeconomics. It teaches students how private market forces and government policy decisions drive fluctuations in the global economy and affect the business environment. It explores issues related to inflation, interest rates, foreign exchange rate, business cycles, and monetary and fiscal policies. The course uses case studies to analyze real-life macroeconomic issues, and students are encouraged to investigate the potential and limitations of macroeconomic theory with real-world problems. The course is divided into two principle modules: the economy in the long run, and the economy in the short run. Both modules cover impacts of government policies on the business environment in a closed economy and an open economy.

FIN 4830 Econometrics for Finance (4 Credits)
This course focuses on econometric and statistical modeling with an emphasis on finance applications. Prerequisite: STAT 4610 or FIN 4170.

FIN 4860 Derivatives (4 Credits)
This course provides a theoretical foundation for the pricing of contingent claims and for designing risk-management strategies. It discusses more advanced material in financial derivatives and is intended for students who have a quantitative background and are interested in enhancing their knowledge of the way in which derivatives can be analyzed. This course covers option pricing models, hedging techniques, and trading strategies. It also includes portfolio insurance, value-at-risk measure, multistep binomial trees to value American options, interest rate options, and other exotic options. Prerequisite: FIN 4200.
FIN 4870 Strategic Finance (4 Credits)
Addresses theory, concepts, and techniques associated with asset management and creation of value from a strategic orientation. Links financial theory and practice to strategic and operational objectives of the firm, prepares student to incorporate risk and uncertainty into analytical decision-making process and to analyze divestiture, restructuring, and liquidation decisions. Prerequisites: MS/Finance students only and FIN 4840.

FIN 4885 Investment Banking and External Financing (4 Credits)
Considers the blend of theory and practice with regard to designing the appropriate capital structure of the firm as well as appropriate use of securities and process for raising capital in different financial markets. Prerequisites: MS/Finance students only and FIN 4840.

FIN 4890 Fixed Income Analysis (4 Credits)
Emphasizes valuation and management of fixed income securities in prevailing environment of complex and innovative financial arrangements. Study of the nature of evolving markets, both domestically and internationally. Prerequisite: FIN 4200.

FIN 4980 Finance Internship (0-10 Credits)
Permission of instructor required. Hours and times arranged by student.

FIN 4991 Independent Study (1-10 Credits)
Individual study and report. Hours and times arranged by student.

FIN 4992 Directed Study (1-4 Credits)

Info Tech E-Commerce Courses
ITEC 4270 Emerging Technologies (4 Credits)
Emerging Technologies and Strategies investigates new information technologies. Having a broad view of emerging technologies as they relate to business can provide an organization with a valuable strategic advantage. Those organizations that can most effectively grasp the deep currents of technological evolution can use their knowledge to protect themselves against sudden and fatal technological obsolescence.

ITEC 4280 Intro Software Engineering II (4 Credits)
A continuation of ITEC 4270, this course covers systems development in a client-server Internet/Intranet environment using the Java programming language. Principles of event-driven systems, remote database access, and building GUI (Graphical User Interface) prototypes for interfacing with desktop systems are included. Prerequisite: ITEC 4270 or instructor's permission.

ITEC 4310 Electronic Commerce (4 Credits)
This course is an overview of electronic commerce (EC) trends and techniques including the underlying technical infrastructure, traditional EDI techniques such as electronic data interchange (EDI) and commerce at light speed (CALS), Internet use for EC, business models for business-to-consumer EC, marketing on the Internet, payment and fulfillment mechanisms, security and regulatory issues, and global implications. Uses lectures, cases, outside speakers from industry and field trips.

ITEC 4320 Networks & Telecommunication (4 Credits)
This course examines network-enabling technologies and concepts, including LANs and WANs. Network design, management, and trouble-shooting issues will be covered. Network design in the age of the Internet will be emphasized, including intranets, extranets, design issues, security and firewalls. Pros and cons of private networks, including virtual private networks, will be discussed. Alternative technologies such as wire line, wireless, satellite and cable will be covered. Cross listed with ITEC 3810. Prerequisite: ITEC 4475.

ITEC 4350 Practicum (1-4 Credits)
This course will consist of an information systems project performed by small teams of students and tailored to individual students' needs. It will be undertaken for a "client" in the business community. Supervised by a faculty member, each project will permit students to apply what they have learned in a live setting and focus on project management planning, reporting, and problem discovery and resolution. Prerequisite: ITEC 4300 or ITEC 4330.

ITEC 4476 Business Process Analysis and Design (4 Credits)
This course starts with the traditional information technology systems analysis and design and broadens this approach to include analysis and design of better business processes - innovative processes which deliver greater value to customers and enterprises alike through creative uses of information technology. We will analyze past and current examples and look for ways to build on and extend these successful exploitations of information technology to other companies and industries. In short, this course is about exploring innovative ways to create greater business value by analyzing and designing not only the systems, but also the business processes these systems are created to support.

ITEC 4477 Database-Driven Websites (4 Credits)
Using state-of-the-art technologies, this course focuses on the development of dynamic web pages. Technologies include PEARL, ASP, ColdFusion, SQL, Access, and Oracle. Cross listed with ITEC 3477. Prerequisite: ITEC 4475 or current enrollment.
ITEC 4478 XML (4 Credits)
This programming course is the second of a five series Web Services course track designed to prepare the student for the certification exam offered by Microsoft in the development of .NET applications. The second module of the series, XML, provides a thorough understanding of the main techniques surrounding the development of XML applications. Up until now, it has been very difficult to communicate and transfer data between different platforms. The surge of XML as a universal text-based standard readable and interpreted by any other system available, has opened the channel to enhance the development of cross-functional applications. Students will learn to write the codes describing the data, processes it and prepare it for presentation, as well as modeling and designing functional components that will later be used to drive the applications. Topics include: creating well-formed and valid XML documents, parsing the documents and creating the format to display it through the client's browser, design functional components and the interconnections among them. Some of the tools that the student will learn to use in this course are XML Syntax, DTD, Schema, CSS, XSL, XSLT, DOM, SAX, SOAP, WSDL, and UDDI. Prerequisite: ITEC 4477 or concurrent enrollment.

ITEC 4480 ASP.NET (4 Credits)
The goal of this course is to provide students with the knowledge and skills that are required to develop XML Web services-based solutions to solve common problems in the distributed application domain. The course focuses on using Microsoft Visual Studio .NET, Microsoft ASP.NET, and Universal Description, Discovery, and Integration (UDDI) to enable students to build, deploy, locate and consume Extensible Markup Language (XML) Web services.

ITEC 4481 C#.NET (4 Credits)
The goal of this course is to provide students with the knowledge and skills needed to develop C# applications for the Microsoft .NET Platform. The course focuses on C# program structure, language syntax, and implementation details. C# was created to be the programming language best suited for writing .NET enterprise applications. C# combines the high productivity of Microsoft Visual Basic with the raw power of C++. It is a simple, object-oriented, and type-safe programming language that is based on the C and C++ family of languages.

ITEC 4486 Information Technology Management (4 Credits)
This course focuses on issues central to the effective management of the IT function including, but not limited to: managing the IT organization, IT's changing role in the enterprise, and managing internal and external relationships.

ITEC 4500 Strategic Info Technologies (4 Credits)
How organizations are using information technologies for competitive advantage.

ITEC 4610 IT Strategy (4 Credits)
Businesses run on information, organized data about customers, markets, competition, and environments. Information systems (interconnected computers, data, people, and processes) are critical to capture, organize, and disseminate that information in ways that provide stakeholder value. This course is designed to help managers, technical and non-technical alike, to explore how to derive greater value and satisfaction, both personally and professionally, from information systems.

ITEC 4700 Topics in Inform. Technology (1-10 Credits)
New topic area discussion in information technology.

ITEC 4980 Internship (0-10 Credits)
Permission of instructor required. Hours and times arranged by student.

ITEC 4991 Independent Study (1-8 Credits)
Individual study and report. Hours and times arranged by student.

ITEC 4992 Directed Study (1-4 Credits)

ITEC 4995 Independent Research (1-8 Credits)

MBA - General Courses

MBA 4000 Business Speaking Lab (4 Credits)
Provides students whose primary language is not English the opportunity to enhance their English language skills. No credit toward degree.

MBA 4001 Business Writing Lab (4 Credits)
Provides students whose primary language is not English the opportunity to enhance their English language skills. No credit toward degree.

MBA 4010 Business Speaking Lab II (1 Credit)
Provides students whose primary language is not English the opportunity to enhance their English language skills. No credit toward degree.

MBA 4011 Business Writing Lab II (1 Credit)
Provides students whose primary language is not English the opportunity to enhance their English language skills. No credit toward degree.

MBA 4050 Bus Innovation Challenge I (4 Credits)
Apply business skills to a live project in the form of a competition. Learn to work with remote teams using virtual collaboration software. Learn to use brainstorming and innovation techniques to design, recommend, and build break-through solutions to solve a problem or take advantage of an opportunity.

MBA 4060 Bus Innovation Challenge II (4 Credits)
Apply business skills to a live project in the form of a competition. Learn to work with remote teams using virtual collaboration software. Learn to use brainstorming and innovation techniques to design, recommend, and build break-through solutions to solve a problem or take advantage of an opportunity.
MBA 4110 Enterprise Challenge (2 Credits)
In recognition of the special value that comes from deep immersion into a subject, students in this course will start a business. Students will incorporate their business, put together an advisory board, identify customers, write an executive business summary, and have a professional business presentation. The final class will consist of presentations to entrepreneurs, representatives from the financial sector, and industry representatives. Students will learn about business by starting a business. This is a highly unstructured class. Students have to structure their projects and present to investors just as an entrepreneur would do.

MBA 4120 Strategic Transitioning from Uncertainty to Risk (2 Credits)
Strategically Transitioning from Uncertainty to Risk is a course that introduces the student to the confluence of entrepreneurship and strategic management. Students will use an organized approach to rapid design leveraging their business ideas created for the Enterprise Challenge in order to develop a sustainable competitive advantage based upon iteration of the business model. Iteration that is discovered through an analysis of the existing business model and the competitive landscape that includes consideration of competitors, customers, suppliers, substitutes, and new entrants. Opportunities to create competitive advantage are analyzed through the design of generic competitive strategies in domestic and international markets, alliances and partnerships, and corporate diversification.

MBA 4130 Corporate Financial Reporting (2 Credits)
The purpose of this course is to provide students with an understanding of the financial statements issued by companies to external parties, such as shareholders and creditors. The course covers the fundamentals of accounting, from recording economic events in the accounting records to the preparation of the company’s financial statements, as well as major transaction categories and accounting policies of business firms and their financial statement implications. In addition, the course introduces students to publicly-traded companies’ Form 10-K annual reports.

MBA 4140 Ethics in Practice (2 Credits)
The fundamental purposes of the course is to 1) engage students in ongoing reflection and dialogue about their responsibilities as managers and leaders, 2) understand cognitive, behavioral, and principled approaches to ethics, and 3) advance your job prospects by focusing on ethical skills, practices, and exercises that will make you better managers and leaders. Of particular emphasis are the ethical and social responsibilities of managers and leaders, especially as it relates to numerous stakeholders. This course focuses on a systems-oriented approach to the ethical and social relationships of business leaders and business organizations in their communities. These roles will be examined by analyzing a variety of representative issues that characterize current concerns with business ethics. The goal is to provide students with generalized understanding and skills that can be employed in dealing with other issues that may emerge in their business careers. While the core of the curriculum will strengthen foundation business and management skills and competencies, the assumption of this course is that all of these skills and competences must be grounded in a solid ethical and social commitment to values and principles. This course attempts to explore these values in various business contexts.

MBA 4150 Understanding Your Market (2 Credits)
This course focusing on “knowing your customer” through the Segment, Target and Position Model. The STP Model consists of three steps that help you analyze your offering(product or service) and the way you communicate its benefits and value to specific groups. STP stands for: Step 1: Segment your market. Step 2: Target your best customers. Step 3: Position your offering. This model is useful because it helps you identify your most valuable types of customer, and then develop products and marketing messages that ideally suit them. This allows you to engage with each group better, personalize your messages, and sell much more of your product. This course explores the development, evaluation, and implementation of marketing strategy in complex environments. The course deals primarily with an in-depth analysis of a variety of concepts, theories, facts, analytical procedures, techniques, and models. The course addresses strategic issues such as: -In what environment do we operate? What impact will the environment have on marketing decisions? -How should the market be segmented for best return on investment? -Which market should be targeted to achieve highest profitability? -How shall we position the offering in the minds of our customers? -Which marketing models are most appropriately applied to the business problem at hand?

MBA 4160 Opportunities with Data Skills I (2 Credits)
Develop an understanding of the basic concepts of probability and statistics, and how they relate to managerial type problems and decision making. Develop experience performing and interpreting standard data analysis methodologies. Obtain familiarity with a statistical software package.

MBA 4170 Navigating the Global Economy (2 Credits)
Businesses today, whether domestic or multi-national, are part of a complex global economy. The challenges firms face today—global financial crises, corruption, and finite resources, to name a few—are impossible to tackle without a solid understanding of the broader political and economic institutions and environment. This class will provide a foundation to students’ understanding of the international political economy, international institutions, and trends and patterns across developed, emerging, and developing countries. Students will explore some of the myths of the global economy, the variations of capitalism that exist across time and space, as well as the role of international institutions and emerging economies in shaping the business environment.

MBA 4205 Strategic Career Management (4 Credits)
Strategic Career Management offers graduate business students a theoretical and practical understanding of career management within the context of the current and projected labor market. The course facilitates the development of personal short- and long-term career action plans, and provides students with the tools and frameworks for developing other employees’ careers once they are in managerial roles. This course is offered in conjunction with the Suits Center for Career Services. Major components of the course include in-depth self-assessment, labor market assessment (macro and micro), creating a career development and action plan, positioning and branding oneself within the marketplace, and lifelong career management. Prerequisite or Corequisite: BUS 4610.
MBA 4210 Foundations I (4 Credits)
Language, theoretical concepts, quantitative tools that are foundations for business decisions; theory/practice of tools from financial accounting, microeconomics, financial management, information systems in logical sequence. Successful completion of any pre-courses.

MBA 4214 Creating Community Capital: The Social Good Challenge (2 Credits)
Creating Community Capital: The Social Good Challenge is a Challenge Driven Educational (CDE) course that builds off prior foundational and experiential courses. The course is a practicum designed to address social issues; its purpose is to provide the opportunity for students to address a social issue with the discipline of business tools and techniques. Through the Challenge experience, students learn first-hand how to use business skills for social change as they design organizational initiatives to address social problems. The goal for students will be to create a novel response to a social problem that is more effective, efficient, sustainable, or just than current responses. The course emphasizes learning by doing, supported by intensive faculty coaching and field work. A small number of formal class sessions will provide structure in the course, and will focus on collaborative problem solving; the remainder of time students will engage with community for-profit, non-profit, and government organizations to design and execute a social good initiative.

MBA 4220 High Performance Management I (4 Credits)
High Performance Management I focuses on development of management skills that affect individual and group performance in organizations. This course brings together concepts from organizational behavior, organization dynamics, change management and dispute resolution. Through creative instruction and experiential learning, students will develop expertise and understanding of organizational effectiveness through planning, motivation, negotiation, team-building, and leadership.

MBA 4222 Leading Effective Organizations (2 Credits)
This course introduces the human side of organizations. Its theme is leading people and organizations for high performance in changing times. It includes traditional organizational behavior concepts such as motivation, power and politics, organizational design and culture. The global context of business is emphasized as a central factor in leading organizations; and the course includes integrating themes of sustainability, engagement, and inclusion — creating organizations that are sustainable, that attract and engage talented people, and that exemplify inclusive excellence. Critical and analytical thinking skills are developed and reinforced throughout the course.

MBA 4230 Managing Cost Information (2 Credits)
Integrates technical knowledge and managerial skills, with key business issues; in-depth cases, diverse topics such as financial planning, market segmentation, budgeting, strategy development, operations management, information systems; breadth of case studies address decision-making in small start-up firms to large multi-national organizations; internal aspects of organization, external forces affecting organizational performance. Prerequisites: MBA 4211, 4210.

MBA 4235 Profit Planning and Measuring Performance (2 Credits)
Profit Planning and Measuring Performance provides students with the necessary skills to effectively perform planning and performance evaluation processes. In this course, students will learn how to prepare operating and capital budgets, analyze budget variances, identify key performance indicators, and design management control systems. Prerequisite: MBA 4234. Concurrent enrollment allowed.

MBA 4250 Values in Global Marketplace (4 Credits)
This course examines the ethical, legal, and public policy dimensions of business in the global marketplace. Prerequisite: BUS 4200.

MBA 4260 MBA Internship (0-8 Credits)
The internship typically is taken in either the third or fourth quarter of the MBA program and is a fulltime work experience (roughly 400 hours of work) at a sponsoring company. A participant can register for additional courses beyond the internship with approval of the sponsoring company. Prerequisites: MBA 4220, MBA 4231, BUS 4300.

MBA 4270 Integrative Challenge (4 Credits)
Field study experience at end of MBA program to provide students with exposure to current, relevant and challenging issues faced by Colorado businesses; practical application of business knowledge, managerial skills, professional competencies designed to integrate all graduate program elements and provide distinctive advantage in career development. Prerequisites: MBA 4221, 4232.

MBA 4280 Mastering Managerial Financial Competencies I (2 Credits)
This course and Mastering Managerial Financial Concepts II discusses basic principles of finance and provides practical tools for financial decisions and valuation. The purpose of these two courses is to give students a thorough introduction to the basics of finance. You will learn how to value distant and uncertain cash flows. You will learn how to apply the tools to make investment decisions for a firm. You will also survey the fundamental drivers of financing policy in a corporation and learn how financial markets interact with businesses. Unless you understand finance, you cannot have a thorough understanding of a company’s decision-making process. Prerequisites: MBA 4130. Concurrent enrollment allowed.

MBA 4285 Mastering Managerial Financial Competencies II (2 Credits)
This course and Mastering Managerial Financial Concepts I discusses basic principles of finance and provides practical tools for financial decisions and valuation. The purpose of these two courses is to give students a thorough introduction to the basics of finance. You will learn how to value distant and uncertain cash flows. You will learn how to apply the tools to make investment decisions for a firm. You will also survey the fundamental drivers of financing policy in a corporation and learn how financial markets interact with businesses. Unless you understand finance, you cannot have a thorough understanding of a company’s decision-making process. Prerequisites: MBA 4280. Concurrent enrollment allowed.
MBA 4290 Economics for Decision Making (2 Credits)
MBA 4290 emphasizes the standard tools of microeconomic analysis for the business manager. The focus is on managerial decision-making, and to emphasize real world economic decision makers for firm managers. The goal is for students to understand the current business environment and possess the tools to make sound managerial choices. The course will emphasize analytical problem solving to highlight the decisions managers must make under constrained conditions. There will be a series of short quizzes to emphasize these skills based on class lectures and homework. We will also use case studies to develop practical insights into managing the firm’s resources to achieve competitive advantage.

MBA 4310 Experiencing Strategic Management through Corporate Challenges (2 Credits)
Experiencing Strategic Management through Corporate Challenges is a Challenge Driven Educational (CDE) course that builds off several previous foundational and experiential courses. Students will leverage the content from accounting, finance, management, marketing, economics, globalization, business stats and analysis in order to engage with corporate partners to examine real-world problems. Students will address issues involving vision / mission / values of the organization, the key industry forces that influence the corporate environment, ways of maintaining and sustaining a core competency, and critical strategy implementation issues that lead to a competitive advantage. The course will be offered in a work-shop atmosphere in which students will meet in class once a week and the remaining time outside of the classroom where students are expected to apply the various aspects of strategic analysis and management.

MBA 4340 Creating Sustainable Entreprise (2 Credits)
All students should be able to demonstrate an understanding of: (1) the concept of sustainability as a decision-making model; (2) the environmental, cultural, social justice, equity, and economic issues inherent in principles of sustainability; (3) the intra- and inter-generational aspects of sustainability; (3) the interconnectedness of individuals, societies, eco-systems, cultures and cultural products in understanding issues of sustainability; and (4) the roles that multiple academic disciplines and perspectives play in identifying, understanding, and addressing issues of sustainability. All students should be able to demonstrate the ability to: (1) apply critical thinking and analysis toward understanding and solving problems related to sustainability; (2) communicate about issues of sustainability across academic disciplines and to non-academics.

MBA 4350 Bien's Int Bus Exp in Europe (1-4 Credits)
The objective of this course is to provide an international experience to our students who are interested in international business. This is achieved through field trips, academic and professional presentations, journaling and cultural immersion. Students reflect on similarities and differences in business practices and broader cultural issues that exist between the U.S. and Scandinavian countries.

MBA 4351 Doing Business in Europe (4 Credits)
The objective of this course is to expose students to issues of international business and cultural diversity through field trips and academic and professional presentations in four Scandinavian countries. Topics to be covered include managing production and operations, international marketing, the European Union, personnel development, cross-cultural aspects of international management, and the role of government. The course includes office visits and plant tours of both large and small production facilities and presentations by industry management. The course is intended also to be an interesting and informative cultural experience with visits to a Viking museum, a ship museum, several castles, and with time for individualized travel in Europe after the course is over. A research project of 15-20 pages is required and due at the end of the summer quarter.

MBA 4360 Opportunities w/ Data Skill II (2 Credits)
Develop an understanding of more complex concepts of probability and statistics, and how they relate to managerial type problems and decision making. Develop experience performing and interpreting complex analysis methodologies. Obtain further familiarity with statistical software packages. Develop experience integrating data skills with project for Corporate Challenge. Prerequisites: MBA 4160.

MBA 4410 Global Challenge I (2 Credits)
This course provides you with the opportunity to apply what you have learned in the first year of your Denver MBA program with a live client. You will work on a project focused on entrepreneurship, social good, or a corporate partner. Scoping the project will be a key learning outcome, as will learning about cross-cultural issues.

MBA 4415 Global Challenge Trip (2 Credits)
This course provides you with the opportunity to apply what you have learned in the first year of your Denver MBA program, plus what you learned on the ground during your travel, on a project with a live client. You will work on a project focused on entrepreneurship, social good, or with a corporate partner. The key learning outcome is how to pivot based on your learning while in the host country.

MBA 4470 International Business Theory in Practice (2 Credits)
International business is its own field of academic study with rich theories and frameworks. Facing a dynamic, and increasingly chaotic, external business environment, business students need to understand both the theories and how they can be applied. To that end, this course draws on the rich international business writings to better understand global business practices and to ultimately make better business decisions. Students will actively explore current international business issues, will interact with local international business leaders, and learn specific concerns facing key regions or countries globally. Prerequisite: MBA 4170.

MBA 4490 Global Macroeconomics (2 Credits)
Managerial macroeconomics covers the theory and practice of modern macroeconomics. It teaches students how private market forces and government policy decisions drive fluctuations in the global economy and affect the business environment. It explores issues related to inflation, interest rates business cycles, and monetary and fiscal policies. The course will use case studies to analyze real-life macroeconomic issues. Students are encouraged to investigate the potential and limitations of macroeconomic theory with real-world problems, and the goal is to understand the macroeconomic environment. Prerequisites: MBA 4290.
MBA 4510 Global Challenge II (2 Credits)
This course provides you with the opportunity to apply what you have learned in the first year of your Denver MBA program, plus what you learned on the ground during your travel, on a project with a live client. You will work on a project focused on entrepreneurship, social good, or with a corporate partner. The key learning outcome is how to pivot based on your learning while in the host country.

MBA 4540 Business, Government and Society (2 Credits)
This course is a cornerstone graduate course delivering a comprehensive introduction to major topics, theories and issues relevant to business in its interactions with Business & Society.

MBA 4550 Strategic Marketing Decision-Making (2 Credits)
Strategy sets the direction for an enterprise, all of its employees, programs, tasks and activities. All must be planned and executed “on strategy”. Marketing Strategy essentially is the overall company’s strategy applied and executed within the Marketing Department. Deciding upon a strategy offering the best opportunities for the organization to succeed is critical. Being able to implement it effectively is essential. Making informed strategic marketing decisions in the real world is highly complex, challenging and demanding. Choosing among strategic alternatives requires qualitative and quantitative analysis of options, making tough choices and trade-offs, and assessing requirements for executing a bona fide option successfully. Case analysis provides the primary learning methodology for the course. This is a case-based course. This course effectively approaches strategic decision-making through the lens of Marketing; that is, through marketing-focused cases and decisions, although making successful decisions in a marketing context requires evaluating them in a larger strategic perspective and company context. It also requires thorough understanding and application of basic marketing concepts, industry (external) and company (internal) situation analyses, and identification of critical issues and success factors, and the application of basic financial analysis—above which are foundation blocks for making successful strategic decisions out in the real world. Each case features a specific marketing situation that serves as a “portal” for strategic decision-making. The specific situations include pricing, distribution, new product introductions, branding, communications, sales and distribution and the like. Every case evaluation, like every real-world decision, requires financial analysis. Students must be able to analyze income statements and selective balance sheet factors. Marketing and financial metrics play roles in case strategic decision-making. (Students will be provided with a financial “refresher” package in the first class that includes problems representative of those the cases contain. A student who struggles with the practice financial problems is likely to struggle analyzing cases in the course. The good news is that this course provides a great opportunity to learn how to use financial analytical tools before it really counts—later in your careers. Suggestion: seize this opportunity to improve your financial skill set; you will need it someday.) The course involves identification, synthesis, integration and application of basic marketing concepts within strategic decision-making contexts. Core marketing concepts are reviewed in classes on a high level. (PowerPoint slides on each review topic will be posted in Canvas, and these become the de facto “textbook” and reference for course content.) Prerequisites: MBA 4150.

MBA 4610 Law and Public Policy (4 Credits)
This course is designed as a survey to cover a broad scope of basic concepts, along with their application to three major policy areas in the final weeks of the course. The course begins with an exploration of the role of business in the public policy environment. The course then examines the legal environment of business, including key elements of private law (contracts, agency, torts, and business organization law) and public law (employment law, administrative law, antitrust law, environmental law, and intellectual property law). In so doing, the course finally applies basic concepts from law and public policy, along with some concepts from economics, to examine three crucial policy areas related to business: regulatory policy, competition policy, and natural resource policy.

MBA 4620 Leadership Capstone: Integration and Transition (2 Credits)
This course is a capstone course to integrate the leadership learning and development across the two-years of the MBA. In it, students will explore further their three core areas of development as a leader: 1) Emotional Intelligence; 2) Self-Leadership, and 3) Capacity to Develop Teams. These areas of study are reflective of interconnected areas of development within the Daniels Leadership Development (p3) model. At its core the model investigates purpose, principles, and presence, and in its outer ring explores perspective, partnerships, and practices. Students in this course will deepen their understanding and fluency with the P3 model by exploring the particular areas of emotional intelligence, self-leadership, and team building. They will conclude the course with a study of models of organizational and individual change and transition, in preparation for their own professional transition and deepening of capacity to lead change. The course is designed to be experiential – work will be done in the context of a team – and reflective, with an emphasis on self-reflection and individual learning. The course is organized to provide students with a platform for integrating learning during the last quarter of the MBA.

MBA 4670 Global Issues (2 Credits)
Develop a personal viewpoint regarding the “Global Tilt.” Explore current global issues and their implications for business and careers. Develop future scanning strategy/skills to keep up with global issues. Assess the changing “permeability” of national borders. Prerequisites: MBA 4470.

MBA 4690 Enterprise Solutions (4 Credits)
A practical application of key business and managerial knowledge, skills, and competencies designed to integrate all graduate program elements and provide students with a distinctive advantage in career development.

MBA 4691 Project Analysis 1 (2 Credits)
Capstone class for MBA program. Students should be full-time MBA students in their final 2 quarters of the program or receive faculty permission.

MBA 4692 Project Analysis 2 (2 Credits)
Students should be full-time MBA students in their final 2 quarters of the program or receive faculty permission. Students must have taken Project Analysis 1 to enroll.
MBA 4980 MBA Internship (0-10 Credits)
Denver MBA students have an opportunity to take for-credit internships. You and your supervising professor should develop an internship proposal which contains (a) a description of the experience and why it is important, (b) a detailed outline of the paper you will submit. You may or may not get paid for the internship work.

MBA 4991 Independent Study (1-10 Credits)

MBA 4992 Directed Study (1-5 Credits)

Management Courses

MGMT 4201 Persuasive Communications - Digital, Oral, Written (2 Credits)
Many surveys show that employers want job candidates with strong communication skills. Similarly, success in a graduate program requires the ability to articulate your thoughts clearly and persuasively in all forms. In this course, we study the principles of effective oral, written, and digital communications. We accomplish the learning outcomes of this course by critically examining yours and others' communications styles, practicing oral and written forms, maintaining effective social media presence, and delivering impactful and persuasive presentations.

MGMT 4202 Profiles in Leadership and Management (2 Credits)
This course is a seminar designed to provide exposure to mid- to high-level executives and the decisions they face. A diverse set of speakers are invited to class to describe their career paths, views on leadership and management, and particularly challenging decisions they faced during their career. The speakers are selected to represent a variety of business types both for-profit and non-for-profit, career paths, and leadership and management perspectives. The course encourages students to evaluate the speakers in the context of selected dimensions of leadership and management.

MGMT 4203 Foundations of Strategy (2 Credits)
Foundations of Strategy is a course that introduces the student to the theory of strategic management. Students will develop the ability to think strategically by examining a firm's mission, vision, and values, business model and financial health of the organization. After assessing the firm's strengths and weaknesses, the focus is then placed on the industry and competitive environments using a series of tools and frameworks that result in identifying opportunities and threats. Synthesis in the course takes place when the student is able to provide strategic recommendations that generate added value and competitive advantage for the firm. Learning is facilitated through a work-shop atmosphere that uses case studies of industry leaders currently in the news. Principal Content Elements (i.e., modules / weeks): Intro to Strategy Business Models Competitive Advantage Role of Mission / Vision / Values Evaluating a Company's Resources, Capabilities, and Competitiveness Evaluating the External Environment Generic Competitive Strategies Strengthening a Company's Competitive Position Strategies for Competing in International Markets Corporate Strategy – Diversification and the Multi-business Company Strategic Alliances and Partnerships Strategy Execution and Implementation Challenges.

MGMT 4204 Ascend Industry or Topic Ideation and Research (2 Credits)
This is the first of a three Ascend course series in the Master of Science in Management Program. During this self-directed and faculty supervised project course the student will choose one of the following two options: A. In consultation with the supervising faculty member, the student will choose an industry and thoroughly research and analyze industry conditions using an appropriate theoretical framework, and explore the entry and mid-level career opportunities in the industry. In addition, the student will choose and approach a company in this industry that will provide him/her with a two-quarter internship opportunity. B.

MGMT 4240 Global Business Imperative (4 Credits)
Conducting business outside the United States involves a unique set of challenges. Diverse cultures, laws, languages and currencies add to the complexity of putting together and managing international business ventures. This course will help you to prepare for these activities by exploring ten questions, which focus critical aspects of international business. The primary vehicle for accomplishing this will be class discussions built around presentations by the instructors as well as cases and exercises dealing with a range of issues, countries, and industries.

MGMT 4280 Business Design (4 Credits)
Each student learns an organized approach to rapid design of a business with a sustainable competitive advantage based upon innovations(s) to the business model. That innovation(s) is discovered through an investigation of the existing business models and the competitive landscape including: suppliers, customers, competitors, substitutes and barriers of entry. Specific opportunities are identified through investigation of the following: industry, market, and competition. Opportunities to create competitive advantages are investigated through the design of strategies in: marketing, sales, operations, human capital, social responsibility, financing, corporate governance and technology. The course offers a workshop atmosphere in which students are expected to apply and discuss the various aspects of business planning. The result is a written business plan and presentation to funding sources reflecting a sustainable competitive advantage and creation of a defensible market.

MGMT 4301 MS Management Organizational Behavior (2 Credits)
Organizations can be mysterious places, often very difficult to understand. Spend any amount of time in an organization – large or small, business, not-for-profit, government – and you’ll probably find yourself scratching your head. “Who came up with that idea?” “Why does this always (or never) happen?” In this course you will get a framework that will help you make sense of these questions. You will come to understand how some decisions that seem to make no sense to you, make eminent sense when viewed from a different perspective. You will get a framework for examining behaviors in organizations. You will also learn your particular perspective on organizations and how it can limit your ability to truly understand differing points of view. Drawing on several disciplines – Sociology, Social Psychology, Political Science, Cultural Anthropology, Symbolism – this course will help give you the tools necessary to understand why things happen in organizations the way they do, and how to adapt your style to be a successful and influential member and leader in your organization.
MGMT 4302 MS Management Human Resource Management (2 Credits)
A management course for graduate students grounded in a strong foundation of real experiences managing and leading Human Resource organizations. This course is designed to unify strategy, human resource strategy and principles of management in a highly interactive format employing multiple learning methods.

MGMT 4303 Conflict and Change Management (2 Credits)
This course will cover the theory and practice of conflict management, negotiation, and change management in the workplace. Change is an inevitable part of organizational life, and competencies in managing change along with resulting conflicts, is a critical skill set for both new and experienced leaders. Using established models, the course will explore sources of, and strategies for dealing with, conflict at multiple levels: individual, dyadic, team, and organizational. Methods of principled negotiation will be presented and practiced during the course.

MGMT 4304 Project and Budget Management (2 Credits)
This course will introduce the student to the key elements of a successful project delivery system. The project delivery system consists of five components: training, tools, core skills, company support, and a project delivery process. The process is the means by which projects are consistently and efficiently planned, executed, and completed to the satisfaction of clients. The system is aligned with the principles of a total quality improvement program, namely client focus, project manager commitment, evaluation and measurement, corporate support, and continuous improvement.

MGMT 4305 Business Model Design and Innovation (2 Credits)
Each student learns an organized approach to rapid design of a business with a sustainable competitive advantage based upon innovations(s) to the business model. Innovation(s) is discovered through an investigation of the existing business models and the industry landscape including: customers, competitors, substitutes, suppliers, and barriers to entry. Specific opportunities are identified through investigation of the following: industry, market, and competition. Opportunities to create competitive advantages are investigated through the design of financial, marketing, sales, operation, talent, technology, and social responsibility strategies. The course offers a workshop atmosphere in which students are expected to apply and discuss the various aspects of a Business Model and a Business Plan. The result is a written business plan and presentation to a potential funding panel.

MGMT 4306 Virtual Business Management Simulation (2 Credits)
The focus of this course is on gaining new venture experience. Through an online/virtual computer simulation, students will be placed into a very realistic international business setting, where they will start up and run a company through multiple rounds of decision-making. The online simulation allows students to build entrepreneurial firms, experiment with strategies, and compete with other student teams in a virtual business world. Designed to mimic the competitive, ever changing marketplace, the simulation lets students gain experience in market analysis, strategy formulation, and the management of a new venture.

MGMT 4307 Ascend Internship (4 Credits)
The MSM Ascend internship is about learning by doing. Internships in addition to providing an opportunity for hands-on learning, often open the door to the first professional job. Course requirements include an internship report that covers a study of the industry and the organization, and what you learned from your experience. The Ascend internship is a win-win course where you put into practice the management and business acumen you have learned at Daniels, and discover new skills from your colleagues in the organization. Permission of instructor required. Hours and times arranged by the student and the internship granting organization.

MGMT 4340 Strategic Human Resource Mgmt (4 Credits)
This course focuses on the effective management of human resources in order to create sustained competitive advantage. The course covers the major policy areas of employee influence mechanisms, staffing, training and development, performance appraisal, reward systems, and work design so that students are better prepared to provide direction to the creation and implementation of effective management systems. Prerequisite: MGMT 3900 or permission of instructor.

MGMT 4345 Performance & Rewards System (4 Credits)
Measuring and improving human performance, techniques of individual objective settings including MBO, appraisal and feedback systems, creating and managing compensation programs, job design, analysis and redesign of reward systems in various organizational contexts. Prerequisite: MBA 4121 or equivalent.

MGMT 4350 Business Summit Series: Current Business Issues and Topics (4 Credits)
The Business Summit Series is an elective course that provides students with insights into a variety of contemporary business issues and topics with a practical approach to developing business leadership skills and competencies. Before the course commences, students are invited to provide input and help faculty select the topics that are covered in the series. The faculty will develop modules, with each module covering a discrete business topic a workshop format. The workshops are taught in four-hour segments, with some workshops covering more than four hours, depending on content and learning outcomes. Workshops span practical topics that are not covered in-depth during the core PMBA curriculum, and they also include emerging business subjects. Topics include: Go-To-Market Strategy, Business Development Strategies, Mastering Sales Techniques, Business Consulting Skills, Becoming a Manager, Organizational Change Leadership, Franchise Business Model, and Colorado’s Marijuana Industry. Other emerging business topics may include the Colorado small business market and new industry segments. Industry leaders may present to the class as subject matter experts.

MGMT 4401 Managing Cross-Cultural and Virtual Teams (2 Credits)
The world is more connected than ever before and culturally diverse virtual teams are a reality in the global marketplace. This course provides an introduction into managing culturally diverse and virtual team work in practice and distinctive features and challenges of virtual working environments. The course covers topics such as: managing cultural differences; knowledge sharing and team communication; managing yourself; engaging culturally diverse employees; managing conflicts in team work; and online tools and digital work.
MGMT 4402 Management Ethics (2 Credits)
The purpose of this course is to introduce students to ethical concepts, theories and issues as they relate to business and managerial decision-making. Consideration of ethics and the social responsibilities of business are relevant both for effective managing and for businesses properly fulfilling their function(s) in the larger society. This is a course in applied ethics. A primary focus will be specific issues related to business and managerial decision-making. The course is also designed to introduce students to more general approaches or ways of thinking about ethics, and students will be exposed to both normative and behavioral aspects of ethics. An important learning outcome of the course is to strengthen the capacity of students to make practically wise decisions in their future careers.

MGMT 4403 Business and Society (2 Credits)
This course examines the role of business in society and explores important issues in the relationships between business, government, and society. These issues are approached from a stakeholder perspective, integrating business strategy with law, ethics, and social responsibility. The obligations of business to its multiple stakeholders are established and applied through analysis of companies, cases, and current events.

MGMT 4405 Strategic Execution and Summit Team Competition and Assessment (3 Credits)
Strategic Execution is a Challenge Driven Educational (CDE) course that builds off several previous MS Management courses. Students will leverage the contents from accounting, finance, management, marketing, strategy, and business analytics to engage with corporate partners to examine real-world problems. This course provides you with the opportunity to apply what you have learned so far in the MSM program with a live client. You will work on a project focused on business and management. Scoping the project will be a key learning outcome.

MGMT 4490 Global Strategy (4 Credits)
Management of multinational enterprises; identification, analysis, and discussion of key policy issues for the international manager within various functional areas; home and host country relationships including assessment of political risk, selection of foreign locations, entry and ownership strategy, personnel and staffing considerations, technology transfer, multinational labor relations, organizing for international operations. Prerequisite: Should be taken in the last possible quarter before graduation and after completion of all advanced requirements and ITEC 3900, MGMT 3900, MKTG 3900, STAT 3910, and FIN 4610.

MGMT 4503 Comparative Management (2 Credits)
Exploration of similarities and dissimilarities of management practices in various cultures, determination of political, economic and cultural factors primarily affecting management theory and practice, transferability of certain management practices to other cultures. Introduction to basic assumptions and approaches of comparative research methodology. Prerequisite: MBA 4121.

MGMT 4515 Introduction to Sport and Entertainment Management (4 Credits)
The purpose of this course is to provide students with a very broad but significant exposure to the business of sports, which represents a global, multi-billion dollar industry. By critically analyzing numerous facets within this business from the perspective of a manager, student come away with knowledge that is wide enough but deep enough to foster a solid understanding of this dynamic and exciting industry. At the same time, this course provides students with specific and valuable insights that foster and stimulate deeper interest in a particular aspect within this industry through subsequent and additional coursework, independent study, and/or internship opportunities.

MGMT 4520 Managing Sport & Entertainment Contracts (4 Credits)
This is a comprehensive and interactive seminar on managing sports and entertainment contracts. The class covers intellectual property; the role of entertainment and sports managers and agents; general contract principles and theory; contract negotiation; management and operating agreements; and sponsorship, endorsement, and licensing agreements.

MGMT 4525 Facility Management (4 Credits)
What is a Public Assembly Facility? Public assembly facilities such as arenas, stadiums, convention centers, and theatres evolved out of the need by social communities to build permanent structures for public assembly, for political and commercial activities, religion, sports, spectacles, artistic expression and for commercial and educational assemblies. This course examines the specific areas of responsibility that one must acknowledge and understand to operate a successful venue of this type. We discuss the core competencies required and the unique areas of concentration that separate a public assembly facility from other venue types. Students realize the significant impact and benefit that facilities like these have on the social, educational and economic environment of communities.

MGMT 4530 Technologies for Sport & Entertainment Management (2 Credits)
This is a specialized course for the MBA student interested in expanding their knowledge of the sports industry as a business and as a world economic force. It provides students with a framework for understanding the scope of the sports business across various venues, as it relates to information technology. Management Sport Technology focuses on understanding the practical uses of computer applications as a tool in sport management activities. Emphasis is placed on demonstrated proficiency in project management, spreadsheet management, database management, and Web page development.

MGMT 4535 Managing Sponsorships for Sport & Entertainment Events (2 Credits)
The purpose of this course is to give students an understanding of sports sponsorship from the perspective of the corporate sponsor and the sports entity. The course identifies and describes the several media distribution channels that are used in corporate sports sponsorship. In addition, students learn how to use sports media distribution properties to create an effective sports marketing plan for corporate sponsors. Students put together a corporate sports marketing plan with a sample sports team.
MGMT 4540 Advanced Seminar in Sports and Entertainment Management (4 Credits)
The purpose of this seminar is to consider current topics in sport and entertainment management. Topics vary by quarter depending on timeliness of topics and interest of students. Potential topics may include public policy questions; ethical issues; current economic impacts and analysis; sport and entertainment management factors and how the various segments (professional, amateur, collegiate, high school, recreational and others) relate; environmental impacts; global issues and other issues that impact the current and future fields of sport and entertainment management.

MGMT 4545 Leadership, Team, and Career Development (2 Credits)
Daniels MBA students are preparing for leadership roles as entrepreneurs, in corporations, and in not-for-profit organizations. In this course we will look at leadership from a variety of perspectives. Once we have reviewed what the experts have to say about leadership, we will turn our focus to helping you develop your personal theory of leadership. You will answer on important questions: How will I lead? Armed with this knowledge, you will be better equipped to handle leadership challenges as you go forward in life.

MGMT 4620 Organizational Dynamics (4 Credits)
This course focuses on the effective management of people, every organization’s most critical resource. Employees’ knowledge, skills, commitment, creativity, and effort are the basis for sustained competitive advantage. It is people who deal directly with customers, have creative ideas for new products or for process improvements, who devise marketing strategies or take technologies to the next level. In this course, the class approaches the people side of business from a general management perspective, integrating concepts from organizational behavior, human resource management, strategy, and organizational design. Course topics include motivation, reward systems, engagement, feedback, processes by which work is done and decisions are made, including attention to teams, power dynamics, conflict, and negotiations; the structure of the organization and its systems, including job and organizational design and system and policies affecting human capital; the organization’s culture and history; and the external environment within which the organization operates, including legal, regulatory, demographic, economic and national cultural factors.

MGMT 4625 Managing Human Capital (6 Credits)
This course gives the focus on the effective management of people, every organization’s most critical resource. Employees’ knowledge, skills, commitment, creativity, and effort are the basis for sustained competitive advantage. It is people who deal directly with customers, have creative ideas for new products or for process improvements, who devise marketing strategies or take technologies to the next level. In this course, the class approaches the people side of business from a general management perspective, integrating concepts from organizational behavior, human resource management, strategy, and organizational design. Course topics include motivation, reward systems, engagement, feedback, processes by which work is done and decisions are made, including attention to teams, power dynamics, conflict, and negotiations; the structure of the organization and its systems, including job and organizational design and system and policies affecting human capital; the organization’s culture and history; and the external environment within which the organization operates, including legal, regulatory, demographic, economic and national cultural factors.

MGMT 4630 Strategic Human Resources Management (4 Credits)
This course advances the argument that effective human resource policies will create sustained competitive advantage. To that end, this course will address the effective management of human resources in various policy areas: staffing, diversity, training and development, voice and influence, performance appraisal, and reward systems. Rather than taking a traditional, staff personnel perspective, we will discuss human resource management from the strategic perspective of a general manager. Prerequisite: MGMT 4620.

MGMT 4650 Management Consulting (4 Credits)
This course is designed to provide a broad overview of the management consulting profession, including its industry and competitive dynamics, major practice areas, approaches to implementation, management of consulting firms and the future of consulting. In addition, emphasis is given to the practice of consulting through the development of certain high impact skills in evaluation, proposal writing, data gathering and client presentations. The course is relevant to those who: 1) are specifically interested in consulting careers, 2) have job interests that involve staff positions in corporations, 3) want to become line managers who might one day use consultants, 4) wish to develop general consulting skills and familiarity with the consulting industry. The learning process in class will consist of lectures, cases, readings, exercises and guest speakers. This wide variety of learning methods is intended to convey both the necessary knowledge and practical skills necessary for building a sound foundation for becoming a professional consultant. It is essential that everyone comes well-prepared to class, as the learning process depends heavily upon participation.

MGMT 4690 Strategic Management (4 Credits)
This course builds from the premise that managers make decisions that influence the overall success of their organizations. We will concentrate on how top managers create and maximize value for their stakeholders. You will learn about how companies compete against each other in the quest of achieving high performance and market victories. You will learn about how and why some companies are successful while others are not. This course is about strategy. The primary task of strategy is the allocation and commitment of critical resources over relatively long periods of time in pursuit of specific goals and objectives. Strategic decisions take account of the conditions that prevail within the industry environment, both positive and negative, and the resources and capabilities available to managers for meeting environmental challenges. Strategy also requires establishing and managing an internal organizational system that creates and sustains strategic value.

MGMT 4700 Topics in Management (1-4 Credits)

MGMT 4710 Sustaining Family Enterprises (4 Credits)
Family enterprises have a tremendous impact on our local, national and global economies. Today, the definition of the family enterprise extends beyond just the business entity. It includes family offices, family "banks," family councils, trusts, and family foundations, just to name a few. Further, what happens in, and how decisions are made by, family enterprise affects not only the active family members but other key stakeholders such as inactive family members, in-laws, non-family managers and employees, professional advisors, customers, suppliers and competitors. This course gives students insight into the universe of possibilities that families, enterprises and their advisors face when engaged in systemic transition planning. This highly interdisciplinary course is appropriate for anyone who intends to work in or with family enterprises. This includes family members, accountants, attorneys, estate planners, financial or wealth managers, family office professionals, insurance consultants, business advisors, management consultants, organizational and leadership development experts, international business professionals, psychologists, social workers, and family therapists.
MGMT 4790 Managing Strategic Alliances (4 Credits)
The purpose of this course is to examine and expand upon the current understanding of the challenges of developing and managing strategic alliances. Reflecting the breadth of the novel features of the structure, the course draws from both strategic management and organizational behavioral disciplines. To order the discussion, we take a process view in addressing why and then how to use a strategic alliance. We initially focus on when to use an alliance. We then turn to the formation of an alliance - examining how to select a partner, which structure to choose and how to negotiate. Following, we discuss post-formation issues of partner relationships, management of the alliance, performance evaluation and alliance termination. We conclude the course with sessions devoted towards managing a portfolio of alliances and network management in general.

MGMT 4980 Graduate Internship in Mgmt (0-10 Credits)
Hours and times arranged by student.

MGMT 4991 Independent Study (1-10 Credits)
Individual research and report. Hours and times arranged by student.

MGMT 4992 Directed Study (1-4 Credits)

MGMT 4995 Independent Research (1-10 Credits)

Marketing Courses

MKTG 4000 Foundations of Marketing (0 Credits)
This is primarily an online course. The purpose of the course is to ensure that all incoming students have some foundational knowledge of marketing. Most of our incoming students have undergraduate degrees in business and work experience in marketing, and so will already have a working knowledge of marketing vocabulary and may be able to pass the self-check exams in this course without further study. Other students will need to do some reading to pass the assessments. Assessments may be taken as many times as necessary to achieve a score indicating that the student has achieved foundational knowledge of marketing. The course will also integrate a few on-campus professional development tasks to ensure that students get an early start on the next phase of their careers.

MKTG 4100 Marketing Concepts (4 Credits)
Ever wonder what’s behind those Super Bowl ads we love to watch? Or, how Apple decides the price of its newest electronic wonder? Did you notice you can almost always find what you are looking for at the grocery store, whether it’s in season or out? How does that happen? This course provides students with a lens through which they may view the world as a consumer and as a marketer, relating marketing principles and models to consumer and business actions. The course investigates marketing strategy and tactics using contemporary examples from the headlines, active class discussion, and a marketing strategy simulation or client engagement.

MKTG 4201 MS Management Marketing Management (2 Credits)
Marketing Management, is a newly developed, hands-on course that is part of the Mater of Science in Management degree in the Department of Management. It uses a fresh integrated approach to applying the basic fundamentals of marketing to complex and evolving scenarios. This course also helps graduate students learn skills in a safe environment and leverage their experience and knowledge to investigate business situations and opportunities in a thoughtful and sophisticated manner. This course develops a student’s ability to make sound business planning decisions using marketing theories and tools.

MKTG 4220 Customer Experience Management (4 Credits)
In their best-selling book, The Experience Economy, Pine and Gilmore set the stage for what today’s organizations are facing—customers that connect with brands on the basis of the experiences they receive: products and service are no longer a sufficient differentiator. This course takes the student beyond the ‘better product, better service’ approach to the cutting edge concepts of customer experience management (CEM). It provides an understanding of CEM, its best practices, and the tools for its implementation and evaluation. The course considers the challenges of creating and delivering customer experiences in a variety of settings—in-store operations, branded products, and web-based operations. One of the special features of this course is the use of live, case studies from a variety of companies. Among the companies recently represented by guest speakers are Charles Schwab, Comcast, Starbucks, and others.

MKTG 4230 Financial Aspects of Customer Experience Management (4 Credits)
Successful customer experience management requires knowledge of the tools and techniques to assess the costs, benefits, and return on investment in customer relationships. This course shows students how to conceptualize, design, implement, and evaluate information and financial systems that support successful customer experience operations. A particular focus of this course is the determination of the optimal investment in customer experience, including insights from concepts such as lifetime value of customers. Prerequisite: MKTG 4220.

MKTG 4240 Customer Experience Management Integration (4 Credits)
A key component of every successful customer experience management (CEM) program is the ability to integrate CEM, marketing, financial, and information systems information, concepts, and processes into a successful operation for the customer and the company. This course provides the student with the tools to evaluate the success of customer experience management systems through conducting the CEM Audit. Students apply the CEM Audit to evaluate the level of company achievement of CEM goals and objectives. This course builds on the courses in the CEM and IMC programs (primarily MKTG 4220) as well as other courses in marketing and business. In this sense, it is a capstone course, integrating the knowledge and experience acquired through other courses and your life and business experiences. Developing skills in assessment of an organization against CEM standards is the primary objective of this course. Prerequisite: MKTG 4220.
MKTG 4360 Global Transportation Systems (4 Credits)
Managing a global supply chain involves applying increased discipline to a process with many parts. The key parts of the supply chain over which a company has the least control are the transportation carriers that connect a company with its customers and suppliers in all parts of the world. Global Transportation Systems covers the various modes of transportation including ocean vessel, barge, railroads, truck and air freight. The course will touch on the operating characteristics, service, infrastructure, sustainability, ownership, finances, prices and each mode’s place in the global supply chain both across borders and domestically in several target countries including the U.S. In addition Global Transportation Systems will provide the student with an understanding of how public policy affects transportation infrastructure investment, security, cost and service around the world. The course provides a solid foundation for other supply chain courses. Cross listed with MKTG 3360.

MKTG 4370 Marketing Channels & Logistics (4 Credits)
Of the four Ps (product, price, promotion, and place), MKTG 4370 explores the “place” in a firm’s marketing efforts to gain sustainable competitive advantage. Marketing channels are the routes to market used to sell every product and service that consumers and business buyers purchase everywhere in the world. Logistics is the other half; delivering the right product at the right time to the right place in the right quantities to keep satisfied loyal customers, a crucial element in making the sale. In this course, students learn the design of marketing channels to deliver sustainable competitive advantage while building channel power and managing channel conflict. Sound strategic and tactical channels decisions are taught via an on-line computer simulation. Logistics design and execution includes best practices for demand management, order management, customer service, inventory strategy, transportation, and distribution, all of which are taught through lecture, hands-on exercises, and case studies of the world’s best supply chains. Cross listed with MKTG 3370.

MKTG 4375 Strategic Sourcing (4 Credits)
Current businesses face relentless pressure to provide additional value in an ever more competitive world. Globalization of world markets has reconfigured supply networks across the globe, causing increasing complexities and challenges in sourcing. In this course, the student learns about the strategic sourcing process, from the development of a sourcing strategy to establishing, managing, and optimizing the firm’s supply base. A framework for aligning corporate, business unit and functional department objectives with a sourcing strategy for each commodity purchased by the firm will be presented, along with spend analysis, portfolio analysis, and other best practices (supply base optimization, supplier scorecards, supplier development programs, reverse cost analysis, B2B Auctions, learning curves, value analysis, total cost of ownership, and gain sharing) for improving a firm’s cost and financial performance through improved supply chain performance. Cross listed with MKTG 3375.

MKTG 4380 Supply Chain Management (4 Credits)
Today’s economy of globally sourced manufacturing, developing markets, synchronized e-commerce, international trade lanes, and intertwined economies demand supply chains of global reach to bring goods and services from around the world to local stores or even the consumer’s front door. This course addresses the challenges and illustrates the tools required to build, maintain, and expand global supply chains. The course develops the ability to make sound strategic, tactical, and operational supply chain decisions via an on-line simulation tool, and superior supply chain design and performance is taught through in-depth case studies from the world’s top 25 supply chains. Students are able to connect improvements in supply chain design and performance to the financial performance of a firm. Cross listed with MKTG 3380. Prerequisites: MKTG 4360 and MKTG 4370.

MKTG 4400 Social Awareness and Ethics (2 Credits)
Social awareness & ethics uses a fresh integrated approach to applying the basic fundamentals of marketing to complex and evolving scenarios involving social change and insight, cultural trends and topics, and tricky, often emotional, ethical situations. This course also helps students learn skills in a safe environment and leverage their experience and knowledge to investigate business situations and opportunities in a thoughtful and sophisticated manner. This course develops a student’s ability to make sound business planning decisions using real information from the external environment. This course will combine business ethics’ overarching intent to protect employees, the environment, and their customers with marketing ethics’ principles of honesty, fairness, responsibility, and respect. As part of this, students will learn about and apply Daniels Fund Initiate Principles: http://www.danielsfund.org/_Assets/files/Ethics%20Initiative%20Principles.pdf Prerequisites: Pass foundations exam or MKTG 4100.

MKTG 4501 Client Lab I (1 Credit)
MKTG 4501 is a requirement to be taken concurrently with a distinct marketing class over the duration of your program. In this course, you will be working with a business client to identify and solve a client problem in the area of focus for the companion course. By taking this course and solving three different types of client problems, over the duration of your program, you will have the chance to sharpen your problem identification abilities and to work with marketing professionals, demonstrating your marketing ability.

MKTG 4502 Client Lab II (1 Credit)
MKTG 4502 is a requirement to be taken concurrently with a distinct marketing class over the duration of your program. In this course, you will be working with a business client to identify and solve a client problem in the area of focus for the companion course. By taking this course and solving three different types of client problems, over the duration of your program, you will have the chance to sharpen your problem identification abilities and to work with marketing professionals, demonstrating your marketing ability.

MKTG 4503 Client Lab III (1 Credit)
MKTG 4503 is a requirement to be taken concurrently with a distinct marketing class over the duration of your program. In this course, you will be working with a business client to identify and solve a client problem in the area of focus for the companion course. By taking this course and solving three different types of client problems, over the duration of your program, you will have the chance to sharpen your problem identification abilities and to work with marketing professionals, demonstrating your marketing ability.
MKTG 4510 Consumer Behavior (4 Credits)
What makes consumers tick? This course draws on a variety of sources, including concepts and models from psychology, sociology, anthropology, and economics, to offer helpful frameworks for understanding why consumers buy what they buy. These concepts are applied to real-world situations to give students practice at making better product, promotion, pricing, and distribution decisions based on consumer insights.

MKTG 4515 International Consumer Behavior (4 Credits)
The focus of this course is to introduce the complex role that consumer behavior and consumption plays within an international context. Knowledge of customers is one of the cornerstones for developing sound business strategies, and there is a need to better understand the diverse aspects of consumer behavior that marketers must cater to in the global marketplace. As the study of consumer behavior draws upon marketing, psychology, economics, anthropology, and other disciplines, the added complexity of understanding it beyond one’s home market results in additional challenges and opportunities. Consumer behavior attempts to understand the consumption activities of individuals as opposed to markets, and as this course will demonstrate, consumption activities are not universal. The course will focus on both consumer behavior theory, as well as the integration of regional, global, and cultural variables that marketers must account for in developing marketing programs in strategies. Topics such as global consumer culture, values and consumption, international consumer attributes, international social and mental processes, will be used to help comprehend and explain the convergence and divergence of consumer behavior in the global marketplace. The goal of this course is to provide a more concrete understanding of how marketers account for similarities and differences in the development and implementation of marketing practices, in the field of advertising, product and service development and usage, retailing, and communications. Prerequisites: MKTG 4510.

MKTG 4520 Marketing Metrics (4 Credits)
There’s no escape; even marketing managers need to understand financials. This course is designed to introduce MS Marketing students to the principles of financial decision-making and the use of marketing metrics, including customer lifetime value (CLV) and media mix modeling. Students learn how to compute marketing ROI and how to make marketing decisions that enhance the bottom line. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.

MKTG 4530 Marketing Research & Analytics (4 Credits)
Understanding consumers requires careful observation and thoughtful questions. Marketing research represents a methodology for getting the answers needed to be successful in business. This course introduces students to a broad array of marketing research tools, including focus groups, ethnographic studies, survey research, and experiments. Students will learn how and when to apply these tools, as well as how to interpret the results to make sound marketing decisions. Highly recommended students take statistics prior to taking this course. Prerequisites: MKTG 4100.

MKTG 4540 Product and Service Innovation (4 Credits)
Developing and introducing new products and services are the lifeblood for companies and a primary responsibility of product management. This course is focused on the most current innovations in materials, hardware, CPG, and software. This is a travel course and students will be required to travel to the Consumer Electronics Show in addition to attending class on campus. We’ll be using Google Ventures rapid sprint framework to develop/test new product ideas. Prerequisites: MKTG 4510, MKTG 4520, MKTG 4530, and MKTG 4810 or instructor permission.

MKTG 4550 Marketing Planning (4 Credits)
It has been said that “planning without action is futile, and action without planning is fatal.” The objective of this course is to enable students to utilize a rigorous planning process to develop action-oriented marketing programs. This activity involves an integrated application of concepts and theories characterized by the logical use of facts — leading to alternatives — leading to actions. By the end of the course students should be able to develop effective marketing programs, and to understand the strength and limitations of the principal planning tools a marketing manager has at his/her disposal. The skills developed in this class are particularly important because many organizations now use the marketing plan as the basis for developing the business plan. In fact, marketing-developed plans often must precede the subsequent decisions in planning production, finance, and other corporate activities. Each student will apply the planning process, develop an action plan, and identify specific marketing outcomes for an existing or prospective enterprise. The course utilizes current practices, contemporary exemplars, and rigorous communication/presentation platforms. Course must be taken within one quarter of graduation or with instructor’s permission.

MKTG 4560 Pricing Strategy (4 Credits)
This course provides an overview of all aspects of Pricing, a key driver of growth and profitability. As one of the 4 “Ps” of Marketing, attention and interest in Pricing is growing. This is not surprising, given that Price is the one “P” that drives the topline, with a direct impact on on revenue growth, customer growth, market share, and profitability. This Pricing survey course examines established and emerging pricing strategies and principles. In addition, students learn some basic analytical tools that can be applied to pricing strategy decisions and explore approaches to optimize the impact of pricing strategies and tactics, including segmentation, addressing the competition, and communicating value. Prerequisites: MKTG 4510, MKTG 4520, and MKTG 4530 or instructor permission.

MKTG 4580 Collaborative Innovation: Designing New Customer Experiences (4 Credits)
Innovation is a driving force of change for organizations and markets. It is becoming increasingly clear that the development of novel and compelling offerings requires the contributions of multiple stakeholders, including customers. Companies such as Apple, Facebook and Google, focus on engaging an ecosystem of partners to develop new value propositions to continually improve customer experiences. This course explores the collaborative processes that drive value creation and innovation. Students will learn to strategically apply design thinking and community-building approaches to innovate customer experiences in ever-changing markets. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.
MKTG 4605 Current Marketing Perspectives (4 Credits)
Like most disciplines, marketing is evolving constantly. One can learn about marketing and its classic terms and notions by reading a textbook. But to familiarize oneself with the current pressing issues, emerging ideas, and innovative applications, one must consult both industry practitioners and academic gurus. In this course, students and faculty will meet and interview several top business executives in the Denver area as well as visit their facilities. Such interaction with the managers and faculty will help the students understand the interface of theory and application. In addition, by identifying the current issues in marketing and learning how to develop strategies to handle them, students add to their preparation for the job market.

MKTG 4630 International Marketing (4 Credits)
The shrinking planet and constant pressure to maintain a firm’s growth mean that global marketing continues to grow in importance. This course introduces the various economic, social, cultural, political, and legal dimensions of international marketing from conceptual, methodological and application perspectives, and emphasizes how these factors should affect, and can be integrated into, marketing programs and strategies. This course provides students with methods for analyzing world markets and their respective consumers and environments, and to equip students with the skills in developing and implementing marketing strategies and decision making in international contexts. It includes a combination of lectures and discussions, case analyses of real global marketing issues, videos and readings from the business press, country snapshots, and a group research project in which student teams launch a discrete product in a foreign country of their choice.

MKTG 4635 International Consumer Behavior (4 Credits)
The focus of this course is to introduce the complex role that consumer behavior and consumption plays within an international context. Knowledge of customers is one of the cornerstones for developing sound business strategies, and there is a need to better understand the diverse aspects of consumer behavior that marketers must cater to in the global marketplace. As the study of consumer behavior draws upon marketing, psychology, economics, anthropology, and other disciplines, the added complexity of understanding it beyond ones’ home market results in additional challenges and opportunities. Consumer behavior attempts to understand the consumption activities of individuals as opposed to markets, and as this course will demonstrate, consumption activities are not universal. The course will focus on both consumer behavior theory, as well as the integration of regional, global, and cultural variables that marketers must account for in developing marketing programs in strategies. Topics such as global consumer culture, values and consumption, international consumer attributes, international social and mental processes, will be used to help comprehend and explain the convergence and divergence of consumer behavior in the global marketplace. The goal of this course is to provide a more concrete understanding of how marketers account for similarities and differences in the development and implementation of marketing practices, in the field of advertising, product and service development and usage, retailing, and communications. Cross-listed with MKTG 3635. Prerequisite: MKTG 4510 or instructor permission.

MKTG 4660 Sports & Entertainment Marketing (4 Credits)
There are few products for which consumers are more passionate than their sports and entertainment expenditures, so this topic is always an exciting one in marketing. This course provides an in-depth look at the processes and practices of marketing sports, concerts, film and other entertainment. The course emphasizes the practical use of advertising, promotion and public relations in creating athlete or entertainers images, providing a quality fan experience, promoting sponsorships or driving event ticket sales. Participation in a current sports marketing project provides context for graduate students to apply theory to practice. Cross listed with MKTG 3660. Prerequisites: MKTG 4100.

MKTG 4670 Competitive Strategies (4 Credits)
This course will examine what is happening in the world of corporate marketing today. Which companies’ marketing strategies are working and why? Which are not working and why? Who is winning in the competitive marketplace and who is losing? How do you know? What is the connection between a company’s marketing strategy and its financial strategy? Prerequisites: MKTG 4100.

MKTG 4705 Topics in Marketing (1-4 Credits)
TOPIC CHANGES EACH TERM.

MKTG 4750 Digital Strategies (4 Credits)
We’re 20 years into the digital marketing revolution and the ecosystem continues to evolve. From the birth of the Internet and email to the recent addition of messaging apps and the Internet of Things: It’s a fantastic time to be a marketer. In this class, we will take what you learned in consumer behavior and extend it in the social/mobile/search realm. We’ll utilize lessons learned from cognitive neuroscience combined with qualitative/quantitative data to create one-to-one marketing experiences for B2B/B2C consumers. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.

MKTG 4800 Global Integrated Marketing Communication (4 Credits)
The Global IMC class is for graduates who have worked in marketing communications or have taken marketing communications classes and want to gain an understanding of how use this knowledge in the global marketplace. It helps students to understand similarities and differences between markets and how to most effectively approach them. What are the IMC tools that work best and how do you use them with cultural sensitivity? The class features a number of guest speakers and at least one off-site agency visit. The finale to this high-intensity class will have competing teams creating a global campaign. Prerequisites: MKTG 4810 or instructor permission.
MKTG 4805 Foundations of Digital Marketing (4 Credits)
Knowing how to use digital marketing tools as part of an integrated marketing strategy is critical in today's marketplace. This course provides the knowledge and skills to plan and implement a digital marketing strategy using three powerful digital marketing elements: (1) UX/UI - User eXperience design is one of the most difficult aspects for businesses to define and yet it's essential to map out when creating a holistic strategy. User Interface design is one part of the user experience and we will work together to show you best-in-class examples. (2) Facebook Advertising - Facebook is quickly becoming the hyper-targeted advertising platform for businesses of any size. You will walk through Facebook’s Blueprint Training to help you understand what types of digital advertising are possible. (3) Email Marketing - Email has long been a staple in digital marketing. We will show you the ins and outs of this digital medium and teach you how to take control of this evolving channel. Cross-listed with MKTG 3480.

MKTG 4810 Integrated Marketing Communication (4 Credits)
IMC is a critical component of marketing strategy and is vital to business success in today’s economy. Organizational, technological, and social trends of the past few years have considerably impacted marketing communications by necessitating new communication strategies and adding new delivery tools (e.g., digital and social). Thus, it is important to integrate all marketing communication activities into one master plan. This course is based upon the notion that marketing communications include much more than advertising. The course provides students with a foundation in the development and execution of communications strategies for any organization (large, small, public, or private). Primary emphasis is placed on consumer insight, branding, market segmentation and positioning, message strategy, sales promotion and the execution of marketing communications through appropriate media technologies. Students will develop an understanding of marketing communications practice through a real-world project, readings, lectures, case analyses and discussions. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.

MKTG 4815 Social Media Marketing (4 Credits)
Social media marketing is an evolving field with consumers driving the changes marketers are seeing. Based on your business model, social media may be more than just distribution and consumers will be a part of your long-term business strategy beyond revenue. We'll illuminate the increasing importance of social media as it relates to consumer behavior, the purchase cycle and the rise of messaging apps as it relates to business success. We will also develop a strategic model for a diverse range of businesses (B2B, B2C, Product, Service, Online, Online with Brick and Mortar) that will empower you as a marketer to determine your best strategy. Cross-listed with MKTG 3490. Prerequisites: MKTG 4100.

MKTG 4820 Brand Management (4 Credits)
"How do leading organizations create compelling brands that inspire trust, build a sense of community, and fuel loyalty? As consumers find their digital voice, how are brands co-created by firms and users alike? And what can brand managers do to insures their brand equity is sustainable throughout the product lifecycle? In this project-based [WINTER] or interview-based [SUMMER] course, you'll learn the underlying principles and theories from brand authorities, then apply them to real-world client challenges. Join us as we create goal-driven brand strategies, harness tactics to build and amplify the brand, foster brand experiences, conversations and relationships, and then learn ways to measure the resulting impact on brand value. Prerequisite: MKTG 4100. Concurrent enrollment allowed.

MKTG 4825 Mobile Marketing (4 Credits)
Smartphones are the device for today's consumer. Mobile usage easily eclipses all other digital venues and you will be learning how to harness this ever-evolving field. Knowledge of mobile search, mobile applications, mobile advertising and location-based services are essential for today's business leaders. This course will enable students to build creative mobile marketing campaigns that complement digital and traditional marketing strategies. This fast-paced course is a must for people interested in marketing. Cross-listed with MKTG 3475. Prerequisite: MKTG 4100.

MKTG 4830 Integrated Marketing Communication Cases (4 Credits)
Using the Harvard case method, students analyze marketing communication and brand building campaigns and processes used to acquire and retain customers, generate sales, and increase profits. The presence (and absence) of IMC strategies and practices are identified and discussed. Course concludes with presentations of cases created (based on working with real companies) by student teams. Prerequisite: MKTG 4810.

MKTG 4835 Search Engine Marketing (4 Credits)
The digital marketing landscape has thousands of tools that marketers can utilize to increase revenue, execute on strategies and develop deep brands. This course will review the most essential of those tools: Google Analytics and Google AdWords. Our goal is to enable students to attain individual certification in Google Analytics and begin the process of getting Google AdWords Fundamentals certified. You will be working with real-world clients, helping them increase revenue! Cross listed with MKTG 3485.

MKTG 4845 Tech in Marketing: Design Tools and Digital Foundations (4 Credits)
"Software is eating the world." That was the quote from Marc Andreessen way back in 2011. His point was now that software had disrupted the tech industry, it was now evolving into every other industry. Agriculture. Mass transit. Construction. Everything. This prediction has become true with companies like Google and Uber. We're at a point where coding/technology are now a matter of literacy. We are going to work together as a class to make you more literate. We are going to learn how to utilize digital design tools such as Adobe Photoshop and Illustrator to create brand imagery. We'll then move on to learn HTML/CSS and APIs: the building blocks of the Internet. We'll also spend some time prototyping software such as Axure and tap into memes and Gifs. This is a tactical, hands-on class. Cross-listed with MKTG 3945.

MKTG 4850 Integrated Marketing Communication Campaign (4 Credits)
This course builds on all of the courses in the IMC program/concentration as well as other courses offered through the Department of Marketing. In this sense, it is a capstone course, integrating the knowledge and experience acquired through these other courses. Integration is the primary objective of this course—that is, to develop skills in integrating content from other courses into a complete IMC campaign for a brand of the student’s choice. IMC Campaign is a major project course with a single significant outcome, the IMC Campaign. The project is conducted in a team environment with the guidance of the instructor. Prerequisites: MKTG 4810 or instructor permission.
**MKTG 4900 Advanced Marketing Strategy (4 Credits)**

Making sound strategic marketing decisions in the real world is complex and challenging, even for seasoned executives. Determining sound strategies is critical. Implementing them effectively and profitably is essential. How can managers increase their chances for making better strategic marketing decisions leading to more successful outcomes more often? This course applies concepts, constructs and learning acquired in prior marketing courses to complex strategic decisions. Live cases are at the heart of the course, challenging teams and individuals to make specific marketing decisions in the context of larger strategic marketing and company contexts, including accounting for top- and bottom-line impact. Students are required to be within one quarter of graduation. Prerequisites: MS MKTG students only within one (1) quarter of graduation or with instructor permission.

**MKTG 4980 Marketing Internship (0-10 Credits)**

We learn by doing. That’s what a marketing internship at Daniels is all about. Recent studies show that one to three internships on a resume go a long way towards landing that first job in marketing. At Daniels, we network with some of the top marketers in Denver and across the US. Our marketing students have worked at National CineMedia, Integer Advertising, Bank of America, Enterprise, Northwestern Mutual Insurance, eBags, Crispin-Porter + Bogusky, Einstein’s, Johns Manville, Ski Magazine, the Pepsi Center, 15 Million Elephants, Flextronics, Merrill Lynch, Dish Network, AEG Live, Altitude Sports & Entertainment, and the list goes on. Not only will students earn school credit, they may very well land a paid internship, and eventually a full-time job. Course requirements include an internship report that covers your experience on the job, a study of the industry, and what they learned from their company. It’s a win-win course where you put into practice the marketing concepts you’ve learned at DU, and discover new marketing tactics from your company co-workers. “Thanks to the University of Denver for fostering this partnership and providing such great students” (NCM Media Networks).

**MKTG 4991 Independent Study (1-10 Credits)**

Hours and times arranged by student.

**MKTG 4992 Directed Study (1-4 Credits)**

**MKTG 4995 Independent Research (1-10 Credits)**

**MKTG 4999 Marketing Assessment (0 Credits)**

Some experiences are essential to a student’s development, but don’t fit well within the confines of a traditional course. This is a face-to-face, zero-credit required course, held throughout your program. The course involves a series of executive coaching experiences with experts within and outside of Daniels, networking with fellow students and professionals in the Denver area, and assessment of your development through the program.

**Real Estate Courses**

**REAL 4000 Business of the Built Environment (4 Credits)**

The emphasis of this course is on the importance of real estate and the built environment and its impacts and influences on how we live, work, and play. The course employs a full life cycle sustainable model that links the various phases, functions, and professions of real estate, project delivery, and asset/facility management to create holistic, value generating solutions for society. Professional practices/skillsets associated with the many career options that engage the built environment are explored.

**REAL 4002 The Business of Real Estate (2 Credits)**

This is an introduction to home ownership, real estate industry and its markets; legal aspects of home ownership from consumer’s point of view, including property rights, title, concepts, deeds, and purchase contracts. Listing contracts, law of agency, types of mortgages, basics of home loan finance, appraisal, investment and tax benefits are also covered in this class. Partially satisfies Colorado Real Estate sales licensing requirements.

**REAL 4007 Real Estate Financial Analysis (4 Credits)**

Alternative analysis formats that can be applied to a wide array of real estate analysis issues; simulates working/decision-making environment; structured overview of analysis tools focused on specific facets of multidimensional real estate decision-making environment; applications in investment analysis, feasibility analysis, valuation, market analysis, and report writing and presentation. Prerequisite: REAL 4407.

**REAL 4010 Real Estate Capital Markets (4 Credits)**

This course will expose students to the Commercial Real Estate Capital Markets that have evolved from exclusively private in the 1980s to a mix of private and public, including commercial mortgage backed securities (CMBS) and real estate investment trusts (REITs), in the 1990s. Any person involved in real estate today must understand all the alternative capital sources available and their requirements. Students will be exposed to the positives and pitfalls of all the capital market products. This course will provide students with the general concepts and definitions. A combination of lectures, guest lectures from industry experts, text & article readings, class discussions, and case studies using real life examples. Cross listed with REAL 3010. Prerequisite: REAL 4007.

**REAL 4110 Advanced Issues in Real Estate & Construction Management (4 Credits)**

This course concentrates on five advanced real estate and construction management topics; the design build environment, negotiation skills in real estate and construction management, real estate capital markets, the entitlement process – urban planning, zoning, PUDs and underutilized tax advantages in real estate. Cross listed with REAL 3110. Prerequisite: REAL 4407.

**REAL 4140 Global Perspectives in Real Estate (4 Credits)**

This course focuses on inbound U.S. and outbound U.S. real estate transactions and the cultural issues that impact these transactions. This can also be taken as a Burns Global Delegation travel course. Cross listed with REAL 3140, XRCC 4140.
REAL 4210 Planning, Entitlements, and Public Finance (4 Credits)
Real estate development, place making, and community building require the combined efforts of the public, for-profit, and non-profit sectors. Participants in the real estate development process need to understand and appreciate the sometimes competing and sometimes collaborative interests of governments, agencies, and the private developer. This course is designed to familiarize students with the overall context of urban planning and land use. Students discover the variety of participants in the development process and also become familiar with the project entitlement process, zoning, and land use regulation. Students also examine public/private financing structures such as public-private-partnerships (P3s) and become familiar with detailed calculations relating to Tax Incremental Financing (TIF) and Metropolitan Districts.

REAL 4337 RE Securities/Syn/Entrep (4 Credits)
Introduction to real estate securities; emphasis on private offerings; determining whether a contemplated transaction involves a security, and what happens if it does; exemptions from registration (Reg D); registration requirements; investor suitability, how to syndicate, acquisition of property, marketing or the property, tax structure and formation of syndication, compensation to syndicators, real estate tax considerations. Cross listed with REAL 3337, XRCM 4337.

REAL 4347 Mgmt of Income Properties (4 Credits)
Explore the complexities of managing apartments, condominiums, office buildings, industrial property and shopping centers. This course covers rental markets, development of rental schedules, leasing techniques and negotiations, repairs and maintenance, tenant relations, merchandising, selection and training of personnel, accounting, and owner relations. Cross listed with REAL 3347.

REAL 4369 Real Estate Taxation (4 Credits)
Tax factors affecting investments and operations in real estate; special attention is given to legal forms of ownership, depreciation, tax basis, tax impacts of exchanges, syndications, real estate securities, and other federal tax laws affecting real estate. Cross listed with REAL 3369.

REAL 4400 Real Estate Principles and Practices (4 Credits)
Principles of real estate, real estate industry and its markets; legal aspects of home ownership from consumer's point of view, including property rights, title concepts, deeds, purchase contracts, listing contracts, law of agency, environmental issues and disclosures, types of mortgages, basics of home loan financing, appraisal investment and tax benefits. Partially satisfies Colorado real estate broker licensing requirements. Cross listed with REAL 1777.

REAL 4407 Income Property Finance (4 Credits)
This course explores conventional and alternative financing, mortgage banking, law and markets, loan underwriting analysis and the impact of monetary and fiscal policies on the real estate and mortgage markets, with emphasis on decision making from the equity investors point of view. Specific topics include an overview and history of real estate finance, the taxation and legal aspects of real estate finance, compounding and discounting, functions of interest and real estate capital markets and securities. Specific areas of focus are residential property finance, income property finance, and construction and development financing. Cross listed with REAL 3307.

REAL 4417 Income Property Valuation and Appraisal (4 Credits)
Residential/Commercial appraising, including market cost and income approaches to value, gross rent multiplier analysis, neighborhood and site analysis, valuation of income properties including market cost and income approaches to value, capitalization theory and techniques, mortgage-equity analysis, and investment value concepts. Prerequisite: REAL 4407.

REAL 4467 Property Development and Feasibility (4 Credits)
Commercial real estate development analysis and feasibility includes economic base analysis, tenant demand analysis, development and construction cost analysis, lease-up analysis, financial feasibility, leasing and property management practices. Five major property types (office, industrial, retail, apartment and hotel) are covered. Prerequisite: REAL 4007.

REAL 4477 Income Property Investment (4 Credits)
Comprehensive analytical framework for real estate investment decision-making, equity investment decisions via discounted cash flow, and risk analysis models and strategic planning concepts, structuring parameters to maximize rates of return while controlling downside risks; emphasis on theory, concept building, and practical application to various types of investment properties. Cross listed with REAL 3377. Prerequisite: REAL 4007.

REAL 4500 Argus Financial Analysis (4 Credits)
This course concentrates on practical applications of the Argus (TM) Real Estate Financial Software through interactive examples and case studies. Participants will be exposed to the software's capabilities, fundamentals, and unique nuances. Cross listed with REAL 4500, XRCM 4702. Prerequisite: REAL 4007.

REAL 4701 Topics in Real Estate (1-5 Credits)

REAL 4705 Risk Management in the Built Environment (4 Credits)
Decision making and risk analysis concepts in the context of real estate and the built environment. This includes, but is not limited to, liability issues as to persons and property, casualty and property damage questions, employee and employer insurance areas, auto insurance, professional liability insurance, directors' and owners' liability issues, medical insurance, life insurance, environmental risks, and much more in areas of exposure that one can face in the business world. The course further examines means to minimize such areas of exposure.

REAL 4800 NAIOP Challenge (2-4 Credits)
A unique non-traditional course, where the students will work on a complex real estate problem culminating in an internal competition and external competition which includes a written report and an oral presentation. Cross listed with CMGT 3800, CMGT 4800, REAL 3800.
REAL 4890 Internship (0-10 Credits)
REAL 4980 Adv Valuation/Report Writing (1-10 Credits)
Advanced cutting-edge techniques not yet institutionalized nor commonly practiced in the field. Includes writing skills workshops appropriate to specialized nature of appraisal reports, and composition of a complex field problem report to prepare student for writing "demonstration" report required for MAI professional designation. Prerequisite: REAL 4417.
REAL 4991 Independent Study (1-10 Credits)
REAL 4992 Directed Study (1-10 Credits)
REAL 4995 Independent Research (1-10 Credits)

Statistics Courses
STAT 3920 Strategic Management of Operations (4 Credits)
The operations function is the unit of the organization that produces the products and/or delivers the service for which the company earns revenue. It is the largest unit of the organization with which all other units interact. Therefore, efficient management of this function is a critical success factor for any company. This course focuses on an organization's management (planning, organizing, staffing, directing, and controlling) when converting inputs into products and services. Companies today must remain competitive in the global marketplace, and careful consideration of various options regarding cost containment and use of technology are required. This course will explore how operations managers meet these challenges in the manufacturing and services firms in response to changes in economic conditions. Students will be exposed to a number of quantitative tools as well as becoming familiar with new systems and methods in the operations management field. When appropriate, optimization software such as Microsoft Solver will be utilized to conduct analysis. Prerequisite: STAT 3900.
STAT 4040 Basic Math-Graduate Students (2 Credits)
STAT 4045 Basic Math-Evening MBA Stdnt (1 Credit)
STAT 4050 Basic Statistics-Grad Students (2 Credits)
STAT 4100 Quantitative Methods I (4 Credits)
An introduction to the methods of quantitative analysis commonly used in business, with an emphasis on finance applications. Topics include descriptive statistics, probability, probability distributions, fundamentals of statistical inference, correlation, and simple and multiple regression analysis.
STAT 4200 Quantitative Methods II (4 Credits)
STAT 4300 Production & Operation Mgmt (3 Credits)
STAT 4350 Statistical Computing (4 Credits)
Introduction to and training in the use of modern statistical software packages. Exposure to several of SAS, STATISTICA, S-PLUS, and SPSS with focus on one to best fit student needs. Data acquisition, management, graphs, analyses, reports, customizing and programming. Cross listed with STAT 3350.
STAT 4400 Risky Business (4 Credits)
An interterm travel course to Las Vegas that deals with the theory, practice, and business of gambling.
STAT 4500 Prob Thry Math Gamb (4 Credits)
This course covers the theory of probability and the formal study of mathematics underlying gambling and games of chance. Topics include probability concepts, probability rules, expectation, permutations and combinations, the law of large numbers, the law of "averages," history of gambling, house advantage, fallacies and betting systems, volatility and operations, game odds and price setting, games of pure chance, games with a skill component. Prerequisite: a previous course in statistics or permission of instructor. Cross listed with STAT 3500.
STAT 4510 Applied Decision Theory (4 Credits)
Application of classical and Bayesian decision theory and game theory to practical problems. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.
STAT 4610 Business Statistics (4 Credits)
This course introduces students to basic analytical tools in statistics and operations management, and provides theoretical concepts and skills that are building blocks for future courses. The approach is to present students with a "corporate" view of how statistical tools are used to analyze data and facilitate business decision-making. Students will familiarize themselves with all of the statistical techniques and models presented in the course and will demonstrate knowledge in applying the appropriate techniques and models to various data sets and interpreting the results of the analysis. The Microsoft Excel Data Analysis and Solver Toolkits will be used to conduct statistical analyses, allowing students to become more proficient overall in using Microsoft Excel and to place their emphasis on applications to core business disciplines, statistical reasoning, and proper interpretation of results. A rich variety of such problems and settings will be discussed in class.
STAT 4640 Regrson/Correlation Analysis (4 Credits)
Simple linear regression analysis, methods of estimation, multivariate multiple regression and correlation, tests of reliability and significance, simultaneous equations model and applications. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.
STAT 4650 Applied Multivariate Analysis (4 Credits)
The introduction and application of multivariate analytical techniques and model building for problem solving in business and other settings. Cross listed with STAT 3650. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4680 Sampling Theory & Application (4 Credits)
Simple and stratified random sampling; multistage, cluster, and sequential sampling; optimum allocation and economic efficiency; ratio estimation methods; design of sample studies of various human and physical populations; financial auditing by probability sampling. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4687 Advanced Statistics (4 Credits)

STAT 4700 Intro Computer Simulation (4 Credits)
Deterministic and probabilistic model structures, planning models, heuristics and artificial intelligence, Monte Carlo methods, simulation programming languages, model design, experimentation, and verification. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4704 Topics in Statistics (1-5 Credits)
Various topics including travel courses.

STAT 4709 Computer Simulation Methods for Business (4 Credits)
Large-scale simulation in business and economics, deterministic and probabilistic model structures, corporate planning models, heuristics and artificial intelligence; Monte Carlo methods, model design, experimentation and verification, tactical problems in total systems simulation. Cross listed with STAT 3709.

STAT 4710 Statistical Quality Control (4 Credits)
Applies the basic concepts of statistics to quality improvement in the business environment. Topics include a summary of Total Quality Management (TQM) and where Statistical Quality Control fits in, the tools of Statistical Process Control, Deming’s Continuous Improvement Cycle, as well as the evaluation of Process Capability and Sampling. Cross listed with STAT 3710. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4780 Dsgn & Analysis Exp & Survey (4 Credits)

STAT 4783 Forecasting-Financial Envirn (4 Credits)
Cross listed with FIN 3610, STAT 3620.

STAT 4793 Sem: Statistical Methods (1-5 Credits)

STAT 4794 Sem: Operations Research (1-5 Credits)

STAT 4795 Grad Research Sem-Statistics (1-5 Credits)

STAT 4800 Dsgn & Analysis Exp & Survey (4 Credits)
Designing experiments, analysis of results of experiments, nonparametric and parametric tests, randomization, factorial and nonfactorial designs, Latin squares, survey methodology, survey techniques for field investigations. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4810 Nonparametric Statistics (4 Credits)
Statistical procedures applicable in many situations where standard normal theory methods are not. Especially useful when data are of categorical or rank type or when sampled population is excessively skewed. Emphasis will be on applications, making use of the laws of probability. Cross listed with STAT 3110. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4830 Stats-Econ & Bus Forecasting (4 Credits)
Methods to explain, discover, and predict business and economic forces, bases for evaluating such methods. Prerequisite: STAT 4100 or equivalent. Cross-listed with FIN 4620.

STAT 4840 Decision Sciences (4 Credits)
Decision-making techniques, processes, and support systems; basic decision models dealing with certainty, uncertainty, and static and dynamic time frames; emphasis on viewing all decision problems from perspective of a generalized decision-making structure; introduction to computerized decision support systems. Prerequisites: MBA 4111, MBA 4112, or permission of instructor.

STAT 4850 Operations Research I (4 Credits)
Linear programming, including transportation, warehousing, assignment models, and sensitivity analysis, integer programming and game theory. Permission of instructor required.

STAT 4860 Operations Research II (4 Credits)
Non-linear models and optimization, Kuhn Tucker conditions, quadratic and dynamic programming, inventory and queuing models, simulation. Permission of instructor required.

STAT 4870 Advanced Statistics (4 Credits)
Discrete and continuous probability distributions, sampling distributions, estimation methods, moment generating functions, analysis of variance, test of reliability, and significance by parametric and non-parametric methods. Prerequisites: MBA 4111, MBA 4112, or permission of instructor.
FINANCE

Master of Science in Applied Quantitative Finance

The Master of Science in Applied Quantitative Finance from the Daniels College of Business combines the in-depth study of finance theories and principles with advanced technologies, communication and teamwork with a strong focus on ethics and values. You will develop financial models with integrated classroom experience and apply your newly learned skills immediately. We will challenge you to think, not memorize. We believe in learning by doing, practicing and perfecting.

The Daniels Master of Science in Applied Quantitative Finance is a STEM (Science, Technology, Engineering and Math) degree according to the Department of Homeland Security (DHS). The DHS expanded list includes designated degrees that qualify for up to 17 months Optional Practical Training (OPT) Extension for F-1 Nonimmigrant Students.

Daniels has been continuously accredited by the Association to Advance Collegiate Schools of Business International (AACSB) since 1923.

Master of Science in Applied Quantitative Finance

Admissions Requirements

- Application fee $100 non-refundable
- GMAT or GRE Scores required. Applicants who wish to be considered for merit-based scholarships or graduate assistantships are encouraged to take the GMAT. To have your GMAT or GRE scores reported to Daniels, please use the following codes: GMAT code MZR-GT-43 and the GRE code is 4842.
- Official Transcripts: Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
- Submit a resume that focuses on your unique strengths and accomplishments.
- Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
- Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.
- Admissions Interview: Applicants are contacted by a Daniels representative to schedule the admissions interview, which will be conducted in person, by phone, or via web cam.
- Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Language Proficiency

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency and are considered official only when received directly from the testing agency.
- A minimum of an 88 TOEFL (no less than a 20 on any section) or a minimum of a 6.5 IELTS (no less than 6.0 on any section) is required to apply.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution’s language of instruction and examination is English. Such
applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Master of Science in Applied Quantitative Finance

Degree Requirements

Coursework Requirements

Prerequisite Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACTG 4610</td>
<td>Financial Accounting and Reporting</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4630</td>
<td>Managerial Finance</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4170</td>
<td>Quantitative Methods in Finance</td>
<td>4</td>
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</tbody>
</table>

Finance Core Courses

Total Core requirements: 25

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FIN 4000</td>
<td>Financial Modeling and Databases Bootcamp</td>
<td>1</td>
</tr>
<tr>
<td>FIN 4500</td>
<td>Financial Modeling</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4200</td>
<td>Financial Investments and Markets</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4830</td>
<td>Econometrics for Finance</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4180</td>
<td>Global Finance</td>
<td>2</td>
</tr>
<tr>
<td>FIN 4110</td>
<td>Ethics in Finance</td>
<td>4</td>
</tr>
<tr>
<td>INFO 4140</td>
<td>Business Databases</td>
<td>4</td>
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Students can take either FIN 4740 or FIN 4750

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>FIN 4740</td>
<td>Managerial Microeconomics</td>
<td>2</td>
</tr>
<tr>
<td>FIN 4750</td>
<td>Managerial Macroeconomics</td>
<td>2</td>
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</tbody>
</table>

Elective requirements

20 credits required in 4000 level FIN courses, including:

Investments Track

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>FIN 4860</td>
<td>Derivatives</td>
<td></td>
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<tr>
<td>FIN 4120</td>
<td>Quantitative Methods in Stock Selection</td>
<td></td>
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<tr>
<td>FIN 4130</td>
<td>Financial Risk Management Strategies</td>
<td></td>
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<tr>
<td>FIN 4320</td>
<td>Security Analysis and Valuation</td>
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<tr>
<td>FIN 4330</td>
<td>Portfolio Management and Risk Analytics</td>
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<tr>
<td>FIN 4710</td>
<td>Marsico Investment Fund I</td>
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<tr>
<td>FIN 4720</td>
<td>Marsico Investment Fund II</td>
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<tr>
<td>FIN 4730</td>
<td>Marsico Investment Fund III</td>
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<tr>
<td>FIN 4890</td>
<td>Fixed Income Analysis</td>
<td></td>
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<tr>
<td>INFO 4300</td>
<td>Predictive Analytics</td>
<td></td>
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<tr>
<td>INFO 4340</td>
<td>Data Mining and Visualization</td>
<td></td>
</tr>
<tr>
<td>INFO 4360</td>
<td>Complex Data Analytics</td>
<td></td>
</tr>
<tr>
<td>FIN 4700</td>
<td>Topics in Finance (varies)</td>
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Topics - Int'l Monetary Economics & Finance

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<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>FIN 4980</td>
<td>Finance Internship (varies)</td>
<td></td>
</tr>
<tr>
<td>FIN 4991</td>
<td>Independent Study (varies)</td>
<td></td>
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Corporate Track

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FIN 4410</td>
<td>Financial Planning &amp; Analysis</td>
<td></td>
</tr>
<tr>
<td>ACTG 4220</td>
<td>Financial Actg &amp; Analysis</td>
<td></td>
</tr>
<tr>
<td>FIN 4140</td>
<td>Enterprise Risk Management</td>
<td></td>
</tr>
<tr>
<td>FIN 4160</td>
<td>Treasury Management</td>
<td></td>
</tr>
<tr>
<td>FIN 4420</td>
<td>Capital Expenditure Analysis</td>
<td></td>
</tr>
<tr>
<td>FIN 4870</td>
<td>Strategic Finance</td>
<td></td>
</tr>
</tbody>
</table>
FIN 4150  Advanced Business Valuation
FIN 4885  Investment Banking and External Financing
INFO 4300  Predictive Analytics
INFO 4340  Data Mining and Visualization
INFO 4360  Complex Data Analytics
FIN 4700  Topics in Finance
FIN 4980  Finance Internship
FIN 4991  Independent Study

Investment Banking Track
ACTG 4220  Financial Actg & Analysis
FIN 4410  Financial Planning & Analysis
FIN 4885  Investment Banking and External Financing
FIN 4150  Advanced Business Valuation
FIN 4870  Strategic Finance
FIN 4320  Security Analysis and Valuation
INFO 4300  Predictive Analytics
INFO 4340  Data Mining and Visualization
INFO 4360  Complex Data Analytics
FIN 4700  Topics in Finance
FIN 4980  Finance Internship
FIN 4991  Independent Study

Total Credits 45-57

1 Entering students may waive these classes by demonstrating competency in introductory financial accounting and reporting, quantitative methods of finance, and introductory managerial finance through waiver exams. Please see an advisor for more information.

Courses

FIN 4000 Financial Modeling and Databases Bootcamp (1 Credit)
This bootcamp is designed to equip students with a firm foundation in financial modeling as well as acquire an adequate command of Excel functionality and efficiency. This course also serves as an introduction to financial databases, mainly centered on the Capital IQ platform, which the student will be using throughout his or her academic and professional career. Topics covered include: Excel modeling best practices, keyboard shortcuts and common functions, financial datasets, and practical modeling applications in finance.

FIN 4110 Ethics in Finance (4 Credits)
This second course in the Compass is specifically designed for the Master of Science Finance (MSF) curriculum and focuses on the ethical, professional, social, and legal responsibilities of finance professionals, organizations and markets. Financial institutions are facing a crisis of confidence. Trust is an essential ingredient to maintaining efficient and effective financial markets. The finance industry has acquired a reputation for unethical and unsavory activity and has lost the trust of much of society. Many financial professionals believe they are encouraged and rewarded for engaging in unethical activity. We discuss the ethical issues facing financial institutions and professionals and explore solutions for resolving these issues and restoring trust.

FIN 4120 Quantitative Methods in Stock Selection (4 Credits)
This course introduces quantitative methods and techniques applied to alpha generation in stock selection. It enables students to better understand and conceptualize the entire quantitative investment process in the context of a simulated long/short equity portfolio. The student learns to set investment objectives, test investment hypotheses, define security selection criteria and construct portfolios using quantitative techniques. This is a practical class held in a lab environment using financial industry tools and data with a strong emphasis on student participation. Students have to define and defend a quantitative investment strategy and implement it in a simulated portfolio environment. Prerequisites: FIN 4200.

FIN 4130 Financial Risk Management Strategies (4 Credits)
This course applies risk management, quantitative approaches and investment theoretical models to derivatives markets. It examines the proven risk management and revenue enhancement strategies in derivatives and equity markets, creates innovated derivatives investment styles, validates quantitative strategies in options markets, and implements investment models. This course is to offer advanced graduates in finance a well-rounded exposure to the theory and practice of risk management and derivatives investment strategies. It focuses on four aspects: (1) essential risk management theories regarding asset pricing, portfolio construction, and financial statistics; (2) the approaches to develop risk management and derivatives investment strategies based on the fundamental analysis, statistical analysis, and behavioral finance; (3) the rigorous test of various options investment strategies; and (4) the implementation of risk management and investment strategies based on The Reiman Fund. Prerequisites: FIN 4200 and FIN 4500.
FIN 4140 Enterprise Risk Management (4 Credits)
This course introduces the fundamentals of enterprise risk management (ERM). The purpose of this course is to give students an overview of the current approaches used to identify, evaluate and monitor the key risks that an organization faces. Students learn that there are numerous approaches that organizations take in addressing ERM. Over the course of the quarter, a number of outside ERM experts address the class on various aspects of ERM. Students then apply newly gained ERM knowledge to a mock risk assessment developed from a real-life corporate scenario from Newmont Mining Corporation.

FIN 4150 Advanced Business Valuation (4 Credits)
The objective of this course is to present advanced valuation techniques to deepen students’ understanding and enhance their knowledge of valuation theory and practical application.

FIN 4160 Treasury Management (4 Credits)
The objective of the course is to provide students with a comprehensive understanding of how various treasury functions are managed in a corporation and build students’ capabilities to assume the role of a proficient treasury manager.

FIN 4170 Quantitative Methods in Finance (4 Credits)
This course introduces students to the mathematical and statistical methods needed in order to succeed in the quantitative discipline of modern finance. Topics include differential calculus, optimization techniques, linear algebra, probability, and statistical methods. Data analysis software is used when appropriate to facilitate the analysis. Emphasis is on applications, analytic reasoning, and proper interpretation of results.

FIN 4180 Global Finance (2 Credits)
This course explores financial management in the international arena. Principal content elements include: The market for foreign exchange, interest rate parity, hedging currency risk, international portfolio management. Upon completion of this course, students should be able to accomplish the following objectives: Explain the determinants of foreign exchange rates; Explain and identify the financial difficulties and opportunities faced by corporations when operating internationally; Apply forwards and options for hedging currency risk; Identify the determinants of the expected returns on international investments; Discuss current issues in international finance. Prerequisites: FIN 4630.

FIN 4200 Financial Investments and Markets (4 Credits)
Introduction to financial markets, securities, instruments, and other factors that determine the financial environment. Prerequisites: FIN 4630 and STAT 4610 or Fin 4170.

FIN 4201 MS Management Managerial Finance (2 Credits)
FIN 4201 introduces concepts and analytical techniques to identify and solve financial management problems. The focus on Performance Metrics (Ratios and Du Pont Analysis), Time Value of Money and Opportunity Costs, and Project Analysis prepares managers to operate in an environment that can at times be driven by the financial performance of the company.

FIN 4320 Security Analysis and Valuation (4 Credits)
Examination of statistical and theoretical foundation for determination of market prices and market returns. Includes theoretical implications for investment management of options, futures, and bonds. Prerequisite: FIN 4200.

FIN 4330 Portfolio Management and Risk Analytics (4 Credits)
Case and project approach to foundation of investment portfolio management. Prerequisite: FIN 4200.

FIN 4410 Financial Planning & Analysis (4 Credits)
Advanced course in financial planning and decision-making focusing on capital structure, working capital management, long-range and short-term financial planning, and mergers. Prerequisite: MBA 4112.

FIN 4420 Capital Expenditure Analysis (4 Credits)
Advanced course in capital budgeting examining capital allocation processes and procedures and the theory and applied techniques of capital spending and divestment under conditions of certainty and uncertainty. Related issues of cost of capital and leasing also included. Prerequisite: FIN 4630.

FIN 4500 Financial Modeling (4 Credits)
Use of econometric functions and macros to construct financial models from corporate finance, investments and financial markets. Prerequisites: FIN 4170.

FIN 4610 Multinational Financial Management (4 Credits)
Financial analysis of multinational corporation operating in international markets, including exchange rates, international instruments, markets, institutions and futures. Prerequisite: MBA 4112.

FIN 4620 Financial Forecasting (4 Credits)
FIN 4630 Managerial Finance (4 Credits)
Analytical skills and tools of finance; theoretical concepts and practical applications. Topics include ratio analysis, breakeven analysis and leverage, securities valuation, capital budgeting, financial forecasting, and working capital management.

FIN 4700 Topics in Finance (4 Credits)
Topics vary each quarter. Course may be taken more than once if topics are different.

FIN 4701 Topics in Finance (1-10 Credits)
Topics vary. For new/experimental courses taught within the Reiman School of Finance.
Management

Master of Science in Management

The Master of Science in Management (MSM) is a 45-credit hour, 10-month program designed for people without a business background or degree. You will join a cohort of classmates from various careers, backgrounds and fields of study to learn management skills, ethical leadership, effective communications, and of course, business fundamentals. Wherever your passion lies, the Daniels MSM program can help prepare you for success.
Daniels has been continuously accredited by the Association to Advance Collegiate Schools of Business International (AACSB) since 1923.

**Master of Science in Management with a concentration in Customized Management**

**Admissions Requirements**
- Application fee $100 non-refundable
- GMAT or GRE Scores required. To have your GMAT or GRE scores reported to Daniels, please use the following codes: GMAT code MZR-GT-43 and the GRE code is 4842.
- Official Transcripts: Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
- Submit a resume that focuses on your unique strengths and accomplishments.
- Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
- Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.
- Admissions Interview: Applicants are contacted by a Daniels representative to schedule the admissions interview, which will be conducted in person, by phone, or via web cam.
- Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

**Language Proficiency**
- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency.

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**Master of Science in Management**

**Degree Requirements**

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<tr>
<th>Base Camp</th>
<th>BUS 4101</th>
<th>Financial Accounting for Management</th>
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<tr>
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<td>BUS 4102</td>
<td>Base Camp Program Launch Team Challenge</td>
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<td>Fall Quarter</td>
<td>ACTG 4201</td>
<td>MS Management Marketing Management</td>
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<td>MKTG 4201</td>
<td>Persuasive Communications - Digital, Oral, Written</td>
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<td>FIN 4201</td>
<td>MS Management Managerial Finance</td>
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<td>MGMT 4202</td>
<td>Profiles in Leadership and Management</td>
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<td>MGMT 4203</td>
<td>Foundations of Strategy</td>
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<td>MGMT 4204</td>
<td>Ascend Industry or Topic Ideation and Research</td>
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<td>Winter Quarter</td>
<td>MGMT 4301</td>
<td>MS Management Organizational Behavior</td>
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<td>MGMT 4302</td>
<td>MS Management Human Resource Management</td>
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<td>MGMT 4304</td>
<td>Project and Budget Management</td>
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<td>MGMT 4303</td>
<td>Conflict and Change Management</td>
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<td>MGMT 4305</td>
<td>Business Model Design and Innovation</td>
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MGMT 4306 Virtual Business Management Simulation 2

4 additional MGMT credits are required in the winter quarter. Please contact the department for details.

Spring Quarter

INFO 4401 Business Analytics 2

MGMT 4402 Management Ethics 2

MGMT 4405 Strategic Execution and Summit Team Competition and Assessment 3

MGMT 4403 Business and Society 2

MGMT 4401 Managing Cross-Cultural and Virtual Teams 2

4 additional MGMT credits are required in the spring quarter. Please contact the department for details.

Total Credits 45

Courses

MGMT 4201 Persuasive Communications - Digital, Oral, Written (2 Credits)

Many surveys show that employers want job candidates with strong communication skills. Similarly, success in a graduate program requires the ability to articulate your thoughts clearly and persuasively in all forms. In this course, we study the principles of effective oral, written, and digital communications. We accomplish the learning outcomes of this course by critically examining yours and others’ communications styles, practicing oral and written forms, maintaining effective social media presence, and delivering impactful and persuasive presentations.

MGMT 4202 Profiles in Leadership and Management (2 Credits)

This course is a seminar designed to provide exposure to mid- to high-level executives and the decisions they face. A diverse set of speakers are invited to class to describe their career path, views on leadership and management, and particularly challenging decisions they faced during their career. The speakers are selected to represent a variety of business types both for-profit and non-for-profit, career paths, and leadership and management perspectives. The course encourages students to evaluate the speakers in the context of selected dimensions of leadership and management.

MGMT 4203 Foundations of Strategy (2 Credits)

Foundations of Strategy is a course that introduces the student to the theory of strategic management. Students will develop the ability to think strategically by examining a firm’s mission, vision, and values, business model and financial health of the organization. After assessing the firm’s strengths and weaknesses, the focus is then placed on the industry and competitive environments using a series of tools and frameworks that result in identifying opportunities and threats. Synthesis in the course takes place when the student is able to provide strategic recommendations that generate added value and competitive advantage for the firm. Learning is facilitated through a work-shop atmosphere that uses case studies of industry leaders currently in the news. Principal Content Elements (i.e., modules / weeks): Intro to Strategy Business Models Competitive Advantage Role of Mission / Vision / Values Evaluating a Company’s Resources, Capabilities, and Competitiveness Evaluating the External Environment Generic Competitive Strategies Strengthening a Company’s Competitive Position Strategies for Competing in International Markets Corporate Strategy – Diversification and the Multi-business Company Strategic Alliances and Partnerships Strategy Execution and Implementation Challenges.

MGMT 4204 Ascend Industry or Topic Ideation and Research (2 Credits)

This is the first of a three Ascend course series in the Master of Science in Management Program. During this self-directed and faculty supervised project course the student will choose one of the following two options: A. In consultation with the supervising faculty member, the student will choose an industry and thoroughly research and analyze industry conditions using an appropriate theoretical framework, and explore the entry and mid-level career opportunities in the industry. In addition, the student will choose and approach a company in this industry that will provide him/her with a two-quarter internship opportunity. B.

MGMT 4240 Global Business Imperative (4 Credits)

Conducting business outside the United States involves a unique set of challenges. Diverse cultures, laws, languages and currencies add to the complexity of putting together and managing international business ventures. This course will help you to prepare for these activities by exploring ten questions, which focus critical aspects of international business. The primary vehicle for accomplishing this will be class discussions built around presentations by the instructors as well as cases and exercises dealing with a range of issues, countries, and industries.

MGMT 4280 Business Design (4 Credits)

Each student learns an organized approach to rapid design of a business with a sustainable competitive advantage based upon innovations(s) to the business model. That innovation(s) is discovered through an investigation of the existing business models and the competitive landscape including: suppliers, customers, competitors, substitutes and barriers of entry. Specific opportunities are identified through investigation of the following: industry, market, and competition. Opportunities to create competitive advantages are investigated through the design of strategies in: marketing, sales, operations, human capital, social responsibility, financing, corporate governance and technology. The course offers a workshop atmosphere in which students are expected to apply and discuss the various aspects of business planning. The result is a written business plan and presentation to funding sources reflecting a sustainable competitive advantage and creation of a defensible market.
MGMT 4301 MS Management Organizational Behavior (2 Credits)
Organizations can be mysterious places, often very difficult to understand. Spend any amount of time in an organization — large or small, business, not-for-profit, government — and you’ll probably find yourself scratching your head. “Who came up with that idea?” “Why does this always (or never) happen?” In this course you will get a framework that will help you make sense of these questions. You will come to understand how some decisions that seem to make no sense to you, make eminent sense when viewed from a different perspective. You will get a framework for examining behaviors in organizations. You will also learn your particular perspective on organizations and how it can limit your ability to truly understand differing points of view. Drawing on several disciplines — Sociology, Social Psychology, Political Science, Cultural Anthropology, Symbolism —this course will help give you the tools necessary to understand why things happen in organizations the way they do, and how to adapt your style to be a successful and influential member and leader in your organization.

MGMT 4302 MS Management Human Resource Management (2 Credits)
A management course for graduate students grounded in a strong foundation of real experiences managing and leading Human Resource organizations. This course is designed to unify strategy, human resource strategy and principles of management in a highly interactive format employing multiple learning methods.

MGMT 4303 Conflict and Change Management (2 Credits)
This course will cover the theory and practice of conflict management, negotiation, and change management in the workplace. Change is an inevitable part of organizational life, and competencies in managing change along with resulting conflicts, is a critical skill set for both new and experienced leaders. Using established models, the course will explore sources of, and strategies for dealing with, conflict at multiple levels: individual, dyadic, team, and organizational. Methods of principled negotiation will be presented and practiced during the course.

MGMT 4304 Project and Budget Management (2 Credits)
This course will introduce the student to the key elements of a successful project delivery system. The project delivery system consists of five components: training, tools, core skills, company support, and a project delivery process. The process is the means by which projects are consistently and efficiently planned, executed, and completed to the satisfaction of clients. The system is aligned with the principles of a total quality improvement program, namely client focus, project manager commitment, evaluation and measurement, corporate support, and continuous improvement.

MGMT 4305 Business Model Design and Innovation (2 Credits)
Each student learns an organized approach to rapid design of a business with a sustainable competitive advantage based upon innovations(s) to the business model. Innovation(s) is discovered through an investigation of the existing business models and the industry landscape including: customers, competitors, substitutes, suppliers, and barriers to entry. Specific opportunities are identified through investigation of the following: industry, market, and competition. Opportunities to create competitive advantages are investigated through the design of financial, marketing, sales, operation, talent, technology, and social responsibility strategies. The course offers a workshop atmosphere in which students are expected to apply and discuss the various aspects of a Business Model and a Business Plan. The result is a written business plan and presentation to a potential funding panel.

MGMT 4306 Virtual Business Management Simulation (2 Credits)
The focus of this course is on gaining new venture experience. Through an online/virtual computer simulation, students will be placed into a very realistic international business setting, where they will start up and run a company through multiple rounds of decision-making. The online simulation allows students to build entrepreneurial firms, experiment with strategies, and compete with other student teams in a virtual business world. Designed to mimic the competitive, ever changing marketplace, the simulation lets students gain experience in market analysis, strategy formulation, and the management of a new venture.

MGMT 4307 Ascend Internship (4 Credits)
The MSM Ascend internship is about learning by doing. Internships in addition to providing an opportunity for hands-on learning, often open the door to the first professional job. Course requirements include an internship report that covers a study of the industry and the organization, and what you learned from your experience. The Ascend internship is a win-win course where you put into practice the management and business acumen you have learned at Daniels, and discover new skills from your colleagues in the organization. Permission of instructor required. Hours and times arranged by the student and the internship granting organization.

MGMT 4340 Strategic Human Resource Mgmt (4 Credits)
This course focuses on the effective management of human resources in order to create sustained competitive advantage. The course covers the major policy areas of employee influence mechanisms, staffing, training and development, performance appraisal, reward systems, and work design so that students are better prepared to provide direction to the creation and implementation of effective management systems. Prerequisite: MGMT 3900 or permission of instructor.

MGMT 4345 Performance & Rewards System (4 Credits)
Measuring and improving human performance, techniques of individual objective settings including MBO, appraisal and feedback systems, creating and managing compensation programs, job design, analysis and redesign of reward systems in various organizational contexts. Prerequisite: MBA 4121 or equivalent.
MGMT 4350 Business Summit Series: Current Business Issues and Topics (4 Credits)
The Business Summit Series is an elective course that provides students with insights into a variety of contemporary business issues and topics with a practical approach to developing business leadership skills and competencies. Before the course commences, students are invited to provide input and help faculty select the topics that are covered in the series. The faculty will develop modules, with each module covering a discrete business topic a workshop format. The workshops are taught in four-hour segments, with some workshops covering more than four hours, depending on content and learning outcomes. Workshops span practical topics that are not covered in-depth during the core PMBA curriculum, and they also include emerging business subjects. Topics include: Go-To-Market Strategy, Business Development Strategies, Mastering Sales Techniques, Business Consulting Skills, Becoming a Manager, Organizational Change Leadership, Franchise Business Model, and Colorado’s Marijuana Industry. Other emerging business topics may include the Colorado small business market and new industry segments. Industry leaders may present to the class as subject matter experts.

MGMT 4401 Managing Cross-Cultural and Virtual Teams (2 Credits)
The world is more connected than ever before and culturally diverse virtual teams are a reality in the global marketplace. This course provides an introduction into managing culturally diverse and virtual team work in practice and distinctive features and challenges of virtual working environments. The course covers topics such as: managing cultural differences; knowledge sharing and team communication; managing yourself; engaging culturally diverse employees; managing conflicts in team work; and online tools and digital work.

MGMT 4402 Management Ethics (2 Credits)
The purpose of this course is to introduce students to ethical concepts, theories and issues as they relate to business and managerial decision-making. Consideration of ethics and the social responsibilities of business are relevant both for effective managing and for businesses properly fulfilling their function(s) in the larger society. This is a course in applied ethics. A primary focus will be specific issues related to business and managerial decision-making. The course is also designed to introduce students to more general approaches or ways of thinking about ethics, and students will be exposed to both normative and behavioral aspects of ethics. An important learning outcome of the course is to strengthen the capacity of students to make practically wise decisions in their future careers.

MGMT 4403 Business and Society (2 Credits)
This course examines the role of business in society and explores important issues in the relationships between business, government, and society. These issues are approached from a stakeholder perspective, integrating business strategy with law, ethics, and social responsibility. The obligations of business to its multiple stakeholders are established and applied through analysis of companies, cases, and current events.

MGMT 4405 Strategic Execution and Summit Team Competition and Assessment (3 Credits)
Strategic Execution is a Challenge Driven Educational (CDE) course that builds off several previous MS Management courses. Students will leverage the contents from accounting, finance, management, marketing, strategy, and business analytics to engage with corporate partners to examine real-world problems. This course provides you with the opportunity to apply what you have learned so far in the MSM program with a live client. You will work on a project focused on business and management. Scoping the project will be a key learning outcome.

MGMT 4490 Global Strategy (4 Credits)
Management of multinational enterprises; identification, analysis, and discussion of key policy issues for the international manager within various functional areas; home and host country relationships including assessment of political risk, selection of foreign locations, entry and ownership strategy, personnel and staffing considerations, technology transfer, multinational labor relations, organizing for international operations. Prerequisite: Should be taken in the last possible quarter before graduation and after completion of all advanced requirements and ITEC 3900, MGMT 3900, MKTG 3900, STAT 3910, and FIN 4610.

MGMT 4503 Comparative Management (2 Credits)
Exploration of similarities and dissimilarities of management practices in various cultures, determination of political, economic and cultural factors primarily affecting management theory and practice, transferability of certain management practices to other cultures. Introduction to basic assumptions and approaches of comparative research methodology. Prerequisite: MBA 4121.

MGMT 4515 Introduction to Sport and Entertainment Management (4 Credits)
The purpose of this course is to provide students with a very broad but significant exposure to the business of sports, which represents a global, multi-billion dollar industry. By critically analyzing numerous facets within this business from the perspective of a manager, student come away with knowledge that is wide enough but deep enough to foster a solid understanding of this dynamic and exciting industry. At the same time, this course provides students with specific and valuable insights that foster and stimulate deeper interest in a particular aspect within this industry through subsequent and additional coursework, independent study, and/or internship opportunities.

MGMT 4520 Managing Sport & Entertainment Contracts (4 Credits)
This is a comprehensive and interactive seminar on managing sports and entertainment contracts. The class covers intellectual property; the role of entertainment and sports managers and agents; general contract principles and theory; contract negotiation; management and operating agreements; and sponsorship, endorsement, and licensing agreements.

MGMT 4525 Facility Management (4 Credits)
What is a Public Assembly Facility? Public assembly facilities such as arenas, stadiums, convention centers, and theatres evolved out of the need by social communities to build permanent structures for public assembly, for political and commercial activities, religion, sports, spectacles, artistic expression and for commercial and educational assemblies. This course examines the specific areas of responsibility that one must acknowledge and understand to operate a successful venue of this type. We discuss the core competencies required and the unique areas of concentration that separate a public assembly facility from other venue types. Students realize the significant impact and benefit that facilities like these have on the social, educational and economic environment of communities.
MGMT 4530 Technologies for Sport & Entertainment Management (2 Credits)
This is a specialized course for the MBA student interested in expanding their knowledge of the sports industry as a business and as a world economic force. It provides students with a framework for understanding the scope of the sports business across various venues, as it relates to information technology. Management Sport Technology focuses on understanding the practical uses of computer applications as a tool in sport management activities. Emphasis is placed on demonstrated proficiency in project management, spreadsheet management, database management, and Web page development.

MGMT 4535 Managing Sponsorships for Sport & Entertainment Events (2 Credits)
The purpose of this course is to give students an understanding of sports sponsorship from the perspective of the corporate sponsor and the sports entity. The course identifies and describes the several media distribution channels that are used in corporate sports sponsorship. In addition, students learn how to use sports media distribution properties to create an effective sports marketing plan for corporate sponsors. Students put together a corporate sports marketing plan with a sample sports team.

MGMT 4540 Advanced Seminar in Sports and Entertainment Management (4 Credits)
The purpose of this seminar is to consider current topics in sport and entertainment management. Topics vary by quarter depending on timeliness of topics and interest of students. Potential topics may include public policy questions; ethical issues; current economic impacts and analysis; sport and entertainment management factors and how the various segments (professional, amateur, collegiate, high school, recreational and others) relate; environmental impacts; global issues and other issues that impact the current and future fields of sport and entertainment management.

MGMT 4545 Leadership, Team, and Career Development (2 Credits)
Daniels MBA students are preparing for leadership roles as entrepreneurs, in corporations, and in not-for-profit organizations. In this course we will look at leadership from a variety of perspectives. Once we have reviewed what the experts have to say about leadership, we will turn our focus to helping you develop your personal theory of leadership. You will answer on important questions: How will I lead? Armed with this knowledge, you will be better equipped to handle leadership challenges as you go forward in life.

MGMT 4620 Organizational Dynamics (4 Credits)
In this course, you will: (1) understand and develop a set of management and leadership skills critical for effectiveness in high performance work environments; (2) develop the ability to analyze organizations and environments from multiple perspectives; (3) explore policies and practices for facilitating organizational change; (4) become a valued and effective member of a work team; and (5) learn how to incorporate effective communication, critical thinking, creative problem solving, and technology, into organizational behaviors and processes.

MGMT 4625 Managing Human Capital (6 Credits)
This course focuses on the effective management of people, every organization’s most critical resource. Employees’ knowledge, skills, commitment, creativity, and effort are the basis for sustained competitive advantage. It is people who deal directly with customers, have creative ideas for new products or for process improvements, who devise marketing strategy or take technologies to the next level. In this course, the class approaches the people side of business from a general management perspective, integrating concepts from organizational behavior, human resource management, strategy, and organizational design. Course topics include motivation, reward systems, engagement; feedback; processes by which work is done and decisions are made, including attention to teams, power dynamics, conflict, and negotiations; the structure of the organization and its systems, including job and organizational design and system and policies affecting human capital; the organization’s culture and history; and the external environment within which the organization operates, including legal, regulatory, demographic, economic and national cultural factors.

MGMT 4630 Strategic Human Resources Management (4 Credits)
This course advances the argument that effective human resource policies will create sustained competitive advantage. To that end, this course will address the effective management of human resources in various policy areas: staffing, diversity, training and development, voice and influence, performance appraisal, and reward systems. Rather than taking a traditional, staff personnel perspective, we will discuss human resource management from the strategic perspective of a general manager. Prerequisite: MGMT 4620.

MGMT 4650 Management Consulting (4 Credits)
This course is designed to provide a broad overview of the management consulting profession, including its industry and competitive dynamics, major practice areas, approaches to implementation, management of consulting firms and the future of consulting. In addition, emphasis is given to the practice of consulting through the development of certain high impact skills in evaluation, proposal writing, data gathering and client presentations. The course is relevant to those who: 1) are specifically interested in consulting careers, 2) have job interests that involve staff positions in corporations, 3) want to become line managers who might one day use consultants, 4) wish to develop general consulting skills and familiarity with the consulting industry. The learning process in class will consist of lectures, cases, readings, exercises and guest speakers. This wide variety of learning methods is intended to convey both the necessary knowledge and practical skills necessary for building a sound foundation for becoming a professional consultant. It is essential that everyone comes well-prepared to class, as the learning process depends heavily upon participation.

MGMT 4690 Strategic Management (4 Credits)
This course builds from the premise that managers make decisions that influence the overall success of their organizations. We will concentrate on how top managers create and maximize value for their stakeholders. You will learn about how companies compete against each other in the quest of achieving high performance and market victories. You will learn about how and why some companies are successful while others are not. This course is about strategy. The primary task of strategy is the allocation and commitment of critical resources over relatively long periods of time in pursuit of specific goals and objectives. Strategic decisions take account of the conditions that prevail within the industry environment, both positive and negative, and the resources and capabilities available to managers for meeting environmental challenges. Strategy also requires establishing and managing an internal organizational system that creates and sustains strategic value.
MGMT 4700 Topics in Management (1-4 Credits)

MGMT 4710 Sustaining Family Enterprises (4 Credits)
Family enterprises have a tremendous impact on our local, national and global economies. Today, the definition of the family enterprise extends beyond just the business entity. It includes family offices, family "banks," family councils, trusts, and family foundations, just to name a few. Further, what happens in, and how decisions are made by, family enterprise affects not only the active family members but other key stakeholders such as inactive family members, in-laws, non-family managers and employees, professional advisors, customers, suppliers and competitors. This course gives students insight into the universe of possibilities that families, enterprises and their advisors face when engaged in systemic transition planning. This highly interdisciplinary course is appropriate for anyone who intends to work in or with family enterprises. This includes family members, accountants, attorneys, estate planners, financial or wealth managers, family office professionals, insurance consultants, business advisors, management consultants, organizational and leadership development experts, international business professionals, psychologists, social workers, and family therapists.

MGMT 4790 Managing Strategic Alliances (4 Credits)
The purpose of this course is to examine and expand upon the current understanding of the challenges of developing and managing strategic alliances. Reflecting the breadth of the novel features of the structure, the course draws from both strategic management and organizational behavioral disciplines. To order the discussion, we take a process view in addressing why and then how to use a strategic alliance. We initially focus on when to use an alliance. We then turn to the formation of an alliance - examining how to select a partner, which structure to choose and how to negotiate. Following, we discuss post-formation issues of partner relationships, management of the alliance, performance evaluation and alliance termination. We conclude the course with sessions devoted towards managing a portfolio of alliances and network management in general.

MGMT 4980 Graduate Internship in Mgmt (0-10 Credits)
Hours and times arranged by student.

MGMT 4991 Independent Study (1-10 Credits)
Individual research and report. Hours and times arranged by student.

MGMT 4992 Directed Study (1-4 Credits)

MGMT 4995 Independent Research (1-10 Credits)

Marketing
Office: Daniels College of Business, Room 480, 2101 S. University Blvd., Denver, CO 80208
Phone: 303-871-3317
Web Site: daniels.du.edu/faculty-research/marketing/

Master of Science in Marketing
The Daniels Master of Science in Marketing program is a 45-to-47 credit degree that combines the in-depth study of marketing practices and principles with values-based leadership and ethical decision making. Your studies span the theoretical to the real world—from an independent study research project of your choosing to client projects that will test your marketing mettle. You’ll be immersed in real-time scenarios that let you dive deep into what interests you most to stay ahead of the curve in this rapidly changing industry. We have a strong marketing community and you will be expected to join us in exhibiting your passion for marketing and engagement with the marketing professional community, your peers and your professors.

You will engage with the Denver marketing professional community in a number of ways. Participation in the required Executive Coaching series will provide interaction with professionals over the course of your program, while allowing you to sharpen your professional skills. Guest speakers will contribute in many of our classes, sharing case studies directly from their experience. You may choose to engage with Denver professionals through participating in one of the many internships offered to you. Additionally, you will also take part in several case competitions, sponsored by the professional community, as part of your degree experience.

You will engage with your peers both inside and outside of the classroom through participation in client work, in the DU Marketing Association, in study groups, and in our Marketing@daniels community. You will engage with your professors by contributing to class discussions both in class and online, by becoming an active part of our community, by participating in our online community presence. In all, this program requires your active and thoughtful participation, applying the principles you learn to solve important client and community problems.

Daniels has been continuously accredited by the Association to Advance Collegiate Schools of Business International (AACSB) since 1923.

Master of Science in Marketing
Admission Requirements
• Application fee $100 non-refundable
• GMAT or GRE Scores required. Applicants who wish to be considered for merit-based scholarships or graduate assistantships are encouraged to take the GMAT. To have your GMAT or GRE scores reported to Daniels, please use the following codes: GMAT code MZR-GT-43 and the GRE code is 4842.
• Official Transcripts: Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
• Submit a resume that focuses on your unique strengths and accomplishments.
• Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
• Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.
• Admissions Interview: Applicants are contacted by a Daniels representative to schedule the admissions interview, which will be conducted in person, by phone, or via web cam.
• Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Language Proficiency
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• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Master of Science in Marketing with a concentration in Integrated Marketing Communication

Admission Requirements
• Application fee $100 non-refundable
• GMAT or GRE Scores required. Applicants who wish to be considered for merit-based scholarships or graduate assistantships are encouraged to take the GMAT. To have your GMAT or GRE scores reported to Daniels, please use the following codes: GMAT code MZR-GT-43 and the GRE code is 4842.
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• Submit a resume that focuses on your unique strengths and accomplishments.
• Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
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• Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

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Master of Science in Marketing with a concentration in Integrated Marketing Strategy

Admission Requirements
- Application fee $100 non-refundable
- GMAT or GRE Scores required. Applicants who wish to be considered for merit-based scholarships or graduate assistantships are encouraged to take the GMAT. To have your GMAT or GRE scores reported to Daniels, please use the following codes: GMAT code MZR-GT-43 and the GRE code is 4842.
- Official Transcripts: Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
- Submit a resume that focuses on your unique strengths and accomplishments.
- Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
- Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.
- Admissions Interview: Applicants are contacted by a Daniels representative to schedule the admissions interview, which will be conducted in person, by phone, or via web cam.
- Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Language Proficiency
- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency and are considered official only when received directly from the testing agency.
- A minimum of an 88 TOEFL (no less than a 20 on any section) or a minimum of a 6.5 IELTS (no less than 6.0 on any section) is required to apply.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution's language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.
- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Master of Science in Marketing

Degree Requirements
Core coursework requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MKTG 4000</td>
<td>Foundations of Marketing</td>
<td>0</td>
</tr>
<tr>
<td>MKTG 4510</td>
<td>Consumer Behavior</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 4530</td>
<td>Marketing Research &amp; Analytics</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 4400</td>
<td>Social Awareness and Ethics</td>
<td>2</td>
</tr>
<tr>
<td>MKTG 4520</td>
<td>Marketing Metrics</td>
<td>4</td>
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<tr>
<td>MKTG 4810</td>
<td>Integrated Marketing Communication</td>
<td>4</td>
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<tr>
<td>MKTG 4750</td>
<td>Digital Strategies</td>
<td>4</td>
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<tr>
<td>MKTG 4580</td>
<td>Collaborative Innovation: Designing New Customer Experiences</td>
<td>4</td>
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<tr>
<td>MKTG 4900</td>
<td>Advanced Marketing Strategy</td>
<td>4</td>
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<tr>
<td>MKTG 4501</td>
<td>Client Lab I</td>
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<tr>
<td>MKTG 4502</td>
<td>Client Lab II</td>
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<td>Course Code</td>
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<td>MKTG 4503</td>
<td>Client Lab III</td>
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<tr>
<td>MKTG 4980</td>
<td>Marketing Internship</td>
<td>2</td>
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<tr>
<td>MKTG 4999</td>
<td>Marketing Assessment</td>
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**Elective requirements**

Course selection includes:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MKTG 4540</td>
<td>Product and Service Innovation</td>
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<tr>
<td>MKTG 4550</td>
<td>Marketing Planning</td>
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<td>MKTG 4220</td>
<td>Customer Experience Management</td>
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<tr>
<td>MKTG 4800</td>
<td>Global Integrated Marketing Communication</td>
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<tr>
<td>MKTG 4805</td>
<td>Foundations of Digital Marketing</td>
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<tr>
<td>MKTG 4815</td>
<td>Social Media Marketing</td>
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<tr>
<td>MKTG 4825</td>
<td>Mobile Marketing</td>
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<tr>
<td>MKTG 4835</td>
<td>Search Engine Marketing</td>
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<tr>
<td>MKTG 4845</td>
<td>Tech in Marketing: Design Tools and Digital Foundations</td>
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<tr>
<td>MKTG 4820</td>
<td>Brand Management</td>
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<td>MKTG 4605</td>
<td>Current Marketing Perspectives</td>
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<td>MKTG 4630</td>
<td>International Marketing</td>
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<td>MKTG 4635</td>
<td>International Consumer Behavior</td>
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<td>MKTG 4660</td>
<td>Sports &amp; Entertainment Marketing</td>
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<td>MKTG 4850</td>
<td>Integrated Marketing Communication Campaign</td>
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<td>MKTG 4991</td>
<td>Independent Study (varies)</td>
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<td>Marketing Internship</td>
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<tr>
<td>MKTG 4705</td>
<td>Topics in Marketing</td>
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</table>

**Total Credits**

45-47

1 All students are required to pass the Marketing Foundations exam prior to beginning the degree.

2 If no work experience, 2 hours of internship is required in addition to the 33 required course hours.

**Courses**

**MKTG 4000 Foundations of Marketing (0 Credits)**

This is primarily an online course. The purpose of the course is to ensure that all incoming students have some foundational knowledge of marketing. Most of our incoming students have undergraduate degrees in business and work experience in marketing, and so will already have a working knowledge of marketing vocabulary and may be able to pass the self-check exams in this course without further study. Other students will need to do some reading to pass the assessments. Assessments may be taken as many times as necessary to achieve a score indicating that the student has achieved foundational knowledge of marketing. The course will also integrate a few on-campus professional development tasks to ensure that students get an early start on the next phase of their careers.

**MKTG 4100 Marketing Concepts (4 Credits)**

Ever wonder what’s behind those Super Bowl ads we love to watch? Or, how Apple decides the price of its newest electronic wonder? Did you notice you can almost always find what you are looking for at the grocery store, whether it’s in season or out? How does that happen? This course provides students with a lens through which they may view the world as a consumer and as a marketer, relating marketing principles and models to consumer and business actions. The course investigates marketing strategy and tactics using contemporary examples from the headlines, active class discussion, and a marketing strategy simulation or client engagement.

**MKTG 4201 MS Management Marketing Management (2 Credits)**

Marketing Management, is a newly developed, hands-on course that is part of the Mater of Science in Management degree in the Department of Management. It uses a fresh integrated approach to applying the basic fundamentals of marketing to complex and evolving scenarios. This course also helps graduate students learn skills in a safe environment and leverage their experience and knowledge to investigate business situations and opportunities in a thoughtful and sophisticated manner. This course develops a student’s ability to make sound business planning decisions using marketing theories and tools.
MKTG 4220 Customer Experience Management (4 Credits)
In their best-selling book, The Experience Economy, Pine and Gilmore set the stage for what today’s organizations are facing—customers that connect with brands on the basis of the experiences they receive: products and service are no longer a sufficient differentiator. This course takes the student beyond the ‘better product, better service’ approach to the cutting edge concepts of customer experience management (CEM). It provides an understanding of CEM, its best practices, and the tools for its implementation and evaluation. The course considers the challenges of creating and delivering customer experiences in a variety of settings—in-store operations, branded products, and web-based operations. One of the special features of this course is the use of live, case studies from a variety of companies. Among the companies recently represented by guest speakers are Charles Schwab, Comcast, Starbucks, and others.

MKTG 4230 Financial Aspects of Customer Experience Management (4 Credits)
Successful customer experience management requires knowledge of the tools and techniques to assess the costs, benefits, and return on investment in customer relationships. This course shows students how to conceptualize, design, implement, and evaluate information and financial systems that support successful customer experience operations. A particular focus of this course is the determination of the optimal investment in customer experience, including insights from concepts such as lifetime value of customers. Prerequisite: MKTG 4220.

MKTG 4240 Customer Experience Management Integration (4 Credits)
A key component of every successful customer experience management (CEM) program is the ability to integrate CEM, marketing, financial, and information systems information, concepts, and processes into a successful operation for the customer and the company. This course provides the student with the tools to evaluate the success of customer experience management systems through conducting the CEM Audit. Students apply the CEM Audit to evaluate the level of company achievement of CEM goals and objectives. This course builds on the courses in the CEM and IMC programs (primarily MKTG 4220) as well as other courses in marketing and business. In this sense, it is a capstone course, integrating the knowledge and experience acquired through other courses and your life and business experiences. Developing skills in assessment of an organization against CEM standards is the primary objective of this course. Prerequisite: MKTG 4220.

MKTG 4360 Global Transportation Systems (4 Credits)
Managing a global supply chain involves applying increased discipline to a process with many parts. The key parts of the supply chain over which a company has the least control are the transportation carriers that connect a company with its customers and suppliers in all parts of the world. Global Transportation Systems covers the various modes of transportation including ocean vessel, barge, railroads, truck and air freight. The course will touch on the operating characteristics, service, infrastructure, sustainability, ownership, finances, prices and each mode’s place in the global supply chain both across borders and domestically in several target countries including the U.S. In addition Global Transportation Systems will provide the student with an understanding of how public policy affects transportation infrastructure investment, security, cost and service around the world. The course provides a solid foundation for other supply chain courses. Cross listed with MKTG 3360.

MKTG 4370 Marketing Channels & Logistics (4 Credits)
Of the four Ps (product, price, promotion, and place), MKTG 4370 explores the “place” in a firm’s marketing efforts to gain sustainable competitive advantage. Marketing channels are the routes to market used to sell every product and service that consumers and business buyers purchase everywhere in the world. Logistics is the other half; delivering the right product at the right time to the right place in the right quantities to keep satisfied loyal customers, a crucial element in making the sale. In this course, students learn the design of marketing channels to deliver sustainable competitive advantage while building channel power and managing channel conflict. Sound strategic and tactical channels decisions are taught via an on-line computer simulation. Logistics design and execution includes best practices for demand management, order management, customer service, inventory strategy, transportation, and distribution, all of which are taught through lecture, hands-on exercises, and case studies of the world’s best supply chains. Cross listed with MKTG 3370.

MKTG 4375 Strategic Sourcing (4 Credits)
Current businesses face relentless pressure to provide additional value in an ever more competitive world. Globalization of world markets has reconfigured supply networks across the globe, causing increasing complexities and challenges in sourcing. In this course, the student learns about the strategic sourcing process, from the development of a sourcing strategy to establishing, managing, and optimizing the firm’s supply base. A framework for aligning corporate, business unit and functional department objectives with a sourcing strategy for each commodity purchased by the firm will be presented, along with spend analysis, portfolio analysis, and other best practices (supply base optimization, supplier scorecards, supplier development programs, reverse cost analysis, B2B Auctions, learning curves, value analysis, total cost of ownership, and gain sharing) for improving a firm’s cost and financial performance through improved supply chain performance. Cross listed with MKTG 3375.

MKTG 4380 Supply Chain Management (4 Credits)
Today’s economy of globally sourced manufacturing, developing markets, synchronized e-commerce, international trade lanes, and intertwined economies demand supply chains of global reach to bring goods and services from around the world to local stores or even the consumer’s front door. This course addresses the challenges and illustrates the tools required to build, maintain, and expand global supply chains. The course develops the ability to make sound strategic, tactical, and operational supply chain decisions via an on-line simulation tool, and superior supply chain design and performance is taught through in-depth case studies from the world’s top 25 supply chains. Students are able to connect improvements in supply chain design and performance to the financial performance of a firm. Cross listed with MKTG 3380. Prerequisites: MKTG 4360 and MKTG 4370.
MKTG 4400 Social Awareness and Ethics (2 Credits)
Social awareness & ethics uses a fresh integrated approach to applying the basic fundamentals of marketing to complex and evolving scenarios involving social change and insight, cultural trends and topics, and tricky, often emotional, ethical situations. This course also helps students learn skills in a safe environment and leverage their experience and knowledge to investigate business situations and opportunities in a thoughtful and sophisticated manner. This course develops a student’s ability to make sound business planning decisions using real information from the external environment. This course will combine business ethics’ overarching intent to protect employees, the environment, and their customers with marketing ethics’ principles of honesty, fairness, responsibility, and respect. As part of this, students will learn about and apply Daniels Fund Initiate Principles:

MKTG 4501 Client Lab I (1 Credit)
MKTG 4501 is a requirement to be taken concurrently with a distinct marketing class over the duration of your program. In this course, you will be working with a business client to identify and solve a client problem in the area of focus for the companion course. By taking this course and solving three different types of client problems, over the duration of your program, you will have the chance to sharpen your problem identification abilities and to work with marketing professionals, demonstrating your marketing ability.

MKTG 4502 Client Lab II (1 Credit)
MKTG 4502 is a requirement to be taken concurrently with a distinct marketing class over the duration of your program. In this course, you will be working with a business client to identify and solve a client problem in the area of focus for the companion course. By taking this course and solving three different types of client problems, over the duration of your program, you will have the chance to sharpen your problem identification abilities and to work with marketing professionals, demonstrating your marketing ability.

MKTG 4503 Client Lab III (1 Credit)
MKTG 4503 is a requirement to be taken concurrently with a distinct marketing class over the duration of your program. In this course, you will be working with a business client to identify and solve a client problem in the area of focus for the companion course. By taking this course and solving three different types of client problems, over the duration of your program, you will have the chance to sharpen your problem identification abilities and to work with marketing professionals, demonstrating your marketing ability.

MKTG 4510 Consumer Behavior (4 Credits)
What makes consumers tick? This course draws on a variety of sources, including concepts and models from psychology, sociology, anthropology, and economics, to offer helpful frameworks for understanding why consumers buy what they buy. These concepts are applied to real-world situations to give students practice at making better product, promotion, pricing, and distribution decisions based on consumer insights.

MKTG 4515 International Consumer Behavior (4 Credits)
The focus of this course is to introduce the complex role that consumer behavior and consumption plays within an international context. Knowledge of customers is one of the cornerstones for developing sound business strategies, and there is a need to better understand the diverse aspects of consumer behavior that marketers must cater to in the global marketplace. As the study of consumer behavior draws upon marketing, psychology, economics, anthropology, and other disciplines, the added complexity of understanding it beyond ones’ home market results in additional challenges and opportunities. Consumer behavior attempts to understand the consumption activities of individuals as opposed to markets, and as this course will demonstrate, consumption activities are not universal. The course will focus on both consumer behavior theory, as well as the integration of regional, global, and cultural variables that marketers must account for in developing marketing programs in strategies. Topics such as global consumer culture, values and consumption, international consumer attributes, international social and mental processes, will be used to help comprehend and explain the convergence and divergence of consumer behavior in the global marketplace. The goal of this course is to provide a more concrete understanding of how marketers account for similarities and differences in the development and implementation of marketing practices, in the field of advertising, product and service development and usage, retailing, and communications. Prerequisites: MKTG 4510.

MKTG 4520 Marketing Metrics (4 Credits)
There’s no escape; even marketing managers need to understand financials. This course is designed to introduce MS Marketing students to the principles of financial decision-making and the use of marketing metrics, including customer lifetime value (CLV) and media mix modeling. Students learn how to compute marketing ROI and how to make marketing decisions that enhance the bottom line. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.

MKTG 4530 Marketing Research & Analytics (4 Credits)
Understanding consumers requires careful observation and thoughtful questions. Marketing research represents a methodology for getting the answers needed to be successful in business. This course introduces students to a broad array of marketing research tools, including focus groups, ethnographic studies, survey research, and experiments. Students will learn how and when to apply these tools, as well as how to interpret the results to make sound marketing decisions. Highly recommended students take statistics prior to taking this course. Prerequisites: MKTG 4100.

MKTG 4540 Product and Service Innovation (4 Credits)
Developing and introducing new products and services are the lifeblood for companies and a primary responsibility of product management. This course is focused on the most current innovations in materials, hardware, CPG, and software. This is a travel course and students will be required to travel to the Consumer Electronics Show in addition to attending class on campus. We'll be using Google Ventures rapid sprint framework to develop/test new product ideas. Prerequisites: MKTG 4510, MKTG 4520, MKTG 4530, and MKTG 4810 or instructor permission.
MKTG 4550 Marketing Planning (4 Credits)
It has been said that “planning without action is futile, and action without planning is fatal.” The objective of this course is to enable students to utilize a rigorous planning process to develop action-oriented marketing programs. This activity involves an integrated application of concepts and theories characterized by the logical use of facts -- leading to alternatives -- leading to actions. By the end of the course students should be able to develop effective marketing programs, and to understand the strength and limitations of the principal planning tools a marketing manager has at his/her disposal. The skills developed in this class are particularly important because many organizations now use the marketing plan as the basis for developing the business plan. In fact, marketing-developed plans often must precede the subsequent decisions in planning production, finance, and other corporate activities. Each student will apply the planning process, develop an action plan, and identify specific marketing outcomes for an existing or prospective enterprise. The course utilizes current practices, contemporary exemplars, and rigorous communication/presentation platforms. Course must be taken within one quarter of graduation or with instructor’s permission.

MKTG 4560 Pricing Strategy (4 Credits)
This course provides an overview of all aspects of Pricing, a key driver of growth and profitability. As one of the 4 “Ps” of Marketing, attention and interest in Pricing is growing. This is not surprising, given that Price is the one “P” that drives the topline, with a direct impact on on revenue growth, customer growth, market share, and profitability. This Pricing survey course examines established and emerging pricing strategies and principles. In addition, students learn some basic analytical tools that can be applied to pricing strategy decisions and explore approaches to optimize the impact of pricing strategies and tactics, including segmentation, addressing the competition, and communicating value. Prerequisites: MKTG 4510, MKTG 4520, and MKTG 4530 or instructor permission.

MKTG 4580 Collaborative Innovation: Designing New Customer Experiences (4 Credits)
Innovation is a driving force of change for organizations and markets. It is becoming increasingly clear that the development of novel and compelling offerings requires the contributions of multiple stakeholders, including customers. Companies such as Apple, Facebook and Google, focus on engaging an ecosystem of partners to develop new value propositions to continually improve customer experiences. This course explores the collaborative processes that drive value creation and innovation. Students will learn to strategically apply design thinking and community-building approaches to innovate customer experiences in ever-changing markets. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.

MKTG 4605 Current Marketing Perspectives (4 Credits)
Like most disciplines, marketing is evolving constantly. One can learn about marketing and its classic terms and notions by reading a textbook. But to familiarize oneself with the current pressing issues, emerging ideas, and innovative applications, one must consult both industry practitioners and academic gurus. In this course, students and faculty will meet and interview several top business executives in the Denver area as well as visit their facilities. Such interaction with the managers and faculty will help the students understand the interface of theory and application. In addition, by identifying the current issues in marketing and learning how to develop strategies to handle them, students add to their preparation for the job market.

MKTG 4630 International Marketing (4 Credits)
The shrinking planet and constant pressure to maintain a firm’s growth mean that global marketing continues to grow in importance. This course introduces the various economic, social, cultural, political, and legal dimensions of international marketing from conceptual, methodological and application perspectives, and emphasizes how these factors should affect, and can be integrated into, marketing programs and strategies. This course provides students with methods for analyzing world markets and their respective consumers and environments, and to equip students with the skills in developing and implementing marketing strategies and decision making in international contexts. It includes a combination of lectures and discussions, case analyses of real global marketing issues, videos and readings from the business press, country snapshots, and a group research project in which student teams launch a discrete product in a foreign country of their choice.

MKTG 4635 International Consumer Behavior (4 Credits)
The focus of this course is to introduce the complex role that consumer behavior and consumption plays within an international context. Knowledge of customers is one of the cornerstones for developing sound business strategies, and there is a need to better understand the diverse aspects of consumer behavior that marketers must cater to in the global marketplace. As the study of consumer behavior draws upon marketing, psychology, economics, anthropology, and other disciplines, the added complexity of understanding it beyond ones’ home market results in additional challenges and opportunities. Consumer behavior attempts to understand the consumption activities of individuals as opposed to markets, and as this course will demonstrate, consumption activities are not universal. The course will focus on both consumer behavior theory, as well as the integration of regional, global, and cultural variables that marketers must account for in developing marketing programs in strategies. Topics such as global consumer culture, values and consumption, international consumer attributes, international social and mental processes, will be used to help comprehend and explain the convergence and divergence of consumer behavior in the global marketplace. The goal of this course is to provide a more concrete understanding of how marketers account for similarities and differences in the development and implementation of marketing practices, in the field of advertising, product and service development and usage, retailing, and communications. Cross-listed with MKTG 3635. Prerequisite: MKTG 4510 or instructor permission.

MKTG 4660 Sports & Entertainment Marketing (4 Credits)
There are few products for which consumers are more passionate than their sports and entertainment expenditures, so this topic is always an exciting one in marketing. This course provides an in-depth look at the processes and practices of marketing sports, concerts, film and other entertainment. The course emphasizes the practical use of advertising, promotion and public relations in creating athlete or entertainer images, providing a quality fan experience, promoting sponsorships or driving event ticket sales. Participation in a current sports marketing project provides context for graduate students to apply theory to practice. Cross listed with MKTG 3660. Prerequisites: MKTG 4100.
MKTG 4670 Competitive Strategies (4 Credits)
This course will examine what is happening in the world of corporate marketing today. Which companies' marketing strategies are working and why? Which are not working and why? Who is winning in the competitive marketplace and who is losing? How do you know? What is the connection between a company's marketing strategy and its financial strategy? Prerequisites: MKTG 4100.

MKTG 4705 Topics in Marketing (1-4 Credits)
TOPIC CHANGES EACH TERM.

MKTG 4750 Digital Strategies (4 Credits)
We're 20 years into the digital marketing revolution and the ecosystem continues to evolve. From the birth of the Internet and email to the recent addition of messaging apps and the Internet of Things: It's a fantastic time to be a marketer. In this class, we will take what you learned in consumer behavior and extend it in the social/mobile/search realm. We'll utilize lessons learned from cognitive neuroscience combined with qualitative/quantitative data to create one-to-one marketing experiences for B2B/B2C consumers. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.

MKTG 4800 Global Integrated Marketing Communication (4 Credits)
The Global IMC class is for graduates who have worked in marketing communications or have taken marketing communications classes and want to gain an understanding of how use this knowledge in the global marketplace. It helps students to understand similarities and differences between markets and how to most effectively approach them. What are the IMC tools that work best and how do you use them with cultural sensitivity? The class features a number of guest speakers and at least one off-site agency visit. The finale to this high-intensity class will have competing teams creating a global campaign. Prerequisites: MKTG 4810 or instructor permission.

MKTG 4805 Foundations of Digital Marketing (4 Credits)
Knowing how to use digital marketing tools as part of an integrated marketing strategy is critical in today's marketplace. This course provides the knowledge and skills to plan and implement a digital marketing strategy using three powerful digital marketing elements: (1) UX/UI - User experience design is one of the most difficult aspects for businesses to define and yet it's essential to map out when creating a holistic strategy. User Interface design is one part of the user experience and we will work together to show you best-in-class examples. (2)Facebook Advertising - Facebook is quickly becoming the hyper-targeted advertising platform for businesses of any size. You will walk through Facebook's Blueprint Training to help you understand what types of digital advertising are possible. (3) Email Marketing - Email has long been a staple in digital marketing. We will show you the ins and outs of this digital medium and teach you how to take control of this evolving channel. Cross-listed with MKTG 3480.

MKTG 4810 Integrated Marketing Communication (4 Credits)
IMC is a critical component of marketing strategy and is vital to business success in today's economy. Organizational, technological, and social trends of the past few years have considerably impacted marketing communications by necessitating new communication strategies and adding new delivery tools (e.g., digital and social). Thus, it is important to integrate all marketing communication activities into one master plan. This course is based upon the notion that marketing communications include much more than advertising. The course provides students with a foundation in the development and execution of communications strategies for any organization (large, small, public, or private). Primary emphasis is placed on consumer insight, branding, market segmentation and positioning, message strategy, sales promotion and the execution of marketing communications through appropriate media technologies. Students will develop an understanding of marketing communications practice through a real-world project, readings, lectures, case analyses and discussions. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.

MKTG 4815 Social Media Marketing (4 Credits)
Social media marketing is an evolving field with consumers driving the changes marketers are seeing. Based on your business model, social media may be more than just distribution and consumers will be a part of your long-term business strategy beyond revenue. We'll illuminate the increasing importance of social media as it relates to consumer behavior, the purchase cycle and the rise of messaging apps as it relates to business success. We will also develop a strategic model for a diverse range of businesses (B2B, B2C, Product, Service, Online, Online with Brick and Mortar) that will empower you as a marketer to determine your best strategy. Cross-listed with MKTG 3490. Prerequisites: MKTG 4100.

MKTG 4820 Brand Management (4 Credits)
"How do leading organizations create compelling brands that inspire trust, build a sense of community, and fuel loyalty? As consumers find their digital voice, how are brands co-created by firms and users alike? And what can brand managers do to insures their brand equity is sustainable throughout the product lifecycle? In this project-based [WINTER] or interview-based [SUMMER] course, you'll learn the underlying principles and theories from brand authorities, then apply them to real-world client challenges. Join us as we create goal-driven brand strategies, harness tactics to build and amplify the brand, foster brand experiences, conversations and relationships, and then learn ways to measure the resulting impact on brand value. Prerequisite: MKTG 4100. Concurrent enrollment allowed.

MKTG 4825 Mobile Marketing (4 Credits)
Smartphones are the device for today's consumer. Mobile usage easily eclipses all other digital venues and you will be learning how to harness this ever-evolving field. Knowledge of mobile search, mobile applications, mobile advertising and location-based services are essential for today's business leaders. This course will enable students to build creative mobile marketing campaigns that complement digital and traditional marketing strategies. This fast-paced course is a must for people interested in marketing. Cross-listed with MKTG 3475. Prerequisite: MKTG 4100.

MKTG 4830 Integrated Marketing Communication Cases (4 Credits)
Using the Harvard case method, students analyze marketing communication and brand building campaigns and processes used to acquire and retain customers, generate sales, and increase profits. The presence (and absence) of IMC strategies and practices are identified and discussed. Course concludes with presentations of cases created (based on working with real companies) by student teams. Prerequisite: MKTG 4810.
MKTG 4835 Search Engine Marketing (4 Credits)
The digital marketing landscape has thousands of tools that marketers can utilize to increase revenue, execute on strategies and develop deep brands. This course will review the most essential of those tools: Google Analytics and Google AdWords. Our goal is to enable students to attain individual certification in Google Analytics and begin the process of getting Google AdWords Fundamentals certified. You will be working with real-world clients, helping them increase revenue! Cross listed with MKTG 3485.

MKTG 4845 Tech in Marketing: Design Tools and Digital Foundations (4 Credits)
"Software is eating the world." That was the quote from Marc Andreessen way back in 2011. His point was now that software had disrupted the tech industry, it was now evolving into every other industry. Agriculture. Mass transit. Construction. Everything. This prediction has become true with companies like Google and Uber. We’re at a point where coding/technology are now a matter of literacy. We are going to work together as a class to make you more literate. We are going to learn how to utilize digital design tools such as Adobe Photoshop and Illustrator to create brand imagery. We’ll then move on to learn HTML/CSS and APIs: the building blocks of the Internet. We’ll also spend some time prototyping software such as Axure and tap into memes and Gifs. This is a tactical, hands-on class. Cross-listed with MKTG 3945.

MKTG 4850 Integrated Marketing Communication Campaign (4 Credits)
This course builds on all of the courses in the IMC program/concentration as well as other courses offered through the Department of Marketing. In this sense, it is a capstone course, integrating the knowledge and experience acquired through these other courses. Integration is the primary objective of this course—that is, to develop skills in integrating content from other courses into a complete IMC campaign for a brand of the student’s choice. IMC Campaign is a major project course with a single significant outcome, the IMC Campaign. The project is conducted in a team environment with the guidance of the instructor. Prerequisites: MKTG 4810 or instructor permission.

MKTG 4900 Advanced Marketing Strategy (4 Credits)
Making sound strategic marketing decisions in the real world is complex and challenging, even for seasoned executives. Determining sound strategies is critical. Implementing them effectively and profitably is essential. How can managers increase their chances for making better strategic marketing decisions leading to more successful outcomes more often? This course applies concepts, constructs and learning acquired in prior marketing courses to complex strategic decisions. Live cases are at the heart of the course, challenging teams and individuals to make specific marketing decisions in the context of larger strategic marketing and company contexts, including accounting for top- and bottom-line impact. Students are required to be within one quarter of graduation. Prerequisites: MS MKTG students only within one (1) quarter of graduation or with instructor permission.

MKTG 4980 Marketing Internship (0-10 Credits)
We learn by doing. That’s what a marketing internship at Daniels is all about. Recent studies show that one to three internships on a resume go a long way towards landing that first job in marketing. At Daniels, we network with some of the top marketers in Denver and across the US. Our marketing students have worked at National CineMedia, Integer Advertising, Bank of America, Enterprise, Northwestern Mutual Insurance, eBags, Crispin-Porter + Bogusky, Einstein's, Johns Manville, Ski Magazine, the Pepsi Center, 15 Million Elephants, Flextronics, Merrill Lynch, Dish Network, AEG Live, Altitude Sports & Entertainment, and the list goes on. Not only will students earn school credit, they may very well land a paid internship, and eventually a full-time job. Course requirements include an internship report that covers your experience on the job, a study of the industry, and what they learned from their company. It’s a win-win course where you put into practice the marketing concepts you’ve learned at DU, and discover new marketing tactics from your company co-workers. “Thanks to the University of Denver for fostering this partnership and providing such great students” (NCM Media Networks).

MKTG 4991 Independent Study (1-10 Credits)
Hours and times arranged by student.

MKTG 4992 Directed Study (1-4 Credits)

MKTG 4995 Independent Research (1-10 Credits)

MKTG 4999 Marketing Assessment (0 Credits)
Some experiences are essential to a student’s development, but don't fit well within the confines of a traditional course. This is a face-to-face, zero-credit required course, held throughout your program. The course involves a series of executive coaching experiences with experts within and outside of Daniels, networking with fellow students and professionals in the Denver area, and assessment of your development through the program.

Real Estate and Construction Management
Office: Daniels College of Business, Room 380
Mail Code: Daniels College of Business, Room 380, 2101 S. University Blvd. Denver CO 80208
Phone: 303-871-3432

Master of Science in Real Estate and the Built Environment
The Franklin L. Burns School of Real Estate and Construction Management at the Daniels College of Business allows you to combine the core competencies across the full spectrum of the built environment. Students will have a sound understanding of the Development and Delivery sides of real estate, property development and integrated project delivery. Our core curriculum includes courses in Real Estate Feasibility, Real Estate Finance, Investment and Appraisal in addition to courses in Project Feasibility, Construction Estimating, Procurement, Project Delivery, Scheduling,
and Contract Administration. This holistic, integrated approach adds value in a way that a single discipline perspective cannot, and establishes a firm basis upon which to build a selected area of expertise. It can be completed in one year full time or 18 months part time.

Daniels has been continuously accredited by the Association to Advance Collegiate Schools of Business International (AACSB) since 1923.

**Master of Science in Real Estate and the Built Environment, Executive (Online)**

This program mirrors the on campus Master of Science in Real Estate and the Built Environment degree. This Executive program is a flexible, online degree program designed for working professionals with at least eight years of relevant work experience who want to progress in their corporate or entrepreneurial careers in real estate, property development or integrated project delivery. One intensive three-day course in residence is required in addition to your online studies. The online classes are offered in a synchronous manner one evening per week for a total of 10 weeks. This program can be completed in as little as 18 months or up to five years.

**Master of Science in Real Estate and the Built Environment**

**Admission Requirements**

- Application fee $100 non-refundable
- Official Transcripts: Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
- Submit a resume that focuses on your unique strengths and accomplishments.
- Official GMAT or GRE scores (GMAT is required for scholarship and graduate assistantship consideration)
- Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
- Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.
- Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

**Language Proficiency**

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency.
- A minimum of an 88 TOEFL (no less than a 20 on any section) or a minimum of a 6.5 IELTS (no less than 6.0 on any section) is required to apply.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution’s language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.
- Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

**Executive Master of Science in Real Estate and the Built Environment**

**Admission Requirements**

- Application fee $100 non-refundable
- Official Transcripts: Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
- Submit a resume that focuses on your unique strengths and accomplishments.
- At least seven years of industry-related experience required.
- GMAT/GRE Waived with appropriate industry background (normally 8-10 years industry experience).
- Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
- Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.
- Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.
Language Proficiency

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency and are considered official only when received directly from the testing agency.

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- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Master of Science in Real Estate and the Built Environment

Degree Requirements

<table>
<thead>
<tr>
<th>Recommended Real Estate and the Built Environment Core</th>
<th>16</th>
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<tbody>
<tr>
<td>REAL 4000 Business of the Built Environment</td>
<td>4</td>
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<tr>
<td>REAL 4407 Income Property Finance (*)</td>
<td>4</td>
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<tr>
<td>CMGT 4410 Construction Building Systems (*)</td>
<td>4</td>
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<tr>
<td>CMGT 4580 Integrated Teaming and Project Leadership</td>
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<tr>
<th>Real Estate and the Built Environment Electives</th>
<th>32</th>
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</thead>
<tbody>
<tr>
<td>(Select 8 courses from one or any of the following areas.)</td>
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</table>

**Property Development Electives:**

| REAL 4210 Planning, Entitlements, and Public Finance     | 4  |
| REAL 4347 Mgmt of Income Properties                     | 4  |
| REAL 4467 Property Development and Feasibility (*)      | 4  |
| REAL 4800 NAIOP Challenge (Instructor Permission Required) | 4  |
| CMGT 4438 Legal Issues & Risk Management                | 4  |
| CMGT 4490 Residential Development                       | 4  |

**Real Estate Electives:**

| REAL 4007 Real Estate Financial Analysis (*)            | 4  |
| REAL 4010 Real Estate Capital Markets                   | 4  |
| REAL 4140 Global Perspectives in Real Estate            | 4  |
| REAL 4337 RE Securities/Syn/Entrep                      | 4  |
| REAL 4369 Real Estate Taxation                          | 4  |
| REAL 4400 Real Estate Principles and Practices          | 4  |
| REAL 4417 Income Property Valuation and Appraisal (*)   | 4  |
| REAL 4477 Income Property Investment (*)                | 4  |
| REAL 4500 Argus Financial Analysis                      | 4  |
| REAL 4980 Adv Valuation/Report Writing (*)              | 4  |

**Construction Management Electives:**

| CMGT 4120 Construction Planning and Scheduling          | 4  |
| CMGT 4155 Sustainable Development/LEED                  | 4  |
| CMGT 4177 Environmental Systems and MEP Coordination    | 4  |
| CMGT 4250 Construction Job Site Management              | 4  |
| CMGT 4320 Architectural Planning and Design Management  | 4  |
| CMGT 4420 Construction Estimating                       | 4  |
| CMGT 4480 Const Project Management                      | 4  |

**Integrated Project Delivery Electives:**

| CMGT 4110 Preconstruction Integration and Planning      | 4  |
### Master of Science in Real Estate and the Built Environment, Executive Degree Requirements

**Recommended Real Estate and the Built Environment Core**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>XRCM 4000</td>
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<tr>
<td>XRCM 4407</td>
<td>Income Property Finance (*)</td>
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<tr>
<td>XRCM 4410</td>
<td>Construction Building Systems (*)</td>
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<tr>
<td>XRCM 4580</td>
<td>Strategic Leadership and Integrated Teaming</td>
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**Real Estate and the Built Environment Electives**

(Select 8 courses from one or any of the following areas.)

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<tr>
<td>XRCM 4210</td>
<td>Planning, Entitlements, and Public Finance</td>
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<tr>
<td>XRCM 4347</td>
<td>Management - Income Properties</td>
<td>4</td>
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<tr>
<td>XRCM 4467</td>
<td>Property Development and Feasibility (*)</td>
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<td>XRCM 4438</td>
<td>Legal Issues &amp; Risk Management</td>
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<tr>
<td>XRCM 4490</td>
<td>Residential Development</td>
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**Real Estate Electives:**

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<tr>
<td>XRCM 4007</td>
<td>Real Estate Financial Analysis (*)</td>
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<tr>
<td>XRCM 4010</td>
<td>Real Estate Capital Markets</td>
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<tr>
<td>XRCM 4140</td>
<td>Global Perspectives in Real Estate</td>
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<td>Real Estate Taxation</td>
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<td>XRCM 4777</td>
<td>Real Estate Principles and Practices</td>
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<td>XRCM 4477</td>
<td>Income Property Investment (*)</td>
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<td>XRCM 4702</td>
<td>Argus Financial Analysis</td>
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<td>XRCM 4980</td>
<td>Adv Valuation/Report Writing (*)</td>
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**Construction Management Electives:**

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<tr>
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<td>XRCM 4120</td>
<td>Construction Planning and Scheduling</td>
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<tr>
<td>XRCM 4155</td>
<td>Sustainable Development/LEED</td>
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</tr>
<tr>
<td>XRCM 4177</td>
<td>Environmental Systems and MEP Coordination</td>
<td>4</td>
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<tr>
<td>XRCM 4250</td>
<td>Construction Job Site Management</td>
<td>4</td>
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<tr>
<td>XRCM 4320</td>
<td>Architectural Planning and Design Management</td>
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<tr>
<td>XRCM 4420</td>
<td>Construction Estimating</td>
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<tr>
<td>XRCM 4480</td>
<td>Construction Project Mgmt</td>
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**Integrated Project Delivery Electives**:

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<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>XRCM 4110</td>
<td>Preconstruction Integration and Planning</td>
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<tr>
<td>XRCM 4200</td>
<td>Lean Const Project Mgmt (XRCM 4480 or Prior CM Proj Mgmt experience)</td>
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<tr>
<td>XRCM 4230</td>
<td>Design Management and Schedule Control</td>
<td>4</td>
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<tr>
<td>XRCM 4310</td>
<td>Cost Modeling and Trend Management (CMGT 4410 or Prior CM experience)</td>
<td>4</td>
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</tbody>
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Minimum number of credits required: 48

* Required coursework for the MAI professional designation. Students must complete all 7 of the courses indicated to satisfy the MAI educational requirement. Courses must be completed here at the Burns School and cannot be completed from another entity.

** Undergraduate degree in Construction Management, Architecture, Engineering or approved major required for this track.
### Facilities Management Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>XRCM 4115</td>
<td>Corporate Real Estate and Facilities Management</td>
<td>4</td>
</tr>
</tbody>
</table>

**Minimum number of credits required: 48**

* Required coursework for the MAI professional designation. Students must complete all 7 of the courses indicated to satisfy the MAI educational requirement. Courses must be completed here at the Burns School and cannot be completed from another entity.

** Undergraduate degree in Construction Management, Architecture, Engineering or similar major is highly recommended before taking one of these courses.

### Construction Management Courses

#### CMGT 4110 Preconstruction Integration and Planning (4 Credits)
This course examines the role of preconstruction services, team integration, and joint design planning in various Integrated Project Delivery (IPD) approaches. Various tools and techniques associated with preconstruction services and design planning from the proposal stage through the design stages of a project are considered.

#### CMGT 4120 Construction Planning and Scheduling (4 Credits)
Understanding and applying scheduling and control to construction projects is essential to successful construction management. Project scheduling emphasizes network-based schedules, such as critical path management (CPM), network calculations, critical paths, resource scheduling, probabilistic scheduling and computer applications. Project control focuses on goals, flow of information, time and cost control, and change management. Prerequisite: CMGT 4410.

#### CMGT 4155 Sustainable Development/LEED (4 Credits)
The course includes many case studies of historic and contemporary structures exemplifying various sustainability features. Emphasis is placed on how LEED project certification influences the overall construction project. Topics include LEED certification techniques for sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and design. The following topics are covered from a LEED perspective: ventilation, air conditioning, heating, electrical lighting, energy efficiency, and building control systems. The student studies and analyzes how management and LEED techniques are applied to current construction projects.

#### CMGT 4177 Environmental Systems and MEP Coordination (4 Credits)
A study of electrical and mechanical systems used in the construction of buildings. Course content includes system design, component selection and utilization for energy conservation, cost estimating or systems, coordination and management of installation. Specific systems included are electrical, air conditioning, heating, ventilation and plumbing, fire protection, life safety, communication, power systems and lighting. The course also considers coordination of MEP systems and explores emerging technology and environmental issues related to mechanical and electrical systems in buildings. Cross listed with CMGT 3177 and XRCM 4177.

#### CMGT 4180 Construction Layout/Surveying (4 Credits)
Designed to provide the student with the theory, principles and techniques of construction layout and surveying. Includes field procedures in fundamental land surveying as well as site and foundation layout. Cross listed with CMGT 3180.

#### CMGT 4200 Lean Construction Project Management (4 Credits)
This advanced course focuses on cutting edge lean tools and other productive strategies for the management of people and processes in the construction industry. The tools and strategies presented draw on the very successful Toyota Production System adapted to the construction industry. Lean construction methodologies such as the Last Planner System, the Lean Project Delivery System, and Integrated Project Delivery are discussed. Topics also include sustainability and the emerging interest in "green construction," as well as the use of Building Information Modeling to enhance the development and management of integrated projects. This course also looks at the human element in relation to motivation, safety, and environmental stresses. A number of case studies are presented to highlight best practices in Lean Construction Project Management.

#### CMGT 4230 Design Management and Schedule Control (4 Credits)
This course examines the various strategies and techniques associated with managing the design delivery process to align with the construction budget and schedule needs in an integrated fashion. Design planning, scheduling, and resource allocation are considered along with design value determination and management of the design-construction interfaces. Constructability, value engineering, design performance.

#### CMGT 4250 Construction Job Site Management (4 Credits)
This course addresses how a successful construction project is managed and administered from design through construction to closeout. Emphasis will focus on how to unite the key stakeholders (contractors, architects, engineers, etc.) to provide them with a workable system for operating as an effective project team. The latest technology, laws and regulations associated with contract administration will be presented. Topics pertinent to each stage of a project are introduced and discussed as they occur throughout the life of the project. Numerous real-world examples will be utilized throughout the course. Various electronic project administration tools and techniques will be demonstrated including Building Information Modeling.
CMGT 4310 Cost Modeling and Trend Management (4 Credits)
This course covers various approaches to construction cost estimating at the conceptual stages of planning and design through detailed construction. Students learn parametric estimating techniques and how they are applied to construct and predict reliable budgets at the earliest stages of design. Students build cost models and refine those models with greater detail as design develops through a project. Building information modeling is introduced and used to create massing models to demonstrate design impacts on project costs. Cost trending techniques are presented to manage, monitor and document project performance relative to cost.

CMGT 4320 Architectural Planning and Design Management (4 Credits)
This course introduces students to the significant value that architecture brings to real estate and the built environment and the various services and professions associated with it. Students will be introduced to principles, protocols and the planning process related to the design function and the link between the architect’s vision and the finished physical structure. Students will be introduced to design, thinking, theory and application. Student will learn to read and interpret the various graphical and written construction documents as well as know how they are developed and what information they contain. Architectural, structural, mechanical, electrical, plumbing and civil drawings and specifications are covered. The business model for design services will be explored as well as the unique risks and challenges associated with managing the design throughout the various stages of development and construction.

CMGT 4401 Residential Practicum I (4 Credits)
A three course sequence designed to emphasize the practical application of the theories and concepts of residential development. The courses provide a capstone experience for seniors. Students are expected to apply their knowledge of general business, real estate and construction management practices by forming a student business entity, acquiring land, building and selling a residential property. Students will apply accounting, finance, marketing, real estate and construction management techniques in the development of a single family residence. Cross listed with CMGT 3401.

CMGT 4410 Construction Building Systems (4 Credits)
A survey of residential and commercial construction materials, means, and methods associated with the various structural and architectural systems used to design and construct buildings. Project plans and specifications are incorporated to teach the basic sequencing and overall construction process. The influence of sustainability in construction is introduced.

CMGT 4420 Construction Estimating (4 Credits)
Integrated approach addressing construction accounting, estimating, purchasing, and management reporting systems. Cross listed with CMGT 3100, XRCM 4420. Prerequisite: CMGT 4400 or permission of instructor.

CMGT 4438 Legal Issues & Risk Management (4 Credits)
General contract and real estate law, including property rights, title concepts, deeds, purchase contracts, law of agency, environmental issues and disclosures, basics finance concerns, tax law, landlord-tenant law, construction contracts, indemnity agreements, rights and remedies of property owners, contractors and subcontractors issues, and various areas of liability for real estate practitioners and property owners.

CMGT 4440 Const Project Management (4 Credits)
Principles and techniques of construction project management, use of systems analysis, internal and external procedures, planning, programming, budgeting and staffing, controlling major projects, emphasis on construction scheduling techniques with case application. Cross listed with CMGT 3120.

CMGT 4449 Residential Development (4 Credits)
A seminar-style capstone course that integrates various aspects of the construction management curriculum. Emphasis is on topics in the construction and development industries. Cross listed with CMGT 3190. Prerequisite: CMGT 4410.

CMGT 4560 Relational Contracting and Risk Mitigation (4 Credits)
Relational contracting is a construction project delivery framework for multidisciplinary, integrated projects that focuses on aligned goals, high performance, innovation, mutual respect, open communication and a "no blame" culture between Client, Contractor, and Design Team. This approach to contracting, also known as Alliance Contracting, is becoming more prevalent in the United States and is often applied when using integrated project delivery systems. This course compares and contrasts transactional contracting methods with relational contracting methods and the influences on the project team and projects outcomes. Relational contracting is also considered in the context of risk mitigation and project optimization.

CMGT 4580 Integrated Teaming and Project Leadership (4 Credits)
This course examines the unique leadership skills and talents associated with leading and facilitating multidisciplinary, integrated design and construction teams. The focus of the course is on applying strategic intelligence and a system of leadership in the development of integrated solutions for the built environment. This leadership model is driven by a compelling purpose and supported by people who share practical values and have excellent processes, to look into the future, create a vision, and bring that vision to reality. Effective strategies for supporting high performance teams are explored.

CMGT 4700 Topics in Construction Mgmt (1-4 Credits)
CMGT 4980 Construction Mgmt Internship (0-10 Credits)
CMGT 4991 Independent Study (1-10 Credits)
CMGT 4992 Directed Study (1-10 Credits)
CMGT 4995 Independent Research (1-10 Credits)
Real Estate Courses

REAL 4000 Business of the Built Environment (4 Credits)
The emphasis of this course is on the importance of real estate and the built environment and its impacts and influences on how we live, work, and play. The course employs a full life cycle sustainable model that links the various phases, functions, and professions of real estate, project delivery, and asset/facility management to create holistic, value generating solutions for society. Professional practices/skillsets associated with the many career options that engage the built environment are explored.

REAL 4002 The Business of Real Estate (2 Credits)
This is an introduction to home ownership, real estate industry and its markets; legal aspects of home ownership from consumer’s point of view, including property rights, title, concepts, deeds, and purchase contracts. Listing contracts, law of agency, types of mortgages, basics of home loan finance, appraisal, investment and tax benefits are also covered in this class. Partially satisfies Colorado Real Estate sales licensing requirements.

REAL 4007 Real Estate Financial Analysis (4 Credits)
Alternative analysis formats that can be applied to a wide array of real estate analysis issues; simulates working/decision-making environment; structured overview of analysis tools focused on specific facets of multidimensional real estate decision-making environment; applications in investment analysis, feasibility analysis, valuation, market analysis, and report writing and presentation. Prerequisite: REAL 4407.

REAL 4010 Real Estate Capital Markets (4 Credits)
This course will expose students to the Commercial Real Estate Capital Markets that have evolved from exclusively private in the 1980s to a mix of private and public, including commercial mortgage backed securities (CMBS) and real estate investment trusts (REITs), in the 1990s. Any person involved in real estate today must understand all the alternative capital sources available and their requirements. Students will be exposed to the positives and pitfalls of all the capital market products. This course will provide students with the general concepts and definitions. A combination of lectures, guest lectures from industry experts, text & article readings, class discussions, and case studies using real life examples. Cross listed with REAL 3010. Prerequisite: REAL 4007.

REAL 4110 Advanced Issues in Real Estate & Construction Management (4 Credits)
This course concentrates on five advanced real estate and construction management topics; the design build environment, negotiation skills in real estate and construction management, real estate capital markets, the entitlement process – urban planning, zoning, PUDs and underutilized tax advantages in real estate. Cross listed with REAL 3110. Prerequisite: REAL 4407.

REAL 4140 Global Perspectives in Real Estate (4 Credits)
This course focuses on inbound U.S. and outbound U.S. real estate transactions and the cultural issues that impact these transactions. This can also be taken as a Burns Global Delegation travel course. Cross listed with REAL 3140, XRCM 4140.

REAL 4210 Planning, Entitlements, and Public Finance (4 Credits)
Real estate development, place making, and community building require the combined efforts of the public, for-profit, and non-profit sectors. Participants in the real estate development process need to understand and appreciate the sometimes competing and sometimes collaborative interests of governments, agencies, and the private developer. This course is designed to familiarize students with the overall context of urban planning and land use. Students discover the variety of participants in the development process and also become familiar with the project entitlement process, zoning, and land use regulation. Students also examine public/private financing structures such as public-private-partnerships (P3s) and become familiar with detailed calculations relating to Tax Incremental Financing (TIF) and Metropolitan Districts.

REAL 4337 RE Securities/Syn/Entrep (4 Credits)
Introduction to real estate securities; emphasis on private offerings; determining whether a contemplated transaction involves a security, and what happens if it does; exemptions from registration (Reg D); registration requirements; investor suitability, how to syndicate, acquisition of property, marketing or the property, tax structure and formation of syndication, compensation to syndicators, real estate tax considerations. Cross listed with REAL 3337, XRCM 4337.

REAL 4347 Mgmt of Income Properties (4 Credits)
Explore the complexities of managing apartments, condominiums, office buildings, industrial property and shopping centers. This course covers rental markets, development of rental schedules, leasing techniques and negotiations, repairs and maintenance, tenant relations, merchandising, selection and training of personnel, accounting, and owner relations. Cross listed with REAL 3347.

REAL 4369 Real Estate Taxation (4 Credits)
Tax factors affecting investments and operations in real estate; special attention is given to legal forms of ownership, depreciation, tax basis, tax impacts of exchanges, syndications, real estate securities, and other federal tax laws affecting real estate. Cross listed with REAL 3369.

REAL 4400 Real Estate Principles and Practices (4 Credits)
Principles of real estate, real estate industry and its markets; legal aspects of home ownership from consumer’s point of view, including property rights, title concepts, deeds, purchase contracts, listing contracts, law of agency, environmental issues and disclosures, types of mortgages, basics of home loan financing, appraisal investment and tax benefits. Partially satisfies Colorado real estate broker licensing requirements. Cross listed with REAL 1777.
REAL 4407 Income Property Finance (4 Credits)
This course explores conventional and alternative financing, mortgage banking, law and markets, loan underwriting analysis and the impact of monetary and fiscal policies on the real estate and mortgage markets, with emphasis on decision making from the equity investors' point of view. Specific topics include an overview and history of real estate finance, the taxation and legal aspects of real estate finance, compounding and discounting, functions of interest and real estate capital markets and securities. Specific areas of focus are residential property finance, income property finance, and construction and development financing. Cross listed with REAL 3307.

REAL 4417 Income Property Valuation and Appraisal (4 Credits)
Residential/Commercial appraising, including market cost and income approaches to value, gross rent multiplier analysis, neighborhood and site analysis, valuation of income properties including market cost and income approaches to value, capitalization theory and techniques, mortgage-equity analysis, and investment value concepts. Prerequisite: REAL 4407.

REAL 4467 Property Development and Feasibility (4 Credits)
Commercial real estate development analysis and feasibility includes economic base analysis, tenant demand analysis, development and construction cost analysis, lease-up analysis, financial feasibility, leasing and property management practices. Five major property types (office, industrial, retail, apartment and hotel) are covered. Prerequisite: REAL 4007.

REAL 4477 Income Property Investment (4 Credits)
Comprehensive analytical framework for real estate investment decision-making, equity investment decisions via discounted cash flow, and risk analysis models and strategic planning concepts, structuring parameters to maximize rates of return while controlling downside risks; emphasis on theory, concept building, and practical application to various types of investment properties. Cross listed with REAL 3377. Prerequisite: REAL 4007.

REAL 4500 Argus Financial Analysis (4 Credits)
This course concentrates on practical applications of the Argus (TM) Real Estate Financial Software through interactive examples and case studies. Participants will be exposed to the software's capabilities, fundamentals, and unique nuances. Cross listed with REAL 4500, XRCM 4702. Prerequisite: REAL 4007.

REAL 4701 Topics in Real Estate (1-5 Credits)
REAL 4705 Risk Management in the Built Environment (4 Credits)
Decision making and risk analysis concepts in the context of real estate and the built environment. This includes, but is not limited to, liability issues as to persons and property, casualty and property damage questions, employee and employer insurance areas, auto insurance, professional liability insurance, directors' and owners' liability issues, medical insurance, life insurance, environmental risks, and much more in areas of exposure that one can face in the business world. The course further examines means to minimize such areas of exposure.

REAL 4800 NAIOP Challenge (2-4 Credits)
A unique non-traditional course, where the students will work on a complex real estate problem culminating in an internal competition and external competition which includes a written report and an oral presentation. Cross listed with CMGT 3800, CMGT 4800, REAL 3800.

REAL 4890 Internship (0-10 Credits)
REAL 4980 Adv Valuation/Report Writing (1-10 Credits)
Advanced cutting-edge techniques not yet institutionalized nor commonly practiced in the field. Includes writing skills workshops appropriate to specialized nature of appraisal reports, and composition of a complex field problem report to prepare student for writing "demonstration" report required for MAI professional designation. Prerequisite: REAL 4417.

REAL 4991 Independent Study (1-10 Credits)
REAL 4992 Directed Study (1-10 Credits)
REAL 4995 Independent Research (1-10 Credits)

School of Accountancy
Office: Daniels College of Business, Rooms 355-379
Mail Code: 2101 S. University Blvd., Suite 355, Denver, CO 80208
Phone: 303-871-2032
Web Site: http://daniels.du.edu/accountancy/

Master of Accountancy
The Master of Accountancy (MAcc) program at the Daniels College of Business School of Accountancy provides rigorous training in both accounting fundamentals and the latest practices and technologies, preparing you for a rewarding career. The best indicator of the program's strength is the success of our graduates: virtually all of our domestic MAcc graduates accept positions before graduation.

Through demonstrated prerequisite knowledge, formal coursework, and elective internship opportunities, students will develop technical knowledge in accounting, a broad understanding of related disciplines, the critical thinking, communication and interpersonal skills to be effective business advisors, and the ethical grounding to act with integrity.
An undergraduate accounting or business major is not necessary and work experience is not a requirement for admission to the MAcc. Students may work towards meeting foundation requirements during their course of study. Foundation requirements are demonstrated competency in introductory and intermediate financial accounting, introductory managerial accounting, business statistics, managerial finance and business communications. Students with an undergraduate degree in accounting meet the competency requirement by having earned a B- or better in these foundation courses at an AACSB-accredited school. Students with an AACSB accredited accounting undergraduate degree who earned less than a B- in these foundation courses and students holding other undergraduate degrees may demonstrate competency by passing on-campus competency exams or by completing the foundation courses for the MAcc degree. In addition, to meet the competency requirement for the business communications course, entering students must have earned a B- or better in a similar course that was taught in English, or enroll in BUS 4310.

Our mission as a School of Accountancy in a great private university dedicated to the public good is to foster Enlightened Practice, Professional Achievement, Knowledge Creation and a Commitment to Community among our graduates, faculty and others engaged in the accounting profession and related disciplines.

- Enlightened Practice means ensuring that our graduates understand the theory and practice of accounting and its ramifications on society, the profession and organizations.
- Professional Achievement includes accomplishment at each level of one’s career and commitment to life-long learning, competence and integrity.
- Knowledge Creation means scholarship which improves our understanding of accounting, the practice of accounting and the process of educating future accountants.
- Commitment to Community is the process of giving of oneself both to the community that supports one’s efforts and achievements and to the community at large. Commitment to Community is a vital aspect of the accounting profession and is critical to the School’s ongoing success.

The Master of Accountancy (MAcc) is a comprehensive program of study with focus on in-depth accounting knowledge and skills. MAcc students hone their skills as professional business advisors and increase their breadth of understanding of related disciplines and the social and ethical responsibilities for professional accountants. Specialty tracks are available to help students focus their curriculum in one of four areas: (1) information technology, (2) taxation, (3) assurance, or (4) valuation.

Daniels has been continuously accredited by the Association to Advance Collegiate Schools of Business International (AASCB) since 1923.

### Master of Accountancy

#### Admission Requirements

- Application fee $100 non-refundable
- GMAT or GRE Scores required. To have your GMAT or GRE scores reported to Daniels, please use the following codes: GMAT code MZR-GT-43 and the GRE code is 4842.
  - GMAT will be waived if one of the following conditions are met:
    - Has obtained a bachelor degree in accounting (or business with a major in accounting) from an AACSB accredited university with a GPA of at least 3.25 overall and at least 3.0 in the undergraduate accounting coursework.
    - The student has a graduate degree from a regionally accredited school.
    - Has passed four parts of the CPA exam.
    - Earned a minimum of 3.7 in the first eight hours (or first quarter of eight or more hours) taken towards the Graduate Business Certificate in accountancy.
- Official Transcripts: Submit one official transcript from each higher educational institution you attended in officially sealed envelopes. Transcripts that arrive in opened envelopes are not considered official.
- Submit a resume that focuses on your unique strengths and accomplishments.
- Two letters of recommendation are required from individuals (non-relatives) who can evaluate your academic and/or work performance as well as your potential for success in graduate school.
- Two required and one optional essay. Essays are assessed for clarity, organization, conciseness and grammar. Through the essays, you can communicate what you hope to achieve at Daniels and how you will contribute to the Daniels community.
- Admissions Interview: Applicants are contacted by a Daniels representative to schedule the admissions interview, which will be conducted in person, by phone, or via web cam.
- Tuition Deposit: If accepted into the program, a $500 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

#### Language Proficiency

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency and are considered official only when received directly from the testing agency.
• A minimum of an 88 TOEFL (no less than a 20 on any section) or a minimum of a 6.5 IELTS (no less than 6.0 on any section) is required to apply.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution's language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

**Master of Accountancy in Accounting**

**Degree Requirements**

**Coursework Requirements**

Students with an AACSB accredited accounting undergraduate degree who earned a B- or better in required foundation courses.1

<table>
<thead>
<tr>
<th>Accounting Core Courses</th>
<th>Maximum number of required credits for Accounting Core Courses</th>
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<tbody>
<tr>
<td>ACTG 4155</td>
<td>Accounting Information Technology Systems and Business Environment 4</td>
</tr>
<tr>
<td>ACTG 4575</td>
<td>Accounting Information System Risk, Control and Audit 4</td>
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<tr>
<td>ACTG 4240</td>
<td>Topics &amp; Cases in Financial Accounting 4</td>
</tr>
<tr>
<td>ACTG 4340</td>
<td>Topics &amp; Cases in Managerial Accounting 4</td>
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</tbody>
</table>

**Approved accounting electives**2

| ACTG 4176               | Accounting Data Analytics 4 |
| ACTG 4284               | Consolidated Financial Statements 2 |
| ACTG 4285               | Accounting for Foreign Operations 2 |
| ACTG 4354               | Cost Accounting 4 |
| ACTG 4400               | Taxation for Business and Investment Planning 4 |
| ACTG 4462               | Corporate and Partnership Taxation 4 |
| ACTG 4520               | Forensic Accounting and Auditing 4 |
| ACTG 4551               | Auditing 4 |
| ACTG 4552               | Advanced Auditing 4 |
| ACTG 4557               | Fair Value Auditing 4 |
| ACTG 4607               | Not-for-Profit & Governmental Accounting 4 |
| ACTG 4620               | Accounting Ethics 4 |
| ACTG 4700               | Graduate Seminar in Accounting 1-17 |
| ACTG 4710               | Managing the Family Business 4 |
| ACTG 4740               | Valuation and Modeling 4 |
| ACTG 4750               | Valuing a Business 4 |
| ACTG 4760               | CEOs and Corporate Governance 4 |
| ACTG 4880               | Internship - Graduate 0-4 |

<table>
<thead>
<tr>
<th>Approved business or accounting electives 2</th>
<th>Minimum number of credits required</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

1 Students must demonstrate competency in introductory and intermediate financial accounting, introductory managerial accounting, business statistics (FIN 4170), managerial finance, and business communication by earning a B- or better in equivalent courses as part of an AACSB accredited degree in accounting. To meet the competency requirement in business communications, the course must have been taught in English.

2 Must be advisor approved. Faculty advisors help you build a customized degree to meet your learning goals. Electives must be graduate (4000-level) courses.

An overall GPA of 3.0 and an accounting GPA of 3.0 is required for graduation.

**Degree Requirements**

Students with undergraduate degrees other than accounting, students with non-AACSB accredited accounting degrees, and students with an AACSB accredited accounting undergraduate degree who earned less than a B- in foundation courses.
Coursework Requirements

Accounting Core Courses

Maximum number of required credits for Accounting Core Courses 16
ACTG 4155 Accounting Information Technology Systems and Business Environment 4
ACTG 4575 Accounting Information System Risk, Control and Audit 4
ACTG 4240 Topics & Cases in Financial Accounting 4
ACTG 4340 Topics & Cases in Managerial Accounting 4

Foundation Requirements 1

Maximum number of required credits for Foundation Requirements 28
FIN 4170 Quantitative Methods in Finance 4
FIN 4630 Managerial Finance 4
ACTG 4610 Financial Accounting and Reporting 4
BUS 4310 Business Communication for Accounting Professionals 4
ACTG 4660 Strategic Cost Management 4
ACTG 4281 Intermediate Financial Accounting I 4
ACTG 4282 Intermediate Financial Accounting II 4

Approved business or accounting electives 2 16

Approved accounting electives 2 8

ACTG 4176 Accounting Data Analytics 4
ACTG 4284 Consolidated Financial Statements 2
ACTG 4285 Accounting for Foreign Operations 2
ACTG 4354 Cost Accounting 4
ACTG 4400 Taxation for Business and Investment Planning 4
ACTG 4462 Corporate and Partnership Taxation 4
ACTG 4520 Forensic Accounting and Auditing 4
ACTG 4551 Auditing 4
ACTG 4552 Advanced Auditing 4
ACTG 4557 Fair Value Auditing 4
ACTG 4607 Not-for-Profit & Governmental Accounting 4
ACTG 4700 Graduate Seminar in Accounting 1-17
ACTG 4620 Accounting Ethics 4
ACTG 4710 Managing the Family Business 4
ACTG 4740 Valuation and Modeling 4
ACTG 4750 Valuing a Business 4
ACTG 4760 CEOs and Corporate Governance 4
ACTG 4880 Internship - Graduate 0-4

Minimum number of credits required 40-68

1 Students must demonstrate competency in introductory and intermediate financial accounting, introductory managerial accounting, business statistics (FIN 4170), managerial finance, and business communication. Students with an AACSB accredited accounting undergraduate degree who earned less than a B- in the required foundation or equivalent courses and students with other undergraduate degrees must demonstrate competency by passing the on-campus competency exams, or by completing the foundation courses for the MAcc degree. To meet the competency requirement in business communications, the course must have been taught in English. Many students complete the foundation requirements as they work towards their MAcc degree.

2 Must be advisor approved. Faculty advisors help you build a customized degree plan to meet your learning goals. Electives must be graduate (4000-level) courses.

An overall GPA of 3.0 and an accounting GPA of 3.0 is required for graduation.

Minimum number of credits required for degree: 40-68
Courses

ACTG 4155 Accounting Information Technology Systems and Business Environment (4 Credits)
The course will give students a basic understanding of how to develop a beginning-to-intermediate AIS system. Process flowcharts and entity-relationship diagrams will be used to document the system in Microsoft Visio. The course will explore the database structure used in various accounting IT systems. Students will be Microsoft Access certified by the end of the course. The course will also cover the IT topics contained in the BEC portion of the CPA exam.

ACTG 4176 Accounting Data Analytics (4 Credits)
In this course, students explore overarching trends in big data and the impact to accounting and auditing fields while also gaining hands on experience working with business data sets. In today’s information world, accountants must be well equipped to understand and utilize the vast and varying data systems that feed a company’s decision making process. This course allows students to develop big data skills by learning the SQL language to query data from mock clients. Students execute Computer Assisted Auditing Techniques (CAATs) using both the SQL language as well was the audit data mining tool, IDEA. Students simulate the process to request client data files, load complex data sets, design and execute query procedures and summarize results for management.

ACTG 4201 Financial Accounting for Management (2 Credits)
This course introduces the student to the fundamentals of financial accounting and reporting with an emphasis on the needs of the user, both internal and external. The goal is to enable the student to become a knowledgeable reader and user of financial statements.

ACTG 4220 Financial Actg & Analysis (4 Credits)
Cross-listed with ACTG 3230.

ACTG 4222 Understanding Financial Statements (4 Credits)
At the conclusion of this course the student should understand: (1) management decisions that impact published financial statements, (2) the fundamentals of interpretation and analysis of financial statements, (3) economic and ethical issues relating to financial reporting, and (4) management attempts to enhance reported operating results. The course addresses the needs of managers and analysts, hence does not cover promulgated financial reporting rules in depth. The financial reporting topics expand on material presented in introductory Accounting and Finance courses. The focus is on the substance of the reported information. This course is not an approved elective for the MACC degree. Cross listed with ACTG 3220.

ACTG 4240 Topics & Cases in Financial Accounting (4 Credits)
This course develops a greater awareness of contemporary accounting issues, focusing on financial reporting. The course is designed to enhance each student’s ability to identify, discuss, and resolve open-ended problems (i.e., those having no single "correct" answer) faced by accounting professionals. Each student must commit to being an active participant in the class discussions. Through the use of numerous cases involving all aspects of financial reporting, students identify issues, conduct authoritative research, then present and defend their conclusions using both oral and written presentation formats. Students also write an original research paper on a topic of their choice.

ACTG 4281 Intermediate Financial Accounting I (4 Credits)
The focus of this course is the foundation and content of published financial statements. Specifically it covers the following broad topics: (1) Conceptual Framework of Financial Reporting; (2) Financial Statements and Related Disclosures; (3) Assets: Recognition and Measurement; and (4) Liabilities: Recognition and Measurement. Common to each of the topics is an emphasis on reading GAAP and applying GAAP guidance to fact patterns. At the conclusion of the course, students should be aware of the proper accounting treatment for many common situations; moreover, students should be fully comfortable interpreting GAAP literature to address scenarios involving assets, liabilities, and income that were not specifically covered in the class.

ACTG 4282 Intermediate Financial Accounting II (4 Credits)
This course is a continuation of Intermediate Financial Accounting. The focus of this course is the application of Generally Accepted Accounting Principles to complex business transactions. In this final course of the sequence, we finish our examination of the balance sheet by exploring the issues involved with stockholders’ equity, followed by in-depth study of some of the most complex accounting issues, including revenue recognition, accounting for income taxes, pensions and post-employment benefits, leases, and accounting changes and errors.

ACTG 4284 Consolidated Financial Statements (2 Credits)
This course introduces the student to the preparation of financial statements in compliance with GAAP when the reporting entity has investments in other entities that are other than passive investments. This module explores the financial reporting issues relating to partial or full ownership of one business entity by another. It includes use of the equity method as well as issues involved in reporting the financial results of consolidated entities, both at and subsequent to acquisition or formation.

ACTG 4285 Accounting for Foreign Operations (2 Credits)
Topics covered in this course include the financial statement impact of doing business in a foreign currency, having foreign subsidiaries or operations, and certain hedging activities.

ACTG 4340 Topics & Cases in Managerial Accounting (4 Credits)
This course focuses upon innovative forensic, management control, productivity and business valuation approaches used by forensic and managerial accountants. Such strategies and techniques are evaluated through classroom discussion of cases and related articles.

ACTG 4354 Cost Accounting (4 Credits)
Accounting information in manufacturing enterprises, standard costs, and budgets. Open to students not having ACTG 3354 or equivalent.
Prerequisite: MBA 4110, MBA 4111, or equivalent.
ACTG 4400 Taxation for Business and Investment Planning (4 Credits)
Social awareness & ethics uses a fresh integrated approach to applying the basic fundamentals of marketing to complex and evolving scenarios involving social change and insight, cultural trends and topics, and tricky, often emotional, ethical situations. This course also helps students learn skills in a safe environment and leverage their experience and knowledge to investigate business situations and opportunities in a thoughtful and sophisticated manner. This course develops a student's ability to make sound business planning decisions using real information from the external environment. This course will combine business ethics' overarching intent to protect employees, the environment, and their customers with marketing ethics' principles of honesty, fairness, responsibility, and respect. As part of this, students will learn about and apply Daniels Fund Initiative Principles: http://www.danielsfund.org/_Assets/files/Ethics%20Initiative%20Principles.pdf.

ACTG 4410 Federal Income Taxation (4 Credits)
The course is designed for graduate accounting students that wish to study federal income taxation. This is the first course in taxation, which introduces the federal taxation system, the importance of tax authorities, the concepts of gross income and tax deductions and the tax implications of common property transactions. The course generally focuses on property transactions, but the taxation of individuals is emphasized with an objective of students being able to properly prepare complex individual tax returns.

ACTG 4462 Corporate and Partnership Taxation (4 Credits)
The course is designed for graduate accounting, finance or other business students in their study of advanced topics in federal income taxation. This is the second course in taxation which concentrates on taxation of corporations, limited liability corporations, S corporations and partnerships.

ACTG 4520 Forensic Accounting and Auditing (4 Credits)
Students will have an opportunity to learn, study, and discuss practical aspects of accounting as it is used to detect and prosecute fraud. Students will be exposed to improprieties, common fraud schemes, illegalities, and harassments.

ACTG 4551 Auditing (4 Credits)
This course is designed to provide you with a thorough understanding of auditing and related attest services. This includes gaining requisite knowledge about AICPA (U.S. GAAS) and PCAOB auditing standards and how they are applied in conducting a financial statement audit. Application of these standards applies to planning an audit, the risk assessment process including gaining an understanding of internal control, gathering and evaluating evidence, sampling, and issuing an audit report.

ACTG 4552 Advanced Auditing (4 Credits)
This course is designed to build on the foundation of auditing knowledge developed in ACTG 4551 and apply that knowledge to specific accounts and assertions in a financial statement audit. Students also examine selected SEC enforcement actions and discuss what audit procedures may have been beneficial to prevent the misstatement. Prerequisite: ACTG 4551 or ACTG 3551.

ACTG 4557 Fair Value Auditing (4 Credits)
The purpose of this course is to expose students to the accounting, economic and valuation concepts and challenges that are relevant to auditing fair value measurements and disclosures in financial statements. The role of the FASB, PCAOB, SEC and other standards setters on fair value accounting and measurements are explored. Prerequisite: ACTG 4551 or ACTG 3551.

ACTG 4575 Accounting Information System Risk, Control and Audit (4 Credits)
The purpose of this course is to engage students in topics covering the risk, audit and control of Accounting Information Systems. It is no longer possible to "audit around" an IT system. Today's accounting professionals must possess a strong understanding of accounting information system risks and controls. This course will cover both 1) auditing of the IT controls that support an accounting information system and 2) using auditing and data mining tools to assist in financial statement audit techniques.

ACTG 4607 Not-for-Profit & Governmental Accounting (4 Credits)
The course will focus on Not-for-Profit (NFP) and Governmental (Govt) financial accounting standards and practices employed by governmental and nonprofit organizations. Upon successful completion of the course, students will master the fundamentals of financial reporting of various kinds of governmental accounting and nonprofit organizations. Social, environmental, and ethical issues are addressed in this course. The content of Governmental and Nonprofit Accounting will be linked to sustainability, leadership and governance.

ACTG 4610 Financial Accounting and Reporting (4 Credits)
The purpose of this course is to provide students with an understanding of the financial statements issued by companies to external parties, such as shareholders and creditors. The course covers the fundamentals of accounting, from recording economic events in the accounting records to the preparation of the company's financial statements. In addition, the course examines major transaction categories, accounting policy choices of business firms and their financial statement implications, as well as the content of publicly-traded companies' Form 10-K annual reports.

ACTG 4620 Accounting Ethics (4 Credits)
This course focuses on the idea of community and the ethical and social relationships of accounting leaders and business organizations in their communities. The course focus is on the role of the accounting professional and the unique and special responsibilities associated with that role. This is examined by analyzing a variety of issues that students will face during their careers. The goal is to provide students with generalized understanding and skills that can be employed in dealing with other issues that emerge directly relate to the state Code of Professional Conduct applicable to CPAs, the Code provisions are discussed and analyzed.

ACTG 4660 Strategic Cost Management (4 Credits)
Strategic cost management methods and practices focus on how to help the firm succeed in contemporary business. Topics in the course include balanced scorecard, cost-volume-profit analysis, target costing, standard costing, and management control. The course will enable students to apply strategic thinking to management planning, decision-making, and management reporting.
ACTG 4700 Graduate Seminar in Accounting (1-17 Credits)
ACTG 4701 Special Topics in Accounting (1-5 Credits)
ACTG 4702 Special Topics in Accounting (1-5 Credits)
ACTG 4703 Special Topics in Accounting (1-5 Credits)
ACTG 4704 Special Topics in Accounting (1-5 Credits)
ACTG 4705 Topics in Accounting (1-4 Credits)
ACTG 4710 Managing the Family Business (4 Credits)
Family enterprises have a tremendous impact on our local, national and global economies. Today, the definition of the family enterprise extends beyond just the business entity. It includes family offices, family “banks,” family councils, trusts, and family foundations, just to name a few. Further, what happens in, and how decisions are made by, family enterprise affects not only the active family members but other key stakeholders such as inactive family members, in-laws, non-family managers and employees, professional advisors, customers, suppliers and competitors. This course gives students insight into the universe of possibilities that families, enterprises and their advisors face when engaged in systemic transition planning. This highly interdisciplinary course is appropriate for anyone who intends to work in or with family enterprises. This includes family members, accountants, attorneys, estate planners, financial or wealth managers, family office professionals, insurance consultants, business advisors, management consultants, organizational and leadership development experts, international business professionals, psychologists, social workers, and family therapists.

ACTG 4740 Valuation and Modeling (4 Credits)
The ultimate purpose of the course is to improve professional decision-making skills. Professional decisions are made using a combination of judgment and analysis. Even skilled professionals (in any field) will make incorrect decisions when working with incorrect or insufficient information. Thus, one key to improving decision-making is improving analytical insights and skills. This course emphasizes the definition, construction, uses and limitations of popular financial models and instruments. Further, the class focuses on how the instruments are used, why they are used and how decisions to use such instruments and tools/techniques to value them are made.

ACTG 4750 Valuing a Business (4 Credits)
This course explores all major aspects of business valuation. Students not only study valuation theory, they appraise an actual business and draft a valuation report in compliance with the American Institute of Certified Public Accountants Statement on Standards for Valuation Services (SSVS) and Reporting Standards of the National Association of Certified Valuation Analysts (NACVA). Prerequisite: ACTG 3068 or ACTG 4282.

ACTG 4760 CEOs and Corporate Governance (4 Credits)
This course examines the current and pressing issue of corporate governance, in its ethical, legal, and social dimensions. Students read the latest views of scholars and experts and gain the perspectives of corporate CEOs and other organization leaders. Topics explored include the history of various governance models, public policy on corporate governance, corporate board functions and responsibilities, the dynamics between CEOs and boards, ethical leadership and corporate culture, ethics and compliance programs, executive liability, nonprofit corporate governance, board and audit committee responsibilities, restructuring and governance, executive compensation problems and solutions, shareholder activism, and corporate governance reforms. Cross-listed with LGST 4760.

ACTG 4795 Graduate Research Sem-Actg (1-17 Credits)
ACTG 4880 Internship - Graduate (0-4 Credits)
Hours and times arranged by student.

ACTG 4991 Independent Study (1-10 Credits)
Hours and times arranged by student.

ACTG 4992 Directed Study (1-10 Credits)

Graduate School of Professional Psychology

The Graduate School of Professional Psychology offers five degrees, including the Doctor of Psychology (PsyD), that all aim to prepare graduate students for professional, and especially clinical, practice. Focusing on applied professional work from a practitioner-scholar perspective, the Graduate School of Professional Psychology also offers master's-level programs in Sports and Performance Psychology, International Disaster Psychology, Forensic Psychology, and Sport Coaching (online). Our goals are to train professionals in understanding human behavior through the integration of theory, research, and practice and to improve the human condition through competent and ethical service.

Professional Psychology

Office: Ammi Hyde Building
Mail Code: 2450 S. Vine Street, Denver, CO 80208
Phone: 303-871-3736
Email: gsppinfo@du.edu
Web Site: www.du.edu/gspp/
Doctor of Psychology in clinical Psychology (psyD)
The PsyD program of the University of Denver is housed in the Graduate School of Professional Psychology (GSPP). GSPP’s mission is to provide an innovative educational environment that promotes the application of psychological theory, knowledge, skills, and attitudes/values to professional practice. The mission of the PsyD program is to train competent doctoral level practitioner-scholars who have foundational interpersonal and scientific skills, and have a functional mastery of psychological assessment and intervention, who can apply this knowledge and skill in a wide range of settings, with a variety of populations.

Program Accreditation
The PsyD program has been continuously accredited by the American Psychological Association since 1979, upholding the practitioner-scholar model of training (also known as the Vail model).

Master of Arts in Forensic Psychology
The Master of Arts in Forensic Psychology was first offered at the GSPP in 1999 in response to the growing interest in the rapidly developing field of forensic psychology. The degree supplements fundamental master’s level clinical psychology training with course work and practicum experiences in the area of psychology and law. The Master’s Degree in Forensic Psychology concerns the application of psychological theory, knowledge, skills and competencies to the civil and criminal justice systems. It is designed to train students to become mental health professionals, able to work in a variety of clinical settings within the criminal and civil legal system, including but not limited to: adult, juvenile and child populations; victim assistance; police consultation; correctional institutions; intimate partner violence and child abuse programs; and trial consulting. The MAFP Program is unique in many respects. Our curriculum, consisting of 90 credits, is forensically and clinically based, with an emphasis on applied practice. Students complete two year-long field placements, allowing for the exploration of different forensic interests and providing them with a solid clinical foundation. Students benefit from the expertise of core and adjunct faculty who are active practitioners and scholars in the field.

Master of Arts in International Disaster Psychology
The University of Denver’s Graduate School of Professional Psychology is proud to offer our Master’s Program in International Disaster Psychology. This degree is designed for those who wish to provide effective mental health and psychosocial services to individuals and communities in the US and globally who are affected by traumatic events, acute and chronic civil conflict, natural disasters, and health-related pandemics. The program is recognized for ‘Innovative Graduate Training’ by both the American Psychological Association & the National Council of Schools and Programs of Professional Psychology, and is the first master’s program of its kind in the nation.

Through academic coursework and practical experiences students develop a solid foundation for knowledge and skills in the mental health field and unique and specific approaches in the field of international disaster psychology. Students receive essential opportunities to integrate knowledge with practice in contextually relevant and culturally competent ways. Internship experiences domestically and abroad, disaster simulation exercises, and classroom case studies support an integrated training experience helping students bring a “best practice” model to their work in a variety of psychosocial and mental health contexts internationally and in the U.S.

Instruction is provided in diverse areas including international disaster psychology, trauma intervention, disaster mental health, gender-based violence, crisis intervention, group dynamics, loss and grief, the effects of trauma on life-span development, psychotherapeutic models, program evaluation and research, global health, and cross-cultural foundations. Faculty expertise addresses the full span of mental health and psychosocial work that is necessary for effective work in this innovative field.

Our graduates work in a variety of professional settings providing direct services to populations affected by trauma, training and consulting with community, non-governmental and government agencies to promote psychosocial wellness of affected populations, developing emergency preparedness and response plans, and monitoring and evaluating psychosocial interventions. With comprehensive and specialized training in this emerging field of international disaster psychology, our students are prepared to make a difference in the world.

Master of Arts in Sport & Performance Psychology
The University of Denver’s Graduate School of Professional Psychology (GSPP), with its history of pioneering innovative training in psychology, is proud to offer a Master of Arts degree in Sport and Performance Psychology. This degree is intended for individuals in the sport, performing arts, health and fitness, or mental health fields who want to develop their ability to improve the performance and lives of those with whom they work. Those applicants involved in coaching and teaching in sport and performance settings are encouraged to add to their skills and abilities through this training. Denver’s passion for sports and a thriving performing arts scene make it a perfect place to master the practice of sport and performance psychology.

The field of sport and performance psychology is concerned with the psychological factors that influence human performance. Simply put, sport and performance psychology is about improving the lives of others. It involves assessment and intervention strategies that enhance an individual’s performance and personal growth.

GSPP’s program is unique and pioneering in many respects. There are four areas in which this program truly stands out from other educational opportunities in the field of sport and performance psychology: our applied focus, the curriculum, practicum opportunities, and the faculty. The program provides the necessary training for an individual to become a competent, proficient sport and performance psychologist with the completion
of a psychology doctoral program. The Master of Arts degree in Sport and Performance Psychology will help those who coach and work with others do their job more effectively and experience more rewarding outcomes.

**Master of Arts in Sport Coaching (Online)**

The Sport Coaching program is housed in the Graduate School of Professional Psychology (GSPP), which has a rich history of innovative professional preparation. Psychologists and sport psychologists were pioneers to study coach effectiveness and coach education. In recent years, coach education at a University setting has become more popular, and more important to produce quality coaches. The Sport Coaching program is the only master’s level degree program in coaching offered in a school of psychology in the country. Our program builds upon the innovative preparation of the GSPP and the successful Master of Arts in Sport & Performance Psychology, but diverges in important ways.

The Sport Coaching curriculum was built from the ground up with student success and coach success in mind. From idea to implementation, nearly two years went into planning and designing the curriculum, collaborating with leading experts in teaching, learning and student success, hiring quality instructors with experience in sport and coaching settings, and crafting our courses. Students may complete all of the degree requirements fully online. Also, we are engaged in the process of becoming accredited by the National Council for Accreditation of Coach Education programs and recognized by the National Strength and Conditioning Association. Upon approval, we will be the only program in the world accredited and recognized by these two distinguished national organizations.

**Master of Arts in Forensic Psychology**

Following are the simple steps to apply for graduate study in Forensic Psychology at the Graduate School of Professional Psychology, University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates) or the Graduate School of Professional Psychology (http://www.du.edu/gspp) Department.

**Apply Online / Application Deadlines**

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- Applicants are encouraged to have all online materials and supplemental materials, including transcripts, on file in the Office of Graduate Studies by the program’s stated deadline: January 5, 2016. Late application documents may continue to be accepted, but could delay the review of one’s application. The program admits for the fall quarter only. Please call the Graduate School of Professional Psychology to learn more: (303) 871-2908.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

**Course and Degree Prerequisites and Requirements**

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. GSPP looks for an undergraduate GPA of around a 3.5.
- For applicants WITHOUT a psychology background, the psychology prerequisite can be met through coursework or by obtaining a score of at least 660 on the psychology subject GRE. Applicants should state how they plan to meet the psychology prerequisite in their application.
- For the psychology coursework prerequisite, applicants must complete four (4) psychology courses earning a ‘B’ or better in these classes from a regionally accredited institution. Applicants offered admission should be aware that all psychology classes must be completed before registration in September.
- We recommend the following foundation courses:
  - abnormal psychology
  - child psychology
  - experimental psychology (requires the student to complete the content portion of an experimental psychology class [e.g., learning, perception, cognition, motivation, physiology, and to perform one or more direct experiments using the scientific method applied to some empirical question. This second requirement is often met by taking an experimental lab associated with the course.)
  - personality theory
  - statistics

**Transcripts**

- Applicants are required to submit one official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
• Mail official transcripts to

University of Denver
Office of Graduate Studies
Mary Reed Building, Room 5
2199 S. University Blvd.
Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Graduate School of Professional Psychology is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

GRE Scores

• General GRE scores are required; GRE psychology subject test is optional.

• Scores must be received directly from the appropriate testing agency. DU’s ETS Institution Code is 4842.

• The GRE must have been taken within 5 years of the application date.

• Applicants should take the GRE no later than the last testing date in December of the year prior to potential enrollment.

• GSPP does not have GRE cutoff scores; we look for baseline scores near the 50th percentile or higher.

Essay

• There are two required essays that should be submitted via upload through the online application process. http://www.du.edu/gspp/programs/ma-forensic/mafp-essay.html

Resume / C.V.

• A resume or C.V. is required. Please detail all relevant experiences in your resume/CV. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters

• Two letters of recommendation are required; 3 letters are strongly preferred. If possible, it is helpful to have 1 letter speak to your academic abilities. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) Website. International students are not eligible for federal financial aid. All applicants are automatically considered for financial awards.

Application Status

• We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

Contact Information

• Mail official transcripts and any supplemental admission materials not submitted with the online application:

University of Denver
Office of Graduate Studies
Mary Reed Building, Room 5
2199 S. University Blvd.
Electronic transcripts should be sent to gradinfo@du.edu.

For more information call the Office of Graduate Studies (303) 871-2706.

Graduate School of Professional Psychology: (303) 871-2908 or gsppinfo@du.edu.

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program's application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Arts in International Disaster Psychology

Following are the simple steps to apply for graduate study in International Disaster Psychology at the Graduate School of Professional Psychology, University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates) or the Graduate School of Professional Psychology (http://www.du.edu/gspp) Department.

Apply Online / Application Deadlines
- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- Applicants are encouraged to have all online materials and supplemental materials, including transcripts, on file in the Office of Graduate Studies by the program's stated deadline: January 5, 2016. Late application documents may continue to be accepted, but could delay the review of one's application. The program admits for the fall quarter only. Please call the Graduate School of Professional Psychology to learn more: (303) 871-2908
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. GSPP looks for an undergraduate GPA of around a 3.5.
- For applicants WITHOUT a psychology background, the psychology prerequisite can be met through coursework or by obtaining a score of at least 660 on the psychology subject GRE. Applicants should state how they plan to meet the psychology prerequisite in their application.
- For the psychology coursework prerequisite, applicants must complete four (4) psychology courses earning a 'B' or better in these classes from a regionally accredited institution. Applicants offered admission should be aware that all psychology classes must be completed before registration in September.
- We recommend the following foundation courses:
  - abnormal psychology
  - child psychology
  - experimental psychology (requires the student to complete the content portion of an experimental psychology class [e.g., learning, perception, cognition, motivation, physiology, and to perform one or more direct experiments using the scientific method applied to some empirical question. This second requirement is often met by taking an experimental lab associated with the course.)
  - personality theory
  - statistics

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
- Applicants are required to submit one official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program's stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Mail official transcripts to University of Denver
Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Graduate School of Professional Psychology is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

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- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

GRE Scores

- General GRE scores are required; GRE psychology subject test is optional.
- Scores must be received directly from the appropriate testing agency. DU's ETS Institution Code is 4842.
- The GRE must have been taken within 5 years of the application date.
- Applicants should take the GRE no later than the last testing date in December of the year prior to potential enrollment.
- GSPP does not have GRE cutoff scores; we look for baseline scores near the 50th percentile or higher.

Essay

- There are two required essays that should be submitted via upload through the online application process. http://www.du.edu/gspp/programs/ma-intl-disaster/maidp-essay.html

Resume / C.V.

- A resume or C.V. is required. Please detail all relevant experiences in your resume/CV. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters

- Two letters of recommendation are required; 3 letters are strongly preferred. If possible, it is helpful to have 1 letter speak to your academic abilities. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) Website. International students are not eligible for federal financial aid. All applicants are automatically considered for financial awards.

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International Applicants

- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Arts in Sport & Performance Psychology

Following are the simple steps to apply for graduate study in Sport & Performance Psychology at the Graduate School of Professional Psychology, University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates) or the Graduate School of Professional Psychology (http://www.du.edu/gspp) Department.

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- Applicants are encouraged to have all online materials and supplemental materials, including transcripts, on file in the Office of Graduate Studies by the program’s stated deadline: January 5, 2016. Late application documents may continue to be accepted, but could delay the review of one’s application. The program admits for the fall quarter only. Please call the Graduate School of Professional Psychology to learn more: (303) 871-2908
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. GSPP looks for an undergraduate GPA of around a 3.5.
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- We recommend the following foundation courses:
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  - statistics

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- Mail official transcripts to
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Language Proficiency ([http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers](http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers))

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• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS ([http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers](http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

GRE Scores

• General GRE scores are required; GRE psychology subject test is optional.

• Scores must be received directly from the appropriate testing agency. DU’s ETS Institution Code is 4842.

• The GRE must have been taken within 5 years of the application date.

• Applicants should take the GRE no later than the last testing date in December of the year prior to potential enrollment.

• GSPP does not have GRE cutoff scores; we look for baseline scores near the 50th percentile or higher.

Essay

• There are two required essays that should be submitted via upload through the online application process. [http://www.du.edu/gspp/programs/ma-sport-performance/maspp-essay.html](http://www.du.edu/gspp/programs/ma-sport-performance/maspp-essay.html)

Resume / C.V.

• A resume or C.V. is required. Please detail all relevant experiences in your resume/CV. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters

• Two letters of recommendation are required; 3 letters are strongly preferred. If possible, it is helpful to have 1 letter speak to your academic abilities. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid ([http://www.du.edu/financialaid/graduate](http://www.du.edu/financialaid/graduate)) Website. International students are not eligible for federal financial aid. All applicants are automatically considered for financial awards.

Application Status

• We encourage you to be actively engaged in the admission process. You can check your application status online ([https://gradadmissions.du.edu/apply](https://gradadmissions.du.edu/apply)). Applicants will receive login information post application submission.

Contact Information

• Mail official transcripts and any supplemental admission materials not submitted with the online application:

  University of Denver  
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  2199 S. University Blvd.  
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.

• For more information call The Office of Graduate Studies (303) 871-2706.
• Graduate School of Professional Psychology: (303) 871-2908 or gsppinfo@du.edu.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of arts in sport coaching (online)
Following are the simple steps to apply for graduate study in Sport Coaching at the Graduate School of Professional Psychology, University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
• The Sport Coaching program was designed for rolling admissions, which means upon acceptance students may begin taking courses during any quarter. Students should apply no more than one year in advance of the quarter they seek to begin.
• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. GSPP looks for an undergraduate GPA of around a 3.5.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
• Applicants are required to submit one official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
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Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Graduate School of Professional Psychology is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
• Applicants may be exempt from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.
Test Scores
• The GRE is not required for Sport Coaching.

Essay
• Submit an essay (600 word maximum) of intent that clearly and concisely outline the three following items (1) your motivation to complete the Sport Coaching degree, (2) what steps you will take to facilitate your learning in an online environment and (3) what steps you will take to complete the degree.

Resume / C.V.
• Submit a resume or curriculum vitae detailing all relevant athletic, coach, and administrative experience. Students should have a minimum of one year related experience. Students with less than two years of related experience should plan on completing an extensive practicum experience.

Recommendation Letters
• Submit a minimum of two letters of recommendation, with up to four strongly encouraged. At least one letter should be from a university instructor or professor who can speak to your academic abilities, motivation, and knowledge of sport coaching, and another letter from a coach or administrator whom you played for at the club, high school, college or professional level, OR, a coach or athletic administrator you worked for (e.g., a coach who acted as a mentor or internship supervisor. If submitting more than two letters, we recommend students select people from varying backgrounds (i.e., coaches, administrators, teachers, athletes, peers, previous employers).

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid Website. International students are not eligible for federal financial aid. All applicants are automatically considered for financial awards.

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  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.

• For more information call The Office of Graduate Studies (303) 871-2706.

• Graduate School of Professional Psychology: (303) 871-2908 or gsppinfo@du.edu.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of Psychology in Clinical psychology (psy.D.)
Following are the simple steps to apply for the Doctor of Psychology in Clinical Psychology (Psy.D.) at the Graduate School of Professional Psychology, University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates) or the Graduate School of Professional Psychology (http://www.du.edu/gspp) Department.

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).

• Applicants are encouraged to have all online materials and supplemental materials, including transcripts, on file in the Office of Graduate Studies (http://www.du.edu/learn/graduates) by the program’s stated deadline: December 5th. Late application documents may continue to be accepted, but could delay the review of one’s application. The program admits for the fall quarter only. Please call the Graduate School of Professional Psychology to learn more: (303) 871-2908.

• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.
Course and Degree Prerequisites and Requirements

• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. GSPP looks for an undergraduate GPA of around a 3.5 and a graduate GPA of a 3.0.

• For applicants WITHOUT a psychology background or without an MA/MS in clinical or counseling psychology, the psychology prerequisite can be met through coursework or by obtaining a score of at least 660 on the psychology subject GRE. Applicants should state how they plan to meet the psychology prerequisite in their application.

• For the psychology coursework prerequisite, applicants must complete four (4) psychology courses earning a ‘B’ or better in these classes from a regionally accredited institution. Applicants offered admission should be aware that all psychology classes must be completed before registration in September.

• We recommend the following foundation courses:
  • abnormal psychology
  • child psychology
  • experimental psychology (requires the student to complete the content portion of an experimental psychology class [e.g., learning, perception, cognition, motivation, physiology, and to perform one or more direct experiments using the scientific method applied to some empirical question. This second requirement is often met by taking an experimental lab associated with the course.)
  • personality theory
  • statistics

Transcripts

• Applicants are required to submit one official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.

• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.

• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.

• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.

• Mail official transcripts to
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

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Language Proficiency

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Graduate School of Professional Psychology is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores

• General GRE scores are required; GRE psychology subject test is optional.

• Scores must be received directly from the appropriate testing agency. DU’s ETS Institution Code is 4842.
• The GRE must have been taken within 5 years of the application date.
• Applicants should take the GRE no later than the last testing date in December of the year prior to potential enrollment.
• GSPP does not have GRE cutoff scores; we look for baseline scores near the 50th percentile or higher.

**Essay**
• There are two required essays that should be submitted via upload through the online application process. [http://www.du.edu/gspp/programs/psyd-clinical/psyd-essay.html](http://www.du.edu/gspp/programs/psyd-clinical/psyd-essay.html)

**Resume / C.V.**
• A resume or C.V. is required. Please detail all relevant experiences in your resume/CV. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

**Recommendation Letters**
• Two letters of recommendation are required; 3 letters are strongly preferred. If possible, it is helpful to have 1 letter speak to your academic abilities. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

**Financial Support**
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid [http://www.du.edu/financialaid/graduate](http://www.du.edu/financialaid/graduate) Website. International students are not eligible for federal financial aid. All applicants are automatically considered for financial awards.

**Application Status**
• We encourage you to be actively engaged in the admission process. You can check your application status online [https://gradadmissions.du.edu/apply](https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

**Contact Information**
• Mail official transcripts and any supplemental admission materials not submitted with the online application:

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  Office of Graduate Studies  
  Mary Reed Building, Room 5  
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*The Graduate Policies and Procedures provides complete details regarding admission requirements.*

**Doctor of Psychology in Clinical Psychology (PsyD)**

The University of Denver is on a quarter system. Students attend classes as a cohort over fall, winter, spring and summer quarters for three years (minimum). The University of Denver and the American Psychological Association require that students enroll in course work for at least twelve quarters. Students are required to attend at least eight credit hours per quarter for twelve quarters unless pre-approved for part-time status. A minimal total of 135 credit hours are required for graduation.

**Degree Requirements**

**Coursework Requirements**

<table>
<thead>
<tr>
<th>Coursework requirements</th>
<th>110</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSY 4010 Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 5000 Rad Behav/Func Contextl Models</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 5010 Cognitive &amp; Affective Models</td>
<td>3</td>
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<tr>
<td>CPSY 5020 Psychoanalytic Models (Diagnosis and Classification)</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>CPSY 5030</td>
<td>Systems Models</td>
</tr>
<tr>
<td>CPSY 5040</td>
<td>History and Systems in Psych</td>
</tr>
<tr>
<td>CPSY 5050</td>
<td>Advanced Statistics</td>
</tr>
<tr>
<td>CPSY 5070</td>
<td>Research Methods</td>
</tr>
<tr>
<td>CPSY 5073</td>
<td>Qualitative Research Methods</td>
</tr>
<tr>
<td>CPSY 5075</td>
<td>Program Evaluation Technique</td>
</tr>
<tr>
<td>CPSY 5080</td>
<td>Diagnosis and Classification</td>
</tr>
<tr>
<td>CPSY 5130</td>
<td>Issues in Measurement</td>
</tr>
<tr>
<td>CPSY 5170</td>
<td>Life Cycle: Inf to Mid Childhd</td>
</tr>
<tr>
<td>CPSY 5180</td>
<td>Life Cycle: Adolescent - Adult</td>
</tr>
<tr>
<td>CPSY 5200</td>
<td>Life Cycle: Late Adulthood</td>
</tr>
<tr>
<td>CPSY 5230</td>
<td>Group Dynamics &amp; Interventions</td>
</tr>
<tr>
<td>CPSY 5231</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>CPSY 5270</td>
<td>Physiological Psychology I</td>
</tr>
<tr>
<td>CPSY 5290</td>
<td>Clinical Neuropsychology</td>
</tr>
<tr>
<td>CPSY 5310</td>
<td>Ethical Issues in Psychology</td>
</tr>
<tr>
<td>CPSY 5320</td>
<td>Professional Issues in Psych</td>
</tr>
<tr>
<td>CPSY 5340</td>
<td>Social Psychology of Racism and Oppression</td>
</tr>
<tr>
<td>CPSY 5360</td>
<td>Racial/Ethnic Identity Dvlpmnt</td>
</tr>
<tr>
<td>CPSY 5370</td>
<td>Lesbian, Gay, Bisexual and Transgender Issues</td>
</tr>
<tr>
<td>CPSY 5380</td>
<td>Culturally Competent Psychotx</td>
</tr>
<tr>
<td>CPSY 5385</td>
<td>Pro Sem: Beg. Psychotherapy (2 credits/quarter for 4 quarters=8 credit hours total)</td>
</tr>
<tr>
<td>CPSY 5562</td>
<td>Psychological Consultation</td>
</tr>
<tr>
<td>CPSY 5680</td>
<td>Cognitive Assessment</td>
</tr>
<tr>
<td>CPSY 5690</td>
<td>Introduction to the Rorschac</td>
</tr>
<tr>
<td>CPSY 5705</td>
<td>Self Report Assessment</td>
</tr>
<tr>
<td>CPSY 5740</td>
<td>Integrative Personality Assessment</td>
</tr>
<tr>
<td>CPSY 5750</td>
<td>Supervision</td>
</tr>
<tr>
<td></td>
<td>Advanced Professional Seminar</td>
</tr>
<tr>
<td></td>
<td>Complete 2 credits/quarter for 8 quarters (16 credit hours total) from the following:</td>
</tr>
<tr>
<td>CPSY 5388</td>
<td>Pro Sem: Psychological Assessmt</td>
</tr>
<tr>
<td>CPSY 5389</td>
<td>Pro Sem: Behavior Therapy</td>
</tr>
<tr>
<td>CPSY 5386</td>
<td>Pro Sem: Child &amp; Ad Psychother</td>
</tr>
<tr>
<td>CPSY 5390</td>
<td>Pro Sem: Forensic Issues</td>
</tr>
<tr>
<td>CPSY 5391</td>
<td>Professional Seminar: Psychodynamic Therapy</td>
</tr>
<tr>
<td>CPSY 5392</td>
<td>Pro Sem: Couple and Family</td>
</tr>
<tr>
<td>CPSY 5393</td>
<td>Pro Sem: ACT</td>
</tr>
<tr>
<td>CPSY 5404</td>
<td>Prof Sem: Integrative Therapy</td>
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<tr>
<td>CPSY 5406</td>
<td>Professional Seminar: Health Psychology</td>
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<tr>
<td></td>
<td>Elective requirements</td>
</tr>
<tr>
<td></td>
<td>Minimum of 25 credits from the following courses:</td>
</tr>
<tr>
<td>CPSY 4430</td>
<td>Career Counseling</td>
</tr>
<tr>
<td>CPSY 5108</td>
<td>Introduction to Acceptance and Commitment Therapy (ACT)</td>
</tr>
<tr>
<td>CPSY 5120</td>
<td>Introduction to Animal-Assisted Interventions</td>
</tr>
<tr>
<td>CPSY 5250</td>
<td>Existential and Humanistic Theory and Therapy</td>
</tr>
<tr>
<td>CPSY 5271</td>
<td>Physiological Lab I</td>
</tr>
<tr>
<td>CPSY 5420</td>
<td>Behav-Analytic Prin 1</td>
</tr>
<tr>
<td>CPSY 5421</td>
<td>Behavioral Analysis Princ La</td>
</tr>
<tr>
<td>CPSY 5422</td>
<td>Behav-Analytic Prin 2</td>
</tr>
<tr>
<td>CPSY 5423</td>
<td>Behav-Analytic Assess/Case Frm</td>
</tr>
<tr>
<td>CPSY 5424</td>
<td>Behavior-Analytic Intervention</td>
</tr>
<tr>
<td>CPSY 5466</td>
<td>Health Psychology</td>
</tr>
</tbody>
</table>
CPSY 5467  Health Psychology Service Learning Seminar  1
CPSY 5469  Sport and Performance Psychology Practicum in Collegiate Athletics II  1
CPSY 5480  Integrated Primary Care  2
CPSY 5482  Health Psychology Service-Learning: Clinical Practice in Integrated Primary Care  1
CPSY 5500  Diagnosis & Treatment of Children  2
CPSY 5505  Diagnosis & Treatment of Adolescents  2
CPSY 5550  Couples Therapy  2
CPSY 5560  Family Therapy  2
CPSY 5591  Psychodynamic Psychotherapy  2
CPSY 5620  Intersubjective Systems Theory  2
CPSY 5685  Introduction to Pediatric Neuropsychological Assessment  2
CPSY 5686  Suicide Prevention, Intervention and Postvention  2
CPSY 5687  Contemporary Issues in Geropsychology  2
CPSY 5692  Advanced Rorschach Analysis  2
CPSY 5700  Adv Personality Assessment  3
CPSY 5706  Self Report Assessment Lab  1
CPSY 5741  Therapeutic Assessment  2
CPSY 5745  Human Sexuality  2
CPSY 5755  Supervision Practicum I  1
CPSY 5756  Supervision Practicum II  1
CPSY 5757  Supervision Practicum III  1
CPSY 5758  Supervision Practicum IV  1
CPSY 5760  Professional Issues II  2
CPSY 5765  Cognitive Behavioral Therapy  2
CPSY 5840  Psychopharmacology  2
CPSY 5880  Business Issues in Professional Psychology  2
CPSY 5989  Doctoral Paper Development  1
CPSY 5825  Introduction to Latino Psychology and the Latino Experience  3
CPSY 5826  Therapy and Psychological Intervention with Latinos  3
CPSY 5827  Assessment with Latinos  3
CPSY 5828  Latino Psychology Practicum  3

**Minimum Number of Credits Required**  135

**Coursework Requirements**

1. **Specialty Focus Tool:** Each student is required to create a Specialty Focus Tool to increase their depth of knowledge and skill in a recognized specialty area in clinical psychology. The specific specialty plan will be developed by the student in conjunction with the academic advisor (at the end of the first year) in order to meet the student’s needs and interests and to begin the process of creating a special skill set within clinical psychology. The specialty area should consist of 15 quarter hours of course work (excluding core courses but including, where applicable, specialized professional seminar registration) in GSPP or other departments of the University and can include courses transferred for credit. Examples of a specialty focus tools are couple therapy, behavior therapy, family therapy, forensic psychology, geropsychology, health psychology, neuropsychological assessment, dynamic psychotherapy, Latino psychology, military psychology, and oncology psychology.

2. The 15 credit hours cannot include required/core courses but should include (a maximum of 8 credits of) professional seminar registration appropriate to the specialty area.

3. Independent study, which is relevant, may be included.

4. Complementary clinical work, including a year of field placement in an appropriate setting, is recommended.

5. It is also recommended that the student undertake a doctoral paper that will serve as a scholarly contribution to the area of specialization.

6. Students must take a seminar in their specialized area, if one is given. If a seminar is not offered in the specialized field, they will need to coordinate with their advisor to take a field placement to cover the clinical experience.

7. When checking out for internship, student should double check that courses were indeed completed. Student may need to update specialty focus tool form for their file.

**Non-coursework Requirements**

- **Professional Psychology Clinic:** All students become staff members of the Professional Psychology Clinic (PPC) and are expected to work with clients in the center each year prior to the internship year. The center is an integral part of the school and includes interview, play therapy, and group therapy rooms as well as necessary supplies and equipment. One-way-vision mirrors, audio taping, videotaping, and digital recording
facilitate ongoing supervision of clinical work. Clients of diverse ethnic, racial, social, religious, and individual backgrounds and cultural identities are seen by students for assessment and intervention. Referrals come from private and public sources throughout the community.

- Community Field Placement: Each year prior to the internship year, students are also required to be in a community field placement for a minimum of eight hours per week. In these placements, students are involved in supervised professional experiences in mental health centers, schools, college counseling centers, the justice system, hospitals, rehabilitation centers, private practices, residential treatment homes, and businesses in the Denver metropolitan area. There is a wide choice of placements, and available paid placements are often filled by second and third-year students. Within the general field placement requirement, students are required to work a minimum of 40 contact hours with clients from at least one culturally diverse group. Opportunities for such experience are available in a variety of the community field placement settings. The 40 contact hours are a total to be achieved during the time a student is enrolled in the program.

- Each student is required to pass a clinical competency exam prior to graduation from the program.

- Doctoral Paper: The doctoral paper requirement requires students to make an original contribution to psychological scholarship. Students may choose to do a qualitative or quantitative research project, or can choose other forms of scholarship, such as developing a case study or treatment protocol. Doctoral papers should be publication quality, and students are encouraged to submit their papers for publication.

- The first draft of doctoral paper is due March 1st for students anticipating graduating in August. The chair may have a different (earlier) deadline, but March 1st is the absolute last day for a first draft.

- Internship: GSPP requires an American Psychological Association (APA) approved clinical internship which is either full time for 12 months or equivalent. PsyD students participate in the national APPIC Match and are given significant support in this process from the Director of Clinical Training. GSPP offers an exclusively affiliated consortium that is APA accredited. Students may apply to sites outside the consortium, either locally or nationally. Students must pass the internship in order to receive the PsyD degree.

### Master of Arts in Forensic Psychology

Program requirements are designed to be completed in six academic quarters over two years. The University of Denver (DU) requires that a student enroll in course work for at least six quarters. Students are required to attend at least 12 credit hours per quarter for six quarters (90 hours required for graduation), unless pre-approved for part-time status. The University of Denver is on a quarter system and students complete the program as a cohort, attending fall, winter, and spring quarters of both years. All students are required to successfully complete all courses, consisting of 90 quarter hours of coursework.

### Degree Requirements

#### Coursework Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSY 4000</td>
<td>Issues in Forensic Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4010</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4020</td>
<td>Psychopathology and Diagnosis</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4030</td>
<td>Clinical Interviewing and Theories of Psychotherapy</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4040</td>
<td>Issues in Forensic Psychology II</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4050</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4060</td>
<td>Psychology of Criminal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4070</td>
<td>Trauma &amp; Crisis Intervention</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4080</td>
<td>Issues in Forensic Psychology III</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4090</td>
<td>Issues in Measurement</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4100</td>
<td>Mental Health Law</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4110</td>
<td>Family Systems and Therapy</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4200</td>
<td>Practicum I</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4210</td>
<td>Practicum II</td>
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<tr>
<td>CPSY 4220</td>
<td>Practicum III</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4230</td>
<td>Practicum IV: Theories of Personality</td>
<td>3</td>
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<tr>
<td>CPSY 4240</td>
<td>Practicum V</td>
<td>1-6</td>
</tr>
<tr>
<td>CPSY 4250</td>
<td>Practicum VI</td>
<td>3</td>
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<tr>
<td>CPSY 4300</td>
<td>Eval and Treat Juv Offender</td>
<td>3</td>
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<tr>
<td>CPSY 4310</td>
<td>Ethical Iss in Forensic Psyc</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4320</td>
<td>Cognitive Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4330</td>
<td>Cog Behavioral Interventions</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4340</td>
<td>Psychopathology, Evaluation &amp; Treatment of the Adult Offender</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4350</td>
<td>Sociocultural Issues in Forensic Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
**CPSY 4360**  
Personality Assessment: Self-Report  
3

**CPSY 4370**  
Substance Abuse  
3

**CPSY 4380**  
Group Interventions  
3

**CPSY 4545**  
Lifespan Development and the Cultural Context  
3

**Elective Requirements**  
6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CPSY 4105</td>
<td>Psychology, Public Policy, and Advocacy</td>
<td>2,3</td>
</tr>
<tr>
<td>CPSY 4321</td>
<td>Assessment Independent Study</td>
<td>1</td>
</tr>
<tr>
<td>CPSY 4400</td>
<td>Personality Assessment: Projective</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4410</td>
<td>Criminal Evaluations</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4420</td>
<td>Research in Forensic Psychology: Independent Study</td>
<td>1</td>
</tr>
<tr>
<td>CPSY 4430</td>
<td>Career Counseling (Additional elective if wishing to pursue licensure in Colorado)</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4678</td>
<td>Scholarly Writing Methods and Practices</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Students are also allowed to take some elective courses in other specialty areas at GSPP, including courses in Latino psychology, military psychology, and oncology psychology.

**Minimum Number of Credits Required**  
90

### Non-coursework Requirements

- **Field Placements:** We require that students engage in direct service through their field placements, working with diverse populations and in diverse settings. A variety of field placement opportunities are available, including county probation, community health centers, correctional facilities, outpatient treatment agencies, medical examiner’s office, victim assistance/advocacy agencies, and juvenile assessment centers. Students also have the option of completing a field placement through our institute, DenverFirst (Forensic Institute for Research, Service, and Training). As an adjunct to their field placements, students are enrolled in practicum courses that provide added clinical support and foster development as professionals and practitioners.

- **Clinical Competency Exam:** Students will be required to pass a clinical competency exam in the spring of their second year. The oral exam is clinical in nature, and evaluates students on their mastery of the theoretical and conceptual underpinnings of forensic practice, as captured through our foundational competencies, and their ability to convey the technical and applied aspects of forensic practice, as reflected by our functional competencies.

- **Personal Therapy:** The Master’s in Forensic Psychology program requires personal therapy for all students. Faculty believe that personal therapy is a vital component of clinical psychology training and growth, and that it is the professional responsibility of every clinician to identify, address, and work through personal issues that may have an impact on clinical interactions with clients. Students are required to complete a minimum of 10 sessions (45-50 minutes in length) with the same therapist by the end of their first year of the program. It is required that therapy be provided by a licensed psychologist, professional counselor, social worker, or other mental health worker under the supervision of a licensed professional. If you select a therapist not in this category, you must petition the Director of Forensic Studies for approval. Students will not be advanced to preliminary candidacy until the therapy requirement is met. Students must submit a therapy plan by November 1 of fall quarter. Students must complete this requirement by the summer of their first year. The student must petition the Director for an exception if therapy is not completed in this time frame.

### Optional Research

- Students can also enroll in a one credit elective, CPSY 4420 Research in Forensic Psychology: Independent Study, and engage in ongoing or novel research through DenverFirst. Students have been able to present at local and national conferences and have published with faculty in law and psychology journals.

### Master of Arts in International Disaster Psychology

Program requirements are designed to be completed in seven academic quarters over two years. The University of Denver is on a quarter system and students must attend fall, winter, spring, and summer quarters of their first year and fall, winter, and spring quarters of their second year. All students are required to successfully complete all courses, consisting of 90 quarter hours of coursework.

**Degree Requirements**

### Coursework Requirements

#### Core requirements

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CPSY 4010</td>
<td>Introduction to Statistics</td>
<td>3</td>
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<tr>
<td>CPSY 4020</td>
<td>Psychopathology and Diagnosis</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4050</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>CPSY 4090</td>
<td>Issues in Measurement</td>
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</table>
CPSY 4380 Group Interventions 3
CPSY 4500 International Disaster Psychology: Foundations 3
CPSY 4501 Psychotherapeutic Models of Intervention 3
CPSY 4503 Clinical Interviewing 3
CPSY 4505 Cross Cultural Analysis 3
CPSY 4509 Global Mental Health Systems 3
CPSY 4510 Preparation for International Internships: Intercultural Competence 3
CPSY 4512 Disaster Mental Health 3
CPSY 4515 Ethics 3
CPSY 4530 Program Evaluation 3
CPSY 4545 Lifespan Development and the Cultural Context 3
CPSY 4550 Seminar: Therapeutic Interventions (3 credits/quarter for 6 quarters=18 credit hours total) 3
CPSY 4556 International Perspective of Trauma Intervention 3
CPSY 4557 Intnntl Public Health 3
CPSY 4570 Crises Intervention 3
CPSY 4590 Psychology of Loss and Grief 3
CPSY 4595 International Disaster Psychology Internship 6
CPSY 4606 Gender-based Violence 3

**Elective requirements**

Students are also allowed to take some elective courses in other specialty areas at GSPP, including courses in Latino psychology, military psychology, and oncology psychology.

CPSY 4430 Career Counseling 3
CPSY 4563 Family Therapy: Children and Families in Crisis 2
CPSY 4566 From Triage to Justpeace 3

**Minimum Number of Credits Required** 90

**Non-coursework Requirements**

- Community Based Field Placement: During fall, winter, and spring terms of both their first and second years, students are required to complete community field placements and supervision in the Denver area. A variety of field-placement sites are available, including local non-governmental and state agencies providing direct mental health care, case management, policy and grant writing, disaster planning and preparedness, and disaster relief services. Agencies serve diverse populations and age-groups, including refugee and low-SES individuals, many of whom have been affected by trauma and disaster. Students spend a minimum of ten hours a week at their placement.

- Trauma and Disaster Recovery Clinic (TDRC): During the fall, winter and spring terms of their first and second years, students are required to carry a client (individual, couple, family or group) in the TDRC. This clinical work is supervised in the small-group supervision seminar. Either in the first or second year of the program, students may request to participate in the small-group program evaluation seminar to fulfill this requirement.

- International Internship: During the summer between the first and second year of enrollment, students engage in an 8-week international internship, providing a rich opportunity to apply theory to practice in the global context. International internships are arranged by the program with non-governmental and governmental agencies whose missions focus on a variety of mental health and psychosocial issues relevant to the needs of individuals and communities affected by disaster and trauma. While the locations of our internships vary each summer, in recent years students have interned in Ghana, Liberia, Bosnia, Serbia, Croatia, Nepal, Egypt, Ethiopia, India, Panama and Belize.

- Each student is required to pass a competency exam prior to graduation from the program. This exam will be administered during the spring quarter of the second-year of matriculation.

**Master of Arts in Sport and Performance Psychology**

Program requirements are designed to be completed in six academic quarters over two years. The University of Denver (DU) requires that a student enroll in course work for at least six quarters. Students are required to attend at least 12 credit hours per quarter for six quarters (72 hours required for graduation), unless pre-approved for part-time status. The University of Denver is on a quarter system and students complete the program as a cohort, attending fall, winter, and spring quarters of both years.

**Degree Requirements**

**Coursework Requirements**

**Core requirements**

CPSY 4010 Introduction to Statistics 3
CPSY 4050 Research Methods 3
CPSY 4652  Theoretical Aspects of Sport and Performance Psychology  3
CPSY 4662  Foundation of Counseling Theories  3
CPSY 4669  Consulting Methods & Practices  3
CPSY 4671  Theories of Performance Excellence  3
CPSY 4672  Counseling Methods & Practices  3
CPSY 4674  Clinical Issues: Interviewing and Diagnosis  3
CPSY 4680  Sport and Performance Psychology Practicum (3 credits/quarter for 3 quarters=9 credit hours total)  3
CPSY 4681  Multicultural Issues  3
CPSY 4682  Ethical and Legal Issues  3
CPSY 4683  Group Interventions  3
CPSY 4684  Team and Organizational Dynamics  3
CPSY 4685  Human Growth & Development  3
CPSY 4686  Practicum in Sport and Performance Psychology: Professional Practice (3 credits/quarter for 3 quarters=9 credit hours total)  3
CPSY 4690  Sport and Performance Psychology Interventions  3

**Elective requirements**  12

Students are also allowed to take some elective courses in other specialty areas at GSPP, including courses in Latino psychology, military psychology, and oncology psychology.

**Minimum Number of Credits Required**  72

**Minimum number of credits required for degree: 72 hours**

**Non-coursework Requirements**

- Practicum: It is important to put theory into practice; therefore, the practicum experience is critical to the development of a competent sport and performance consultant. In addition to integrating theory into actual technique, the practicum affords students the opportunity to network within the field. GSPP is committed to practical training and there are many exciting opportunities and experiences available at the University of Denver as well as in the metro area. Sites include, but are not limited to: private high school academies, public high school athletic departments, club sports programs, collegiate athletic departments, the DU Lamont School of Music, private practice, coaching, local exercise and health related industries, Boys and Girls Clubs of Metro Denver, Vail Ski and Snowboard Academy, and Craig Hospital. Other practical experiences in the program are available as formal internships during the year and in the summer. Sites around the nation that current/former students have obtained internships at include: the US Olympic Training Center, Vail Ski & Snowboard Academy, Evert Tennis Academy, and IMG Academies.

- Master’s project: The Master’s Project requirement is designed to serve as a capstone achievement demonstrating students’ comprehensive knowledge of sports and performance theories, concepts, applications, and professional and ethical guidelines. Most importantly, students will organize and present the breadth and depth of their knowledge in a personally meaningful way that is directly relatable to the working world. Students are encouraged to participate in group projects with the evaluation criteria for an individual’s completion being a contribution worthy of authorship on a journal article (see American Psychological Association publication manual for more details on the definition of authorship). Group projects are intended to increase the scientific contribution (e.g., the possibility of multi-year studies, more collaboration) and thus the likelihood of publication. Faculty may offer particular project ideas to students, and students may also propose ideas to faculty.

If a student elects for an individual master’s project, the types of projects include: (a) a professional practice report (e.g., a case study or a series of case studies approached from a clearly delineated theoretical perspective with an analysis of the pros and cons associated with the theoretical approach including relevant research and associated findings); OR (b) a data-based research paper including a detailed review of literature leading to new conclusions and collecting and analyzing original data. The student is then responsible for getting a sports and performance faculty member to approve the proposal and serve as the Master’s Project Chair. The end result of an individual’s project must be a unique contribution to the literature and thus of scholarly rigor and publishable quality. As an example, a mental training plan for a specific sport would not be sufficient, but a mental training plan that involves a new hypothesis or synthesis of literature may be sufficient if the project Chair deems the project worthy of consideration for publication or professional presentation at a national or international conference.

**Master of Arts in Sport Coaching (Online)**

The Graduate School of Professional Psychology, along with most graduate courses at DU, use the quarter system. The Sport Coaching program requires a minimum of 46 quarter hours (i.e., equivalent to 36 semester hours). Our courses are offered year-round in each of the four quarters: fall, winter, spring and summer. We intend to offer two required courses per quarter, along with one elective. Most courses are four credit hours.

**Degree Requirements**

**Coursework Requirements**

**Core requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CPSY 4700</td>
<td>Organization and Administration of Sport</td>
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<tr>
<td>CPSY 4705</td>
<td>Sociocultural Aspects of Sport Coaching</td>
<td>4</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>CPSY 4710</td>
<td>Motor Learning and Sport Pedagogy</td>
<td>4</td>
</tr>
<tr>
<td>CPSY 4715</td>
<td>Strength, Conditioning, and Injury Prevention Program Design</td>
<td>4</td>
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<tr>
<td>CPSY 4720</td>
<td>Psychology of Athletic Performance</td>
<td>4</td>
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<tr>
<td>CPSY 4725</td>
<td>Philosophy, Leadership and Legal Issues of Sport</td>
<td>4</td>
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<tr>
<td>CPSY 4730</td>
<td>Biomechanics of Athletic Performance</td>
<td>4</td>
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<tr>
<td>CPSY 4735</td>
<td>Understanding Sport Research</td>
<td>4</td>
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<tr>
<td>CPSY 4740</td>
<td>Practicum 1 in Sport Coaching (Course is required twice for a total of 2 credit hours to meet requirement.)</td>
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<tr>
<td>CPSY 4745</td>
<td>Practicum 2 in Sport Coaching (Course is required twice for a total of 2 credit hours to meet requirement.)</td>
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<tr>
<td>CPSY 4750</td>
<td>Sport Coaching Capstone</td>
<td>2-4</td>
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<tr>
<td>CPSY 4991</td>
<td>Independent Study</td>
<td>1-17</td>
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<tr>
<td></td>
<td><strong>Elective requirements</strong></td>
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<tr>
<td></td>
<td>Minimum of 8 credits and must be approved</td>
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<tr>
<td></td>
<td><strong>Minimum Number of Credits Required</strong></td>
<td>46</td>
</tr>
</tbody>
</table>

### Approved Electives

Electives will be offered based upon student interest and program growth. We anticipate offering the following electives on a consistent basis:

- Kinesiology, Exercise Physiology, and Sport Nutrition.
- Electives in the future would likely include Ethics of Coaching and Sport, Advanced Seminar in Psychology of Coaching, Advanced Seminar in Sociology of Coaching, and Sport Technology.
- We encourage K-12 teacher-coaches to identify possible electives offered by the Morgridge College of Education. Independent study and directed research may also be completed to meet the requirement for approved electives.

The Program Director, Dr. Brian Garity, will advise all students on their coursework and degree plan. Dr. Garity recommends students consider how to individualize their coursework to meet their personal desires and professional needs while completing the degree in a timely manner.

### Non-coursework Requirements

- **Practicum in Coaching:** The practicum in coaching course is intended to enhance and deepen students’ understanding of coaching in a real life coaching context. Students must practice coaching in the practicum, not only or mainly observing. Students must complete a minimum of four credit hours of practicum over four quarters. Therefore, students will typically enroll in one hour of practicum over four quarters to meet this requirement. Students may continue to enroll in practicum, but only four hours will be counted towards meeting the degree requirements. During the practicum, students must complete a minimum of 50 hours coaching, and will also complete additional assignments online. Students may complete the practicum in a setting of their choosing, and it is acceptable for coaches to complete the practicum in a position in which they are currently employed. That is, it is acceptable to complete the practicum in coaching for a position already being performed (i.e., high school or college level coaching or performance training center). Students may also select a site through a Sport Coaching program affiliate such as a public or private high school, club, performance training center, intercollegiate athletic department or professional sport team. All practicum sites must be approved by the Program Director.

The Sport Coaching program also offers a dual-instructor model for its Practicum course. This model is the only such of its kind in the world. Dr. Garity will teach the online course components, while an additional instructor, a mental skills consultant, will advise students through the use of distance technologies, or face-to-face where possible. The mental skills consultant will be a DU alumni from our outstanding Sport and Performance Psychology program. Prospective students should consult with Dr. Garity for additional information on this unique educational opportunity.

- **Capstone:** Capstone literally means “a finishing stone or a structure.” Similarly, students will identify and then complete a project that demonstrates the student’s initiative and excellence. Students must wait to enroll in capstone until they have completed the Understanding Sport and Coaching Research course and 23 credits towards the Sport Coaching degree. Projects need to be approved by the Program Director by the end of the first week of the Capstone course. Students are encouraged to discuss a suitable project with course instructors early in the program. In most cases, projects will be completed individually, but a collaborative small group project is also possible. Groups would typically consist of two to four Sport Coaching students. Students are encouraged to build off a previous course or collaborate with a Sport Coaching instructor or affiliate researcher.

### Interim Master of Arts in Clinical Psychology

To be eligible students must have two years of residency and successful advancement to preliminary candidacy. Students must submit an application to graduate and meet with their advisor for candidacy sign-off by the deadline.

### Degree Requirements

#### Coursework Requirements

- Completion of 90 quarter hours of coursework earned from GSPP at the University of Denver
Non-coursework Requirements

- Two years of field placement and seminar
- Clinical Competency Exam

Students who come to GSPP with a psychology based MA, who receive blanket 45 transfer credits for the PsyD degree, are not eligible for the interim MA from GSPP.

Courses

CPSY 4000 Issues in Forensic Psychology I (3 Credits)
Overview of psychological theory, research and practice as used within the legal and criminal justice system; differences between forensic and clinical assessments and interventions; special topic areas (e.g. trauma, abuse, domestic violence, etc.); ethical issues.

CPSY 4010 Introduction to Statistics (3 Credits)
General statistical principles and techniques and their application to psychological and psycho-legal issues. Students will develop computer analytic skills to assist in answering professionally relevant questions.

CPSY 4020 Psychopathology and Diagnosis (3 Credits)
An overview of major DSM diagnostic categories, as well as an introduction to ICD and noncategorical classification.

CPSY 4030 Clinical Interviewing and Theories of Psychotherapy (3 Credits)
Theoretical and practical issues related to clinical interviewing within forensic and non-forensic settings; exploration of the process of psychotherapy from various theoretical perspectives.

CPSY 4040 Issues in Forensic Psychology II (3 Credits)
Further exploration of the relationship between the legal system and psychological theory in areas of criminal law (e.g. standards of legal competency, insanity defense, prediction of dangerousness), civil law (civil commitment, personal injury) and family law (e.g. child custody determinations, juvenile issues).

CPSY 4050 Research Methods (3 Credits)
Examination of the research process, including the formulation of questions and utilization of various methodologies to answer hypotheses.

CPSY 4060 Psychology of Criminal Behavior (3 Credits)
Psychological origins and dynamics of criminal behavior from the viewpoint of major psychological theories; treatment of the types of offender populations (e.g. the antisocial personality, psychopath, adolescent offender, female offender) within the criminal justice system.

CPSY 4070 Trauma & Crisis Intervention (3 Credits)
Theory, techniques and research relating to various types of trauma (e.g. childhood abuse, combat veterans, natural disaster survivors); crisis intervention techniques as a system of managing trauma related difficulties.

CPSY 4080 Issues in Forensic Psychology III (3 Credits)
Relationship and application of psychological principles and practice to varied law enforcement and correctional functions; assessment of violence in the workplace, trauma debriefing, hostage negotiation. Students will become prepared to assume the role of an expert witness in a variety of psycho-legal settings.

CPSY 4090 Issues in Measurement (3 Credits)
Critical assessment of various psychological tests, with an emphasis on validity, reliability and issues of standardization.

CPSY 4100 Mental Health Law (3 Credits)
The goal of this introductory Mental Health Law course is to provide students with a general understanding of the laws impacting the field of mental health, including those involving professional responsibility and ethics; competency issues; court-ordered evaluations and testimony; family law issues; the rights of differently-abled and historically marginalized persons; and defenses based on mental state. Course objectives include assisting students in locating, understanding, and interpreting laws relevant to the mental health practitioner; recognizing potential legal and ethical dilemmas faced in forensic practice; and applying the principles of mental health law to offer the highest standard of care in their clinical practices.

CPSY 4105 Psychology, Public Policy, and Advocacy (2,3 Credits)
This course is designed to provide students in clinical training with an overview of the political advocacy process in the United States, its potential impact on the practice of mental health, and opportunities for involvement in public policy discourse.

CPSY 4110 Family Systems and Therapy (3 Credits)
This course examines various approaches to family systems, including an overview of systems theory, plus ideas that have been labelled structural, strategic, and Bowenian. Goffman’s performance theory will also be emphasized, especially as it applies to clinical work. Students will practice rethinking interpersonal conflicts, and they will develop increased awareness of their own families and their roles in them. Students will also apply systemic ideas to their own required therapies.

CPSY 4120 Psychology of Performing Arts (3 Credits)
Students gain an understanding of the psychological factors involved in the performing arts, including theatre, acting, dancing, music, and circus arts. Students learn about appropriate psychological interventions for these populations to enhance performance. The course format includes lecture, discussion, guest speakers, case studies, and role plays.
CPSY 4130 Organizational Leadership: Center for Performance Excellence (3 Credits)
This course is designed to familiarize CPEX Officers with approaches to effective leadership while engaging in leadership roles within the Center for Performance Excellence (CPEX). Students are exposed to successful leadership strategies from the business world and have the opportunity to implement these strategies into their roles as leaders within CPEX. This course is intended for CPEX Officers only.

CPSY 4140 Exercise Psychology (3 Credits)
In this course, students explore the theory, research, and practice related to psychological aspects of exercise behavior. Students explore research and intervention models in exercise psychology and be able to integrate this knowledge in their practice. Major topics include health behavior change, the impact of exercise on mental health, and exercise motivation and adherence.

CPSY 4150 Psychology of Performance in Business (3 Credits)
Students gain an understanding of the psychological factors involved in the business world. Factors are examined at the individual, team, and organizational level. Students learn about appropriate psychological interventions for these populations to enhance performance. The course format includes lectures, discussion, guest speakers, case studies, and role plays.

CPSY 4160 Psychology of High Risk Occupations (3 Credits)
In this course, students gain an understanding of the psychological factors involved in high risk occupations. High risk occupations include individuals whose profession directly involves saving lives or placing their own life at risk. Students learn about appropriate psychological interventions for these populations to enhance performance and resilience in the high stress situations required by their jobs. The course format includes lecture, discussion, guest speakers, case studies, and role plays.

CPSY 4200 Practicum I (3 Credits)
CPSY 4210 Practicum II (1-6 Credits)
CPSY 4220 Practicum III (3 Credits)
CPSY 4230 Practicum IV: Theories of Personality (3 Credits)
CPSY 4240 Practicum V (1-6 Credits)
CPSY 4250 Practicum VI (3 Credits)
CPSY 4260 Psychophysiology and Biofeedback Lab (2 Credits)
This course is designed to be both an introduction to psychophysiology and biofeedback and to its applications, particularly to sport and performance. The principles of psychophysiology, the biofeedback instruments used, the areas of application, the techniques commonly used in conjunction with biofeedback, the diverse field of biofeedback and applied psychophysiology, and the latest uses for optimal self-regulation are covered. The course involves use of biofeedback instrumentation as well as classroom participation and readings and a self-regulation project.

CPSY 4300 Eval and Treat Juv Offender (3 Credits)
Theories of juvenile delinquency and research related to psychological aspects of juvenile offenders; consideration of the legal responses to juvenile crime and the role of the psychologist within the juvenile justice system.

CPSY 4310 Ethical Issues in Forensic Psychology (3 Credits)
Discussion of ethical and legal conflicts and dilemmas as a psychologist within the legal system, and consideration of ways to resolve such conflicts, including standards applicable to the science and practice of forensic psychology and the role of the expert witness.

CPSY 4320 Cognitive Assessment (3 Credits)
Students learn to administer, score, and interpret the WAIS. There is some exposure to other intelligence tests as well. Students understand diagnostic validity (Bayes' Theorem), how to identify interpretive material, and how to think ideographically about nonomothetic data. Through discussions of legal cases, students learn numerous forensic issues to which cognitive assessment is applicable, including for example testamentary capacity, competence to waive Miranda rights, and ability to enter a contract.

CPSY 4321 Assessment Independent Study (1 Credit)
CPSY 4330 Cog Behavioral Interventions (3 Credits)
Theory, techniques and research relating to cognitive-behavioral therapy, focusing on assessment, case conceptualization and intervention approaches within a forensic setting.

CPSY 4335 Intro to Trial Consulting (3 Credits)
The art of trial consulting is the skill to meld multiple theories, methodologies, and concepts into a working and research-based strategy. This skill is very reminiscent to the art and practice of therapy. As with any practice, be it law, psychology or trial consulting, a solid base is necessary. This course is an introduction into the theory and application of trial consulting techniques in the criminal and civil arena. This overview addresses the key elements in the trial consulting including and introduction into the psycho-legal perspective, the application of research methodologies utilized by trial consultants, and specific interdisciplinary topics within trial consulting. These specific topics include concepts like the theory of persuasion, jury selection, expert testimony, and neuropsychology.

CPSY 4340 Psychopathology, Evaluation & Treatment of the Adult Offender (3 Credits)
Psychological theories related to etiology, development and prediction of violent crime; types of intervention possible within in the criminal justice setting. Topic areas may include special offender populations (e.g. sexual offender, offenders with developmental disabilities or those classified as mentally retarded).
CPSY 4350 Sociocultural Issues in Forensic Psychology (3 Credits)
Explores the impact of identity dynamics, including privilege and oppression, in clinical forensic practice.

CPSY 4360 Personality Assessment: Self-Report (3 Credits)
Administration and interpretation of objective personality instruments and discussion of their utilization within a forensic setting; use of the MMPI-2 and MCMI.

CPSY 4370 Substance Abuse (3 Credits)
Substance use and abuse, with focus on symptom formation, classification, causes socio-cultural factors and treatment modalities; various theoretical approaches to the etiology and treatment of substance abuse; resultant psychological and physiological effects of various drugs.

CPSY 4380 Group Interventions (3 Credits)
Interpersonal dynamics of small groups and larger organizational settings; understanding of group processes (such as group formulations and development, group conflict, and group resistance); skills enabling positive group intervention.

CPSY 4400 Personality Assessment: Projective (3 Credits)
Students learn to administer and interpret the Thematic Apperception Test and Early Memories. These are construed as behavior samples under conditions where the occasioning environment is reproducible, so that the functional relationship between the behavior and the stimulus can be understood carefully. Students learn to write reports that integrate several sources of information to answer referral questions.

CPSY 4410 Criminal Evaluations (3 Credits)
Incidence and prevalence of criminal violence; risk assessment within the context of prediction, supervision and intervention in both a correctional and mental health setting. Special topics will include assessment of various legal competencies, the insanity of defense and assessment of dangerousness.

CPSY 4420 Research in Forensic Psychology: Independent Study (1 Credit)

CPSY 4430 Career Counseling (3 Credits)
This course is designed to teach the theoretical framework of career counseling, and introduce the basic counseling tools used in the career counseling process. The course presents major theories of career development, introduce sources of occupational information, and introduce principles of assessment in career counseling. The impact of diversity and difference on career development and choices, as well as the career counseling process, is also explored. Topics include: the role of interests, skills, values and personality in the career development process; social, cultural and family influences on the career development process; and career development across the lifespan.

CPSY 4500 International Disaster Psychology: Foundations (3 Credits)
This is the first course in a three course sequence designed to provide the entering M.A. student with a fluent understanding of the area of International Disaster Psychology. The course will cover the evolution of IDP from its beginnings to its present status. It will review the different innovations in the area. Potential subject areas include the treatment of refugees, torture victims, child soldiers, internally displaced persons and complex Post Traumatic Stress Disorder.

CPSY 4501 Psychotherapeutic Models of Intervention (3 Credits)
Major psychological models of intervention are the focus of this course. The major theoretical models of personality development, psychopathology and theories of intervention are explored including psychodynamic, family systems, behaviorism, cognitive-behavioral approaches and others.

CPSY 4502 Psychotherapy with Children and Families (3 Credits)
This course provides an understanding of various psychotherapeutic approaches to children and families. The perspectives and techniques of play therapy, behavioral interventions, cognitive-behavioral therapy and integrative work with parents and families are explored.

CPSY 4503 Clinical Interviewing (3 Credits)
Theoretical and practical issues related to clinical interviewing in international and national disaster settings.

CPSY 4505 Cross Cultural Analysis (3 Credits)
The first course in a two part series designed to provide students with an understanding of cross cultural analysis. The course will provide an understanding of diverse cultures. Students will review historical literature in the area of cross cultural understanding. Students will also be taught methodologies for conceptualizing and understanding diverse cultures and cross cultural practices in psychology.

CPSY 4509 Global Mental Health Systems (3 Credits)
This course will focus on the dynamics of mental health systems in developing countries.

CPSY 4510 Preparation for International Internships: Intercultural Competence (3 Credits)
This is the second course in the three part introductory sequence. Students will continue to learn about the field of IDP and future trends for the field. The course will address specific subject areas within the field in order to provide students with the working knowledge needed to continue to pursue advanced training in the area. Potential subject areas will include treatment of refugees, torture victims and working in post conflict areas across the globe.

CPSY 4511 Humanitarian and International Refugee Law (3 Credits)
This course surveys the central rules, complexities and debates of international refugee law, which is both a specialized field of its own and also an intersection of human rights law, migration law, and humanitarian policy. We focus extensively on how courts and the United Nations have attempted to interpret the various refugee definitions found in human rights treaties, and introduce rules of international law governing how refugees should be treated. We also examine the obstacles refugees face today in enjoying their rights.
CPSY 4512 Disaster Mental Health (3 Credits)
This course will explore disaster response systems and their mental health components.

CPSY 4513 International Disaster Psychology Case Conference (2 Credits)
This class meets to discuss case theory, formulation and psychotherapy practice with persons affected by disaster and/or trauma.

CPSY 4515 Ethics (3 Credits)
The course is designed to educate students about the ethical guidelines in psychology applicable to the field of IDP. Students will learn the APA Ethics Code as well as other more specialized ethics guidelines applicable to the field of IDP. Students will be expected to identify, address and resolve potential ethical conflicts. Potential future trends in the development of ethics in the area of IDP will be addressed.

CPSY 4530 Program Evaluation (3 Credits)
Theory and techniques for developing management information and assessment systems for human service programs. Organization evaluation of international organizations will be discussed. Psychosocial interventions will be highlighted.

CPSY 4545 Lifespan Development and the Cultural Context (3 Credits)

CPSY 4550 Seminar: Therapeutic Interventions (3 Credits)
Small group seminar is a small group class designed to provide students a discussion forum to share and integrate their experiences in the IDP Master's Program. Students are expected to address and share their field placement experiences with other students in their seminar. The seminar will also provide instruction on the implementation of theory in IDP to practice in multiple settings. Faculty will provide supervision for the students' field placements.

CPSY 4555 Trauma & Child Development (3 Credits)
The course reviews the literature regarding childhood trauma and its implications for child and adult development. Models for the conceptualization of trauma and for treatment of childhood trauma are discussed. Cross-cultural theories of childhood development and trauma are emphasized.

CPSY 4556 International Perspective of Trauma Intervention (3 Credits)
This course, taught by a different visiting professor each year, will take an in-depth look at trauma and the development of mental health systems and interventions internationally.

CPSY 4557 Interntl Public Health (3 Credits)
This course will provide an overview to the many issues concerning international public health today. Topics include basic epidemiology, malaria, tuberculosis, HIV/AIDS, diarrheal diseases, injury prevention, and environmental health. Specific attention will be given to examining the intersection between disease prevention and disaster mitigation.

CPSY 4558 Practical Apps Clinical Theory (1 Credit)
This course enables first year Master of Arts in International Disaster Psychology (MAIDP) students to explore the application of coursework in clinical psychology to practice in the field. Articles and case examples that apply ethics, developmental theory, psychotherapeutic models, cross cultural analysis and group interventions are discussed.

CPSY 4560 Humanitarian Law of Armed Conf (3,5 Credits)
This course is a theoretical and practical introduction to international humanitarian law (IHL). IHL is known by many other names such as "humanitarian law," "law of conflict," and "laws of war." All these terms refer to the rules regarding the treatment of civilians and non-combatants. These "rules" are especially important to know if you eventually work for an IO or NGO that finds itself in areas of armed conflict. Cross listed with INTS 4935.

CPSY 4563 Family Therapy: Children and Families in Crisis (2 Credits)
This course will explore theoretical and practical approaches to working with children, adolescents and families in crisis. Integrative frameworks will be discussed that view culture, family system and individual functioning as inter-related, and family, parent and child related interventions will be explored. Several therapeutic modalities applied across multiple settings that reduce the impact of crisis and trauma and promote functioning will be studied. Prerequisites: CPSY 4545 and CPSY 4500.

CPSY 4565 Group Dynamics of Organizations (3 Credits)
A comprehensive review of the literature regarding the understanding of systems and organizational structure and dynamics. Methods of assessment and interventions in organizational structure will be presented. Cross-cultural implications will also be addressed.

CPSY 4566 From Triage to Justpeace (3 Credits)
This course examines the inter-disciplinary continuum of integrated work that responds initially to natural and human-made disaster, but then leads to coordinated relief and development projects, and eventually seeks longer-term justpeace. Students learn how normative "regimes" or changed behavior are built and sustained by societal, state, and global actors. Students apply critical interview skills among professionals of diverse disciplines, and in particular, meet the range of development organizations headquartered in Colorado.

CPSY 4570 Crises Intervention (3 Credits)
This course will deal with the clinical approaches to handling psycho-social crises.

CPSY 4580 Psychodynamic Theory (3 Credits)
Traditional and modern theories of psychodynamic concepts will be presented. Students are instructed on the use of such theories as a tool to structure interventions in their field work.
CPSY 4585 Family Systems (3 Credits)
A comprehensive review of family therapy concepts and treatment theories. A review of the applicable literature of family therapy is provided with an emphasis on cross-cultural models and interventions.

CPSY 4590 Psychology of Loss and Grief (3 Credits)
A review of the theory of loss and grief. The course reviews cultural understandings of loss and grief as seen following disaster and conflict. Treatment modalities of loss and grief are also presented.

CPSY 4591 Supervision Group - IDP (1 Credit)
This class is an opportunity for students in field placements to receive additional supervision for their field-placement work. Students present and receive supervisory consultation about their work in these settings.

CPSY 4595 International Disaster Psychology Internship (6 Credits)
Students will spend one quarter in various international locations working in full time internships with international nonprofit organizations applying the principles and knowledge obtained during their study in the IDP program. Students will work under faculty and professional supervision.

CPSY 4600 Community Psychology in an International Setting: South Africa (5 Credits)
Community Psychology in an International Setting: South Africa combines pre-departure academic study at the University of Denver (DU) with service learning field placements in the Republic of South Africa (RSA). The course requires attendance at four classroom sessions prior to departure, full participation in a field placement while in RSA, and a re-entry meeting upon our return. Overall, the fundamental focus will be on community psychology in RSA - salient issues, challenges, resources, and success in post-Apartheid South Africa. Community psychology both shapes and reflects change. Students will learn about how various historical and current policies in RSA have shaped (and disenfranchised) various communities throughout the country. Field placements will prioritize community psychology issues inherent in the organizations, people, and settings of historically disadvantaged black communities in South Africa. Secondly, academic topics will include the history of RSA (emphasizing pre- and post-Apartheid time periods), current challenges in RSA (ethnicity, immigration, HIV/AIDS, increased crime rate), and cultural aspects of RSA. Pre-departure classes will also focus on the pragmatics of the trip, team-building, and exploring the goals of international service learning.

CPSY 4605 Psychotherapy Interventions (3 Credits)
This course will survey different theoretical models of psychotherapy with an emphasis on specific intervention approaches.

CPSY 4606 Gender-based Violence (3 Credits)
Gender-based Violence will cover issues as they relate cross-culturally. Special attention will be directed towards descriptions of programs addressing these issues and the challenges of designing and implementing such programs in various cultural environments.

CPSY 4610 Exercise Physiology (2 Credits)
This course offers an advanced study of selected areas in physiology of sport and exercise. The applied perspective emphasizes understanding the principles in designing effective conditioning programs for performance, fitness, and health. Empirically valid principles of training for muscular fitness (e.g., strength, power, speed) and energy fitness (i.e., aerobic and anaerobic) are explored. Additionally, environmental influences (e.g., altitude), lifestyle choices (e.g., nutrition), and selected developmental considerations (e.g., as related to gender differences) are discussed. Applications to sport and performance psychology consulting in sport, performing arts, and high-risk professions complement the course content.

CPSY 4615 The Elite Athlete Brain (3 Credits)
The primary goal of this course is to provide students with an understanding of the expert’s brain from sport and performance literature. The course will review landmark and recent publications examining expert-novice contrasts, and those of athlete-non athlete comparisons. Students will review literature on training interventions to accelerate the development of expertise and learn to evaluate the validity of scientific claims of related consumer products. Students will gain a basic understanding of where state of science in understanding sport related concussions, including diagnostic tools, recovery, and prevention.

CPSY 4620 Kinesiology (2 Credits)
This course is an in-depth exploration of selected areas of kinesiology as a discipline and a profession focusing on human movement. Based on interdisciplinary theoretical and empirical perspectives, the explored areas include: (a) functional anatomy as related to adaptations to training; (b) biomechanics; (c) neurophysiological processes involved in motor learning and motor control; and (d) other relevant biophysical processes (as related to talent selection and development, physiological adaptations to training, etc.). In addition, this course surveys career opportunities in academic study and clinical practice in various areas of sport, fitness, exercise, and physical education.

CPSY 4630 Adept, Professional, Supervisor and Leader (2 Credits)
This course addresses the multiple roles of sport and performance psychology (SPP) consultants from a developmental perspective (i.e., education and training, early years in the profession, and full professional maturity). In-depth examinations of the consultant as an expert, person, performer, and self-regulator are grounded in the SPP literature and theoretical accomplishments in related fields (e.g., counseling psychology). Additionally, the acquisition of fundamental knowledge, skills, and abilities involved in supervision (mentorship) and further socialization to the field of SPP with an emphasis on positive leadership for local, national, and global progress complement the course content.

CPSY 4635 Athletic and Performance Nutrition (2 Credits)
Graduate level course educating student-coaches and administrators and performance specialists to use research and best practices in performance nutrition to achieve athletic and performance enhancement, and general wellbeing. The course will help facilitate students’ ability to influence sporting and general environments to use nutrition as a means to enhance performance, with a secondary examination of preparing students to understand and manage individual differences, needs, and motivations for food choices. Course content will include modeling nutrition, encouraging a sense of family at team meals, leveraging media to internalize nutrition behaviors, and impacting availability of positive nutrition choices.
CPSY 4650 Sport Psychology (3 Credits)
A comprehensive view of the field of sport psychology will be covered. Through participation in this course, students will develop a better understanding of the field of sport and exercise psychology and develop skills that will assist in enhancing their career opportunities. Varied psychology topics (e.g., individual differences/personality, motivational orientations and strategies, applied psychological skills, social influence and group dynamics) with an emphasis on understanding major theories and research and applying those theories and research findings to diverse sport, exercise, and performance settings. Additionally, the psychological effect that participation in a sport or a physical activity has on a performer including anxiety reduction, aggressive behavior, and personality development will be explored.

CPSY 4652 Theoretical Aspects of Sport and Performance Psychology (3 Credits)
This course is an in-depth exploration of selected aspects of the theories of sport psychology along with applications of these theories to other performance domains. An advanced understanding of the field of sport and performance psychology is pursued in relation to psychosocial aspects involved in both the preparation and performance processes among adults, youth, and children who represent all skill levels. The explored areas include: (a) motivation, confidence, and anxiety in sport and performance, (b) selected topics in social psychology and psychobiology, (c) psychological skills training, and (d) special topics (e.g., personality, flow, injuries, burnout).

CPSY 4653 Sport in American Society (3 Credits)
This course examines the influence of the social context on sport. Attention is given to the influence of society on sport as an institution and the role of sport as an agent of social change. This course examines how sport affects the social world we live in. Topics explored include the intersection of sport and: gender, race/ethnicity/culture, socioeconomic class, media relations, violence, deviance, and sexuality.

CPSY 4654 Coaching & Leadership (3 Credits)
This course is a survey of the intersection of coaching, leadership, organizational behavior, organization dynamics, and change management. It examines the definitions, history, theories, and research in the sport and management leadership literature. Students will gain an understanding of how planning, motivation, team building, and leadership impact a team's or organization's effectiveness. Students are expected to learn and personally develop the analytical and leadership skills that affect individual and group performance.

CPSY 4655 Social Psychology of Sport (3 Credits)
This course will address the relationship between sport and cultural dynamics, sociological factors underlying competitive physical activity, and behavioral responses of sport participants and supporters to various socio-cultural motivations. This course will be a serious study of organized professional, amateur, and youth sports in North America. Emphasis will be placed on social forces that both impinge on and enhance athletic activities and organizations, and the influence sport has on society.

CPSY 4656 Psychology of Injury (3 Credits)
In this course, students will explore psychological theory, research, and practice in relation to the prevention, occurrence, and rehabilitation of sport injuries. Major topics will include: psychological risk factors for injury, psychological responses to injury, and psychological interventions to prevent sport injuries and enhance sport injury rehabilitation.

CPSY 4657 Motivational Interviewing (2 Credits)
This is an advanced course reviewing the theories and research findings related to motivational interviewing with the goal to apply them to performance (athletic, non-athletic) and exercise contexts. Topics include motivation for behavior change, transtheoretical model of behavior change, self-determination theory as applied to behavior modification, and the relationship between and the influences of emotion and motivation on counseling and sport and performance consultation. This course will place an emphasis on relating current leading theories and research evidence to consulting work. Equally in importance, there will be in-class hands-on activities (e.g., role playing), experiences (e.g., self-reflective tasks) and assignments (e.g., role playing tasks) that will add to the student competence in motivational interviewing.

CPSY 4660 Sport Psychology Interventions and Techniques (3 Credits)
Students will acquire knowledge and increase their comprehension of cognitive-behavioral intervention strategies (e.g., mental skills training) and how they can be applied to achieve optimal performance of athletes and others. The complex interaction between the sport psychology consultant and performer will be explored.

CPSY 4662 Foundation of Counseling Theories (3 Credits)
This course will review major contemporary counseling models, theories, procedures, and the helping relationship. Advanced study of techniques and research findings. Survey of principles underlying individual, family systems, and multicultural approaches to counseling.

CPSY 4663 Applied Motor Learning (2 Credits)
This course is an advanced examination of applied motor behavior theories and research. Emphasis is given to understanding of the processes involved in controlling skilled movement and the principles of skill acquisition to guide designing effective learning environments, practice schedules, and practice units. The examined areas include: (a) the field of study of motor control and learning; (b) performance and learning variables as impacting retention and transfer; (c) information processing model; (d) sensory and central contributions to motor control; (e) individual differences; and (g) instruction, demonstration, and feedback across different stages in motor learning.

CPSY 4664 Practicum in Sport and Performance Psychology III: Business Principles (3 Credits)
This is the third course in a year long, three-part sequence. This course serves the purpose of (a) providing an opportunity for students to learn about sport and performance psychology through observation and experiential opportunities; (b) providing an intimate forum for discussing the practice of sport and performance psychology; and (c) providing information on professional development and conduct. The course requires didactic and experiential activities. Business, consultation, and professional development issues in sport and performance psychology will be addressed. Prerequisite: CPSY 4673.
CPSY 4665 Beh Kinesiology & Physiology (3 Credits)
A study of human movement. Topics will include but are not limited to structural anatomy, biomechanics, and neurophysiology. The biomechanical etiology of various injuries will be studied.

CPSY 4666 Movement Principles for Performance (3 Credits)
This course is an exploration of selected areas of the exercise and sport sciences. The explored areas include: functional anatomy, biomechanics, and exercise physiology.

CPSY 4668 Psychology of Excellence (3 Credits)
The purpose of this course is to examine the theories, research, and intervention strategies related to the pursuit of excellence. This course explores the deliberate interventions necessary to support the development of excellence and expertise. Students will learn the nature of expertise development, the necessary steps to achieve excellence, and common roadblocks. The concept of excellence will be investigated in many contexts, such as sport and performance, intrapersonal, relationships, and life in general. Topics to be explored include: happiness, contentment, life satisfaction, values, character strengths, emotional intelligence, optimism, hope, flow, and resiliency.

CPSY 4669 Consulting Methods & Practices (3 Credits)
This course is an advanced exploration of theories, research findings, and skills related to the practice of consultation in performance settings. Specific topics include: (a) the consultant roles; (b) the major theoretical approaches to consultation (e.g., mental health, systemic); (c) the processes and stages of consultation (e.g., developing interpersonal relationships; design, implementation, and evaluation of service delivery); (d) ethical and multicultural issues; and (e) students' personal strengths and concerns in the role of a consultant (e.g., values interpersonal style, and consultant variables that impact the effectiveness of their role as an agent of behavior change).

CPSY 4670 Psych of Coaching & Leadership (3 Credits)
Examination of psychological components of coaching and talent development. Explores coaching development, coaching models, as well as strategies for dealing with athletes and different coaching contexts. Discussion of talent development theories including influence of genetic and environmental factors.

CPSY 4671 Theories of Performance Excellence (3 Credits)
This course is designed to familiarize students with theories of performance excellence developed by leading practitioners. Each week, students are exposed to a different practitioner’s approach, which often includes an opportunity to observe the practitioner’s style through video. Emphasis is placed on the role of theory in practice, theory-based conceptualizations utilizing a case study format, and comparing and contrasting the different theories.

CPSY 4672 Counseling Methods & Practices (3 Credits)
This course is an introduction to counseling microskills and techniques needed in helping relationships, with attention to building the therapeutic alliance. Emphasis placed on learning skills in small group format. Laboratory experience in demonstrating skills and the ability to form an effective counseling relationship is required. Pre-practicum experience to prepare students to work with clients.

CPSY 4673 Practicum in Sport and Performance Psychology 2 (3 Credits)
This is the second course in a year long, three-part sequence. This course serves the purpose of (a) providing an opportunity for students to learn about sport & performance psychology through observation and experiential opportunities; (b) providing an intimate forum for discussing the practice of sport and performance psychology; and (c) providing information on professional development and conduct. The course requires didactic and experiential activities. Psychological consultation, best practices, and professional development issues in sport and performance psychology will be addressed. Prerequisite: Practicum in Sport and Performance Psychology I.

CPSY 4674 Clinical Issues: Interviewing and Diagnosis (3 Credits)
This course examines adult psychopathology as classified in the DSM. Special emphasis will be placed on the intersection of performance with more traditional psychopathology. Students learn about etiology, symptomology, epidemiology, and treatment issues. Possible causes and contributory factors are examined, as well as theoretical and multicultural considerations. Prerequisites: Theoretical Aspects of SPP, Applied SPP, and Ethical Issues in SPP.

CPSY 4676 Assessment and Measurement (3 Credits)
This course covers the selection, use, and proper interpretation of common sport and performance psychology assessments. Basic principles of educational and psychological measurement, including test construction, validity, and reliability are addressed. The assessments taught include those used for individual assessment, individual selection, and organizational assessment (360 degree feedback, surveys, etc.). Prerequisites: CPSY 4652, CPSY 4690, and CPSY 4682.

CPSY 4677 Motivation, Emotion & Learning (3 Credits)
This is an in-depth course reviewing the theories and research related to motivation, emotion, and learning in performance contexts. Topics include the relationships between motivation, emotion, and learning; and the influences of emotion and motivation on counseling and consultation. The course provides basic information about the human cognitive system. Students are taught the basic principles of learning, with a focus on the principles of learning which are most applicable in sport and performance settings. This course places an emphasis on relating current research to practice.

CPSY 4678 Scholarly Writing Methods and Practices (1-3 Credits)
The primary goal of this course is to familiarize students with the methods and practices of scholarly writing. The course focuses on writing a scholarly review of literature, methodology, results, and conclusions according to APA style. Within the course, students are also asked to review one another’s work while developing editing skills and methodological complexity.
CPSY 4679 Field Placement Practicum in Sport and Performance Psychology (3 Credits)
Supervised practice sport & performance psychology in an approved sport or performance setting under licensed practitioners.

CPSY 4680 Sport and Performance Psychology Practicum (3 Credits)
This course will familiarize students with professional issues relevant to the practice of sport and performance psychology. Students will be presenting and analyzing their current applied experiences as coaches and leaders in sport and performance settings in the community. This is a participation-intensive course and the students will receive feedback and suggestions from both the instructor and peers in a group supervision format. Importantly, the ongoing feedback and readings will provide an opportunity for students to understand and apply theories and practice systems of behavior change in sport and performance psychology in the context of their own clients/cases. Students will learn the roles and responsibilities inherent in professional and ethical consultation, with a special emphasis given to the dilemmas of serving as an embedded consultant.

CPSY 4681 Multicultural Issues (3 Credits)
This course covers the research and theories of counseling the culturally different client. Students are expected to develop multicultural skills, including culturally-based conceptualization, assessment, and selection of culturally appropriate intervention strategies. This course will examine these issues in general, with a special emphasis on those in sport and performance cultures. This is both an experimental and seminar-based course, aimed at developing student’s personal awareness, knowledge, and skills.

CPSY 4682 Ethical and Legal Issues (3 Credits)
This course introduces the students to the ethical principles, codes, and standards related to the profession of sport and performance psychology. This includes an overview of the regulation of the practice of psychology, the relationships between ethical codes and legal statutes, and the development of a personal model for ethical decision-making.

CPSY 4683 Group Interventions (3 Credits)
This course is a survey of group counseling methods and techniques from a theoretical and applied perspective. The course will include practical application of group counseling interventions. Prerequisites: demonstrated knowledge of ethical principles and departmental consent.

CPSY 4684 Team and Organizational Dynamics (3 Credits)
This course examines the principles, theories, and research of human functioning in performance related teams and organizations. It explores the social and psychological factors influencing behavior in organizations, along with individual differences, dyadic relations and small group behavior. Students learn about the dynamics of team and organizational diagnosis, feedback and learning, intervention, and planned change.

CPSY 4685 Human Growth & Development (3 Credits)
This course is a comprehensive analysis of theories and research relating to human psychological development and learning across the lifespan. It explores the cognitive, affective, academic, physiological, moral, and social/cultural/racial domains. An emphasis is placed on a) the theoretical models underlying character and moral development, and b) adolescent and college student development theories.

CPSY 4686 Practicum in Sport and Performance Psychology: Professional Practice (3 Credits)
This course provides an examination of the critical components of successful and ethical professional practice and career building in sport and performance psychology in conjunction with intensive provision of sport and performance psychology services. The entire body of sport and performance psychology theoretical and applied knowledge as well as the skills that the students have acquired will be utilized. Additionally, rigorous self-reflective activities and ethical decision-making will increase the student professional and personal growth as directly related to effectiveness in the sport and performance psychology practice. Emphasis will be placed on diversifying and integrating theoretical knowledge and applied strategies and skills while simultaneously engaging in supervised independent work in real life sport and performance settings.

CPSY 4687 Psychology of Injury (3 Credits)
This course examines the psychological factors involved in injury, rehabilitation, and return to performance. The effects upon social, personal, and performance adjustment are addressed. The course covers how relevant theory and research can be used to inform practical applications to help the injured performer’s rehabilitation and return. It presents the major medical aspects of injury and the rehabilitation process.

CPSY 4688 Seminar in Sport and Performance Psychology (3 Credits)
Advanced seminars offered by sport and performance psychology faculty on topics relevant to the practice and science of sport and performance psychology area.

CPSY 4689 Psychophysiology and Biofeedback (2 Credits)
This course explores the underlying mechanisms and psychophysical determinants of behavior in sport and performance settings. Students learn the use of biofeedback in achieving voluntary self-regulation and control of stress related behaviors.

CPSY 4690 Sport and Performance Psychology Interventions (3 Credits)
This course is designed to familiarize students with the application of sport and performance psychology interventions. Students experience the building of a sport and performance psychology program. This program includes the cardinal skills of relaxation, concentration, imagery, self-talk, and mental routine; followed by broader topics such as goal setting, motivation, confidence, cohesion, engagement, and mastery. The instructor briefly reviews relevant theory and research followed by demonstrations of techniques and strategies, after which students learn by doing. Specific attention is given to blending the science of peak performance with the art of applying science.
CPSY 4691 Practice Development in Sport and Performance Psychology (3 Credits)
The primary goal is to acquaint students with the skills needed to develop and implement a private practice in the profession of sport or performance psychology. The course takes students through the process of business development by using the traditional business plan model, from the necessary startup expenses to the executive summary. Throughout the course students learn the What, When, Where, and How of starting their own consulting practice, while learning the basic components of branding, marketing, and operations. Prerequisite: Must be enrolled in the MASPP program or instructor approval.

CPSY 4692 Entrepreneurship in Sport and Performance Psychology (2 Credits)
The primary goal of this course is to provide students with an overview of skills necessary to succeed in the entrepreneurial profession of sport and performance psychology. The course is flexibly designed to accommodate the students' desired career paths. Topics covered may include: sales and marketing, developing a practice, job search and interviewing skills, and understanding the job market.

CPSY 4700 Organization and Administration of Sport (4 Credits)
Graduate level course to educate students on the organization and administration of sport and sport coaching. Course content includes emergency action planning, facility management, human resource management, evaluation and development, legal responsibilities, record keeping, finance, and public relations. Students will learn how to lead organizations and coaching staffs to develop fair and safe participation.

CPSY 4705 Sociocultural Aspects of Sport Coaching (4 Credits)
Graduate level course to educate students on the sociocultural and social-psychological aspects of sport coaching and athletic performance. Students will understand how to analyze and apply social, sociological and social-psychological theory to sport coaching and athletic performance. Consideration will be given to developing a critical understanding of sport coaches' knowledge development, and how to implement multiple, effective and ethical strategies to enhance coach and athletic performance.

CPSY 4710 Motor Learning and Sport Pedagogy (4 Credits)
Graduate level course to educate students on the science and practice of how athletes learn motor skills and how coaches can facilitate skill acquisition. Course content includes the scientific and theoretical frameworks of motor learning, with a secondary examination of motor control and development. Applied course content will focus on how coaches can use learning strategies such as demonstration, instruction, feedback, and practice planning to improve athletic performance.

CPSY 4715 Strength, Conditioning, and Injury Prevention Program Design (4 Credits)
Graduate level course to educate students on the scientific, theoretical and practical foundations of strength, conditioning and injury prevention. Students will learn how to design strength and conditioning programs to enhance athletic performance and reduce and lessen the severity of injury. This course is also intended to help students become familiar with the National Strength and Conditioning Association's (NSCA) Certified Strength and Conditioning Specialist (CSCS) exam, and position statements from several national governing bodies on athlete safety and physical performance.

CPSY 4720 Psychology of Athletic Performance (4 Credits)
Graduate level course to educate students on the psychological aspects of athletic performance, and secondarily coach performance. Course content includes the theoretical and practical application of established mental skills (e.g., motivation, efficacy, arousal, anxiety, focus, self-awareness, goal-setting, imagery, team cohesion). Concepts will be applied to the evaluation and creation of practice and training plans to enhance athletic performance.

CPSY 4725 Philosophy, Leadership and Legal Issues of Sport (4 Credits)
Graduate level course to educate students on the social foundations of sport and coaching. Course content includes the history and formation of sport and sport coaching, social issues (e.g., race, class, gender, inclusivity, etc.), how sport is used for (un)desirable ends and the public good, the coach's role in demonstrating and encouraging ethical behavior, and legal concepts and the coach's role in reducing negligence and promoting a healthy and safe environment for numerous stakeholders. Additional topics include themes across leadership theory (e.g., transformational and servant-leadership, emotional intelligence, athlete-centered coaching) and the relationship between educational institutions and sport/athletics. There are no prerequisites for this course.

CPSY 4730 Biomechanics of Athletic Performance (4 Credits)
Graduate level course to educate students on the biomechanics of athletic performance. Students will learn quantitative and qualitative methods of biomechanics to analyze and enhance athletic performance and prevent injury. Course content includes knowledge of the musculoskeletal system, force development and how additional factors such as body composition and joint structures influence athletic performance and injuries.

CPSY 4735 Understanding Sport Research (4 Credits)
Graduate level course to educate students on understanding and doing sport research. The primary focus of this course is on facilitating student's understanding of research methods commonly used in sport research. Secondarily, the course will examine how research is actually done, including reviewing the literature and writing and referencing scholarly work. Course content will cover topics such as paradigms and philosophy of science, epistemology and the creation of knowledge, and numerous research designs, methodologies and methods. Content will also include understanding statistics and qualitative methods.

CPSY 4740 Practicum 1 in Sport Coaching (1 Credit)
Practicum 1 in Sport Coaching helps students to gain the knowledge, skills and attitudes to become a quality coach and reflective practitioner through experiential learning. Students will draw upon MASC course content and their coaching experiences to reflect upon the complexities of sport coaching to integrate their knowledge and skills to identify and solve problems. Students must complete at least 50 hours of coaching for every one hour of credit enrolled. This course provides basic to intermediate level content and prepares students for Practicum 2. Prerequisites: Passed background check, submitted current CPR/First Aid certificate at level in which student is coaching and valid for the full quarter while enrolled. Student must be enrolled in the MASC program.
CPSY 4745 Practicum 2 in Sport Coaching (1 Credit)
Practicum 2 in Sport Coaching helps students to gain an advanced understanding of the knowledge, skills and attitudes to become a quality coach and reflective practitioner through experiential learning. Students will draw upon MASC course content and their coaching experiences to reflect upon the complexities of coaching to solve vital problems. Students must complete at least 50 hours of coaching for every one hour of credit enrolled. Prerequisites: one earned credit of Practicum 1, passed background check, submitted current CPR/First Aid certificate at level in which student is coaching and valid for the full quarter while enrolled. Student must be enrolled in the MASC program.

CPSY 4750 Sport Coaching Capstone (2-4 Credits)
Capstone literally means "a finishing stone or a structure." Similarly, students will complete a project that demonstrates the student's initiative and excellence. To help explore the student's interest and refine a suitable topic, students are encouraged to discuss the capstone project with course instructors early and throughout their time in the MASC program. Students may build off a previous course activity or assignment, but the Capstone Project must reflect new and substantive work appropriate to the number of hours enrolled. While students have the autonomy to negotiate new project ideas, sample projects could include: thesis or original research, review of literature paper, presentation at conference, leading a service-learning event, writing a book chapter, authoring a novel or other creative writing, or a webinar. Prerequisites: Students must have completed at least 16 credit hours towards the MASC degree and have completed or being enrolled concurrently in Understanding Sport Research.

CPSY 4991 Independent Study (1-17 Credits)
CPSY 4992 Directed Study (1-10 Credits)
CPSY 4995 Independent Research (1-17 Credits)
CPSY 5000 Rad Behav/Func Contextl Models (3 Credits)
CPSY 4000 is designed to provide a historical, philosophical and conceptual background to better understand and appreciate Behaviorist views of "being-in-the world". The course lays the foundation for the sophisticated application of a science of behavior-its theories and methods-to the assessment of clinical problems and the art of doing psychotherapy. The course will invite a little discomfort, disturb some preconceptions, and compel students to address some difficult questions and thorny issues. Among the goals of this course are to see students commit to being more than a psychologist technician, to encourage them to develop a guiding philosophical core in their practice as a psychologist; to assist them in clarifying or deepening whatever philosophical worldview they may hold; and that they will have achieved an informed understanding of radical behaviorism/functional contextualism - whether or not they choose to further pursue these models.

CPSY 5010 Cognitive & Affective Models (3 Credits)
This is the first in a three part sequence that includes Psychophysiology and Clinical Neuropsychology and is designed to introduce students to the current research in cognitive neuroscience and consciousness. This first course focuses on sensation/perception, learning, memory, emotion, language and other higher cognitive functions. Lectures will emphasize current technologies and historical inquiry and the unique contributions made by psychosocial and cultural variables.

CPSY 5020 Psychoanalytic Models (3 Credits)
Psychoanalytic theories, including Freud's topographic and structural theories, ego psychology, object relations theory and modern relational theories, including self-psychology and intersubjectivity.

CPSY 5030 Systems Models (3 Credits)
Basic concepts of general systems theory and their applications in psychology, focusing on family systems, groups and organizations.

CPSY 5040 History and Systems in Psych (2 Credits)
Basic psychological concepts surveyed from a historical point of view, tracing development of psychological bases of professional practice.

CPSY 5050 Advanced Statistics (3 Credits)
CPSY 5051 Statistics I Lab (1 Credit)
CPSY 5070 Research Methods (2 Credits)
Sequential course that cover fundamentals of structuring, analyzing and critiquing research reports and proposals; strategies to guide and facilitate the writing process; attitude and thinking skills necessary for function as a local clinical scientist; research design tools, methods and strategies for answering different types of questions.

CPSY 5071 Research Methods II (2 Credits)
Sequential courses that cover fundamentals of structuring, analyzing and critiquing research reports and proposals; strategies to guide and facilitate the writing process; attitudinal and thinking skills necessary for function as a local clinical scientists; research design tools, methods and strategies for answering different types of questions.

CPSY 5073 Qualitative Research Methods (2 Credits)
Qualitative research involves obtaining in-depth information about the behaviors and beliefs of people in naturally occurring social settings. This course introduces students to the philosophical underpinnings, history, and key elements of five qualitative approaches: narrative research, phenomenology, grounded theory, ethnography, and case study. We compare theoretical frameworks and methodologies, experience the use of data, and discuss writing strategies. In addition, we read articles that are exemplars or each approach.

CPSY 5075 Program Evaluation Technique (3 Credits)
Theory and techniques for developing management information and assessment systems for human service programs.

CPSY 5080 Diagnosis and Classification (2 Credits)
An overview of major DSM diagnostic categories, as well as an introduction to ICD and noncategorical classification.
CPSY 5108 Introduction to Acceptance and Commitment Therapy (ACT) (2 Credits)
Acceptance and Commitment Therapy (ACT) belongs to the movement in clinical psychological science that sees acceptance and openness to experience as an essential addition to change-focused psychotherapeutic treatment strategies. Although consciously based on behavior-analytic thinking, ACT is a hybrid in terms of approach and technique, bringing together aspects of Zen Buddhism, Gestalt therapy, and humanist-existential though. The paradox upon which ACT is founded is that only radical acceptance of what cannot be changed empowers people to recognize and change the things that they can. The ACT approach is about embracing necessary suffering in order to make more committed, life-affirming choices and live in accordance with personal values. ACT emphasizes that in a very deep sense all human beings are in the same boat. The technical and theoretical bases of ACT are through normal didactics, but the heart and art of the approach occurs through experiential exercises, group process, and from observation and modeling. Prerequisite: CPSY 5000.

CPSY 5120 Introduction to Animal-Assisted Interventions (3 Credits)
This course serves as an introduction to animal-assisted interventions (AAI) as they are commonly used by mental health care professionals. It is designed to provide students with an overview of the foundations of AAI, the variety of ways in which this modality is used, international perspectives on AAI, various perspectives on ethics and animal welfare, and researchers’ current understanding of the role of the human-animal bond in facilitating AAI treatment efficacy. General topics to be addressed include the characteristics of the species used in AAI, the basic principles of AAI, the use of AAI with a variety of populations, and animal abuse issues. A number of guest lecturers will share their knowledge and experiences with students throughout the quarter.

CPSY 5130 Issues in Measurement (3 Credits)
Validity, reliability and standardization issues in psychological testing; statistical properties of commonly used tests.

CPSY 5131 Issues in Measurement Lab (1 Credit)
Optional. Focused assistance with basic math skills; review and clarification of class topics.

CPSY 5170 Life Cycle: Inf to Mid Childhd (3 Credits)
Understanding normal development of children (0-12 years), integrating theory, research and a phenomenological perspective.

CPSY 5180 Life Cycle: Adolescent - Adult (2 Credits)

CPSY 5200 Life Cycle: Late Adulthood (3 Credits)
Theories of aging; social, psychological and biological changes; assessment and intervention methods, emphasizing issues impacting older adults. (65 years and above).

CPSY 5230 Group Dynamics & Interventions (3 Credits)
Provides psychologists in training with multiple learning experiences highlighting that groups and organizations are intensely psychological environments in which most psychologists function professionally and personally and have the potential to impact positively.

CPSY 5231 Social Psychology (3 Credits)

CPSY 5250 Existential and Humanistic Theory and Therapy (2 Credits)
Historical roots and basic assumption of existential and humanistic views. Students encouraged to integrate materials with their personal valves and assumptions about human nature and their interaction with clients.

CPSY 5270 Physiological Psychology I (3 Credits)
Terminology and principles of and research in physiological psychology. Where possible, application made to content and practice of clincal psychology.

CPSY 5271 Physiological Lab I (1 Credit)
Optional. Assistance with material covered in CPSY 4170.

CPSY 5273 Physiological Lab II (1 Credit)

CPSY 5290 Clinical Neuropsychology (3 Credits)
Historical, conceptual and clinical foundation for, as well as current developments related to, the field of clinical neuropsychology. Includes exposure to: developmental neuropsychology and neuroanatomy; higher cognitive functions; neuropsychologically informed interviews and standard neuropsychological test batteries; neuropsychological profiles associated with a variety of acquired disorders (both classical neuropsychological and psychological in nature); ethnic, cultural, age and gender considerations; and current status of a variety of professional/ethical issues. Prerequisite: CPSY 5270.

CPSY 5310 Ethical Issues in Psychology (3 Credits)
In-depth consideration of ethical standards applicable to the science and practice of psychology; pertinent laws and legal standards governing the practice of psychology; areas in which legal and ethical standards suggests contradictory actions on the part of the clinical psychologist.

CPSY 5320 Professional Issues in Psych (2 Credits)
Issues, concerns and controversies impacting current practice of professional psychology at the state and national levels; preparation for future alternative systems of service delivery. Emphasis is on professional life after the PsyD. Required for first year students.

CPSY 5340 Social Psychology of Racism and Oppression (3 Credits)
Theoretical and experimental nature of racism and oppression, primarily in the United States, definition of such terms as stereotypes, prejudice, racism, white supremacy and privilege; exploration of various theories regarding these terms and how they manifest themselves historically and contemporarily.
CPSY 5360 Racial/Ethnic Identity Development (3 Credits)
This course will explicate the concept of ethnic identification, and the process by which this central aspect of a person's overall identity develops. Accordingly, the two central questions that this course will address are: a. who are they? and b. how did they get that way? These questions will be examined utilizing a Descriptive Psychology perspective.

CPSY 5370 Lesbian, Gay, Bisexual and Transgender Issues (3 Credits)
Various aspects of gay, lesbian life explored cross-culturally, nature of homosexuality, including the controversy of heredity vs. choice. Issues of oppression and discrimination will also be explored. The role of psychology and the politics of homosexuality will be studied. Students will also be asked to explore their personal awareness regarding homosexuality in their everyday lives and in a therapeutic context.

CPSY 5380 Culturally Competent Psychotherapy (3 Credits)
As the final class in the year-long multicultural course sequence, this class will integrate the theoretical content of the preceding classes and focus on their psychotherapeutic implications. This course will address psychotherapy with the following groups - African Americans, Asian Americans, Latinos, Native Americans, and the GLBT community.

CPSY 5385 Pro Sem: Beg. Psychotherapy (2 Credits)
This is a clinical and didactic seminar on beginning psychotherapy. The focus will be on case formulation and developing a therapeutic relationship with the client.

CPSY 5386 Pro Sem: Child & Ad Psychother (2 Credits)
This seminar involves the evaluation and treatment of children, adolescents and their parents in the Professional Psychology Center. Supervision is provided from an integrative perspective, and topics relevant to child and adolescent psychotherapy are discussed.

CPSY 5388 Pro Sem: Psychological Assessment (2 Credits)
Assessment is a central feature of the work of the clinical psychologist. This seminar is an opportunity to hone your knowledge and skills in personality and cognitive assessment. It will involve some lecture, but mainly focus on supervision of assessment cases obtained through the Professional Psychology Clinic. You will be expected to complete four assessments during the year - you certainly can do more if you wish. You also will have the opportunity to present a case you have completed to the seminar during the Spring quarter.

CPSY 5389 Pro Sem: Behavior Therapy (2 Credits)
This advanced professional seminar draws upon pragmatic philosophy and contextualistic worldview as it informs and guides contemporary behavior analytic theory and practice. Students gain experiences using functional analysis as a method for describing and integrating clinical observations and learn to implement a variety of evidence based, acceptance inspired interventions designed to facilitate psychological flexibility and values-congruent living in clients from diverse backgrounds. Therapeutic work is conducted in an atmosphere of care, respect, compassion, and commitment, and challenges the client (and therapist) to be more open, aware, vulnerable, and present in their lives.

CPSY 5390 Pro Sem: Forensic Issues (2 Credits)
This seminar introduces students to the various areas and ways in which psychology interacts with the legal and criminal justice systems. Students will develop their capacity to perform evaluations relating to psychological questions, dilemmas, and disputes that are most frequently requested of forensic psychologists. Focus of the seminar will be on assisting students in clarifying their role as an evaluator and consultant to attorneys, judges, and criminal justice personnel; exploring the ethical responsibilities therein; learning to compose reports for a legal rather than a clinical audience; and preparing to testify as an expert witness. Students will formulate and deliver case presentations, participate in a "mock" testimony experience, and submit reports. Students in past seminars have conducted child custody evaluations, mental status at time of offense evaluations, Social Security disability evaluations, asylum, T-visa, and U-visa evaluations, animal abuse, competency and juvenile placement evaluations; these evaluations allow students the opportunity to conduct full battery psychological assessments, and learn how to apply findings to a legal context. In addition, we have been getting more court mandated therapy clients. Thus, students will get assessment experience as well as individual therapy experience with adults and children. Assessment experience required. If you have not completed all assessment courses, please speak to Lavita. Students are required to complete a combination of 4 assessments/therapy clients during the course of the year. Please note that the forensic seminar requires a substantial time commitment because assessments require longer sessions with clients to administer tests, time to score and interpret tests, and report writing.

CPSY 5391 Professional Seminar: Psychodynamic Therapy (2 Credits)
This seminar focuses on psychodynamic psychotherapy - that is, individual adult psychotherapy with the aim of bringing about meaningful and lasting psychological concepts as they apply to your patients, with a practical, "hands on" focus - for example, what to do and say when your patient shuts down, threatens suicide, act out, comes on to you, misses appointments, gets worse, throws up in your office, and all the other troubling and fascinating things people do from time to time in psychotherapy. Prior or current personal psychotherapy is highly desirable and strongly recommended. Students should be prepared to discuss their clinical work candidly and help foster an environment of mutual trust, compassion, and respect, in which candid discussion can take place.

CPSY 5392 Pro Sem: Couple and Family (2 Credits)
This seminar allows students more in-depth training in working with systems including couples and families. Students should take Couples Therapy and Family Therapy either before or concurrent with the seminar. Special topics covered include divorce, step families parenting, sex therapy, multicultural issues, and ethics, as well as more general couple and family therapy work.
CPSY 5393 Pro Sem: ACT (2 Credits)
Acceptance and Commitment Therapy (ACT) is a pragmatically based, relatively new and highly experiential form of therapy whose overarching goals are to a) assist clients (and therapists) in accepting what cannot be changed (i.e., the form or frequency of certain private events), while b) helping them fully commit to behaving in accordance with idiosyncratic values. Although consciously based on behavior-analytic thinking, ACT is a hybrid therapy in terms of approach and technique, bringing together aspects of Zen Buddhism, Gestalt therapy, and humanist-existential thought. In the seminar, students will learn the technical and theoretical bases of ACT through group process, individual and small group supervision, as well as from observation and modeling. Prerequisite: Behavioral Models course.

CPSY 5394 Professional Seminar: Cognitive Therapy (2 Credits)
This is a year-long seminar in cognitive-behavior therapy (CBT). Trainees learn the theory and practice of CBT through readings, didactic presentations, discussion, and especially case presentations. Small-group supervision is also required. Other orientations to therapy and common factors are also covered.

CPSY 5396 Pro Sem: Adv. Psychotherapy (2 Credits)
Seminar will focus on the individual therapy treatment of adult cases. Particular emphasis will be placed on conceptualizing cases from a developmental perspective with no particular emphasis on object relations and the psychology of self. We will evaluate culture, role of trauma, issues of sexual orientation, and developmental history. Students will be encouraged to look at their own and other's responses in a supportive environment that will foster discussion on counter-transference responses. An in depth exploration of client's needs will be assessed and model the treatment to those needs, rather than applying the same treatment model to all patients. Previous exposure and readings on the psychology of self and object relations is helpful. Readings to deepen our understanding of the above will be assigned. Must have taken or be currently enrolled in Adult Psychopathology sequence. Prerequisite: Psychoanalytic Models course.

CPSY 5399 Professional Seminar: Gender Issues (2 Credits)
This seminar will focus on gender issues from developmental and psychodynamic perspectives. Topics will include issues relevant to women, men, and transgendered/intersexed individuals. Clients may include adolescents and adults with a variety of presenting concerns including relationship problems, identity issues, eating disorders, pregnancy and postpartum work, parenthood, mood and anxiety disorders, and aging.

CPSY 5404 Prof Sem: Integrative Therapy (2 Credits)
This advanced seminar examines various integrative models of psychotherapy, and students will have the opportunity to develop their own therapeutic "voice" by integrating the major theories already learned at the GSPP. While the seminar will be theoretical in nature, one goal is to help students prepare for practice in the real world by exploring the common factors of therapy, and how to work collaboratively in a client-directed fashion. Clients may include adults, adolescents, and children with a wide variety of presenting concerns, in individual, couples, family, or group therapy. Students will be expected to present their work regularly on DVD and (in Dr Cornish's supervision), occasionally behind the two-way mirror. Competency areas covered include: professionalism, reflective practice, scientific knowledge and methods, relationships, individual and cultural diversity, ethical/legal standard and policy, assessment, and intervention. In addition to supervision on psychotherapy, there may be an option for students to be supervised on their supervision of a first year student in the PPC.

CPSY 5405 Advanced Relational Psychodynamic Seminar (2 Credits)
This seminar focuses on relational psychotherapy from the perspectives of self-psychology and intersubjective systems theory in working with adults. We examine the co-creation of the therapeutic relationship, the making of meaning, emphatic listening, attuning to the other's affective experience and putting the other's subjective experience into words. We develop treatment plans and case formulations that are consistent with this perspective.

CPSY 5406 Professional Seminar: Health Psychology (2 Credits)
This advanced seminar focuses on the ways that clients' physical health concerns affect psychosocial and emotional well-being. We focus on the relationship between the mind and the body and take a holistic and contextual approach to understanding work with clients, keeping in mind relational and cultural variables throughout the seminar. Clients in the PPC that have been in this seminar have had cancer, multiple sclerosis, diabetes, heart failure, chronic pain, autoimmune diseases, etc. As relevant to our work with clients, we discuss pain management, mindfulness, differential diagnosis of depression and anxiety, sleep hygiene, psychosocial oncology, grief and loss, and other empirically supported treatments for issues that clients present. The overarching theoretical framework of the course is relationship-focused, client-centered, and strengths-based. We draw on rehabilitation psychology and medical psychology, and explore diversity issues in a variety of ways, including examining disability as a multicultural issue. We use readings from interpersonal psychotherapy, feminist and multicultural therapy, positive psychology, meaning-centered psychotherapy, humanistic/existential therapy, client-centered therapy and post-traumatic growth to guide discussions. Particular attention is paid to helping clients enhance their strengths and find meaning in their lives during times of transition. Since many health settings are focused on a short-term model of treatment, students in seminar have the option of taking on shorter-term cases and we explore the use of time-limited psychotherapy in a health setting. It is expected that most students take on new cases in this seminar.

CPSY 5420 Behav-Analytic Prin 1 (2 Credits)
This course covers philosophical foundations, assumptions, and principles underlying major systems and models of behaviorism. Emphasis is given to the philosophy of science called radical behaviorism and its behavior-analytic functional-contextualistic tradition. Course 1 specifically targets contingency-shaping selection processes based upon Pavlovian and operant conditioning paradigms. Recommended prerequisite: CPSY 5000.

CPSY 5421 Behavioral Analysis Princ La (1 Credit)
CPSY 5422 Behav-Analytic Prin 2 (2 Credits)
This course covers philosophical foundations, assumptions, and principles relevant to cultural-linguistic practices. Emphasis is given to the philosophy of science called radical behaviorism and its behavior-analytic functional-contextualistic traditions. Course 2 specifically addresses verbal relational contingency selection processes based upon cultural and its verbal community. Prerequisite: CPSY 5420.
CPSY 5423 Behav-Analytic Assess/Case Frm (2 Credits)
This course covers the philosophical foundations, assumptions, and principles relevant to behavioral assessment and case formulation tactics. Emphasis is given to the philosophy of science called radical behaviorism and its behavior-analytic functional-contextualistic traditions. This course specifically targets an empirical data-driven approach to idiographic assessment for purposes of developing conceptual analyses from the contextual-functional analytic perspective. Prerequisites: CPSY 5420, CPSY 5422.

CPSY 5424 Behavior-Analytic Intervention (2 Credits)
This course provides an overview of issues, principles and methods basic to clinical practice and intervention. Emphasis is given to the philosophy of science called radical behaviorism and its behavior-analytic functional-contextualistic traditions. This course specifically targets a range of commonly used methods of intervention (e.g., counter-conditioning and exposure-based treatments, guided action strategies, acceptance-commitment approaches, Eastern interventions). Issues relevant to the structuring of therapy sessions, the therapeutic relationship, behavioral nonadherence, empirical research, and other topics of therapeutic interest will be reviewed. This course will incorporate the use of experiential exercises, modeled demonstration, and behavior rehearsal methods for training purposes. Prerequisites: CPSY 5420, CPSY 5422, CPSY 5423.

CPSY 5466 Health Psychology (2 Credits)
This course is designed to provide an introduction to the field of Integrated Primary Care (IPC). Primary health care physicians currently serve as the de-facto mental health care providers for approximately 50-80% of the patients they serve. Psychologists are desperately needed to support primary care, yet traditional clinical training does not adequately prepare them to work in this field. Students in this course can expect to acquire a solid knowledge in IPC that will enable them to function effectively in the primary care culture. A clinical exposure component are required so students can experience the pace and problem range seen in the primary care office. Class size is limited. Students not enrolled in the PsyD program must petition the instructor for approval to register.

CPSY 5467 Health Psychology Service Learning Seminar (1 Credit)
The Health Psychology Service Learning Seminar provides the opportunity for students to gain clinical experience with the underserved/underrepresented populations covered in the Health Psychology course (CPSY 5466). Students who enroll in the Seminar must agree to complete 20 hours of supervised clinical service with an agency and supervisor of their choice.

CPSY 5468 Sport and Performance Psychology Practicum in Collegiate Athletics I (2 Credits)
This is the second course in a year long, three-part sequence. This course serves the purpose of providing: a) practice in sport and performance psychology in a NCAA Collegiate Athletic Department under the supervision of licensed practitioners; b) an opportunity for students to learn about sport and performance psychology through observation and experiential opportunities; and c) information on professional development and conduct. The course requires didactic and experiential activities. Psychological consultation, best practices, and professional development issues in sport and performance psychology are addressed.

CPSY 5469 Sport and Performance Psychology Practicum in Collegiate Athletics II (1 Credit)
This is the third course in a year long, three-part sequence. This course serves the purpose of providing: a) practice in sport and performance psychology in a NCAA Collegiate Athletic Department under the supervision of licensed practitioners; b) an opportunity for students to learn about sport and performance psychology through observation and experiential opportunities; and c) information on professional development and conduct. The course requires didactic and experiential activities. Psychological consultation, best practices, and professional development issues in sport and performance psychology are addressed.

CPSY 5470 Integrated Primary Care (2 Credits)
This course is designed to provide an introduction to the field of Integrated Primary Care (IPC). Primary health care physicians currently serve as the de-facto mental health care providers for approximately 50-80% of the patients they serve. Psychologists are desperately needed to support primary care, yet traditional clinical training does not adequately prepare them to work in this field. Students in this course can expect to acquire a solid knowledge in IPC that will enable them to function effectively in the primary care culture. A clinical exposure component are required so students can experience the pace and problem range seen in the primary care office. Class size is limited. Students not enrolled in the PsyD program must petition the instructor for approval to register.

CPSY 5482 Health Psychology Service-Learning: Clinical Practice in Integrated Primary Care (1 Credit)
This course will be a clinical and didactic seminar for students who are involved in service-learning projects in integrated primary care clinics in the community. Students will participate in service-learning, clinical rotations, and administrative and consultation duties outside of the course time. The course format will include time for clinical supervision of community cases, didactic training on topics of relevance to integrated primary care settings, and lectures from interprofessional community preceptors from the clinics. Prerequisite: Health Psychology CPSY 5466 or permission or the instruction.
CPSY 5500 Diagnosis & Treatment of Children (2 Credits)

CPSY 5505 Diagnosis & Treatment of Adolescents (2 Credits)

CPSY 5550 Couples Therapy (2 Credits)

Theory, techniques and research relating to couples therapy, including theoretical perspectives: behavioral couples therapy, emotionally-focused couples therapy and object relations couples therapy. The course also addresses specific problem areas, including domestic violence, infidelity, depression, anxiety, substance abuse and personality disorders. Prerequisite: CPSY 5030.

CPSY 5560 Family Therapy (2 Credits)

Theory, techniques and research relating to family therapy, including several theoretical perspectives: behavioral, experiential, psychodynamic, multigenerational approaches. Special topics covered include working with community resources, addressing developmental issues of children, working with medical and school systems, utilizing cultural factors in planning programs and interventions and adults in family therapy. Prerequisite: CPSY 5030.

CPSY 5562 Psychological Consultation (2 Credits)

This course provides an overview of the practice of psychological consultation. Theories and models of consultation in various settings including businesses, organizations, health care, and schools are covered. The process and stages of consultation from entry to termination are analyzed. This class differentiates consultation from other types of psychological interventions. Important legal, ethical and multicultural issues in consultation are addressed throughout the course. Students develop their own model for conducting consultation and refine that model through work with local organizations. Students increase their awareness of their strengths and weaknesses in the practice of consultation. Methods of instruction include lecture, discussion, experiential exercises, and interactions with local organizations and professional consultants.

CPSY 5590 Adult Psychopathology I (2 Credits)

Theoretical understanding and treatment of adults within a developmental, ego analytic framework. First quarter - differences between the neuroses, borderline, and psychoses. Prerequisite: CPSY 5020.

CPSY 5591 Psychodynamic Psychotherapy (2 Credits)

Theoretical understanding and treatment of adults within a developmental, ego analytic framework. Second quarter - the neuroses. Prerequisite: CPSY 5020.

CPSY 5592 Adult Psychopathology III (2 Credits)

This course is a continuation of Adult Psychopathology I and II with an emphasis on complex trauma and the psychotic disorders. Diagnostic understanding, differential diagnosis, and treatment implications are emphasized within a psychoanalytic orientation. Prerequisites: CPSY 5590 and CPSY 5591 or instructor approval.

CPSY 5620 Intersubjective Systems Theory (2 Credits)

This course focuses on psychotherapy from the perspectives of intersubjective systems theory in working with adults. We examine the co-creation of the therapeutic relationship, the making of meaning, empathic listening, attuning to the other’s affective experience and putting the other’s subjective experience into words. We develop treatment plans and case formulations that are consistent with this perspective.

CPSY 5680 Cognitive Assessment (4 Credits)

Theoretical, professional and clinical issues involving intelligence and its measurement; assessment of cognitive functioning and clinical interpretation of test results, focusing on the WAIS-III ( and child equivalents). Prerequisite: CPSY 5130.

CPSY 5685 Introduction to Pediatric Neuropsychological Assessment (2 Credits)

Pediatric neuropsychology integrates many basic sciences including behavioral Neurology, developmental psychology, neuroanatomy, psychopathology, and psychological assessment. The role of pediatric neuropsychologist is to provide comprehensive assessment, consultation, and intervention in the context of a developing child. The course will review important concepts, theories, and empirical research in the field of pediatric neuropsychology. Students will learn the basic rationale in conducting a pediatric neuropsychological evaluation, including a brief review of many common pediatric assessment measures. In addition, many common pediatric disorders will be reviewed from a neuropsychological perspective including: Dyslexia, Attention Deficit hyperactivity Disorder, Pervasive Development Disorders, Traumatic Brain Injury, Seizure Disorders, and Mental Retardation. Upon completion of the course the student will have a greater appreciation of a neuropsychological conceptual framework and have a better understanding of specific pediatric disorders.

CPSY 5686 Suicide Prevention, Intervention and Postvention (2 Credits)

Suicide is a serious public health issue and challenge for the nation, Colorado, and our local communities. In 2009, suicide claimed the lives of almost 34,000 people in the United States and is the second leading cause of death for college students and men ages 25-34. In Colorado, there are many more suicides than motor vehicle deaths. While most clinicians are focused on the assessment and treatment of people at high risk for suicide, a more comprehensive approach is needed to prevent people from becoming suicidal in the first place. This course covers best practices in suicide prevention, intervention and “postvention” (suicide crisis response) and will explore the particular issues of several vulnerable populations.

CPSY 5687 Contemporary Issues in Geropsychology (2 Credits)

This course addresses issues in aging. Topics include healthy aging, aging issues in diverse populations, contemporary options for care, challenges in service delivery, the interplay of medical and mental health needs, mental health treatment approaches and issues, and end-of-life issues.

CPSY 5690 Introduction to the Rorschach (4 Credits)

Exner’s Comprehensive System for administering, scoring and development hypotheses with the Rorschach Test. Prerequisite: CPSY 5130.
CPSY 5692 Advanced Rorschach Analysis (2 Credits)
This course is an exploration of advanced topics in Rorschach interpretation. Topics will include: conceptual understanding of the Comprehensive System; content and sequence analysis; differential diagnosis; integrating alternative systems of interpretation with the Comprehensive System; development and use of special scales; appropriate use of computerized interpretation; and integration of Rorschach analysis with personality theory. Prerequisites include course work in Rorschach administration, scoring and basic interpretation; and in personality theory. Students will be expected to score, analyze, and present Rorschach protocols.

CPSY 5700 Adv Personality Assessment (3 Credits)
Projective techniques including Rorschach, storytelling tasks and projective drawings, with a focus both on test content and the patient-examiner relationship in the context of the diagnostic consultant. Prerequisites: CPSY 5130, CPSY 5680, CPSY 5690.

CPSY 5705 Self Report Assessment (3 Credits)
Construction and application of objective instruments, emphasizing the MMPI and MCMI. Students are required to submit test reposts. Prerequisite: CPSY 5130.

CPSY 5706 Self Report Assessment Lab (1 Credit)
Optional. For students anticipating a need for extra help with repost writing.

CPSY 5710 Intro to the Crisi Wartegg System for the WDCT: Administration, Scoring, and Basic Interpretation (2 Credits)
This course introduces the Crisi Wartegg System (CWS), a new methodology for the clinical use of the Wartegg Drawing Completion Test (WDCT). The WDCT is a projective drawing technique that can be completed in 5-10 minutes and is appropriate for children, adolescents, and adults. It is easy to administer and not overwhelming for clients to complete. The WDCT is not well known in the United States; however, a recent meta-analysis (Gronnerod & Gronnerod, 2011) attests to its validity in assessing personality and psychopathology. The course will review the history and theory of the WDCT, teach its administration, introduce the major features of the scoring system, and discuss basic interpretation. Prerequisites: CPSY 5680 Cognitive Assessment, CPSY 5705 Self Report Assessment, and CPSY 5690 Introduction to Rorschach.

CPSY 5711 Introduction to the Crisi Wartegg System for the WDCT: Lab (1 Credit)
This lab accompanies the Crisi Wartegg System course (CWS). It supplements material presented in the class and provides an experiential component to training in the CWS. It will include applied practice of administration, scoring and calculations, as well as basic clinical case interpretation. Concurrent enrollment in the Crisi Wartegg System course is required. Prerequisites: CPSY 5680 Cognitive Assessment, CPSY 5705 Self Report Assessment, and CPSY 5690 Introduction to Rorschach.

CPSY 5740 Integrative Personality Assessment (2 Credits)
This course is the culmination of the assessment sequence, and integrates techniques, approaches and concepts covered in issues in Measurement, Cognitive Assessment, Objective Personality Assessment, and Rorschach. Aspects of the other core courses in the curriculum will also be brought to bear on the question of how to obtain and how to interpret information within various theoretical models for the purposes of answering referral questions and planning interventions. Projective testing will be introduced as a source of behavior samples for which the occasioning environment is known to the psychologist. There will be focus on distinguishing interpretable from irrelevant information, and on integrating interpretable information into meaningful patterns. The goal of using assessment to answer referral question and plan treatments will generate a special focus on report writing.

CPSY 5741 Therapeutic Assessment (2 Credits)
This course explores the advances made in understanding and enhancing the therapeutic impact that assessment can have on clients. We read broadly in the area: from the genesis of collaborative assessment fueled by Fischer to the empirical foundations and structure of Therapeutic Assessment provided by Finn to novel applications of the approach highlighted by Handler. This important movement in assessment is applicable to personality, cognitive, and neuropsychological assessment as well as any professional endeavor that aims to help clients understand themselves in life-changing ways. The course is designed for those with a solid foundation in assessment who wish to develop greater facility in helping their clients.

CPSY 5745 Human Sexuality (2 Credits)
The psychology of human sexuality is a survey of historical and contemporary psychological views on a wide variety of sexual behaviors; theory and research bearing on the relationship between life span, psychological development, psychological functioning, interpersonal processes, and sexual behaviors; political and social issues involved in current sexual norms and practices. Specific implications for clinical psychology will be discussed.

CPSY 5750 Supervision (2 Credits)
This course is designed to familiarize students with theories of supervision; provide practical, guided experience in peer supervision/consultation; help students understand and critically discuss the supervisory process; aid in gaining awareness of how multicultural issues may affect supervision; and familiarize students with ethical and legal issues in supervision.

CPSY 5755 Supervision Practicum I (1 Credit)
This is a four quarter sequence, 1 quarter credit hour/quarter, in which advanced students will have the opportunity to supervise one beginning student under the overall supervision of a faculty member. Each quarter practicum will include appropriate level readings, group discussions and report writing. Admission to the course with instructor’s approval.

CPSY 5756 Supervision Practicum II (1 Credit)
This is a four quarter sequence, 1 quarter credit hour/quarter, in which advanced students will have the opportunity to supervise one beginning student under the overall supervision of a faculty member. Each quarter practicum will include appropriate level readings, group discussions and report writing. Admission to the course with instructor’s approval.
CPSY 5757 Supervision Practicum III (1 Credit)
This is a four quarter sequence, 1 quarter credit hour/quarter, in which advanced students will have the opportunity to supervise one beginning student under the overall supervision of a faculty member. Each quarter practicum will include appropriate level readings, group discussions and report writing. Admission to the course with instructor’s approval.

CPSY 5758 Supervision Practicum IV (1 Credit)
This is a four quarter sequence, 1 quarter credit hour/quarter, in which advanced students will have the opportunity to supervise one beginning student under the overall supervision of a faculty member. Each quarter practicum will include appropriate level readings, group discussions and report writing. Admission to the course with instructor’s approval.

CPSY 5760 Professional Issues II (2 Credits)
This class provides an organized and comprehensive approach to pre-doctoral psychology internship selection, emphasizing an understanding of “fit.” Topics covered include choosing sites; writing cover letters, CVs, and AAPI essays; preparing application materials; interviewing techniques; rank ordering sites; and dealing with emotions related to the process. The course syllabus includes important readings from the current literature. Lectures are balanced with guest appearances by DU Writing Center staff and others. Opportunities are given for role play among the students.

CPSY 5762 Qualitative Data Analysis (3 Credits)
This course, designed for psychology students who are completing their doctoral or masters’ projects, focuses on qualitative data analysis. Throughout the course, we explore different research traditions including phenomenology, grounded theory, ethnography, case study and critical theory. In doing so, we discuss their differing philosophical assumptions, procedures for research, and methods for data collection and analyses. Emphasis is placed on developing skills in qualitative data analysis techniques such as indexing, coding and memo writing. Students also gain experience using qualitative data software (NVIVO 7) and exploring its utility for visual representations and other analytic approaches to understanding their data.

CPSY 5765 Cognitive Behavioral Therapy (2 Credits)
This course focuses on clinical applications of cognitive-behavioral theory. Major theorists in the area are reviewed, including Ellis, Beck, Lazarus, and Meichenbaum. Research utilizing cognitive-behavioral therapy as an evidence-based practice are reviewed. In addition, key cognitive behavioral techniques are demonstrated and practiced.

CPSY 5770 Doctoral Paper Preparation (2 Credits)

CPSY 5775 Clinical Psychology Internship (8 Credits)

CPSY 5815 Trauma and its Aftermath (2 Credits)
Conceptual model for treating trauma; incidence and specific treatment techniques for various types of trauma (e.g. combat vets, survivors of natural disaster and victims of childhood abuse); professional issues relating to trauma (e.g secondary PTSD and ethical issues). Students exposed to a variety of reading and expected to integrate current research into clinical application. For advanced students who have both a clinical and conceptual background.

CPSY 5816 Int'l Psychology Externship (5 Credits)
International externship is one component of a yearlong advanced seminar. The five credit course offers students the opportunity to work with victims of disasters in an international setting.

CPSY 5825 Introduction to Latino Psychology and the Latino Experience (3 Credits)
This course will highlight the current psychosocial research and literature relevant to the mental health of Latina/o populations including influences of culture, acculturation, immigration, and language on utilization of psychological services. The course will explore the variables that can affect how different Latino groups respond in a unique way to the various services offered in the community. This course will familiarize the student with the personal, social, cultural and institutional forces that affect the psychology of Latinos, to include history, religion, gender roles, emotional processing, violence, bilingualism, and stigmatization and oppression.

CPSY 5826 Therapy and Psychological Intervention with Latinos (3 Credits)
As the second course in GSPP’s Latino Psychology sequence, this course examines the theories and models of research on psychotherapy with Latinos to prepare future therapists to engage in culturally responsive services with the growing U.S. Latino population. This course focuses on clinical interventions that address that particular mental health needs of Latinos in the United States. A particular emphasis is placed on the skills that are necessary in order to attain clinical competence treating members of the various Latino groups, by both Latino and non-Latino clinicians. Empirically-based psychological treatments for Latino patients will be examined. Creative ways will be discussed for adapting these interventions with Latinos. Discussion of clinical cases will be integrated into the course. Prerequisite: CPSY 5825.

CPSY 5827 Assessment with Latinos (3 Credits)
As the third course in GSPP’s Latino Psychology sequence, the Psychological Assessment with Latinos addresses the cultural considerations needed for interviewing and conducting psychological evaluations of Latinos. Clinical interviewing techniques and measures across all psychological assessment domains, including diagnosis, personality, and cognition, as well as more specialty-focused areas such as neuropsychological assessment, forensic assessment, and school-based assessment will be covered. The class will explore the strengths and limitations of each assessment measure with a particular focus on language, research and norming issues, and administration. Prerequisite: CPSY 5825 and CPSY 5826.
CPSY 5828 Latino Psychology Practicum (3 Credits)
This course is designed to sharpen your clinical skills by examining current cases and analyzing appropriate intervention and assessment techniques as a class. Students will formally present cases from their current caseload, in traditional case presentation format. We will base our following discussions in Latino psychological theory and orientations, and apply didactic material learned in the previous three courses of the Latino sequence. Case discussions will be sustained by students and will be positive, constructive, and ethical. It will be important for students to remain open to feedback, new approaches, constructive criticism, and exploring their strengths and weaknesses as early clinicians among their peers and professor. This course is also designed to assist students in the management of their complete caseload and seek advisement from the class on professional issues encountered as a Latino psychologist, in order to maintain both an ethical and realistic professional perspective.

CPSY 5840 Psychopharmacology (2 Credits)

CPSY 5846 Military Culture & Psychology (2 Credits)
This course is intended to provide an introduction to military culture and military psychology. A primary focus will be on training the students to be culturally competent clinicians when providing services to veterans, service members and their families. Overall tenets of military culture will be reviewed; however, focus on the individual service member or veteran’s experience will also be highlighted as there are many subcultures within the military. The diversity of military experience is related to multiple factors, such as branch, job, rank, location of service, era, deployment experience, combat status and individual identity. An additional focus of the course will be on basic topics that are important to understanding military psychology. Some of these concepts include core military values, training, branches of the service, the assignment to specific jobs, military mental health services, preparation for high-risk operational assignments, occupational hazards and discharge related issues. Ethical and legal issues related to working with this population will also be discussed.

CPSY 5865 Introduction to Psychosocial Oncology (3 Credits)
In this course, students will be introduced to the field of Psychosocial Oncology. This course will include an overview of the physiological processes involved in cancer prevention, etiology, and treatment. Students will develop a better knowledge of the different types of cancer, staging, and treatment options. A brief history of the field of psychosocial oncology will also be presented. The psychological sequelae of cancer diagnosis, treatment, metastases and recurrence, and survivorship will be included in this course. Special topics will also include working with caregivers and family members of cancer patients, sexuality and cancer, and working with patients and families at the end of life. Common psychotherapeutic interventions and assessments for oncology settings will be explored. In addition, the variety of roles of a psychologist in oncology settings will be discussed. Themes that will be included throughout the course are ethical and reflective practice, working with cancer patients from a multicultural perspective, and reducing compassion fatigue.

CPSY 5880 Business Issues in Professional Psychology (2 Credits)

CPSY 5889 Doctoral Paper Development (1 Credit)
This course is designed to facilitate the development and writing of the doctoral paper. Students are expected to adhere to the GSPP Doctoral Paper Guidelines and the APA style guidelines. A major feature of the class is student-to-student sharing and critiquing of doctoral project ideas and plans. Students are expected to take advantage of this opportunity to hone their writing skills and develop their doctoral paper proposal. Students have complete the proposal phase of their project further develop their research methodology.

CPSY 5911 Independent Study (1-17 Credits)

CPSY 5992 Directed Study (1-10 Credits)

CPSY 5993 Advanced Field Placement Experience (1-8 Credits)
All PsyD students are required to work as a Psychology Trainee in an outside agency each year prior to the internship year. The minimum total is 384 hours per year. Students are expected to arrange with a field placement to receive psychological clinical training, which could include the following types of experiences: psychotherapy, assessments, group therapy, individual therapy, family therapy, supervision, primary care psychology, intake evaluations, case management, consultation, testing, etc.

CPSY 5994 PsyD Internship (4,8 Credits)
The Graduate School of Professional Psychology (GSPP) requires that all students attend a yearlong or two half-time years of clinical internship. Internship is the clinical experience after the student has completed all courses, the clinical competency examination, and at least three years of residency at GSPP. Students typically apply through APPIC and are offered formal internships. Occasionally students create internships, but they must be approved formally through GSPP prior to the start of the internship. The basic experiences may include training in: psychotherapy, assessments, group therapy, individual therapy, family therapy, supervision, primary care psychology, intake evaluations, case management, consultation, testing, etc. To register, student must have departmental approval. Students can register half-time for 4 credit hours or full-time for 8 credit hours.

CPSY 5995 Independent Research (1-17 Credits)

Graduate School of Social Work
The Graduate School of Social Work (GSSW) at the University of Denver is internationally recognized as a leader in educating practitioners, scholars, educators and researchers. GSSW’s mission is to foster social responsibility regarding social and economic justice, quality of life and multicultural communities, based on equality for all people. This mission is carried out in a rich educational environment featuring excellent teaching by award-winning faculty and path-breaking research. GSSW’s two institutes provide in-depth research and training in child welfare and animal-assisted social work, while our Center for Effective Interventions offers training and technical assistance to communities and agencies in Western states that seek
to establish evidence-based and promising programs for families, children and youth. Additionally, The Burnes Center on Poverty and Homelessness opens in 2016.

GSSW's doctoral program was one of the first in the United States. The Master of Social Work (MSW) program is ranked #17 among the 260 currently accredited programs in the nation and offers concentrations in aging services and policy, children and youth, child welfare, family systems, health and wellness, mental health, organizational leadership and policy, and sustainable development and global practice. The MSW curriculum includes international experiential courses and internships, as well as certificates in animal-assisted social work and social work with Latinos/Latinas. Additionally, students have the option of applying to participate in a competitive cooperative program with the Denver Family Institute. GSSW offers MSW degree programs on-location in Denver, Durango, and in Glenwood Springs, Colorado.

We are also launching an online program in January of 2017 which will feature a concentration in Mental Health and Trauma. Please refer to our website (http://www.du.edu/socialwork) for up-to-date information about this unique option.

**Graduate School of Social Work**

GSSW's MSW program is ranked in the top seven percent of all accredited MSW programs in the country by *U.S. News & World Report*. You'll begin your specialization after just two quarters of study, earlier than in other more traditional MSW programs. And you'll receive excellent instruction by our committed and highly accessible faculty members.

**MSW Program Locations**

Most students attend our Denver campus MSW program, where they can customize their career preparation by choosing from eight specialized concentrations, two unique certificate programs, and even apply to participate in a competitive cooperative program with the Denver Family Institute (http://www.du.edu/socialwork/programs/oncampus/twoyear/certificates/couplesfamtherapy.html). Students can also pursue a dual degree with another graduate degree or take courses at other graduate programs on the University of Denver campus. The Denver MSW program attracts students from across the country and around the world.

Our Four Corners MSW program (based in Durango, Colorado) serves the Four Corners region that includes southwestern Colorado and parts of Arizona, Utah and New Mexico. The program features weekend scheduling and enables Four Corners residents to earn the MSW degree in or near their home communities. Course content is designed to meet the unique needs of the region's rural and tribal communities. Admission preference is given to applicants who are Four Corners residents.

The Western Colorado MSW program (based in Glenwood Springs) is designed to meet the unique needs of Colorado's rural and mountain communities in Eagle, Garfield, Grand, Gunnison, Pitkin, Mesa, Montrose and Summit Counties. The program features weekend scheduling and enables Western Colorado residents to earn the MSW degree in or near their home communities. Admission preference is given to applicants who are residents of Western Colorado.

We are also launching our online program in January of 2017.

**Accreditation**

Since 1933, our MSW program has been accredited by the Council on Social Work Education (CSWE) (http://www.cswe.org), a specialized accrediting body recognized by the Council on Post-Secondary Accreditation.

CSWE accreditation signifies that our MSW program meets nationally accepted standards in eight areas:

- mission, goals and objectives
- curriculum
- governance, structure and resources
- faculty
- student professional development
- non-discrimination and human diversity
- program renewal
- program assessment and continuous improvement

All CSWE programs measure and report student learning outcomes. Students are assessed on their mastery of the competencies that comprise the accreditation standards of the Council on Social Work Education. These competencies are dimensions of social work practice that all social workers are expected to master during their professional training. A measurement benchmark is set by the social work programs for each competency. An assessment score at or above that benchmark is considered by the program to represent mastery of that particular competency. Read GSSW's Student Learning Outcomes. (http://www.du.edu/socialwork/media/documents/cswe-studentlearningoutcomes.pdf)

**Doctor of Philosophy in Social Work**

The doctoral program at the Graduate School of Social Work trains master's level human service professionals from across the country and around the world to become social work researchers, educators and policy experts.
Founded in 1968, our PhD program is among the oldest social work doctoral programs in the nation. Here, you'll work alongside distinguished faculty members (http://www.du.edu/socialwork/facultyandstaff/facultydirectory) to conduct research, write publications and gain substantive and methodological knowledge in the field of social work.

As doctoral students, you're encouraged to develop a solid understanding of the theories, social interventions and policies that guide research in your substantive area.

The program emphasizes the following:

- knowledge development through advanced coursework in theory, policy and research methodology;
- research competencies through required and elective courses, graduate research assistantships and dissertation research;
- collaboration with faculty working in diverse, substantive areas including high-risk youth, child welfare, gerontology, mental health, substance abuse and poverty; and
- teaching skills through a teaching practicum, elective courses and faculty mentoring.

**Master of Social Work with a Concentration in Aging Services and Policy**

The Aging Services and Policy concentration prepares social workers to practice across the continuum of services that promote quality of life and independence for older adults and their families. Social workers interested in aging provide clinical care in health, behavioral health, memory care, community and residential settings. Additionally, social workers intervene in social justice issues impacting older adults through educational, management, program development, advocacy and policy work. This concentration emphasizes culturally responsive practice needed for the increasing diversity among older adults locally, nationally and internationally.

Students engage in field education in a variety of settings such as community service agencies and government agencies, home health and hospice agencies, outpatient and inpatient medical care settings, residential facilities across the continuum of care, geropsychiatry services, and advocacy agencies. Clients are predominately older adults and their families, but may include clients of all ages. These placements can offer opportunities to gain skills in clinical interventions, care management, group work, program and policy development, advocacy, and administration.

**Master of Social Work with a Concentration in Children and Youth: Risks and Positive Development**

This concentration provides students with knowledge and skills to work from a resilience perspective with adolescents and children in a wide variety of settings: mental health, family services agencies, schools, treatment centers, youth correctional facilities, and community agencies.

The concentration gives students expertise in the theories and practices for prevention, early intervention and clinical treatment with children and youth. The overarching frameworks for the concentration are positive youth development and resilience. Students learn clinical strategies that are particularly effective for working with children and youth.

**Master of Social Work with a Concentration in Child Welfare**

The Child Welfare concentration prepares social workers for work with children and families served in public and private child welfare agencies. Most of these children and families have experienced child maltreatment. Many of these families are also experiencing poverty, domestic violence, mental illness and substance abuse.

Intervention is focused on building upon individual and family strengths, preventing and alleviating the consequences of child maltreatment, and promoting the safety, permanence and well-being of children who have suffered, or are at risk of, child maltreatment.

**Master of Social Work with a Concentration in Family Systems**

The Family Systems Practice concentration provides students with knowledge and skills to work from a family systems perspective with adults, adolescents and children in a wide variety of settings: mental health and family services agencies, schools, treatment centers and community agencies.

"Family" is defined broadly to include biological lineages, affiliational families and communities. Social workers using this perspective may intervene with individuals, couples, several members of a family, peer groups, work associates, schools, classrooms and organizations. Clients are viewed as being part of a larger context, situated in multiple social locations: race, ethnicity, class, sexual orientation, gender identity, age, ability and citizenship status. Assessment and intervention are applied within this context, with a goal of strengthening families and other systems, and the individuals within these systems.

**Master of Social Work with a Concentration in Health and Wellness**

The Health and Wellness concentration prepares students to be practitioners in diverse health, integrated health and wellness settings. Students study a variety of practice skills, theories and evidence-based modalities to prepare for social work in comprehensive and specialized health care facilities, public health clinics and programs and/or wellness and preventative healthcare programs.
The Health and Wellness concentration allows students to practice specific skill sets that incorporate problem-solving, integrative and strengths-based approaches to care. Students gain exposure to classical Western medical social work settings (such as hospitals), to integrative health settings (where mental health, drug and alcohol intervention, and medical care are connected) and to organizations primarily focused on promoting mental, emotional, physical, spiritual, community, social and/or environmental wellness. Students can choose to experience a range of options from learning medical terminology to studying complementary and alternative medicine techniques focused on the mind-body connection.

Course work also illuminates the history of health and health disparities in the United States and globally, preparing students for culturally competent clinical practice, as well as leadership and advocacy in health and wellness administrative and policy practice.

**Master of Social Work with a Concentration in Mental Health**

The Mental Health concentration focuses on clinical interventions, advanced theory, and research related to mental health, substance use and trauma. Core topics include the assessment of mental health and substance use, skills in crisis intervention and suicide risk-assessment, policy related to mental health and substance use intervention and key clinical interventions and skills.

Courses include intervention in substance use and mental health interventions from several theoretical perspectives: solution-focused, cognitive behavioral, trauma-informed, existential, interpersonal/psychodynamic and strengths/empowerment. Populations include children, adults, and older adults.

Field education placements are offered in agencies that provide psychotherapy, crisis intervention, case management and other clinical interventions related to mental health, substance use and trauma.

**Master of Social Work with a Concentration in Organizational Leadership and Policy Practice**

The Organizational Leadership and Policy Practice concentration prepares social work practitioners to work at community, organizational and societal levels. Practitioners work to build the capacity of communities, organizations and policy-makers to advance human rights, social justice and the well-being of all peoples. Community social workers use leadership skills to develop programs, administer organizations, build community coalitions, craft and analyze social policy, advocate for policy and program change, and implement program and policy research to support best practices for social services delivery. Students complete field work in community based settings and organizations that address a range of social problems and policy issues such as poverty, women’s rights, health care, homelessness and education.

**Master of Social Work with a Concentration in Sustainable Development and Global Practice**

Humans need an ecological understanding of their place in the natural environment to promote personal health and well-being, environmental awareness, sense of belonging in a community, sustainability, resilience and advocacy. Students will develop practice behaviors in assessment, community engagement, education, health promotion, mobilization, organizing, poverty reduction, environmental preservation and capacity building strategies. Students in the Sustainable Development and Global Practice concentration will learn about local and global policies and laws relevant to humane treatment of human and animals, human security, sustainable development strategies in countries emerging from conflict, conservation of nature, biodiversity and sustainability, land use, and water use.

Courses and field internships will be guided by the principles of human rights, global justice, and sustainability and will address complex social and economic development, reconciliation and restorative justice, implementation of sustainable development strategies in countries emerging from conflict, conservation of nature, and biodiversity issues to support the systemic interconnections of human-animal and ecosystem health using practice-informed environmental health and capacity-building strategies.

Students learn to partner effectively with families, communities, non-governmental organizations (NGOs) and institutions by developing competencies in assessment, community engagement, education, health promotion, mobilization, environmental preservation, organizing and developing strategies to reduce poverty and build capacity.

**Master of Social Work with a Concentration in Advanced Social Work Practice (Western Colorado Program)**

The Clinical Social Work concentration offers students in the Western Colorado Program the knowledge and skills for advanced practice with individuals, families, groups, communities and organizations. The concentration includes a particular focus on rural and tribal communities, preparing students to work in a variety of practice settings including mental health, integrated health, schools and non-profit agencies.
Master of Social Work with a Concentration in Advanced Social Work Practice (Four Corners Program)

The Clinical Social Work concentration offers students in the Four Corners Program the knowledge and skills for advanced practice with individuals, families, groups, communities and organizations. The concentration includes a particular focus on rural and tribal communities, preparing students to work in a variety of practice settings including mental health, integrated health, schools and non-profit agencies.

Master of Social Work with a Concentration in Mental Health and Trauma (Online MSW Program)

The Mental Health and Trauma concentration focuses on clinical and community based interventions, advanced theory and research related to mental health, substance use and trauma. Core topics include the assessment of mental health and substance use, skills in crisis intervention and suicide risk-assessment, policy related to mental health and health care and key interventions and skills. Students will learn to apply a critical lens, cultural responsiveness, and empowerment theory to actualize social work’s value of social justice.

Courses include mental health interventions emphasizing cognitive approaches, trauma informed care, prevention and interventions related to substance use, integrated health, interpersonal, relational, and strengths approaches in community mental health.

Field education internships are offered in settings that provide clinical and community interventions related to mental health, substance use and trauma. Internships may include individual, group and family therapy, crisis intervention, case management and other clinical and community based interventions.

Certificate in Animal Assisted Social Work

The Animal-Assisted Social Work Certificate is the first of its kind in the nation. It explores the therapeutic use of animals in many types of social work practice—a new and exciting aspect of the field. By earning this certificate, you’ll learn how to create, implement and evaluate AASW programs in which an animal becomes a teacher, therapist, facilitator and companion. You’ll learn how to choose the most appropriate animals for particular therapies, and how to care for the animals in accordance with nationally recognized standards. You’ll also understand how to identify, assess and intervene in “link” violence—the frequent connection between animal-abuse and violence toward people.

Certificate in Social Work with Latinos/as

The Social Work with Latinos/Latinas Certificate addresses the critical need for bilingual and culturally responsive social workers, preparing you to effectively serve individuals and families of Mexican and Latin American origin. Certificate courses are based in a model of critical pedagogy (power, oppression, and privilege), which examines the interconnectedness of issues of race, racism, citizenship status, and relationships between the United States and Latin American countries.

Doctor of Philosophy in Social Work

To apply to the GSSW doctoral program, you must have:

- a master's degree
  - conferred by a school of social work accredited by the Council on Social Work Education (CSWE), or
  - in one of the social sciences, and demonstrated evidence of substantial professional experience in the social work field;
- a clear interest in developing advanced theory, policy and research skills in a substantive area relevant to the field of social work;
- a superior academic record in all previous work; and
- the maturity, intellectual ability and readiness for advanced study.

Two years of post-master’s practice experience is preferred, but not mandatory.

Doctoral students are expected to enter the program with a basic proficiency in descriptive and inferential statistics. This knowledge is necessary for several of the required doctoral courses. If you lack this required statistical proficiency, you should plan to take a basic statistics course before enrolling at GSSW.

GSSW seeks doctoral students across many research areas. In addition, we are seeking to admit a doctoral student who has a substantive research interest in restorative justice policy research to work with Assistant Professor Shannon Sliva (http://www.du.edu/socialwork/facultyandstaff/facultydirectory/appointed/sliva.html). The admitted student will receive a graduate assistantship, which includes a monthly living stipend and a full tuition waiver. Watch a video about this opportunity (http://video.du.edu/video/dr-shannon-sliva-inquiry-for-potential-doctoral-students).

How to apply

To apply, you must submit an application online. A completed doctoral application includes:

- the doctoral application (submitted online)
• a professional writing sample
  • For detailed instructions, view the printable instructions (PDF).

• a Statement of Professional and Educational Intent
  • For detailed instructions, view the printable instructions (PDF).

• an official transcript (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text) from all colleges or universities previously attended
  • Official paper transcripts must be mailed to the GSSW Office of Admission.

• three written recommendations
  • You'll need reference names and valid email addresses during the online application process. Recommenders will be emailed the appropriate form and detailed instructions how to submit their recommendation electronically.

• a résumé (submitted online)

• a $65 application fee (submitted online or mailed separately)

You also must submit scores from the Graduate Record Exam (GRE). The GRE must have been taken within five years of the date you apply to GSSW.

ETS Institution Code (GRE): 4842

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency.<br>

• The minimum scores accepted by the doctoral program are: paper-based TOEFL score of 587 or Internet-based score of 95, with a speaking score of 26; or IELTS score of 8.0.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution's language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC).

Master of Social Work

Application dates
GSSW accepts and processes MSW applications on a rolling basis. To receive priority consideration for financial aid, you must submit your completed application by Jan. 15, 2017.

Please refer to our website for up-to-date information about our new online MSW program.

Entry dates
Two-year students begin the MSW program in fall quarter.

Advanced standing students begin the MSW program in early July. The advanced standing program is available only to applicants with a baccalaureate degree in social work from a college or university whose social work program is accredited by, or in accreditation candidacy with, the Council on Social Work Education (CSWE) at the time the degree is conferred.

Please refer to our website for up-to-date information about our new online MSW program.

How to apply
To apply, you must submit an application online. A completed MSW application includes:

• The Master of Social Work Application (submitted online)

• The Career Goals Statement; For detailed instructions, view the printable instructions (PDF)

• An Experience Summary (submitted online)

• An official transcript (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text) from each college or university previously attended (Official paper transcripts must be mailed to the GSSW Office of Admission)

• Two written recommendations
You’ll need reference names and valid email addresses during the online application process
• Recommenders will be emailed the appropriate form and detailed instructions on how to submit their recommendation electronically
• A résumé (submitted online)
• A $65 application fee (submitted online or mailed separately)

Please note that GRE scores are not required as part of our MSW admission process.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency and are considered official only when received directly from the testing agency.

• The minimum scores accepted by the MSW program are: a paper-based TOEFL score of 587, or Internet-based score of 95; or IELTS score of 7.0.
• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution’s language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC).

Certificates

Overall Requirements for Admission to Certificate Programs
Students who wish to be considered for admission to any one of the two academic certificate programs must:

• successfully complete the foundation curriculum at GSSW or be admitted to the MSW program as an advanced standing student
• be in good standing in both academics and field
• declare intention to complete certificate on Course Planning Worksheet according to established deadlines
• be willing and able to attend all classes required for the certificate at the time these classes are offered
• be willing and able to meet all academic requirements for their concentration and practice track, as well as for the certificate program
• pay any additional tuition or fees as required
• meet any additional eligibility requirements listed within the individual certificate descriptions below

Animal-Assisted Social Work Certificate
Students who wish to be considered for admission to the Animal-Assisted Social Work Certificate program must meet all of the general requirements for admission to certificate programs listed in the introductory section. In addition, they must complete the introductory course (SOWK 4795) prior to taking the SOWK 4796 and SOWK 4797 and they must attend a series of scheduled experiential AASW activities.

Social Work with Latinos/as Certificate
Students who wish to be considered for admission to the Social Work with Latinos/as Certificate program must meet all of the general requirements for admission to certificate programs. In addition, the Social Work with Latinos/as Certificate program requires:

• The ability and willingness to complete the intensive Spanish language immersion course (SOWK 4750 – Critical Perspectives on the Latino Context) during the spring or summer quarter preceding the concentration year. Advanced standing students must complete this course during their first summer of enrollment.
• The ability and willingness to complete SOWK 4757 – SW & Mexican Culture: An Intensive Practice & Spanish Immersion course.* This is a travel course to Mexico. Two-year students will register for this course with their Spring course load in the foundation year, with travel occurring in the summer. Advanced standing students will register for this course as part of their Summer course load.
• Ability to demonstrate a minimum proficiency level of Intermediate (or higher) in Spanish. A proficiency exam, if needed, can will be provided by GSSW.

*Please note: Due to the nature of international travel, circumstances may arise that inhibit our best travel intentions. In the event that travel to Mexico is not possible, the faculty will develop an alternative experiential course that may include other relevant domestic or international travel.

Our on-campus MSW programs allow you to customize your career preparation by choosing from eight specialized concentrations:
• Aging Services and Policy
• Child Welfare
- Children and Youth: Risks and Positive Development
- Family Systems
- Health and Wellness
- Mental Health
- Organizational Leadership and Policy Practice
- Sustainable Development and Global Practice

In addition, students can work towards two unique certificate programs:

- Animal Assisted Social Work
- Social Work with Latino/as

A limited number of students also have the opportunity to apply for a cooperative program with the Denver Family Institute (DFI). Students in the cooperative program begin work towards an LMFT during their second year of study for the MSW. Once the MSW is awarded, they then continue working towards the LMFT for one additional year.

Our Four Corners MSW program (based in Durango, Colorado) and Western Colorado MSW program (based in Glenwood Springs, Colorado) feature weekend scheduling and course content designed to meet the unique needs of local communities in those areas.

We are launching an online MSW program in January of 2017.

We also offer a Doctor of Philosophy in Social Work.

### Doctor of Philosophy in Social Work

University policy requires a minimum of 135 quarter hours beyond a baccalaureate for the doctor of philosophy degree in social work. Up to 60 quarter hours toward this requirement may be credited for "A" or "B" work completed as part of a master's degree conferred through an accredited school of social work.

Minimum number of credits required beyond the MSW: 75
Minimum number of credits required beyond MA in related field: 90

#### Coursework Requirements

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Fall</td>
<td>SOWK 5000</td>
<td>Seminar in Professional Social Work Issues</td>
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<tr>
<td></td>
<td>SOWK 5110</td>
<td>Introduction to Advanced Quantitative Research Methods</td>
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<td></td>
<td>SOWK 5120</td>
<td>Introduction to Advanced Qualitative Research Methods</td>
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<td></td>
<td>SOWK 5201</td>
<td>Statistical Methods 2</td>
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<td></td>
<td>SOWK 5300</td>
<td>Social Science Theory and the Philosophy of Science</td>
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<td>Winter</td>
<td>SOWK 5000</td>
<td>Seminar in Professional Social Work Issues</td>
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<td>SOWK 5111</td>
<td>Quantitative Methods for Assessing Social Interventions</td>
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<td>Qualitative Data Analysis</td>
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<td>SOWK 5202</td>
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<td></td>
<td>SOWK 5130</td>
<td>Mixed Methods Research in Social Work</td>
</tr>
<tr>
<td></td>
<td>SOWK 5203</td>
<td>Multivariate Analysis</td>
</tr>
<tr>
<td></td>
<td>Elective (3-6 credits) 3</td>
<td></td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
<td>SOWK 5403</td>
<td>Advanced Social Welfare Policy Analysis</td>
</tr>
<tr>
<td></td>
<td>SOWK 5301</td>
<td>Social Work Theory in Research and Practice</td>
</tr>
<tr>
<td></td>
<td>SOWK 5500</td>
<td>Pedagogy in Social Work Education</td>
</tr>
<tr>
<td></td>
<td>Elective (3-6 credits) 3</td>
<td></td>
</tr>
<tr>
<td>Winter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Non-Coursework Requirements

- Research Methods and Statistics Qualifying Exam Requirement

- To ensure that students have the necessary foundation in research methodology and statistical analysis to support their successful completion of their doctoral program and to meet skill set expectations of new faculty members, the Ph.D. program requires successful completion of a Research Methods and Statistics Qualifying Exam at the end of the first year of study.

- Typically the exam will be scheduled approximately one to two weeks after the end of the spring quarter of the first year. The exam is taken by all students on the same date as established by the Associate Dean for Doctoral Education. The exam covers content from required research methods and statistics courses taken during the first year of study in the doctoral program. The exam is taken using an identifier code rather than the student name so that faculty grading the exam is unable to discern which student’s tests are being graded. Each exam consists of three sections: Methods Part 1 (general research methods), Methods Part 2 (intervention research methods) and Statistics. Each section is graded by at least two members of the Ph.D. Program Committee as either Pass or Fail. Should a student fail any section of the research methods and statistics qualifying exam, they may elect to take the failed section(s) of the exam one more time during the month preceding the fall quarter of the second year. Should the student fail the section(s) of the exam a second time, they will be terminated from the program. The exam may include multiple-choice, brief answer, essay or other types of questions common in graduate examinations.

- Comprehensive Examination

- The comprehensive examination in the Ph.D. Program in the Graduate School of Social Work consists of a written paper that focuses on a selected problem of importance for social work. An oral examination is also required. During the oral exam, the student’s written paper will be reviewed by a three person faculty committee (the advisor and two readers). The student will submit a comprehensive examination proposal by August 15th of the second year of study and complete the examination process by the end of Fall Quarter of the third year of study.

- All students are expected to have successfully passed their comprehensive exam by the end of their fourth year in the program. Failure to have done so will result in termination from the program.

- Dissertation

- Oral Defense

Master of Social Work with A Concentration in Aging Services and Policy

The minimum credits required for the MSW degree is 90 (60 for advanced standing students).

Foundation Curriculum for Two-Year Students *

**Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4001</td>
<td>Clinical Social Work Skills</td>
</tr>
<tr>
<td>SOWK 4006</td>
<td>Human Behavior and the Social Environment: Theory and Practice</td>
</tr>
<tr>
<td>SOWK 4020</td>
<td>Integrated Social Work Practice for Social Justice</td>
</tr>
<tr>
<td>SOWK 4132</td>
<td>Power, Privilege and Oppression from a Critical Multicultural Perspective</td>
</tr>
<tr>
<td>SOWK 4950</td>
<td>Foundation Field Internship</td>
</tr>
</tbody>
</table>

**Winter**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 5000</td>
<td>Seminar in Professional Social Work Issues</td>
</tr>
<tr>
<td>SOWK 5700</td>
<td>Teaching Practicum</td>
</tr>
</tbody>
</table>

Elective (3-6 credits) 3

Spring

Electives (8-15 credits) 3

1. For students entering the program without the MSW, the sequencing of courses will likely vary depending on an individualized assessment of the students’ previous degree(s).

2. Students may elect to waive SOWK 5201 if they have a graduate level statistics course in which they made an A or B, or Pass (in the case of Pass/Fail courses). The students must apply for the waiver using the Graduate Course Substitution or Waiver Approval Form located at http://www.du.edu/media/documents/graduates/graduatesubstitutionwaiver, and must attach a copy of the syllabus for the graduate level statistics course they completed. A course on research methods does not qualify for the waiver as methods courses frequently do not have in-depth coverage of statistical analysis and inference. The credit hours waived must be replaced with credit hours of advanced statistical training.

3. Students work with their advisor and other faculty to develop an Educational Plan that includes 23 elective hours in theory, policy, research methodology/analysis, and in a substantive area of study. This must include
   - One 3-credit policy course
   - One 3-credit theory course
   - 6 credits of advanced methodology and statistics

Master of Social Work with A Concentration in Aging Services and Policy

The minimum credits required for the MSW degree is 90 (60 for advanced standing students).
SOWK 4003  Clinical Social Work Theory and Practice  
SOWK 4007  Community and Macro Social Work Theory and Practice  
SOWK 4120  Social Policy Analysis, Advocacy, and Practice  
SOWK 4201  Evidence for Practice  
SOWK 4950  Foundation Field Internship  

### Spring
SOWK 4950  Foundation Field Internship  
Begin elective & concentration classes; see concentration curriculum below  

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 38**  

* Foundation curriculum information above refers to full time students; part time students should refer to MSW Handbook for information about course planning.

**Foundation Curriculum for Advanced Standing Students**

### Summer
SOWK 4132  Power, Privilege and Oppression from a Critical Multicultural Perspective  
SOWK 4201  Evidence for Practice (offered summer and fall quarters)  
SOWK 4299  Advanced Standing Seminar  
Begin elective & concentration classes; see concentration curriculum below  

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 9**  

**Aging Services and Policy Concentration Curriculum**

**THEORY FOR PRACTICE (3 credits required)**
SOWK 4350  Evolving Perspectives and Trends in Aging  
> also recommended
SOWK 4320  Theories and Practice of Family Systems Therapy  
SOWK 4325  Evolving Perspectives and Trends in Health and Wellness  
SOWK 4370  Community and Organizational Change: Theory for Practice  

**METHODS/SKILLS (9 credits required)**
SOWK 4523  Care Management Skills and Resources to Promote Community Living  
AND AT LEAST TWO OF THE FOLLOWING COURSES REQUIRED:
SOWK 4330  Assessment of Mental Health and Drug Use in Adults  
SOWK 4340  Leadership and Supervision Skills  
SOWK 4401  Integrated Health Care: Models and Practice  
SOWK 4445  Social Work Assessment and Intervention in Aging  
SOWK 4501  Wellness Promotion and Intervention Across the Lifespan  
SOWK 4721  Existential Social Work Practice  
SOWK 4723  Social Work Practice in Health Care  
SOWK 4725  Mind-Body Connections and Social Work Practice  
SOWK 4741  Grief and Loss Across the Lifespan  

**POLICY & PROGRAM ADVOCACY: FOSTERING SOCIAL & ECONOMIC JUSTICE (3 credits required)**
SOWK 4650  Aging Policy  
> also recommended
SOWK 4645  Health Care Policy  

**RESEARCH (6 credits required)**
SOWK 4900 & SOWK 4901  Methods for Evaluating Practice and Programs and Applied Practice Evaluation Research (must be taken in sequence; research conducted in student's field placement)  

**VALUES FOR PRACTICE (3 credits required)**
AT LEAST ONE OF THE FOLLOWING COURSES REQUIRED:
SOWK 4232  Advanced Multicultural Practice: Critical Race Theory Praxis  
SOWK 4235  Disproportionality and Disparities Across Systems: The Impact on Children and Youth  
SOWK 4240  Intergenerational Justice
SOWK 4732  Disrupting Privilege through Anti-Oppressive Practice
SOWK 4749  Social Work Interventions with Latinos/as
SOWK 4751  Global Relations and Poverty in Mexico
SOWK 4753  Social Development in Latin America
SOWK 4758  Social Work in Kenya: Context, Conservation, Empowerment, Sustainability
SOWK 4759  Global Cultural Perspectives: Consensus and Conundrums
SOWK 4764  Historical Trauma and Healing
SOWK 4762  Bosnia in Transition: The Social Work Response
SOWK 4790  Human Sexuality
SOWK 4890  Contemporary Global Issues
SOWK 4971  Experimental Class (Cultural Connectedness: A Journey into Native American Country)
SOWK 4971  Experimental Class (Disability Studies)
SOWK 4971  Experimental Class (Gender and Feminisms in SW Practice)
SOWK 4971  Experimental Class (Spirituality and Social Work Practice )
SOWK 4990  Topics in Social Work (as approved, titles vary)

INTERNSHIP (15 credit minimum required)

SOWK 4970  Concentration Field Internship (appropriate internships are chosen in consultation with the Field Team)

CAPSTONE (0 or 1 credit required)

SOWK 4999  Capstone (required in final quarter of program)

*ELECTIVE COURSES RELEVANT TO AGING SERVICES POLICY INCLUDE: (12 credits required)

SOWK 4700  Solution Focused Brief Therapy
SOWK 4730  Cognitive Behavioral Therapies
SOWK 4735  Interpersonal Approaches to Counseling
SOWK 4754  Trauma and Recovery in Social Work Practice
SOWK 4755  Interventions for Responses to Trauma
SOWK 4775  Social Work with Adult Groups
SOWK 4784  Suicide Assessments and Interventions
SOWK 4971  Experimental Class (Advanced Skills for Working with Military Families)

* In addition to electives above, students may take courses from other concentration areas OR up to 10 credits of coursework from other DU graduate programs with the approval of the advisor and Associate Dean for Academic Affairs

TOTAL CREDITS REQUIRED FOR CONCENTRATION CURRICULUM: 51-52

Master of Social Work with a Concentration in Children and Youth: Risks and Positive Development

The minimum credits required for the MSW degree is 90 (60 for advanced standing students).

Foundation Curriculum for Two-Year Students *

Fall
SOWK 4001  Clinical Social Work Skills
SOWK 4006  Human Behavior and the Social Environment: Theory and Practice
SOWK 4020  Integrated Social Work Practice for Social Justice
SOWK 4132  Power, Privilege and Oppression from a Critical Multicultural Perspective
SOWK 4950  Foundation Field Internship

Winter
SOWK 4003  Clinical Social Work Theory and Practice
SOWK 4007  Community and Macro Social Work Theory and Practice
SOWK 4120  Social Policy Analysis, Advocacy, and Practice
SOWK 4201  Evidence for Practice
SOWK 4950  Foundation Field Internship

Spring
SOWK 4950  Foundation Field Internship
Begin elective & concentration classes; see concentration curriculum below

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 38**

* Foundation curriculum information above refers to full time students; part time students should refer to MSW Handbook for information about course planning.

### Foundation Curriculum for Advanced Standing Students

**Summer**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4132</td>
<td>Power, Privilege and Oppression from a Critical Multicultural Perspective</td>
</tr>
<tr>
<td>SOWK 4201</td>
<td>Evidence for Practice (offered summer and fall quarters)</td>
</tr>
<tr>
<td>SOWK 4299</td>
<td>Advanced Standing Seminar</td>
</tr>
</tbody>
</table>

Begin elective & concentration classes; see concentration curriculum below

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 9**

### Children and Youth: Risks and Positive Development Concentration Curriculum

**THEORY FOR PRACTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4315</td>
<td>Building Resilience: Healthy Development in Childhood and Adolescence</td>
</tr>
</tbody>
</table>

> also recommended

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4305</td>
<td>Child Maltreatment: Causes and Developmental Consequences</td>
</tr>
<tr>
<td>SOWK 4320</td>
<td>Theories and Practice of Family Systems Therapy</td>
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</table>

**METHODS/SKILLS (9 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SOWK 4412</td>
<td>Practice Elements in Interventions with Children and Youth</td>
</tr>
</tbody>
</table>

AND AT LEAST TWO COURSES FROM EITHER OF THE FOLLOWING LISTS:

**Promotion and Prevention Focus**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SOWK 4425</td>
<td>Positive and Community Youth Development</td>
</tr>
<tr>
<td>SOWK 4713</td>
<td>Preventing Behavioral Health Problems in Children and Youth</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Groups for Children and Adolescents)</td>
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**Treatment Focus**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SOWK 4410</td>
<td>Prevention &amp; Treatment of Adolescent Substance Abuse</td>
</tr>
<tr>
<td>SOWK 4454</td>
<td>Child and Adolescent Trauma</td>
</tr>
<tr>
<td>SOWK 4500</td>
<td>Mental Health Interventions with Children</td>
</tr>
<tr>
<td>SOWK 4715</td>
<td>School Social Work Interventions</td>
</tr>
<tr>
<td>SOWK 4720</td>
<td>Prevention and Treatment of Juvenile Delinquency and Youth Violence</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Assesment of Mental Health in Children and Adolescents)</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Eco-Friendly Experiential Therapy with Children and Youth)</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Groups for Children and Adolescents)</td>
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**POLICY & PROGRAM ADVOCACY: FOSTERING SOCIAL & ECONOMIC JUSTICE (3 credits required)**

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>SOWK 4610</td>
<td>Policies and Programs for Children and Youth</td>
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> also recommended

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4630</td>
<td>Family Policies and Services</td>
</tr>
<tr>
<td>SOWK 4712</td>
<td>Law of Family and Child</td>
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**RESEARCH (6 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SOWK 4900</td>
<td>Methods for Evaluating Practice and Programs</td>
</tr>
<tr>
<td>&amp; SOWK 4901</td>
<td>and Applied Practice Evaluation Research (must be taken in sequence; research conducted in student's field placement)</td>
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</tbody>
</table>

**VALUES FOR PRACTICE (3 credits required)**

AT LEAST ONE OF THE FOLLOWING COURSES REQUIRED:

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<th>Course Code</th>
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<tbody>
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<td>SOWK 4232</td>
<td>Advanced Multicultural Practice: Critical Race Theory Praxis</td>
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<td>Disproportionality and Disparities Across Systems: The Impact on Children and Youth</td>
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<td>SOWK 4240</td>
<td>Intergenerational Justice</td>
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<tr>
<td>SOWK 4732</td>
<td>Disrupting Privilege through Anti-Oppressive Practice</td>
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<tr>
<td>SOWK 4749</td>
<td>Social Work Interventions with Latinos/as</td>
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<tr>
<td>SOWK 4751</td>
<td>Global Relations and Poverty in Mexico</td>
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<tr>
<td>Course Code</td>
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</tr>
<tr>
<td>SOWK 4753</td>
<td>Social Development in Latin America</td>
</tr>
<tr>
<td>SOWK 4758</td>
<td>Social Work in Kenya: Context, Conservation, Empowerment, Sustainability</td>
</tr>
<tr>
<td>SOWK 4759</td>
<td>Global Cultural Perspectives: Consensus and Conundrums</td>
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<td>Bosnia in Transition: The Social Work Response</td>
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<td>SOWK 4890</td>
<td>Contemporary Global Issues</td>
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<td>SOWK 4971</td>
<td>Experimental Class (Cultural Connectedness: A Journey into Native American Country)</td>
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<td>Experimental Class (Disability Studies)</td>
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<td>Experimental Class (Gender and Feminisms in SW Practice)</td>
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<tr>
<td>SOWK 4990</td>
<td>Topics in Social Work (as approved, titles vary)</td>
</tr>
</tbody>
</table>

**INTERNSHIP (15 credit minimum required)**

- SOWK 4970 Concentration Field Internship (appropriate internships are chosen in consultation with the Field Team)

**CAPSTONE (0 or 1 credit)**

- SOWK 4999 Capstone (required in final quarter of program)

**ELECTIVE COURSES RELEVANT TO CHILDREN AND YOUTH CONCENTRATION INCLUDE: (12 credits required)**

- SOWK 4700 Solution Focused Brief Therapy
- SOWK 4710 Domestic Violence
- SOWK 4721 Existential Social Work Practice
- SOWK 4725 Mind-Body Connections and Social Work Practice
- SOWK 4730 Cognitive Behavioral Therapies
- SOWK 4784 Suicide Assessments and Interventions
- SOWK 4971 Experimental Class (Advanced Skills for Working with Military Families)

* In addition to electives above, students may take courses from other concentration areas OR up to 10 credits of coursework from other DU graduate programs with the approval of the advisor and Associate Dean for Academic Affairs

**TOTAL CREDITS REQUIRED FOR CONCENTRATION CURRICULUM: 51-52**

---

**Master of Social Work with Concentration in Child Welfare**

The minimum credits required for the MSW degree is 90 (60 for advanced standing students).

**Foundation Curriculum for Two-Year Students** *

**Fall**

- SOWK 4001 Clinical Social Work Skills
- SOWK 4006 Human Behavior and the Social Environment: Theory and Practice
- SOWK 4020 Integrated Social Work Practice for Social Justice
- SOWK 4132 Power, Privilege and Oppression from a Critical Multicultural Perspective
- SOWK 4950 Foundation Field Internship

**Winter**

- SOWK 4003 Clinical Social Work Theory and Practice
- SOWK 4007 Community and Macro Social Work Theory and Practice
- SOWK 4120 Social Policy Analysis, Advocacy, and Practice
- SOWK 4201 Evidence for Practice
- SOWK 4950 Foundation Field Internship

**Spring**

- SOWK 4950 Foundation Field Internship

- Begin elective & concentration classes; see concentration curriculum below

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 38**

* Foundation curriculum information above refers to full time students; part time students should refer to MSW Handbook for information about course planning.
### Foundation Curriculum for Advanced Standing Students

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<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>SOWK 4132</td>
<td>Power, Privilege and Oppression from a Critical Multicultural Perspective</td>
</tr>
<tr>
<td>SOWK 4201</td>
<td>Evidence for Practice (offered summer and fall quarters)</td>
</tr>
<tr>
<td>SOWK 4299</td>
<td>Advanced Standing Seminar</td>
</tr>
</tbody>
</table>

Begin elective & concentration classes; see concentration curriculum below

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 9**

### Child Welfare Concentration Curriculum

**THEORY FOR PRACTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>SOWK 4305</td>
<td>Child Maltreatment: Causes and Developmental Consequences</td>
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</tr>
<tr>
<td>SOWK 4315</td>
<td>Building Resilience: Healthy Development in Childhood and Adolescence</td>
</tr>
<tr>
<td>SOWK 4320</td>
<td>Theories and Practice of Family Systems Therapy</td>
</tr>
<tr>
<td>SOWK 4345</td>
<td>Intersections of Mental Health, Substance Use and, Trauma</td>
</tr>
</tbody>
</table>

**METHODS/SKILLS (9 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SOWK 4415</td>
<td>Intake and Family Based Services: Assessment and Intervention</td>
</tr>
<tr>
<td>SOWK 4416</td>
<td>Foster Care and Permanency Planning</td>
</tr>
</tbody>
</table>

AND AT LEAST ONE OF THE FOLLOWING COURSES REQUIRED:

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>SOWK 4340</td>
<td>Leadership and Supervision Skills</td>
</tr>
<tr>
<td>SOWK 4412</td>
<td>Practice Elements in Interventions with Children and Youth</td>
</tr>
<tr>
<td>SOWK 4430</td>
<td>Substance Use Interventions</td>
</tr>
<tr>
<td>SOWK 4454</td>
<td>Child and Adolescent Trauma</td>
</tr>
<tr>
<td>SOWK 4500</td>
<td>Mental Health Interventions with Children</td>
</tr>
<tr>
<td>SOWK 4705</td>
<td>Forensic Orientation in Social Work Practice: Assessment and Interventions with High-Risk Offenders</td>
</tr>
<tr>
<td>SOWK 4710</td>
<td>Domestic Violence</td>
</tr>
<tr>
<td>SOWK 4713</td>
<td>Preventing Behavioral Health Problems in Children and Youth</td>
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<td>SOWK 4730</td>
<td>Cognitive Behavioral Therapies</td>
</tr>
<tr>
<td>SOWK 4741</td>
<td>Grief and Loss Across the Lifespan</td>
</tr>
<tr>
<td>SOWK 4754</td>
<td>Trauma and Recovery in Social Work Practice</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Assessment of Mental Health in Children and Youth)</td>
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</table>

**POLICY & PROGRAM ADVOCACY: FOSTERING SOCIAL & ECONOMIC JUSTICE (3 credits required)**

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>SOWK 4600</td>
<td>Child Welfare Policies and Services</td>
</tr>
<tr>
<td></td>
<td>&gt; also recommended</td>
</tr>
<tr>
<td>SOWK 4610</td>
<td>Policies and Programs for Children and Youth</td>
</tr>
<tr>
<td>SOWK 4635</td>
<td>Immigration Policies and Services</td>
</tr>
<tr>
<td>SOWK 4640</td>
<td>Mental Health and Substance Use Policies</td>
</tr>
<tr>
<td>SOWK 4645</td>
<td>Health Care Policy</td>
</tr>
<tr>
<td>SOWK 4712</td>
<td>Law of Family and Child</td>
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</tbody>
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**RESEARCH (6 credits required)**

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</thead>
<tbody>
<tr>
<td>SOWK 4900</td>
<td>Methods for Evaluating Practice and Programs and Applied Practice Evaluation Research</td>
</tr>
</tbody>
</table>

**VALUES FOR PRACTICE (3 credits required)**

AT LEAST ONE OF THE FOLLOWING COURSES REQUIRED:

<table>
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<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4232</td>
<td>Advanced Multicultural Practice: Critical Race Theory Praxis</td>
</tr>
<tr>
<td>SOWK 4235</td>
<td>Disproportionality and Disparities Across Systems: The Impact on Children and Youth</td>
</tr>
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<td>SOWK 4240</td>
<td>Intergenerational Justice</td>
</tr>
<tr>
<td>SOWK 4732</td>
<td>Disrupting Privilege through Anti-Oppressive Practice</td>
</tr>
<tr>
<td>SOWK 4749</td>
<td>Social Work Interventions with Latinos/as</td>
</tr>
<tr>
<td>SOWK 4751</td>
<td>Global Relations and Poverty in Mexico</td>
</tr>
<tr>
<td>SOWK 4753</td>
<td>Social Development in Latin America</td>
</tr>
<tr>
<td>SOWK 4758</td>
<td>Social Work in Kenya: Context, Conservation, Empowerment, Sustainability</td>
</tr>
</tbody>
</table>
Graduate School of Social Work

SOWK 4759  Global Cultural Perspectives: Consensus and Conundrums
SOWK 4762  Bosnia in Transition: The Social Work Response
SOWK 4764  Historical Trauma and Healing
SOWK 4790  Human Sexuality
SOWK 4890  Contemporary Global Issues
SOWK 4971  Experimental Class (Cultural Connectedness: A Journey into Native American Country)
SOWK 4971  Experimental Class (Disability Studies)
SOWK 4971  Experimental Class (Gender and Feminisms in SW Practice)
SOWK 4971  Experimental Class (Spirituality and Social Work Practice)
SOWK 4990  Topics in Social Work (as approved, titles vary)

INTERNSHIP (15 credit minimum required)
SOWK 4970  Concentration Field Internship (appropriate internships are chosen in consultation with the Field Team)

CAPSTONE (0 or 1 credit)
SOWK 4999  Capstone (required in final quarter of program)

*ELECTIVE COURSES RELEVANT TO CHILD WELFARE CONCENTRATION INCLUDE: (12 credits required)
SOWK 4330  Assessment of Mental Health and Drug Use in Adults
SOWK 4425  Positive and Community Youth Development
SOWK 4700  Solution Focused Brief Therapy
SOWK 4715  School Social Work Interventions
SOWK 4721  Existential Social Work Practice
SOWK 4735  Interpersonal Approaches to Counseling
SOWK 4755  Interventions for Responses to Trauma
SOWK 4784  Suicide Assessments and Interventions
SOWK 4971  Experimental Class (Advanced Skills for Working with Military Families)
SOWK 4971  Experimental Class (Eco-Friendly Experiential Therapy with Children and Youth)

* In addition to electives above, students may take courses from other concentration areas OR up to 10 credits of coursework from other DU graduate programs with the approval of the advisor and Associate Dean for Academic Affairs

TOTAL CREDITS REQUIRED FOR CONCENTRATION CURRICULUM: 51-52

Master of Social Work with a Concentration in Family Systems

The minimum credits required for the MSW degree is 90 (60 for advanced standing students).

Foundation Curriculum for Two-Year Students *

Fall
SOWK 4001  Clinical Social Work Skills
SOWK 4006  Human Behavior and the Social Environment: Theory and Practice
SOWK 4020  Integrated Social Work Practice for Social Justice
SOWK 4132  Power, Privilege and Oppression from a Critical Multicultural Perspective
SOWK 4950  Foundation Field Internship

Winter
SOWK 4003  Clinical Social Work Theory and Practice
SOWK 4007  Community and Macro Social Work Theory and Practice
SOWK 4120  Social Policy Analysis, Advocacy, and Practice
SOWK 4201  Evidence for Practice
SOWK 4950  Foundation Field Internship

Spring
SOWK 4950  Foundation Field Internship

Begin elective & concentration classes; see concentration curriculum below

TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 38
* Foundation curriculum information above refers to full time students; part time students should refer to MSW Handbook for information about course planning.

### Foundation Curriculum for Advanced Standing Students

#### Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4132</td>
<td>Power, Privilege and Oppression from a Critical Multicultural Perspective</td>
</tr>
<tr>
<td>SOWK 4201</td>
<td>Evidence for Practice (offered summer and fall quarters)</td>
</tr>
<tr>
<td>SOWK 4299</td>
<td>Advanced Standing Seminar</td>
</tr>
</tbody>
</table>

Begin elective & concentration classes; see concentration curriculum below

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 9**

### Family Systems Concentration Curriculum

#### THEORY FOR PRACTICE (3 credits required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4320</td>
<td>Theories and Practice of Family Systems Therapy</td>
</tr>
</tbody>
</table>

STUDENTS IN DFI COOPERATIVE PROGRAM TAKE THE FOLLOWING INSTEAD

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4820</td>
<td>Integrated Family Studies Intensive I (DFI program only)</td>
</tr>
</tbody>
</table>

> also recommended

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4305</td>
<td>Child Maltreatment: Causes and Developmental Consequences</td>
</tr>
<tr>
<td>SOWK 4315</td>
<td>Building Resilience: Healthy Development in Childhood and Adolescence</td>
</tr>
<tr>
<td>SOWK 4325</td>
<td>Evolving Perspectives and Trends in Health and Wellness</td>
</tr>
<tr>
<td>SOWK 4345</td>
<td>Intersections of Mental Health, Substance Use and, Trauma</td>
</tr>
<tr>
<td>SOWK 4370</td>
<td>Community and Organizational Change: Theory for Practice</td>
</tr>
</tbody>
</table>

#### METHODS/SKILLS (9 credits required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SOWK 4420</td>
<td>Strategies and Techniques of Family Systems Therapy</td>
</tr>
</tbody>
</table>

STUDENTS IN DFI COOPERATIVE PROGRAM TAKE THE FOLLOWING INSTEAD

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4821</td>
<td>Integrated Family Studies Intensive II (DFI program only)</td>
</tr>
<tr>
<td>SOWK 4825</td>
<td>Family Therapy Assessment, Engagement and Treatment Planning (DFI program only)</td>
</tr>
<tr>
<td>SOWK 4835</td>
<td>Working with Multi-Problem Families</td>
</tr>
<tr>
<td>SOWK 4830</td>
<td>Strategies and Techniques in Family Therapy: Families and Play Therapy</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Professional Use of Self)</td>
</tr>
</tbody>
</table>

AND AT LEAST TWO (ONE IF DFI) COURSES FROM EITHER OF THE FOLLOWING LISTS REQUIRED:

**Family Therapy Focus**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4410</td>
<td>Prevention &amp; Treatment of Adolescent Substance Abuse</td>
</tr>
<tr>
<td>SOWK 4505</td>
<td>Relationship Therapy</td>
</tr>
<tr>
<td>SOWK 4520</td>
<td>Advanced Strategies and Techniques of Family Systems Practice</td>
</tr>
</tbody>
</table>

**Family Systems in Community Based Settings**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4401</td>
<td>Integrated Health Care: Models and Practice</td>
</tr>
<tr>
<td>SOWK 4415</td>
<td>Intake and Family Based Services: Assessment and Intervention</td>
</tr>
<tr>
<td>SOWK 4416</td>
<td>Foster Care and Permanency Planning</td>
</tr>
<tr>
<td>SOWK 4430</td>
<td>Substance Use Interventions</td>
</tr>
<tr>
<td>SOWK 4700</td>
<td>Solution Focused Brief Therapy</td>
</tr>
<tr>
<td>SOWK 4710</td>
<td>Domestic Violence</td>
</tr>
<tr>
<td>SOWK 4741</td>
<td>Grief and Loss Across the Lifespan</td>
</tr>
<tr>
<td>SOWK 4784</td>
<td>Suicide Assessments and Interventions</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Advanced Skills for Working with Military Families)</td>
</tr>
</tbody>
</table>

**POLICY & PROGRAM ADVOCACY: FOSTERING SOCIAL & ECONOMIC JUSTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4630</td>
<td>Family Policies and Services</td>
</tr>
</tbody>
</table>

> also recommended

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4610</td>
<td>Policies and Programs for Children and Youth</td>
</tr>
<tr>
<td>SOWK 4635</td>
<td>Immigration Policies and Services</td>
</tr>
<tr>
<td>SOWK 4640</td>
<td>Mental Health and Substance Use Policies</td>
</tr>
<tr>
<td>SOWK 4645</td>
<td>Health Care Policy</td>
</tr>
<tr>
<td>SOWK 4650</td>
<td>Aging Policy</td>
</tr>
</tbody>
</table>
### RESEARCH (6 credits required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>SOWK 4900 &amp; SOWK 4901</td>
<td>Methods for Evaluating Practice and Programs and Applied Practice Evaluation Research (must be taken in sequence; research conducted in student's field placement)</td>
</tr>
</tbody>
</table>

### VALUES FOR PRACTICE (3 credits required)

**AT LEAST ONE OF THE FOLLOWING COURSES REQUIRED:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4232</td>
<td>Advanced Multicultural Practice: Critical Race Theory Praxis</td>
</tr>
<tr>
<td>SOWK 4235</td>
<td>Disproportionality and Disparities Across Systems: The Impact on Children and Youth</td>
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<td>Global Cultural Perspectives: Consensus and Conundrums</td>
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<td>SOWK 4790</td>
<td>Human Sexuality</td>
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<tr>
<td>SOWK 4990</td>
<td>Topics in Social Work (as approved, titles vary)</td>
</tr>
</tbody>
</table>

### INTERNSHIP (15 credit minimum required)

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4970</td>
<td>Concentration Field Internship (appropriate internships are chosen in consultation with the Field Team)</td>
</tr>
</tbody>
</table>

### CAPSTONE (0 or 1 credit)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4999</td>
<td>Capstone (required in final quarter of program)</td>
</tr>
</tbody>
</table>

*ELECTIVE COURSES RELEVANT TO FAMILY SYSTEMS CONCENTRATION INCLUDE: (12 credits required)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>SOWK 4340</td>
<td>Leadership and Supervision Skills</td>
</tr>
<tr>
<td>SOWK 4412</td>
<td>Practice Elements in Interventions with Children and Youth</td>
</tr>
<tr>
<td>SOWK 4430</td>
<td>Substance Use Interventions</td>
</tr>
<tr>
<td>SOWK 4445</td>
<td>Social Work Assessment and Intervention in Aging</td>
</tr>
<tr>
<td>SOWK 4525</td>
<td>Administration and Management Practice and Skills</td>
</tr>
<tr>
<td>SOWK 4715</td>
<td>School Social Work Interventions</td>
</tr>
<tr>
<td>SOWK 4721</td>
<td>Existential Social Work Practice</td>
</tr>
<tr>
<td>SOWK 4730</td>
<td>Cognitive Behavioral Therapies</td>
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<tr>
<td>SOWK 4735</td>
<td>Interpersonal Approaches to Counseling</td>
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<tr>
<td>SOWK 4754</td>
<td>Trauma and Recovery in Social Work Practice</td>
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<td>SOWK 4755</td>
<td>Interventions for Responses to Trauma</td>
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<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Assessment of Mental Health in Children and Adolescents)</td>
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</table>

* In addition to electives above, students may take courses from other concentration areas OR up to 10 credits of coursework from other DU graduate programs with the approval of the advisor and Associate Dean for Academic Affairs

**TOTAL CREDITS REQUIRED FOR CONCENTRATION CURRICULUM: 51-52**

---

**Master of Social Work with a Concentration in Health and Wellness**

*The minimum credits required for the MSW degree is 90 (60 for advanced standing students).*

### Foundation Curriculum for Two-Year Students *

**Fall**

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>SOWK 4001</td>
<td>Clinical Social Work Skills</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>SOWK 4006</td>
<td>Human Behavior and the Social Environment: Theory and Practice</td>
</tr>
<tr>
<td>SOWK 4020</td>
<td>Integrated Social Work Practice for Social Justice</td>
</tr>
<tr>
<td>SOWK 4132</td>
<td>Power, Privilege and Oppression from a Critical Multicultural Perspective</td>
</tr>
<tr>
<td>SOWK 4950</td>
<td>Foundation Field Internship</td>
</tr>
</tbody>
</table>

**Winter**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4003</td>
<td>Clinical Social Work Theory and Practice</td>
</tr>
<tr>
<td>SOWK 4007</td>
<td>Community and Macro Social Work Theory and Practice</td>
</tr>
<tr>
<td>SOWK 4120</td>
<td>Social Policy Analysis, Advocacy, and Practice</td>
</tr>
<tr>
<td>SOWK 4201</td>
<td>Evidence for Practice</td>
</tr>
<tr>
<td>SOWK 4950</td>
<td>Foundation Field Internship</td>
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</tbody>
</table>

**Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4950</td>
<td>Foundation Field Internship</td>
</tr>
</tbody>
</table>

Begin elective & concentration classes; see concentration curriculum below

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 38**

* Foundation curriculum information above refers to full time students; part time students should refer to MSW Handbook for information about course planning.

### Foundation Curriculum for Advanced Standing Students

**Summer**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4132</td>
<td>Power, Privilege and Oppression from a Critical Multicultural Perspective</td>
</tr>
<tr>
<td>SOWK 4201</td>
<td>Evidence for Practice (offered summer and fall quarters)</td>
</tr>
<tr>
<td>SOWK 4299</td>
<td>Advanced Standing Seminar</td>
</tr>
</tbody>
</table>

Begin elective & concentration classes; see concentration curriculum below

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 9**

### Health and Wellness Concentration Curriculum

**THEORY FOR PRACTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4325</td>
<td>Evolving Perspectives and Trends in Health and Wellness</td>
</tr>
</tbody>
</table>

> also recommended

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4350</td>
<td>Evolving Perspectives and Trends in Aging</td>
</tr>
<tr>
<td>SOWK 4360</td>
<td>Social Ecology, One Health and Resiliency: Connecting Human and Environmental Health</td>
</tr>
<tr>
<td>SOWK 4370</td>
<td>Community and Organizational Change: Theory for Practice</td>
</tr>
</tbody>
</table>

**METHODS/SKILLS (9 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4723</td>
<td>Social Work Practice in Health Care</td>
</tr>
</tbody>
</table>

AND AT LEAST TWO OF THE FOLLOWING COURSES REQUIRED:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4330</td>
<td>Assessment of Mental Health and Drug Use in Adults</td>
</tr>
<tr>
<td>SOWK 4401</td>
<td>Integrated Health Care: Models and Practice</td>
</tr>
<tr>
<td>SOWK 4425</td>
<td>Positive and Community Youth Development</td>
</tr>
<tr>
<td>SOWK 4445</td>
<td>Social Work Assessment and Intervention in Aging</td>
</tr>
<tr>
<td>SOWK 4500</td>
<td>Mental Health Interventions with Children</td>
</tr>
<tr>
<td>SOWK 4501</td>
<td>Wellness Promotion and Intervention Across the Lifespan</td>
</tr>
<tr>
<td>SOWK 4523</td>
<td>Care Management Skills and Resources to Promote Community Living</td>
</tr>
<tr>
<td>SOWK 4700</td>
<td>Solution Focused Brief Therapy</td>
</tr>
<tr>
<td>SOWK 4725</td>
<td>Mind-Body Connections and Social Work Practice</td>
</tr>
<tr>
<td>SOWK 4741</td>
<td>Grief and Loss Across the Lifespan</td>
</tr>
<tr>
<td>SOWK 4754</td>
<td>Trauma and Recovery in Social Work Practice</td>
</tr>
<tr>
<td>SOWK 4755</td>
<td>Interventions for Responses to Trauma</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Eco-Friendly Experiential Therapy with Children and Youth)</td>
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<td>SOWK 4971</td>
<td>Experimental Class (Assessment of Mental Health in Children and Youth)</td>
</tr>
</tbody>
</table>

**POLICY & PROGRAM ADVOCACY: FOSTERING SOCIAL & ECONOMIC JUSTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4645</td>
<td>Health Care Policy</td>
</tr>
</tbody>
</table>

> also recommended
Master of Social Work with a Concentration in Mental Health

The minimum credits required for the MSW degree is 90 (60 for advanced standing students).

Foundation Curriculum for Two-Year Students *

Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SOWK 4001</td>
<td>Clinical Social Work Skills</td>
</tr>
<tr>
<td>SOWK 4006</td>
<td>Human Behavior and the Social Environment: Theory and Practice</td>
</tr>
<tr>
<td>SOWK 4020</td>
<td>Integrated Social Work Practice for Social Justice</td>
</tr>
<tr>
<td>SOWK 4132</td>
<td>Power, Privilege and Oppression from a Critical Multicultural Perspective</td>
</tr>
<tr>
<td>SOWK 4950</td>
<td>Foundation Field Internship</td>
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</table>

Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4003</td>
<td>Clinical Social Work Theory and Practice</td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>SOWK 4007</td>
<td>Community and Macro Social Work Theory and Practice</td>
</tr>
<tr>
<td>SOWK 4120</td>
<td>Social Policy Analysis, Advocacy, and Practice</td>
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**Spring**

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<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SOWK 4950</td>
<td>Foundation Field Internship</td>
</tr>
</tbody>
</table>

Begin elective & concentration classes; see concentration curriculum below

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 38**

* Foundation curriculum information above refers to full time students; part time students should refer to MSW Handbook for information about course planning.

**Foundation Curriculum for Advanced Standing Students**

**Summer**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4132</td>
<td>Power, Privilege and Oppression from a Critical Multicultural Perspective</td>
</tr>
<tr>
<td>SOWK 4201</td>
<td>Evidence for Practice (offered summer and fall quarters)</td>
</tr>
<tr>
<td>SOWK 4299</td>
<td>Advanced Standing Seminar</td>
</tr>
</tbody>
</table>

Begin elective & concentration classes; see concentration curriculum below

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 9**

**Mental Health Concentration Curriculum**

**THEORY FOR PRACTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4345</td>
<td>Intersections of Mental Health, Substance Use and, Trauma</td>
</tr>
</tbody>
</table>

> also recommended

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4320</td>
<td>Theories and Practice of Family Systems Therapy</td>
</tr>
<tr>
<td>SOWK 4325</td>
<td>Evolving Perspectives and Trends in Health and Wellness</td>
</tr>
</tbody>
</table>

**METHODS/SKILLS (9 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4330</td>
<td>Assessment of Mental Health and Drug Use in Adults</td>
</tr>
<tr>
<td>SOWK 4730</td>
<td>Cognitive Behavioral Therapies</td>
</tr>
</tbody>
</table>

AND AT LEAST ONE OF THE FOLLOWING COURSES REQUIRED:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4401</td>
<td>Integrated Health Care: Models and Practice</td>
</tr>
<tr>
<td>SOWK 4412</td>
<td>Practice Elements in Interventions with Children and Youth</td>
</tr>
<tr>
<td>SOWK 4430</td>
<td>Substance Use Interventions</td>
</tr>
<tr>
<td>SOWK 4454</td>
<td>Child and Adolescent Trauma</td>
</tr>
<tr>
<td>SOWK 4500</td>
<td>Mental Health Interventions with Children</td>
</tr>
<tr>
<td>SOWK 4700</td>
<td>Solution Focused Brief Therapy</td>
</tr>
<tr>
<td>SOWK 4735</td>
<td>Interpersonal Approaches to Counseling</td>
</tr>
<tr>
<td>SOWK 4754</td>
<td>Trauma and Recovery in Social Work Practice</td>
</tr>
<tr>
<td>SOWK 4784</td>
<td>Suicide Assessments and Interventions</td>
</tr>
<tr>
<td>SOWK 4775</td>
<td>Social Work with Adult Groups</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Assessment of Mental Health in Children and Adolescents)</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Groups for Children and Adolescents)</td>
</tr>
</tbody>
</table>

**POLICY & PROGRAM ADVOCACY: FOSTERING SOCIAL & ECONOMIC JUSTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4640</td>
<td>Mental Health and Substance Use Policies</td>
</tr>
</tbody>
</table>

> also recommended

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4645</td>
<td>Health Care Policy</td>
</tr>
</tbody>
</table>

**RESEARCH (6 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4900</td>
<td>Methods for Evaluating Practice and Programs</td>
</tr>
<tr>
<td>SOWK 4901</td>
<td>Applied Practice Evaluation Research</td>
</tr>
</tbody>
</table>

AND AT LEAST ONE OF THE FOLLOWING COURSES REQUIRED:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Assessment of Mental Health in Children and Adolescents)</td>
</tr>
<tr>
<td>SOWK 4971</td>
<td>Experimental Class (Groups for Children and Adolescents)</td>
</tr>
</tbody>
</table>

**VALUES FOR PRACTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4232</td>
<td>Advanced Multicultural Practice: Critical Race Theory Praxis</td>
</tr>
</tbody>
</table>
SOWK 4235  Disproportionality and Disparities Across Systems: The Impact on Children and Youth
SOWK 4240  Intergenerational Justice
SOWK 4732  Disrupting Privilege through Anti-Oppressive Practice
SOWK 4749  Social Work Interventions with Latinos/as
SOWK 4751  Global Relations and Poverty in Mexico
SOWK 4756  Social Work from a Chinese Perspective
SOWK 4758  Social Work in Kenya: Context, Conservation, Empowerment, Sustainability
SOWK 4759  Global Cultural Perspectives: Consensus and Conundrums
SOWK 4762  Bosnia in Transition: The Social Work Response
SOWK 4764  Historical Trauma and Healing
SOWK 4790  Human Sexuality
SOWK 4890  Contemporary Global Issues
SOWK 4971  Experimental Class (Cultural Connectedness: A Journey into Native American Country)
SOWK 4971  Experimental Class (Disability Studies)
SOWK 4971  Experimental Class (Gender and Feminisms in SW Practice)
SOWK 4971  Experimental Class (Spirituality and Social Work Practice)
SOWK 4990  Topics in Social Work (as approved, titles vary)

**INTERNSHIP (15 credit minimum required)**
SOWK 4970  Concentration Field Internship (appropriate internships are chosen in consultation with the Field Team)

**CAPSTONE (0 or 1 credit)**
SOWK 4999  Capstone (required in final quarter of program)

**ELECTIVE COURSES RELEVANT TO MENTAL HEALTH CONCENTRATION INCLUDE: (12 credits required)**
SOWK 4523  Care Management Skills and Resources to Promote Community Living
SOWK 4721  Existential Social Work Practice
SOWK 4725  Mind-Body Connections and Social Work Practice
SOWK 4741  Grief and Loss Across the Lifespan
SOWK 4755  Interventions for Responses to Trauma

* In addition to electives above, students may take courses from other concentration areas OR up to 10 credits of coursework from other DU graduate programs with the approval of the advisor and Associate Dean for Academic Affairs

**TOTAL CREDITS REQUIRED FOR CONCENTRATION CURRICULUM: 51-52**

---

**Master of Social Work with a Concentration in Organizational Leadership and Policy Practice**

*The minimum credits required for the MSW degree is 90 (60 for advanced standing students).*

**Foundation Curriculum for Two-Year Students**

**Fall**
SOWK 4001  Clinical Social Work Skills
SOWK 4006  Human Behavior and the Social Environment: Theory and Practice
SOWK 4020  Integrated Social Work Practice for Social Justice
SOWK 4132  Power, Privilege and Oppression from a Critical Multicultural Perspective
SOWK 4950  Foundation Field Internship

**Winter**
SOWK 4003  Clinical Social Work Theory and Practice
SOWK 4007  Community and Macro Social Work Theory and Practice
SOWK 4120  Social Policy Analysis, Advocacy, and Practice
SOWK 4201  Evidence for Practice
SOWK 4950  Foundation Field Internship

**Spring**
SOWK 4950  Foundation Field Internship

Begin elective & concentration classes; see concentration curriculum below
TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 38

* Foundation curriculum information above refers to full-time students; part-time students should refer to MSW Handbook for information about course planning.

Foundation Curriculum for Advanced Standing Students

**Summer**
- SOWK 4132: Power, Privilege and Oppression from a Critical Multicultural Perspective
- SOWK 4201: Evidence for Practice (offered summer and fall quarters)
- SOWK 4299: Advanced Standing Seminar

Begin elective & concentration classes; see concentration curriculum below

TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 9

Organizational Leadership and Policy Concentration Curriculum

**THEORY FOR PRACTICE (3 credits required)**
- SOWK 4370: Community and Organizational Change: Theory for Practice
  - Also recommended
- SOWK 4360: Social Ecology, One Health and Resiliency: Connecting Human and Environmental Health
- SOWK 4375: Economic Theory and Social Work

**METHODS/SKILLS (9 credits required)**
- SOWK 4340: Leadership and Supervision Skills
  - Also recommended
- SOWK 4425: Positive and Community Youth Development
- SOWK 4435: Community Organizing and Empowerment Practice
- SOWK 4525: Administration and Management Practice and Skills
- SOWK 4530: Poverty and Community Economic Development
- SOWK 4535: Planning and Program Development
- SOWK 4660: Social Policy Advocacy
- SOWK 4760: Resource Development and Fundraising
- SOWK 4765: International Social Development

**POLICY & PROGRAM ADVOCACY: FOSTERING SOCIAL & ECONOMIC JUSTICE (3 credits required)**
- SOWK 4670: Policy Development & Analysis
  - Also recommended
- SOWK 4600: Child Welfare Policies and Services
- SOWK 4610: Policies and Programs for Children and Youth
- SOWK 4630: Family Policies and Services
- SOWK 4635: Immigration Policies and Services
- SOWK 4640: Mental Health and Substance Use Policies
- SOWK 4645: Health Care Policy
- SOWK 4650: Aging Policy

**RESEARCH (6 credits required)**
- SOWK 4900 & SOWK 4901: Methods for Evaluating Practice and Programs and Applied Practice Evaluation Research (must be taken in sequence; research conducted in student’s field placement)

**VALUES FOR PRACTICE (3 credits required)**
- SOWK 4232: Advanced Multicultural Practice: Critical Race Theory Praxis
- SOWK 4235: Disproportionality and Disparities Across Systems: The Impact on Children and Youth
- SOWK 4240: Intergenerational Justice
- SOWK 4732: Disrupting Privilege through Anti-Oppressive Practice
- SOWK 4749: Social Work Interventions with Latinos/as
- SOWK 4751: Global Relations and Poverty in Mexico
- SOWK 4758: Social Work in Kenya: Context, Conservation, Empowerment, Sustainability
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4759</td>
<td>Global Cultural Perspectives: Consensus and Conundrums</td>
</tr>
<tr>
<td>SOWK 4762</td>
<td>Bosnia in Transition: The Social Work Response</td>
</tr>
<tr>
<td>SOWK 4764</td>
<td>Historical Trauma and Healing</td>
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<td>SOWK 4790</td>
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<td>SOWK 4890</td>
<td>Contemporary Global Issues</td>
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<td>SOWK 4971</td>
<td>Experimental Class (Cultural Connectedness: A Journey into Native American Country)</td>
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</tr>
<tr>
<td>SOWK 4990</td>
<td>Topics in Social Work (as approved, titles vary)</td>
</tr>
</tbody>
</table>

**INTERNSHIP (15 credit minimum required)**
- SOWK 4970 Concentration Field Internship (appropriate internships are chosen in consultation with the Field Team)

**CAPSTONE (0 or 1 credit)**
- SOWK 4999 Capstone (required in final quarter of program)

**ELECTIVE COURSES RELEVANT TO ORGANIZATIONAL LEADERSHIP & POLICY PRACTICE CONCENTRATION INCLUDE: (12 credits required)**
- SOWK 4465 Human Security: Intervention Strategies for Economic & Social Development
- SOWK 4780 Conflict Resolution in Social Work Practice

* In addition to electives above, students may take courses from other concentration areas OR up to 10 credits of coursework from other DU graduate programs with the approval of the advisor and Associate Dean for Academic Affairs

**TOTAL CREDITS REQUIRED FOR CONCENTRATION CURRICULUM: 51-52**

---

**Master of Social Work with a Concentration in Sustainable Development and Global Practice**

*The minimum credits required for the MSW degree is 90 (60 for advanced standing students).*

**Foundation Curriculum for Two-Year Students**

**Fall**
- SOWK 4001 Clinical Social Work Skills
- SOWK 4006 Human Behavior and the Social Environment: Theory and Practice
- SOWK 4020 Integrated Social Work Practice for Social Justice
- SOWK 4132 Power, Privilege and Oppression from a Critical Multicultural Perspective
- SOWK 4950 Foundation Field Internship

**Winter**
- SOWK 4003 Clinical Social Work Theory and Practice
- SOWK 4007 Community and Macro Social Work Theory and Practice
- SOWK 4120 Social Policy Analysis, Advocacy, and Practice
- SOWK 4201 Evidence for Practice
- SOWK 4950 Foundation Field Internship

**Spring**
- SOWK 4950 Foundation Field Internship

TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: **38**

* Foundation curriculum information above refers to full time students; part time students should refer to MSW Handbook for information about course planning.

**Foundation Curriculum for Advanced Standing Students**

**Summer**
- SOWK 4132 Power, Privilege and Oppression from a Critical Multicultural Perspective
- SOWK 4201 Evidence for Practice (offered summer and fall quarters)
- SOWK 4299 Advanced Standing Seminar

Begin elective & concentration classes; see concentration curriculum below
TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 9

### Sustainable Development and Global Practice Concentration Curriculum

**THEORY FOR PRACTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4360</td>
<td>Social Ecology, One Health and Resiliency: Connecting Human and Environmental Health</td>
</tr>
</tbody>
</table>

> also recommended

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4370</td>
<td>Community and Organizational Change: Theory for Practice</td>
</tr>
<tr>
<td>SOWK 4375</td>
<td>Economic Theory and Social Work</td>
</tr>
</tbody>
</table>

**METHODS/SKILLS (9 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4465</td>
<td>Human Security: Intervention Strategies for Economic &amp; Social Development</td>
</tr>
<tr>
<td>SOWK 4565</td>
<td>Social and Environmental Impact Assessments</td>
</tr>
</tbody>
</table>

AND AT LEAST ONE OF THE FOLLOWING COURSES REQUIRED:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4530</td>
<td>Poverty and Community Economic Development</td>
</tr>
<tr>
<td>SOWK 4535</td>
<td>Planning and Program Development</td>
</tr>
<tr>
<td>SOWK 4760</td>
<td>Resource Development and Fundraising</td>
</tr>
<tr>
<td>SOWK 4765</td>
<td>International Social Development</td>
</tr>
</tbody>
</table>

**POLICY & PROGRAM ADVOCACY: FOSTERING SOCIAL & ECONOMIC JUSTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4665</td>
<td>Global Policies and Programs</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4635</td>
<td>Immigration Policies and Services</td>
</tr>
</tbody>
</table>

> also recommended

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4670</td>
<td>Policy Development &amp; Analysis</td>
</tr>
</tbody>
</table>

**RESEARCH (6 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4900</td>
<td>Methods for Evaluating Practice and Programs</td>
</tr>
</tbody>
</table>

&

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4901</td>
<td>and Applied Practice Evaluation Research (must be taken in sequence; research conducted in student’s field placement)</td>
</tr>
</tbody>
</table>

**VALUES FOR PRACTICE (3 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4759</td>
<td>Global Cultural Perspectives: Consensus and Conundrums</td>
</tr>
</tbody>
</table>

> also recommended

<table>
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<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4232</td>
<td>Advanced Multicultural Practice: Critical Race Theory Praxis</td>
</tr>
<tr>
<td>SOWK 4235</td>
<td>Disproportionality and Disparities Across Systems: The Impact on Children and Youth</td>
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<td>SOWK 4732</td>
<td>Disrupting Privilege through Anti-Oppressive Practice</td>
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<td>SOWK 4240</td>
<td>Intergenerational Justice</td>
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<tr>
<td>SOWK 4749</td>
<td>Social Work Interventions with Latinos/as</td>
</tr>
<tr>
<td>SOWK 4751</td>
<td>Global Relations and Poverty in Mexico</td>
</tr>
<tr>
<td>SOWK 4753</td>
<td>Social Development in Latin America</td>
</tr>
<tr>
<td>SOWK 4758</td>
<td>Social Work in Kenya: Context, Conservation, Empowerment, Sustainability</td>
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<tr>
<td>SOWK 4762</td>
<td>Bosnia in Transition: The Social Work Response</td>
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<td>Experimental Class (Cultural Connectedness: A Journey into Native American Country)</td>
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<tr>
<td>SOWK 4990</td>
<td>Topics in Social Work (as approved, titles vary)</td>
</tr>
</tbody>
</table>

**INTERNSHIP (15 credit minimum required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4970</td>
<td>Concentration Field Internship (appropriate internships are chosen in consultation with the Field Team)</td>
</tr>
</tbody>
</table>

**CAPSTONE (0 or 1 credit)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4999</td>
<td>Capstone (required in final quarter of program)</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES: (12 credits required)**

*** Students may take courses from other concentration areas and/or up to 10 credits of coursework from other DU graduate programs with the approval of the advisor and Associate Dean for Academic Affairs.
TOTAL CREDITS REQUIRED FOR CONCENTRATION CURRICULUM: 51-52

Master of Social Work with a Concentration in Advanced Social Work Practice (Western Colorado Program)

The minimum credits required for the MSW degree is 90 (60 for advanced standing students). Not all non-required courses will be offered to every cohort of students.

Foundation Curriculum for Two-Year Students *

<table>
<thead>
<tr>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4001</td>
<td>SOWK 4003</td>
<td>SOWK 4950</td>
</tr>
<tr>
<td>Clinical Social Work Skills</td>
<td>Clinical Social Work Theory and Practice</td>
<td>Foundation Field Internship</td>
</tr>
<tr>
<td>SOWK 4006</td>
<td>SOWK 4007</td>
<td></td>
</tr>
<tr>
<td>Human Behavior and the Social Environment: Theory and Practice</td>
<td>Community and Macro Social Work Theory and Practice</td>
<td></td>
</tr>
<tr>
<td>SOWK 4020</td>
<td>SOWK 4120</td>
<td></td>
</tr>
<tr>
<td>SOWK 4132</td>
<td>SOWK 4201</td>
<td></td>
</tr>
<tr>
<td>Power, Privilege and Oppression from a Critical Multicultural Perspective</td>
<td>Evidence for Practice</td>
<td></td>
</tr>
<tr>
<td>SOWK 4950</td>
<td>SOWK 4950</td>
<td>Begin elective &amp; concentration classes; see concentration curriculum below</td>
</tr>
<tr>
<td>Foundation Field Internship</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 41

* Foundation curriculum information above refers to full time students; part time students should consult with the Program Coordinator for information about course planning.

Foundation Curriculum for Advanced Standing Students

<table>
<thead>
<tr>
<th>Summer</th>
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<tbody>
<tr>
<td>SOWK 4132</td>
</tr>
<tr>
<td>SOWK 4201</td>
</tr>
<tr>
<td>SOWK 4299</td>
</tr>
</tbody>
</table>

TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 9

Advanced Social Work Practice Concentration Curriculum

THEORY FOR PRACTICE (3 credits required)

| SOWK 4320 | Theories and Practice of Family Systems Therapy |

METHODS/SKILLS Micro Mezzo Macro (9 credits required)

| SOWK 4330 | Assessment of Mental Health and Drug Use in Adults |
| SOWK 4401 | Integrated Health Care: Models and Practice |
| SOWK 4535 | Planning and Program Development |

POLICY & PROGRAM ADVOCACY: FOSTERING SOCIAL & ECONOMIC JUSTICE (3 credits required)

| SOWK 4635 | Immigration Policies and Services |

RESEARCH (6 credits required)

| SOWK 4900 | Methods for Evaluating Practice and Programs |
| & SOWK 4901 | and Applied Practice Evaluation Research (must be taken in sequence; research conducted in student’s field placement) |

VALUES FOR PRACTICE (3 credits required)

| SOWK 4971 | Experimental Class (Contemporary Issues in Western Colorado) |

INTERNSHIP (15 credit minimum required)
SOWK 4970  Concentration Field Internship (appropriate internships are chosen in consultation with the Field Team & on-site Coordinator)

**CONCENTRATION SEMINAR (3 credits required)**
- SOWK 4250  Concentration Seminar (offered as 1 credit course each quarter for Fall, Winter, and Spring)

**CAPSTONE (0 or 1 credit required)**
- SOWK 4999  Capstone (required in final quarter of program)

**ELECTIVES (6-9* credit minimum required)**
*Advanced Standing Students take an additional elective

Students must take sufficient electives to meet minimum requirements for degree (90 credits for two year program; 60 credits for advanced standing). Elective options vary based on availability.

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 49/52**

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**Master of Social Work with a Concentration in Advanced Social Work Practice (Four Corners Program)**

*The minimum credits required for the MSW degree is 90 (60 for advanced standing students). Not all non-required courses will be offered to every cohort of students.*

**Foundation Curriculum for Two-Year Students**

**Fall**
- SOWK 4001  Clinical Social Work Skills
- SOWK 4006  Human Behavior and the Social Environment: Theory and Practice
- SOWK 4020  Integrated Social Work Practice for Social Justice
- SOWK 4132  Power, Privilege and Oppression from a Critical Multicultural Perspective
- SOWK 4150  Foundation Seminar
- SOWK 4950  Foundation Field Internship

**Winter**
- SOWK 4003  Clinical Social Work Theory and Practice
- SOWK 4007  Community and Macro Social Work Theory and Practice
- SOWK 4120  Social Policy Analysis, Advocacy, and Practice
- SOWK 4150  Foundation Seminar
- SOWK 4950  Foundation Field Internship

**Spring**
- SOWK 4150  Foundation Seminar
- SOWK 4201  Evidence for Practice
- SOWK 4950  Foundation Field Internship

Begin elective & concentration classes; see concentration curriculum below

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 41**

* Foundation curriculum information above refers to full time students; part time students should consult with the Program Director for information about course planning.

**Foundation Curriculum for Advanced Standing Students**

**ADVANCED STANDING STUDENTS WILL TAKE THE FOLLOWING:**
- SOWK 4132  Power, Privilege and Oppression from a Critical Multicultural Perspective
- SOWK 4201  Evidence for Practice
- SOWK 4299  Advanced Standing Seminar

**TOTAL CREDITS REQUIRED FOR FOUNDATION CURRICULUM: 9**

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**Advanced Social Work Practice Concentration Curriculum**

**THEORY FOR PRACTICE (3 credits required)**
- SOWK 4320  Theories and Practice of Family Systems Therapy

**METHODS/SKILLS (9 credits required)**
SOWK 4330  Assessment of Mental Health and Drug Use in Adults
SOWK 4401  Integrated Health Care: Models and Practice
SOWK 4535  Planning and Program Development

POLICY & PROGRAM ADVOCACY: FOSTERING SOCIAL & ECONOMIC JUSTICE (3 credits required)
SOWK 4680  Native Peoples Practice: History and Policy

RESEARCH (6 credits required)
SOWK 4900 & SOWK 4901  Methods for Evaluating Practice and Programs
and Applied Practice Evaluation Research (must be taken in sequence; research conducted in student’s
field placement)

VALUES FOR PRACTICE (3 credits required)
AT LEAST ONE OF THE FOLLOWING COURSES REQUIRED:
SOWK 4232  Advanced Multicultural Practice: Critical Race Theory Praxis
SOWK 4235  Disproportionality and Disparities Across Systems: The Impact on Children and Youth
SOWK 4749  Social Work Interventions with Latinos/as
SOWK 4240  Intergenerational Justice
SOWK 4732  Disrupting Privilege through Anti-Oppressive Practice
SOWK 4751  Global Relations and Poverty in Mexico
SOWK 4762  Bosnia in Transition: The Social Work Response
SOWK 4758  Social Work in Kenya: Context, Conservation, Empowerment, Sustainability
SOWK 4759  Global Cultural Perspectives: Consensus and Conundrums
SOWK 4764  Historical Trauma and Healing
SOWK 4790  Human Sexuality
SOWK 4890  Contemporary Global Issues
SOWK 4971  Experimental Class (Gender and Feminisms in Social Work Practice)
SOWK 4990  Topics in Social Work (as approved, titles vary)

INTERNSHIP (15 credit minimum required)
SOWK 4970  Concentration Field Internship

CONCENTRATION SEMINAR (3 credits required)
SOWK 4250  Concentration Seminar (must be taken concurrently with Concentration Field Internship)

CAPSTONE (0 or 1 credit required)
SOWK 4999  Capstone (required final quarter of program)

ELECTIVES (6-9* credits required)
*Advanced Standing Students take an additional elective
Any other offered courses not counting for the categories listed above. May include but not limited to:
SOWK 4712  Law of Family and Child
SOWK 4715  School Social Work Interventions
SOWK 4730  Cognitive Behavioral Therapies
SOWK 4340  Leadership and Supervision Skills
SOWK 4754  Trauma and Recovery in Social Work Practice
SOWK 4795  Integration of Animals Into Therapeutic Settings
SOWK 4971  Experimental Class (Advanced Skills for Working with Military Families)

TOTAL CREDITS REQUIRED FOR CONCENTRATION CURRICULUM: 49/52*

Master of Social Work with a Concentration in Mental Health and Trauma (Online MSW Program Only)
The minimum credits required for the MSW degree is 90 (60 for advanced standing students).

Mental Health and Trauma Curriculum for Two-Year Students
Quarter 1 (8 credits)
SOWK 4001  Clinical Social Work Skills
SOWK 4020  Integrated Social Work Practice for Social Justice
SOWK 4050  Intro to Graduate Internship
Quarter 2 (10 credits)

- SOWK 4132: Power, Privilege and Oppression from a Critical Multicultural Perspective
- SOWK 4006: Human Behavior and the Social Environment: Theory and Practice
- SOWK 4150: Foundation Seminar
- SOWK 4950: Foundation Field Internship

Quarter 3 (10 credits)

- SOWK 4003: Clinical Social Work Theory and Practice
- SOWK 4201: Evidence for Practice (*)
- SOWK 4150: Foundation Seminar
- SOWK 4950: Foundation Field Internship

Quarter 4 (11 credits)

- SOWK 4007: Community and Macro Social Work Theory and Practice
- SOWK 4120: Social Policy Analysis, Advocacy, and Practice
- SOWK 4150: Foundation Seminar
- SOWK 4950: Foundation Field Internship

Quarter 5 (9 credits)

- SOWK 4950: Foundation Field Internship

BEGIN ELECTIVE & CONCENTRATION COURSES

- SOWK 4338: Assessment of Mental Health Across the Lifespan
- SOWK 4345: Intersections of Mental Health, Substance Use and, Trauma

Quarter 6 (11 credits)

- SOWK 4250: Concentration Seminar
- SOWK 4655: Mental Health and Health Care Policy
- SOWK 4730: Cognitive Behavioral Therapies
- SOWK 4970: Concentration Field Internship

Quarter 7 (11 credits)

- SOWK 4250: Concentration Seminar
- SOWK 4752: Trauma Informed Assessment and Interventions
- SOWK 4900: Methods for Evaluating Practice and Programs
- SOWK 4970: Concentration Field Internship

Quarter 8 (11 credits)

- SOWK 4250: Concentration Seminar
- SOWK 4401: Integrated Health Care: Models and Practice
- SOWK 4901: Applied Practice Evaluation Research
- SOWK 4970: Concentration Field Internship

Quarter 9 (9 credits)

- SOWK 4235: Disproportionality and Disparities Across Systems: The Impact on Children and Youth
- SOWK 4340: Leadership and Supervision Skills
- SOWK 4970: Concentration Field Internship
- SOWK 4999: Capstone

TOTAL CREDITS REQUIRED FOR TWO-YEAR CURRICULUM: 90

Mental Health and Trauma Curriculum for Advanced Standing Students

Quarter 1 (6 credits)

- SOWK 4132: Power, Privilege and Oppression from a Critical Multicultural Perspective
- SOWK 4299: Advanced Standing Seminar

Quarter 2 (6 credits)

- SOWK 4201: Evidence for Practice (*)
- SOWK 4301: Advanced Social Work Practice Skills

Quarter 3 (11 credits)

BEGIN ELECTIVE AND CONCENTRATION COURSES

- SOWK 4250: Concentration Seminar
TOTAL CREDITS REQUIRED FOR ADVANCED STANDING CURRICULUM: 60

**Certificate in Social Work with a Concentration in Animal-Assisted Social Work**

**Field Internship Requirements**

Students enrolled in this certificate program are required to complete 15 hours of concentration year field internship (five in each of three quarters) in a program or agency that either offers animal-assisted social work or is interested in developing it. Students must include a plan for integrating the specific requirements of the certificate into those of the internship on the Individualized Field Education Plan (IFEP). The internship must fulfill the requirements of the concentration practice track, as well as those of the certificate.

**Coursework Requirements**

Within their course of study, AASW Certificate program students must include the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4795</td>
<td>Integration of Animals Into Therapeutic Settings</td>
<td>3</td>
</tr>
<tr>
<td>SOWK 4796</td>
<td>Animal Assisted Social Work Practice</td>
<td>3</td>
</tr>
<tr>
<td>SOWK 4797</td>
<td>Issues for Evidence-Supported Animal Assisted Social Work</td>
<td>3</td>
</tr>
<tr>
<td>SOWK 4970</td>
<td>Concentration Field Internship</td>
<td>15</td>
</tr>
</tbody>
</table>

**Certificate in Social Work with a Concentration in Social Work with Latinos/as**

**Program Requirements**

Students enrolled in this certificate program are required to complete fifteen hours of concentration year field internship (five in each of three quarters) in a program or agency offering the opportunity to work with Latino/a clients and use Spanish at least 30% of the time. Students must include a plan for integrating the specific requirements of the certificate into those of the internship on the Individualized Field Education Plan (IFEP). The internship must fulfill the requirements of the concentration practice track, as well as those of the certificate.

**Coursework Requirements**

Within their course of study, AASW Certificate program students must include the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWK 4749</td>
<td>Social Work Interventions with Latinos/as</td>
<td>3</td>
</tr>
<tr>
<td>SOWK 4750</td>
<td>Critical Perspectives on the Latino Context</td>
<td>3</td>
</tr>
<tr>
<td>SOWK 4757</td>
<td>Social Work and Latino/a Cultures: An Intensive Practice and Spanish Immersion Course</td>
<td>3</td>
</tr>
<tr>
<td>SOWK 4753</td>
<td>Social Development in Latin America</td>
<td>3</td>
</tr>
<tr>
<td>SOWK 4970</td>
<td>Concentration Field Internship</td>
<td>15</td>
</tr>
</tbody>
</table>
Courses

SOWK 4001 Clinical Social Work Skills (3 Credits)
This foundation course focuses on basic skills for micro social work practice with individuals and small groups. The framework of intentional interviewing teaches students to think critically about applying the skills for engagement, assessment and intervention. Attention focuses on use of these skills with clients from multiple social identities (e.g. ethnic, racial, sexual orientation, gender affiliation) and the pitfalls of practitioner micro-aggressions. An active learning approach requires students to participate in role-play exercises both in and outside of class. Students digitally record some of those exercises and share them with the class and instructor.

SOWK 4003 Clinical Social Work Theory and Practice (3 Credits)
This foundation course helps students develop a multi-dimensional assessment and intervention framework for clinical social work practice. This course builds upon knowledge of human behavior in the social environment and adds a focus on theories of change - at the individual and family level. The course is grounded in empirical information about the importance of relationship skills, across a variety of classic and modern approaches to intervention. We use a social work lens to emphasize the importance of context in client lives, including their socioeconomic status, cultural history, and experiences of oppression. Since no single theory captures the totality of human experiences, we integrate a variety of intervention techniques from multiple human behavior theories and ground them in a social work framework for ethical and effective clinical practice.

SOWK 4006 Human Behavior and the Social Environment: Theory and Practice (3 Credits)
This foundation course provides an overview of theoretical frameworks for understanding human behavior from a social work perspective. Theories reviewed include the developmental stages across the life cycle in terms of psychological, cognitive, moral, spiritual, identity and social development. Students apply a biopsychosocial assessment across the life span. The course emphasizes the social work perspective and key frameworks for social work, with an emphasis on the person in environment and systems theory as they describe diverse individual behavior in relation to social class, race and ethnicity, age, gender orientation, sexual orientation, and other multicultural backgrounds. The course aims to develop students' foundational understanding of how theories are used to promote relationship development with diverse individuals and to guide interventions across all system levels. Students may test out of this course and substitute an advanced course in human development, with advisor approval, if they have already successfully completed an equivalent course in human development.

SOWK 4007 Community and Macro Social Work Theory and Practice (4 Credits)
This foundation course provides students with a foundational level understanding of macro social work practice and roles. The course builds upon knowledge of human behavior in the social environment, and adds theories of change to understand diverse communities and social service networks and the relationship of local, national and global interventions. The course introduces students to empirically supported models and emerging interventions that address macro level social issues. Students complete community/organizational assessments and also participate in work groups to learn how to engage, assess, and intervene in communities and organizations.

SOWK 4020 Integrated Social Work Practice for Social Justice (4 Credits)
This foundation course focuses on professional development and identity for social work practice. The course emphasizes values, ethics and ethical decision making in the context of the history of the profession. Students are introduced to person-in-environment, critical theory and empowerment perspectives and apply these concepts to current field of practice and social work roles. Through integration of field placement experiences, students analyze and apply social work frameworks and generalist practice theories to current social justice challenges and diverse contexts that social workers face.

SOWK 4050 Intro to Graduate Internship (1 Credit)
The Introduction to the Graduate Internship seminar prepares students to enter the profession of social work at a graduate level. The course provides an overview of social work values and ethics, populations served, and issues that concern social workers. Through engagement in the course content, students will complete a readiness for field assessment, including their personal and professional motivations to join the profession and serve diverse communities. Students will be exposed to the social work profession’s signature pedagogy, field education, and the stages of experiential learning. The course will also help students develop learning goals for field education and identify potential internship sites.

SOWK 4120 Social Policy Analysis, Advocacy, and Practice (3 Credits)
This foundation course analyzes contemporary societal needs and problems, as well as the historical and current context of U.S. social welfare programs and policies. It presents frameworks used to define social problems and analyze social problems, and introduces students to the policy-making process and the role of policy in service delivery with special emphasis on programs designed to aid the poor and the policies that shape them. The course is designed to help social workers advocate for policies within the social welfare system that advance social well-being and fulfill their ethical obligations to improve social conditions and promote social justice.

SOWK 4132 Power, Privilege and Oppression from a Critical Multicultural Perspective (3 Credits)
This foundation course examines the phenomena of power, privilege and oppression and their effect on individuals, families and communities in the context of the values of social and economic justice and the social work profession. The course is intended to increase awareness of the intersectionality of multiple oppressions with a focus on race/ethnicity, gender, socioeconomic status and sexual orientation. Students will gain a beginning self-awareness to identify the influence of personal biases and values that impact practice with diverse groups.

SOWK 4150 Foundation Seminar (1 Credit)
Required seminar format used to facilitate the integration of the foundation field practicum and the professional foundation course content; emphasis on linking classroom learning with practice in the field, integrating theory with professional practice; field practicum situations and issues used for discussion and deliberation. Co-requisite: SOWK 4950.
SOWK 4201 Evidence for Practice (3 Credits)
This foundation course focuses on developing student skills in identifying, understanding, and using empirical evidence in support of their social work practice. Students review strategies for finding relevant empirical evidence (also covered in Integrated Social Work Practice for Social Justice). The course introduces students to meta-analyses and systematic reviews for use in support of their practice. The course aids students in developing a familiarity with basic research concepts such as research designs, measurement, and sampling so as to critique the utility of evidence for practice. Students also engage in critically examining available evidence for biases and relevance for under-served populations.

SOWK 4232 Advanced Multicultural Practice: Critical Race Theory Praxis (3 Credits)
Advanced Multicultural Practice: Critical Race Theory Praxis is a micro-, mezzo-, and macro practice course that uses the fundamentals of Critical Race Theory (CRT) as a framework for contextualizing and intervening with client systems. This course is a values elective for all concentrations. CRT is used as a framework to examine, critique, and challenge the way that race and racism is unwittingly sustained and perpetuated by traditional social work approaches to the amelioration of personal and social ills. Through this course, students learn the central tenets of CRT, how to evaluate traditional social work practice using these tenets, and begin to design to design a professional social work practice that uses CRT tenets as a foundation for micro-, mezzo-, and macro-level interventions. This course is offered within the concentration curriculum as a Values for Practice course to assist in the training and preparation of social workers practicing with historical underrepresented and marginalized clients and communities of color. Students develop skills and techniques grounded in anti-oppressive culturally grounded social work practice.

SOWK 4235 Disproportionality and Disparities Across Systems: The Impact on Children and Youth (3 Credits)
This course will explore the interrelatedness of institutional racism and discrimination across major social systems within the U.S., focusing on the historical context of current racial disproportionalities and disparities in youth service systems such as child welfare, juvenile justice, mental health, education, and health. Using a critical lens, the course is designed to help students analyze how policy decisions have long-range impact on generations; specifically for children and youth of color. Students will have the opportunity to apply this critical lens to their current field placement and the youth populations they serve. As an elective course, the class is open to all GSSW students; however, students concentrating in child welfare, children and youth, and families are especially encouraged to take the course.

SOWK 4240 Intergenerational Justice (3 Credits)
This course engages students in the conversation, scholarship, and social work practice issues related to how social justice is promoted across age groups and generational cohorts (i.e., baby boomers, generation X, millennial generation). While looking at debates for how families, local communities, states, and nations link age to power, decision-making, funding, and access to resources, the course also examines what within age group issues of injustice and inequality persist. Topics include: generational equity in terms of government budgets and debt, intergenerational issues related to sustainability and ecological justice, age-based versus need-based service delivery models, interventions to address intergenerational conflicts within families, and best practices in intergenerational social service models. This course is designed as a seminar course for social work students from any concentration to explore values related to social justice as they play out across all levels of practice.

SOWK 4250 Concentration Seminar (1 Credit)
This course is taken (by distance education students only) concurrently with the concentration year field practicum and the concentration year required courses. The purpose of this course is to integrate the concentration field experience and concentration year course work to prepare students for employment as professional social workers. This is also an evolving seminar co-created between faculty and students. Clinical issues and skill development at a more advanced clinical level is integrated into the seminar format as well as topics the student and faculty members agree upon that will enhance their first year learning.

SOWK 4299 Advanced Standing Seminar (3 Credits)
The seminar reviews knowledge, skills and values that form the basis of GSSW concentration year curricula in clinical practice, community practice and policy practice. The seminar combines content planned by instructors with individualized guided study and planning for field instruction based on student self-assessments. Prerequisite: Admission to advanced standing program.

SOWK 4301 Advanced Social Work Practice Skills (3 Credits)
This advanced social work practice skills course focuses on the importance of language and social identities and their influence on social work practice across client systems. A social justice, empowerment and reflexive framework challenges students to think critically about applying the skills for engagement, assessment, intervention, and evaluation in micro, mezzo, and macro practice settings. Attention focuses on use of these skills with individuals, groups, and communities from multiple social identities (e.g., ethnic, racial, sexual orientation, gender identity and expression, rural/urban) and the repercussions of practitioner micro-aggressions. An active learning approach requires students to: 1) participate in role-play exercises, 2) digitally record demonstration of advanced skills and share them with the class and instructor, 3) use the supervisory relationship to engage in reflexive self-assessment and practice skill adjustments based on that assessment. Prerequisite: SOWK 4001 Clinical Social Work Skills Lab or SOWK 4299 Advanced Standing Seminar.

SOWK 4305 Child Maltreatment: Causes and Developmental Consequences (3 Credits)
This course examines theory and research concerning causes and developmental consequences of child maltreatment, as well as theory and research concerning attachment and the developmental consequences of separation and loss that often follow intervention in child maltreatment.

SOWK 4315 Building Resilience: Healthy Development in Childhood and Adolescence (3 Credits)
This course provides students with knowledge of child and adolescent development with a particular focus on resilience. At each stage of development, risk factors that are deleterious to development, and protective factors that promote healthy development, will be discussed. Along with basic information about theories of resiliency, students will also gain a good working knowledge of cognitive behavior theory.
SOWK 4320 Theories and Practice of Family Systems Therapy (3 Credits)
This course introduces family systems, feminist and cultural/contextual models of family therapy, integrating theory, practice and skill development. Content includes current family structures and assessment and intervention from a family systems perspective with couples and families. Family system models covered: intergenerational, structural, strategic, solution-focused brief, narrative and feminist. Also analyzed in this course are intersecting issues of oppression: sexism, racism, classism, heterosexism and ageism.

SOWK 4325 Evolving Perspectives and Trends in Health and Wellness (3 Credits)
This course provides an overview of the theories that inform social work practice in the field of health and wellness. Health as a concept is examined for its understanding and meaning in multiple practice settings, communities and cultures. While addressing evolving trends and ethics in health care practice settings, a range or topics are covered including systems perspectives and thinking, the intersection of health and mental health, wellness and prevention, social ecology of health promotion, client and person centered care, care management and health care disparities.

SOWK 4330 Assessment of Mental Health and Drug Use in Adults (3 Credits)
Focuses on the assessment of psychological, social and biological contributors to mental health disorders in adults and the use of this assessment as a guide for treatment/clinical interventions. Examines the strengths and weaknesses of the DSM-IV classification system in terms of social work values and ethics. Examines symptoms, theories of etiology, treatment interventions and prognosis within each diagnostic category, and reviews a variety of assessment tools in the context of gender, ethnicity, cultural diversity, sexual orientation and historically oppressed and/or disadvantaged populations.

SOWK 4338 Assessment of Mental Health Across the Lifespan (3 Credits)
This course focuses on the assessment of psychological, social and biological contributors to mental health disorders in children, youth, adults, and older adults and the use of this assessment as a guide for treatment/clinical interventions. It examines the strengths and weaknesses of the DSM-5 classification system in the context of social work values and ethics. It examines symptoms, theories of etiology, treatment interventions and prognosis within each diagnostic category and reviews a variety of assessment tools in the context of gender identity and expression, ethnicity, cultural diversity, sexual orientation and historically oppressed and/or disadvantaged population.

SOWK 4340 Leadership and Supervision Skills (3 Credits)
This course examines the application of leadership and supervision theories to practice settings in communities, organizations and policy contexts. A focus is placed on leadership roles and an examination of leadership styles, with an emphasis on the skills of transformational leadership and supervision. Topics covered include team leadership and supervision, one to one supervision skills, managing conflict, personnel management, and cross cultural work.

SOWK 4345 Intersections of Mental Health, Substance Use and, Trauma (3 Credits)
This course is an advanced theory for practice course with builds upon foundation courses in HUman Behavior in the Social Environment (HBSE) and clinical theories, and covers conceptualization, dynamics of, and interventions in mental health, substance use, and trauma. The course examines the independent and intersecting theory bases of mental health, trauma and substance use approaches. It also explores recent evidence about individual and environmental risks associated with these conditions and evidence about both specific therapeutic interventions and the importance of common relational factors. Social workers make up one of the largest professional groups working with clients living with mental health concerns, and bring a unique person-in-environment and strengths perspective to that work, which fits well with a recovery philosophy. Clinical frameworks and interventions common across these fields, such as harm reduction, motivational interviewing, self-determination theory, and the transtheoretical model of changes are presented, and students are introduced to integrative approaches that show promise in responding to client conditions.

SOWK 4350 Evolving Perspectives and Trends in Aging (3 Credits)
This course provides an overview of how theories of aging inform the role of social workers with older adults and their families across a range of service settings, including emerging fields of practice. The course examines multiple perspectives on the late life adult years, spanning the period from middle adulthood and on into late life, including: historical, biological, psychological, social, cross-cultural, and spiritual theories and related empirical evidence. While addressing evolving trends, the importance of difference, and ethical implications the topical issues include: work and retirement; economic status; residence and housing location; education and learning styles; interpersonal relationships with partners, families, and peers; creativity, spirituality, and religiosity; political beliefs and ideologies (including the formation, maintenance and alteration of prejudice and racism); the experience of chronic illness, disability, and death; and wisdom attained during adulthood and aging.
SOWK 4360 Social Ecology, One Health and Resiliency: Connecting Human and Environmental Health (3 Credits)
This course is a theory of practice course in the Sustainable Development and Global Practice Concentration and is a required class. This course is also an elective for other concentrations. A defining feature of social work is the profession's focus on human well-being and health in a context of person-in-environment. This theory of practice course builds on that feature and emphasizes the concept of Social Ecology and explores the integrated model of One Health as a necessary understanding for human health as connected to the natural world. This course positions students to understand a 21st-Century vision for a sustainable and healthy human presence on Earth, including an integrated understanding of social, political, economic and environmental structures that influence the UN's Millennium Development Goals http://www.un.org/millenniumgoals/. Social workers often conceptualize interventions through the model of a Systems Perspective where the interconnectedness of systems is endorsed as the most accurate way in which to understand people in context. Fundamental to equipping social workers with the knowledge and skills to be effective in new challenges facing the human condition is a comprehensive understanding of the importance of healthy environments, and environmental forces that create, contribute to, and address problems in the everyday lives of people. This course is offered within the Sustainable Development and Global Practice concentration to assist in the training and preparation of social workers practicing within the international arena. Students explore the models and theories for the important and urgent issues occurring in our global environment and come away from this course with a strong understanding of the issues facing communities. Through the development of an integrated social science and eco-centric understanding of one's place in the natural environment and a paradigm that acknowledges the interdependence and interconnectedness between humans and the more-than-human world, social workers practicing locally and globally will be equipped to contribute to effective, strength-based solutions to address the crises and issues facing the world. Local issues and community-based efforts that strive for socio-environmental justice are highlighted to promote critical thinking around concrete issues and develop a knowledge-base for prevention as well as intervention strategies, environmental awareness, sense of belonging in a community, sustainability, resilience and advocacy. This includes policy and relevant laws with a focus on such topics as environmental toxins, sustainable economics, conservation of nature and biodiversity, land use, water use and the strong correlation between human health and the health of non-human animals and the environment. This includes humane treatment and care of wildlife and habitat and how to empower communities to resist their exploitation. Students are exposed to current challenges and competing needs confronting communities in urban as well as rural communities.

SOWK 4370 Community and Organizational Change: Theory for Practice (3 Credits)
This course presents key theoretical frameworks for students to be informed and innovative in responding to changing community, organizational and societal contexts. Theories of social change are presented that can assist social work leaders in promoting positive social change in the lives of vulnerable populations through the development of policy, community interventions and human services organizations. Students apply theories to understanding organizational change and innovation and the promotion of social and economic justice through community and policy practice.

SOWK 4375 Economic Theory and Social Work (3 Credits)
Human rights, urbanization, poverty, housing, gender inequality, care of children, poverty, indebtedness, racial and/or ethnic discrimination, and cultural conflicts are challenging the United States and nations throughout the world. This course introduces students to economic theories to develop broader conceptualization of local, national, and global social problems and possible intervention strategies. An understanding of economic theory provides a foundation for studying the emergence and maintenance of diverse social policies to address these problems. The course explores Neoclassical, Behavioral, and Microeconomic concepts of economic efficiency and the corresponding consequences to marginalized and oppressed populations.

SOWK 4401 Integrated Health Care: Models and Practice (3 Credits)
This course provides an overview of the knowledge, skills and theory of integrated health care social work practice, where physical and behavioral health care services are most often provided in a primary care medical environment. Students will learn roles/functions of the behavioral health professional and their effectiveness as a member of the collaborative care team. Incorporating knowledge of evidence-based practice models of care and behavior change theory, they will increase their practice abilities to effectively work at an advanced level of skill as an integrated care behavioral health provider. Strategies and skills in patient engagement, motivational enhancement and advocacy will be taught through case studies and group activities. Cultural competency and effective care planning in an integrated healthcare environment will be emphasized.

SOWK 4410 Prevention & Treatment of Adolescent Substance Abuse (3 Credits)
This course examines causal factors and theories that seek to explain why some adolescents develop problems with alcohol and other drugs. Effective substance abuse prevention and treatment approaches are identified at the individual, family, school and community level.

SOWK 4412 Practice Elements in Interventions with Children and Youth (3 Credits)
This course offers an integrative framework of theory and research to intervene with children and adolescents in school, family, and community-based agencies. Interventions include both direct work with children and collaborative/conjoint work with parents. Techniques include common elements across empirically-supported interventions such as cognitive-behavioral therapy, behavioral treatment, client centered treatment, social skills training, and parent management training. Intervention strategies are described across four primary problem areas common among children/adolescents: anxiety, depression, disruptive behavior, and attention deficit disorder. For each of these problem areas, intervention techniques are demonstrated, practiced in class, implemented in field placements, and monitored for client progress. The use of empirically-supported interventions is discussed from a multidimensional perspective with consideration for cultural context and adaptations necessary for particular client groups.

SOWK 4415 Intake and Family Based Services: Assessment and Intervention (3 Credits)
This course examines decision-making in child welfare at the point of family referral to the child welfare system, the processes involved in family assessment and service planning, and design, delivery and intervention skills for home-based child welfare services. It is prefered that students have completed SOWK 4305 prior to taking this course.
SOWK 4416 Foster Care and Permanency Planning (3 Credits)
This course presents strategies for culturally competent assessment and intervention with children who are in foster care, adoption, or with their families. It focuses on permanency planning, involving extended families in making case decisions and caring for children, family reunification, relinquishment of children for adoption, termination of parental rights, preparing children and parents for adoption or guardianship, working with young adults nearing emancipation, and providing post-adoption/guardianship services. Prerequisites: SOWK 4305 and SOWK 4600 or permission of the instructor.

SOWK 4420 Strategies and Techniques of Family Systems Therapy (3 Credits)
This is a skill-based class where students learn to apply family systems knowledge to case situations. Teaching strategies include role-play and discussion of actual cases. Prerequisite: SOWK 4320.

SOWK 4422 Strategies for Family Meetings (3 Credits)
This course builds students’ skills in conducting family meetings and brief family interventions. Students learn to incorporate clinical principles during time-limited contact with clients and their families of all ages. Skills include assessing family dynamics quickly, guiding family mediations and decision-making meetings, managing and debriefing crises and incidents, providing education, and intervening with supportive counseling. These skills are applicable in different human service organizations, such as aging services, alcohol and drug treatment facilities, child welfare, hospital and outpatient health care facilities, mental health settings, and schools.

SOWK 4425 Positive and Community Youth Development (3 Credits)
This course provides an overview of the “community and positive youth development” approach to providing social services to children and adolescents. Many services for young people focus on negative outcomes such as behavior problems, pregnancy, violence, drug abuse, and truancy. These services are supposed to “fix” the small minority of kids who are “broken” in some way. The community and positive youth development perspective stresses that all youth need a variety of supports and opportunities to develop into healthy, contributing adults. This course considers how such an approach to social service delivery can be applied across different organizational settings (e.g., schools, government agencies, and nonprofits) to promote the well-being of American youth from diverse cultural backgrounds.

SOWK 4430 Substance Use Interventions (3 Credits)
There is widespread recognition that substance use is one of America’s most pressing social problems. Social workers increasingly find themselves attempting to help individuals and families resolve substance use problems, as well as directly or indirectly related issues. This course introduces students to current and emerging substance use treatment approaches so they can conduct their practices from an informed perspective.

SOWK 4435 Community Organizing and Empowerment Practice (3 Credits)
Examines empowerment practice and community organizing as a social work intervention method. Topics include challenges of community practice in today’s world and with diverse groups; special tactics and techniques of community organizing and community capacity building models; empowerment of oppressed populations; ethical issues in community practice; social work and social justice. This is a required course in the Leadership for Community and Organizational Practice.

SOWK 4445 Social Work Assessment and Intervention in Aging (3 Credits)
This course focuses on biological, neurological, psychological, social, spiritual, and environmental aspects of late life as a foundation for the delivery of assessments and interventions to older adults. This course presents information on demographic projections, population trends, and theoretical perspectives that inform gerontological social work practice. This class additionally focuses on the unique nature of social work with this diverse population including a continuum of care services for older adults, interdisciplinary nature of helping services, dynamic nature of aging for multiple vulnerable older adults such as those facing institutionalized oppression, and specific attention to elder wellness.

SOWK 4454 Child and Adolescent Trauma (3 Credits)
This course introduces students to the common concepts (general theory and foundational knowledge), components (intervention and treatment elements) and skills (practitioner skills) underlying evidence-based treatment for children and adolescents who have experienced trauma. Trauma is broadly defined, and includes children and adolescents exposed to traumatic events including, but not limited to natural disasters, war, abuse and neglect, medical trauma, witnessing interpersonal crime (e.g. intimate partner violence), and other traumatic events. The course highlights the role of development, culture, and empirical evidence in trauma-specific interventions with children, adolescents, and their families. It addresses the level of functioning of primary care giving environments and assesses the capacity of the community to facilitate restorative processes. The course focuses on assessment and intervention as a foundation for subsequent learning about treatment. This course incorporates the new National Child Traumatic Stress Network (NCTSN) core curriculum on child trauma (CCCT). The course conveys the crucial evidence-based concepts, components, and skills designed by NCTSN to strengthen competency in assessment, referral, and treatment.
SOWK 4465 Human Security: Intervention Strategies for Economic & Social Development (3 Credits)

Human security is a new paradigm for understanding complex global vulnerabilities. Human security goes way beyond traditional notions of national security and highlights the security of the individual rather than that of the nation state. Human security uses a person, entitlement and human rights centered view of security. It is essential for national, regional and global stability and sustainability. In defining human security, the United Nations stressed "the right of all people to live in freedom and dignity, free from poverty and despair," and recognized that "all individuals, in particular vulnerable people, are entitled to freedom from fear and freedom from want, with an equal opportunity to enjoy all their rights and fully develop their human potential" (A/RES/60/1). "Human security aims at ensuring the survival, livelihood and dignity of people in response to current and emerging threats - threats that are widespread and cross cutting. Such threats are not limited to those living in absolute poverty or conflict" (UN-OCHA). Today, the impacts of natural disasters, climate change and other forms of environmental change, and global economic crises, among others, are considered to threaten human security in developing as well as developed countries. The increasing numbers of internal violent conflicts, forced migration, natural disasters and environmental degradation have resulted in national and international security failings that reflect the challenges of the post-Cold War security environment. The failure of mainstream development models to generate growth, particularly in Least Developed Countries (LDCs), or to deal with the consequences of complex new threats (e.g., HIV/AIDS, climate change, social and economic inequality) reinforced the sense that international institutions and states are not organized to address such problems in an integrated way. Social workers focusing on human, social and economic issues in global settings will use various human development strategies and other capacity-building approaches in practice. This course develops students' skills in human and social development strategies, sustainable livelihood and conflict management strategies, and other capacity-building community strategies, and fosters a solid understanding of the programmatic and practical requirements for human security in a global context.

SOWK 4500 Mental Health Interventions with Children (3 Credits)

This course offers an integrative framework of theory and research to understand and intervene in the major mental health problems experienced by children. Interventions include both direct work with children and collaborative/conjoint work with parents. Techniques include play therapy, cognitive-behavioral interventions, psychopharmacology, and crisis intervention for suicide. Children's development is considered from a multidimensional perspective, including cultural context, risk and protective factors, and the development of psychopathology.

SOWK 4501 Wellness Promotion and Intervention Across the Lifespan (3 Credits)

This course prepares students to critically analyze the determinants of wellness across the life span, across socio-economic boundaries and across cultures in order to promote wellness in the everyday lives we lead both personally and as social workers in a community. An emphasis will be placed on the research and application of knowledge and skills to increase social worker awareness of the distinctions between health and wellness and to promote wellness in the quality of life in a community. This course builds students' skills and strategies to enhance wellness needs within a community. Strategies include using developmental models, researching current policies, and implementing wellness assessment tools in order to create interventions for communities.

SOWK 4505 Relationship Therapy (3 Credits)

This course focuses on assessment, problem/solution path identification, intervention strategies and outcome evaluation in counseling heterosexual, gay and lesbian couples. Identifies common relationship patterns and explores intervention strategies including behavioral, strategic, structural, narrative, transpersonal and feminist. Also covered are issues such as conflict management, relationship enhancement, intimacy, power and control, domestic abuse, infidelity and divorce. Students will analyze the intersecting issues of oppression: sexism, racism, classism, heterosexism and ageism.

SOWK 4520 Advanced Strategies and Techniques of Family Systems Practice (3 Credits)

This course is an advanced skill-based course that extends students' knowledge and application of family systems therapy. The course engages the active participation of students in role-play scenarios and the discussion and deconstruction of actual cases. Advanced Strategies and Techniques builds on the family systems theory and practices applications learned in the family systems concentration courses and expands students' opportunity to apply theory to cases in diverse practice and client situations. Pre-requisites: SOWK 4320 and SOWK 4420.

SOWK 4523 Care Management Skills and Resources to Promote Community Living (3 Credits)

Many individuals and their families of all ages cope with physical and mental health conditions that impede their ability to live in the community. A vast array of formal and informal resources, public programs, and privately funded services can promote community living. Social workers often provide care management to enhance access, coordinate care, and ensure equality of these long-term services and supports. This course will develop students' skill at care management and knowledge of resources, including resources for persons with developmental disabilities, chronic mental health conditions, physical disabilities, and age-related functional impairments.

SOWK 4525 Administration and Management Practice and Skills (3 Credits)

This course examines the application of leadership and supervision theories to practice settings in communities, organizations and policy contexts. A focus is placed on leadership roles and an examination of leadership styles, with an emphasis on the skills of transformational leadership and supervision. Topics covered include team leadership and supervision, one to one supervision skills, managing conflict, personnel management, and cross cultural work.

SOWK 4530 Poverty and Community Economic Development (3 Credits)

This is an advanced community practice class focused on poverty, low-income neighborhoods and local economic development. The class begins with a thorough review of the scholarly literature related to poverty, sustainability, and the concentration of poverty in low-income neighborhoods. Then, public and private responses to poverty are examined. The class focuses on both governmental policies and programs supported by the private sector. Next, the class turns to local responses to the concentration of poverty in low-income neighborhoods. The class focuses on the interdisciplinary nature of programs and interventions aimed at community economic development in low-income neighborhoods.
SOWK 4535 Planning and Program Development (3 Credits)
This course prepares students to engage in strategic planning and program development roles and practice within a social work community, organizational, or policy practice setting. Students in this course gain knowledge in the principles of planning, social enterprise, the engagement of stakeholders in planning processes, community collaboration and the elements of designing and implementing programs. Students have the opportunity to put this knowledge base into practice by developing a comprehensive program proposal applying the skills of strategic thinking, planning, critically evaluating research informed practice and practice informed research. In addition, students engage in communicating professional judgment in both written and oral formats.

SOWK 4565 Social and Environmental Impact Assessments (3 Credits)
Social and environmental impact assessments are important tools for analyzing and managing both the intended and unintended consequences of development projects on human and ecological systems in order to bring about a more equitable and sustainable social ecological system. This class incorporates an understanding of the history and concepts of the three levels of impact assessments (micro, mezzo, and macro) into the research process that is the core of social impact assessments. Students prepare and evaluate social ecological impact assessments through learning to identify and define problems, select theoretical frameworks appropriate to the problem, identify research questions, design a study appropriate for the identified questions, gather and analyze data, and write the final assessment. Particular attention is paid to assessing the effects of interventions on vulnerable populations. Other topics will focus on the practical aspects of project team selection and management, timelines, and the communication of findings to stakeholders.

SOWK 4600 Child Welfare Policies and Services (3 Credits)
This course examines contemporary U.S. child welfare policies in historical perspective, focusing on prevention, report and investigation of child abuse and neglect, as well as family preservation, out-of-home care, adoption and services for troubled adolescents. Also evaluated are the impact of policies and proposals for change in policies, considering empirical evidence, values and ethics. Provides a framework to analyze policy choices and encourages students to advocate for needed policy changes. Prerequisite: SOWK 4120 or SOWK 4299.

SOWK 4605 Poverty: Policies and Services (3 Credits)
The United States poverty rate declined steadily from the 1950s through the 1970s, decreasing from 22% of the population in the late 1950s to 12% in the late 1970s. Poverty rates have fluctuated since then with current rates standing at approximately 15% or 46 million people. More than 16 million children, 22% of all children, live in families with incomes below the federal poverty line. The course begins by considering the federal poverty measure and competing definitions of poverty. Key programs and policies meant to alleviate poverty, such as government transfer programs (including cash and noncash welfare, earnings supplements, and social insurance programs), education and training programs, and support services are examined. Course content is applied to practice scenarios to enhance student knowledge of poverty programs, eligibility criteria and application processes. Critical discussions of these programs will inform analysis of alternative approaches to poverty reduction and economic self-sufficiency.

SOWK 4610 Policies and Programs for Children and Youth (3 Credits)
This course examines the history and evolution of social policies and programs targeting high-risk youth. Students will seek to critically analyze the effects of current and recent policies in the context of youth offending and other adolescent problem behaviors. Prerequisite: SOWK 4120 or SOWK 4299.

SOWK 4630 Family Policies and Services (3 Credits)
Identifies challenges contemporary American families are experiencing and presents strategies for developing policies and services to meet these challenges. Examines specific policies and services that most affect families, as well as broader questions concerning power and its distribution, allocation of resources and the role of government in promoting individual and family well-being. Prerequisite: SOWK 4120 or SOWK 4299.

SOWK 4635 Immigration Policies and Services (3 Credits)
This course identifies challenges for immigrants and presents strategies for developing policies and services to meet these challenges. It not only examines specific policies and services that most affect immigrants but also considers broader questions concerning power and its distribution, allocation of resources, and the role of government in promoting individual and family well-being. This is a concentration policy course for all concentrations.

SOWK 4640 Mental Health and Substance Use Policies (3 Credits)
This course provides a comprehensive understanding of policies related to mental health and/or substance use, their historical antecedents, and the socio-political forces that influence their development. This course also introduces students to emerging controversies concerning these policies.

SOWK 4645 Health Care Policy (3 Credits)
This policy course provides an overview of health care policy as it is relevant to social work practice in multiple health and behavioral care settings. With the advent of health care reform and the implementation and operationalization of the Patient Protection and Affordable Care Act (PPACA), there are rapidly changing policy issues related to this innovative integration and delivery of health care services. Students in this course critically analyze the practice of policy in this new and quickly evolving service arena. This course explores key health policy strategies to foster integrated delivery system development and sustainability in line with health policy goals to reduce cost of care, improve population health and improve quality of integrated care services, with special emphasis on the integration of primary care, behavioral health services and wellness/health promotion initiatives. Strategies for students to influence policies and promote change in the interest of the individual/family/community, agency/organization and the communities they serve are presented. Critical thinking skills in developing and analyzing proposals to improve integrated health policy are encouraged. The course builds on policy content offered in the professional foundation year and links policy to practice and research skills.
SOWK 4650 Aging Policy (3 Credits)
This course provides an overview of social policy and service delivery issues in gerontology. It includes a critical review of rapidly developing policy issues, as well as an overview of U.S. health care and social service delivery systems serving older adults. The course encourages students to participate in critical analysis of issues and to develop and analyze innovative proposals to improve policy and programs for older adults. This course fulfills the policy requirement for the Aging Services and Policy concentration.

SOWK 4655 Mental Health and Health Care Policy (3 Credits)
This course provides an overview of social policy and service delivery issues in mental health and health care, with emphasis on achieving quality and addressing disparities. It includes a critical review of United States’ historic and developing policy issues, as well as mental health and health care financing and delivery systems and other key issues in the field. Students will participate in critical analysis of issues and will examine various proposals to improve mental health and health care policy and programs. Prerequisite: SOWK 4120 Social Policy Analysis, Advocacy and Practice, or SOWK 4299 Advanced Standing Seminar.

SOWK 4660 Social Policy Advocacy (3 Credits)
Facilitates student learning within policy-making arenas. Students are paired with health and social service agencies and coalitions to assist in agenda-setting, legislative research, and issue-advocacy development and implementation in the state legislature and bureaucracy.

SOWK 4665 Global Policies and Programs (3 Credits)
This course focuses on understanding and connecting eminent global policy trends, their inter-relatedness with globalization and their impact on human and social development. In particular, economy, trade, human rights, immigration, health, environment, human security as well as disaster relief and response related policies are examined. The course gives students the opportunity to study, analyze and understand specific federal and global policy initiatives, their development and implementation. The goal of this course is to train students to understand the essential components of global policies in both the public and private sectors and to prepare them to initiate systems reform to accomplish innovative and effective outcomes. This course addresses the development of policy in the context of social values and ethics. Policies are covered both from the viewpoint of developed and developing countries. Readings, examples and discussion include policies of nations and international organizations (e.g., United Nations, World Bank, International Monetary Fund, and specialized agencies such as the World Health Organization) with applications to both developed and developing countries. This course emphasizes an analytic approach for understanding the impact of policy on programs, services, and development at large.

SOWK 4670 Policy Development & Analysis (3 Credits)
Focuses on the development and analysis of social welfare policy. Reviews the structure of the policy-making and implementation process, and examines perspectives on the definition of social problems and approaches to the development and analysis of social welfare policies. Students apply the perspectives and frameworks as they analyze a specific social problem and policy directed toward it, identify needed change in policy, select place and strategy for change in policy, and communicate knowledge to central actors in the policy-making and implementation process. Prerequisite: SOWK 4120 or SOWK 4299.

SOWK 4680 Native Peoples Practice: History and Policy (3 Credits)
This course is designed as the background to practice with Native Peoples. It will explore the relationship between theory and practice, socio-economic, political, and health issues, and the dynamics of changes in reservation and urban Native communities. Historical trauma, federal policies, impacting Native people, and laws and regulations that impact social service delivery will be reviewed. Social services delivery systems will be analyzed with the uniqueness of the cultural parameters of tribal communities. Guest lecturers from tribal communities may partner with faculty to teach the course. Prerequisites: SOWK 4299 and SOWK 4132.

SOWK 4700 Solution Focused Brief Therapy (3 Credits)
This course is a methods/skills course that provides students with the opportunity to gain knowledge and skills in the contextual stance and core interventions of the evidence-based approach, Solution-Focused Brief Therapy (SFBT). Students gain an understanding of how this approach works, and the ability to use this approach in a variety of settings including with clients struggling with chronic mental illness, trauma, and substance misuse, as well as with children and adolescents, couples and families, in community development, and supervision. This course addresses competencies and practice behaviors in advanced clinical settings including Families, Child Welfare, Children and Youth, Mental Health and Health.

SOWK 4705 Forensic Orientation in Social Work Practice: Assessment and Interventions with High-Risk Offenders (3 Credits)
Presents and applies a framework for assessing and intervening with offender populations. This risk and containment framework takes a community safety and victim-centered perspective and focuses on assessing and intervening with multiple systems surrounding offenders. The framework is then applied to specific interventions with domestic violence abuse offenders and with adult and adolescent sexual offenders.

SOWK 4710 Domestic Violence (3 Credits)
This is a concentration year practice elective focusing on understanding, assessing, and intervening with domestic violence, understood as violence occurring in the context of intimate relationships. The purpose of this course is to provide students with the theoretical understanding and practice skills necessary to establish a beginning competence in assessing and intervening with domestic violence and in developing community, systemic, and policy responses.

SOWK 4712 Law of Family and Child (3 Credits)
Examines legal principles and procedures relevant to social work practice with families and children: structure and operation of the American legal system, principles to follow in conducting legal research, basic principles of constitutional law and law related to juvenile delinquency, child protection, child adoption, education and domestic relations. Covers legal aspects of social work practice including licensing, confidentiality and professional liability. Successful completion of this course or SOWK 4715 required for certification as school social worker in Colorado.
SOWK 4713 Preventing Behavioral Health Problems in Children and Youth (3 Credits)
Behavioral health problems in childhood and adolescence take a heavy toll on millions of lives. These problems range widely – from anxiety and depression to alcohol, tobacco, and drug abuse; delinquent and violent behavior; dropping out of school; and risky sexual activity and unwanted pregnancies. SOWK 4713 presents an overview of practices and policies aimed at preventing behavioral health problems in young people. Emphasis is placed on developing the practice and policy skills that are necessary to deliver preventive interventions and programs in schools, families, and communities. Students will select an effective program, learn the skills necessary to deliver the program, and then implement the program in a classroom setting. Class content will emphasize the importance of increasing the role of social work practitioners and social work values in the interdisciplinary field of prevention practice.

SOWK 4715 School Social Work Interventions (3 Credits)
Designed to give students the ability to identify, understand and apply the varied roles of school social worker. Examines politics of education, the educational organizational structure, special education law and process, collaborative teamwork with school and community professionals and intersystem case coordination. Emphasis placed on meeting the needs of special education populations through assessment, intervention and evaluation and on preventive programs for children and youth at risk for school failure, truancy and dropping out.

SOWK 4720 Prevention and Treatment of Juvenile Delinquency and Youth Violence (3 Credits)
Examines causal factors and theories that seek to explain why some adolescents engage in delinquent conduct and/or violent behavior. Effective delinquency and violence prevention and treatment approaches are identified at the individual, family, school and community levels.

SOWK 4721 Existential Social Work Practice (3 Credits)
The problems facing people can be understood in the context of situations and meanings they give to them. This course seeks to identify useful ways to clarify and validate the client’s unique “world view”, bypassing the many dangers and misuses of diagnostic categorization and empowering clients in relation to themselves and problem definition.

SOWK 4723 Social Work Practice in Health Care (3 Credits)
This course is designed to explore and develop advanced social work knowledge and skills in order to practice social work in diverse health care settings. It includes examination of the social work role on interdisciplinary teams, health care terminology, setting-specific assessment and interventions and comprehensive social work services for acute and chronically ill patients. It emphasizes social work values and ethics in relation to health care practice.

SOWK 4725 Mind-Body Connections and Social Work Practice (3 Credits)
This course teaches skills for implementing mind-body techniques, models for wellness assessments, and evidence-based mind-body strategies for intervention in client and community problems. An evidence-based approach creates a foundation for: 1) understanding the mind-body connection that influences an individual’s and community’s physical, emotional, and social well-being and 2) the most efficacious methods for mind-body social work practice skills. Research evidence demonstrates that mind-body strategies are helpful for an array of concerns such as, military personnel with PTSD, adults with emotional regulation issues, academic concerns of stressed-urban youth, community mobilization, and emancipatory practice.

SOWK 4730 Cognitive Behavioral Therapies (3 Credits)
This course examines major cognitive behavioral therapies (CBT) suggesting methods focusing on clients’ problem-solving abilities, building on client strengths, targeting specific thought patterns that impede clients from reaching goals, and assessing outcomes in terms of changes in thinking and behavior. Theory is applies to individuals, dyads, families, and groups. Additionally, this course examines relevant research suggesting both indication and counter-indications of approaches.

SOWK 4732 Disrupting Privilege through Anti-Oppressive Practice (3 Credits)
This course, building on the theoretical foundation in SOWK 4132 Multicultural Social Work Practice, examines the barriers to the professional use of self as an ally to historically disenfranchised groups, both in the context of day-to-day relationships with clients as well as in the context of community and macro-level interventions. The course is intended to assist in understanding the personal, situational, structural, and cultural influences that impede justice-oriented social work practice. The course supports students in developing strategies, skills, and approaches to anti-oppressive practice. Anti-oppressive social work practice is a range of practice approaches that adopt a critical and structural perspective on issues of social inequality, oppression, power, privilege, and domination. It encompasses approaches such as feminist, anti-racist, Afrocentric, disability practice, and critical social work frameworks to name a few (Campbell, 2003). It attends to both process and outcome (Dominelli, 1998), and links the provision of individual assistance to people from marginalized groups with involvement in social movements corresponding to the marginalization (Carniol, 2000). "The [anti-oppressive] framework enables links to be made between individual action and social structures. It informs practice by enabling the worker to evaluate differences that exist at an individual level and within society and how these impact on each other. It provides the means of making accurate assessments by taking into account the inequalities that texture the lives of those denied access to society’s resources because of their defined social status and the exclusionary practices of the dominant system. It demands that we consistently engage in the process of critical self examination, which in turn enables us to engage in the process of change.” (Dalyymple and Burke, 1995, p. 18).

SOWK 4735 Interpersonal Approaches to Counseling (3 Credits)
This course is an elective course which utilizes the interpersonal models of psychotherapy and neurobiology, drawing upon psychodynamic theories and techniques. The course examines traditional and contemporary psychotherapy theories and techniques. Interpersonal interventions are grounded within the values, ethics and standards of practice for clinical social work.
SOWK 4737 Assmnt & Interven w/Adolescent (3 Credits)
Examines adolescence as a major developmental life cycle stage and the reciprocal relationships between gender, race, ethnicity, family development, peer group, neighborhood and the adolescent's physical, intellectual, social and sexual development, as they contribute to identity formation. Presents individual, group, family and program-based intervention approaches, ranging from least to most intensive and restrictive. Prerequisite: completion of foundation year course work or permission of adviser and instructor.

SOWK 4741 Grief and Loss Across the Lifespan (3 Credits)
This course is designed to prepare students to understand social work roles and practice (engagement, assessment, intervention and evaluation) in working with those experiencing loss across the life span. Whether the loss is related to health or functioning, family system, developmental stage or an actual death, this course prepares students to be culturally responsive to diverse perspectives and bereavement needs. Students will learn theoretical models of grief and loss and how to effectively evaluate the needs of grieving individuals, families, communities and their support systems.

SOWK 4749 Social Work Interventions with Latinos/as (3 Credits)
Addresses immigration issues, as well as intervention and theoretical approaches for Latinos/as. Covers the selection of interventions and strategies for cross-cultural use in adequately addressing the needs of Latinos/as. A required course for the Social Work with Latinos/as Certificate.

SOWK 4750 Critical Perspectives on the Latino Context (3 Credits)
This course provides a framework for culturally relevant social work services designed to meet the needs of the Latino/a community. This is a social work content course taught in Spanish in collaboration with the Department of Languages and Literatures. Students acquire core principles grounded in an understanding of social justice, privilege, and oppression including the interconnection between human and civil rights, globalization, immigration and poverty. Students will expand their oral and written Spanish expression as they learn about cultural, social and political theory. Students learn aspects of Mexican culture, community development, historical patterns of oppression, spirituality, and the role of indigenous movements. As a result of this course, students understand how to advocate for nondiscriminatory cultural, social and economic practices within a Latino context and experience. The course is open to both foundation and concentration students. It is designed for students in all tracks who have an interest in understanding issues facing the Latino community. This course is conducted in Spanish. Prerequisite: Initial placement is based on minimum language proficiency test results at the intermediate-advanced level. Further placement determination will consist of a comprehensive evaluation to ascertain oral and written proficiency.

SOWK 4751 Global Relations and Poverty in Mexico (3 Credits)
Provides a mixture of experiential and academic learning based on the community-learning model of Paulo Freire. Taught in Cuernavaca, Mexico, the course covers Mexican culture, community development, historical patterns of oppression, spirituality and liberation theology, global economics and policy, and the role of indigenous movements. Includes discussion on the relationship between poverty in Mexico and the US, and implication for social workers. A required course for the Social Work with Latinos/as Certificate.

SOWK 4752 Trauma Informed Assessment and Interventions (3 Credits)
This course provides an overview of multi-system level definitions of traumatic experience—historical, individual, interpersonal, family, organizational, and community. The emphasis is on social work practice that is culturally responsive, growth-oriented, and strengths based, in which the study of trauma is approached from a theoretical base that perceives the trauma response as a "response" rather than a "disorder." Trauma informed assessment and interventions are examined, incorporating a social justice perspective on historical trauma, poverty, and interpersonal violence. This course promotes the unique contribution social workers offer through the lenses of strength, resilience, and coping as well as commitments to cultural responsiveness and ecological/systems factors. Students will identify how secondary trauma impacts social workers and the importance of professional accountability to self-care and ongoing growth and development.

SOWK 4753 Social Development in Latin America (3 Credits)
Covers social development in South and Central America, with special emphasis on Mexico. Practice-oriented, it is geared towards a knowledge of policy-making in Latin America and on the skills required for local social development. A required course for the Social Work with Latinos/as Certificate.

SOWK 4754 Trauma and Recovery in Social Work Practice (3 Credits)
Provides an overview of multi-system level definitions of trauma experience - historical, individual, interpersonal, family, organizational, community, and global. Also examines various approaches to trauma response theory. Promotes the unique contribution social workers have to offer through lenses of strength, resiliency, and coping as well as commitments to multicultural and systems factors.

SOWK 4755 Interventions for Responses to Trauma (3 Credits)
This course is designed from a strengths perspective, in which the study of trauma is approached from a theoretical base that perceives psychological adjustments after trauma as primarily a "response" rather than a "disorder." Includes information on the integration of cognitive, emotional, and somatic approaches to trauma treatment, as well as consideration of when to use a trauma-informed versus a trauma-focused paradigm. At the community level, the course also includes an introduction to mental health reactions and responses to disaster. Prerequisite: SOWK 4754.

SOWK 4756 Social Work from a Chinese Perspective (3 Credits)
This course provides students with a unique opportunity to learn first in the classroom the social, cultural, historical, political, and economic characteristics of China and how these characteristics shape social work in China. Then students learn by experiencing social work in China. In Beijing, students participate in lectures given by faculty at China Youth University, discussions with social work students, visits to social work organizations, visits to important cultural landmarks and nightly synthesis of new knowledge and experiences. An elective course.
SOWK 4757 Social Work and Latino/a Cultures: An Intensive Practice and Spanish Immersion Course (3 Credits)
This required course for the Social Work with Latinos/as certificate combines academic classroom instruction and experiential and conversational learning. The goal of the course is to enhance the student's Spanish communication and cultural responsive skills through dialogue practice and service in Latin America. Country location for this study abroad course is determined based on yearly certificate objectives and travel advisories. Based on the student's individual skills and interests, and the needs of local field agencies and communities, students become involved in volunteer and service learning opportunities preparing them for their concentration field placement back in the United States where they are expected to demonstrate competency in Spanish. Students will learn to identify cultural differences and similarities in attitudes towards community organizing and mental health care, and social service delivery in order to better address these cultural differences and similarities in the United States. This experience also allows students to learn Spanish within a cultural and professional context. This course is conducted entirely in Spanish.

SOWK 4758 Social Work in Kenya: Context, Conservation, Empowerment, Sustainability (3 Credits)
This course is designed to introduce students to the social, cultural and conservation issues of Kenya and East Africa. This course is field-based with strong emphasis on service learning and direct experiences. Course readings, lectures, classroom discussions, service learning projects and field work in rural Kenya provide participants firsthand experience in the social, cultural, historical, political, environmental, ecological and economic realities that exist in Kenya. This course is open to qualified concentration and advanced standing Graduate School of Social Work students. The course meets on campus for four sessions before traveling to Nairobi, Voi, and Kasigau, Kenya. Due to the intensive nature, remote travel logistics and costs for this course, direct communication with the professors is required. Qualifications include: willingness to sign International Travel Agreement, willingness to receive required medical authorization and immunization, academic good standing, and readiness for the physical and emotional demands of traveling in rural and remote Africa.

SOWK 4759 Global Cultural Perspectives: Consensus and Conundrums (3 Credits)
Social workers increasingly practice in global communities both nationally and internationally. Changes in practice environments demand that social work practitioners are informed citizens of comparative cultures and societies. This course examines the values and ethics of social work practice in a global context of power, privilege and oppression. Course materials and educational experiences are used to challenge students to examine ethical and value-based conundrums when practicing in global settings and to develop practice skills to enhance the health, well-being and sustainability of communities. Through the use of case studies, critical thinking, cultural inventories and reflexivity the course supports and challenges students' personal growth and professional practice.

SOWK 4760 Resource Development and Fundraising (3 Credits)
This course examines strategies and tactics around skill building in fundraising, resource-development strategies, grant-proposal writing, budgeting, and fiscal processes common to not-for-profit or governmental organizations. Topics include resource development and acquisition (fundraising) and discussions on the budget process required resource management for nonprofit organizations.

SOWK 4762 Bosnia in Transition: The Social Work Response (3 Credits)
This course provides students with the unique opportunity to learn firsthand about the social work response in post-war Bosnia through a social justice lens. The social, cultural, historical, political, economic, religious, legal and ethnic characteristics of the former Yugoslavia will be explored as context for studying the genocide that occurred in the 1990s. Learning will occur in the classroom at GSSW, followed by travel to Bosnia. Students will be exposed firsthand to the local, national and international efforts toward rebuilding and healing, through lectures provided by faculty at the University of Sarajevo School of Social Work, interaction with Bosnian social work students, visits to NGOs focused on the post-war efforts, visits to sites important during the war, visits to war tribunal sites, and exposure to current legal, economic and human service processes.

SOWK 4764 Historical Trauma and Healing (3 Credits)
This course is designed to provide students with a context for practice with communities experiencing historical trauma. We learn about the conceptualization of historical trauma, its impact on communities as well as community responses to it. We also discuss the importance of cultural protective factors, strengths, and culturally relevant models of healing around multigenerational, collective experiences of trauma. A number of practice approaches found useful with communities experiencing historical trauma are presented and discussed. Class format includes presentations, small group discussions, films, poetry, movement, and experiential learning in the community. This course is built upon the concepts of empowerment practice, indigenous models of social work, and narrative theory and practice. We use these perspectives as we explore work around historical trauma in communities. This class provides social work direct practice skills on individual, family, community and policy levels.

SOWK 4765 International Social Development (3 Credits)
Social development is a process of planned instructional change to bring about a better correspondence between human needs and social policies and programs. This class focuses primarily on the developing world with particular emphasis on transitional economies. Practice-oriented, the class is geared toward a knowledge of policy-making for human security and the skills required for local social development.

SOWK 4775 Social Work with Adult Groups (3 Credits)
The course teaches students advanced clinical group work methods and skills with vulnerable and resilient adult clients who are experiencing an array of bio-psycho-social-spiritual problems, and who are seen in mental health, health, and gerontology practice settings. The purpose of group work is to meet the socio-emotional needs of members through mutual aid and support, education, therapy, growth, and socialization. The impact of gender, age, race/ethnicity, sexual orientation, social class, ability/disability, and spirituality on group formation and dynamics is addressed. Evidence of practice effectiveness of group methods is examined. Ethical conflicts and dilemmas involved in group work are considered within the framework of social work values and ethics.
SOWK 4780 Conflict Resolution in Social Work Practice (3 Credits)
Covers methods of conflict resolution including negotiation, bargaining and mediation. Applies social work role of mediator to families, divorces and child custody, elder care issues, groups and organizations. Examines frameworks and helps students build skills for conflict resolution in practice. An elective course.

SOWK 4784 Suicide Assessments and Interventions (3 Credits)
This course builds students’ competencies in assessing suicide risk, planning for safety, and providing counseling to individuals who are thinking about suicide or have made a suicide attempt. This class examines theories of suicide causation, methods of suicide risk assessment, and models of techniques for intervention. Students will learn practices for eliciting sensitive information about troubling thoughts, assessing and documenting a client's level of suicide risk, and using cognitive-behavioral and other methods to help reduce suicide risk.

SOWK 4790 Human Sexuality (3 Credits)
Integrates human sexuality in the thinking and practice of social workers. By viewing sexual behavior from the social work perspective, the student is prepared to assume a significant role in helping clients deal with issues of human sexuality. Focuses on clients experiencing sexual dysfunction and on sexually oppressed client groups including the elderly, the homosexually or bisexualy oriented, the physically or developmentally challenged and the sexually abused. An elective course.

SOWK 4795 Integration of Animals Into Therapeutic Settings (3 Credits)
Explores the human-animal bond and potential for therapeutic intervention with the animal as teacher, therapist, facilitator and companion in a number of therapeutic settings. Focuses on core skills for social workers seeking to integrate this clinical approach into their practice. A required course for the Animal-Assisted Social Work Certificate.

SOWK 4796 Animal Assisted Social Work Practice (3 Credits)
This course provides a comprehensive examination of approaches to Animal Assisted Social Work (AASW) and emphasizes clinical application skills utilized with a broad array of persons and in a number of therapeutic settings. Students will learn to design, implement and analyze the efficacy of AASW approaches within their chosen area of specialization, providing an opportunity to practice these approaches in their field internships. Students will learn to clearly articulate, assess, and intervene in "link" violence as it relates to social work practices and AASW implications. A required course for the Animal-Assisted Social Work Certificate. Prerequisite: SOWK 4795 or permission of instructor.

SOWK 4797 Issues for Evidence-Supported Animal Assisted Social Work (3 Credits)
This course is designed to take students into an evidence-supported exploration and understanding of methods for incorporating specific animals and animal assisted interventions in the context of current social work practice. The course examines the capacities of different species for work with diverse goals and populations in animal interactions and introduces components critical to animals' well-being. Emphasis is placed on case formulation and experiential learning methods that link goal-specific human-animal interactions that impact measureable client behavioral changes. The course focuses on the explicit identification of how the animal will move clients toward goals and identifying outcomes and indicators of such change. Special attention is given to the development of animal selection, handling, evaluation, and management skills necessary for development as a social worker with competency in the incorporation of animals in evidence-based practice. Prerequisite: SOWK 4795.

SOWK 4820 Integrated Family Studies Intensive I (1,2 Credit)
This course aids students in identifying personal strengths and weaknesses which may contribute to therapeutic work with clients.

SOWK 4821 Integrated Family Studies Intensive II (1,2 Credit)
This course is designed to provide an understanding of the historical development and basic theory and practice of family therapy.

SOWK 4825 Family Therapy Assessment, Engagement and Treatment Planning (1,2 Credit)
This course provides knowledge of assessment concepts that are related directly to strategy and goal planning, which facilitate proceeding with the early phase of family treatment.

SOWK 4826 Applied Ethics (1,2 Credit)
This class enhances the student's understanding of the professional, legal and ethical issues in systemic, relational, and family therapy.

SOWK 4830 Strategies and Techniques in Family Therapy: Families and Play Therapy (1,2 Credit)
This course is designed to acquaint students with the origin, theory and use of strategic and narrative methods in marital and family therapy.

SOWK 4831 Couples I (2 Credits)
This course concentrates on approaches to couples therapy. Developmental models of couples work are explored.

SOWK 4835 Working with Multi-Problem Families (1,2 Credit)
This course is offered as part of the cooperative program with the Denver Family Institute. Course focuses on the development of skills needed for working in multi-disciplinary settings. Emphasis is on integrating family therapy theory and practice with individual models.
SOWK 4890 Contemporary Global Issues (1-3 Credits)
The complexities of sustainable development and global practice require an understanding of current developments and events at a global scale. This course is designed to support student learning by providing a dynamic review and exploration of contemporary global issues with a focus on approaches and competencies for global social work practice. This course encourages students to understand the myriad geo-cultural, political, socio-economic, and environmental dimensions involved in current global developments and events. Examining issues of governance, local and regional laws, as well as human rights and social justice issues to include those of race, religion and ethnic influence can expand understanding of the unique considerations of various countries and world regions. Particular emphasis is laid on human security, poverty alleviation and humanitarian concerns, conflict/post conflict response, human rights, human and social development, migration and refugee activity, civil society and environmental sustainability. In this course, efforts are made to incorporate historical understanding, research-driven knowledge, expert experience-based insight, and field-tested skills and resources to examine possible solutions, policy, and response. Social workers focusing on human, social, economic and ecological issues in global settings must be equipped to evaluate, analyze and respond to current global issues with a coherent understanding of major value and policy frameworks such as the new Sustainable Development Goals (SDGs). This course develops students’ global reach and readiness as global citizens and social workers by engaging students in a year-long in-depth exploration of current events shaping issues and unfolding events globally.

SOWK 4900 Methods for Evaluating Practice and Programs (1-3 Credits)
Provides students with strategies for evaluating social work practice at multiple system levels. Prerequisite: SOWK 4201 or admission to advanced standing program.

SOWK 4901 Applied Practice Evaluation Research (3 Credits)
Provides students with the opportunity to conduct a practice evaluation project in their field setting. Prerequisite: SOWK 4900.

SOWK 4950 Foundation Field Internship (1-15 Credits)
This required practicum provides foundation students with the opportunity to integrate social work theory and practice for effective professional intervention at clinical and community levels. Prerequisite or Corequisite: SOWK 4001, SOWK 4002, SOWK 4003, SOWK 4007, SOWK 4008. Corequisite: SOWK 4150.

SOWK 4960 Concentration Field Internship: Clinical (1-18 Credits)
Concentration students participate in planned clinical practice experience that integrates classroom theory, the learning of practice skills and the continued development of social work attitudes, ethics and values in the clinical practice setting. Prerequisite: completion of foundation year course work and field practicum.

SOWK 4961 Concentration Field Internship: Community (1-18 Credits)
Concentration students participate in planned community practice experience that integrates classroom theory, the learning of practice skills and the continued development of social work attitudes, ethics and values in the community practice setting. Prerequisite: completion of foundation year course work and field practicum.

SOWK 4965 International Field Practicum (0-18 Credits)
This international course fulfills partial requirement for a student’s concentration year practicum. In an international social work setting, the practicum provides students with the opportunity to integrate social work theory and practice for effective professional intervention at clinical and community levels.

SOWK 4970 Concentration Field Internship (0-18 Credits)
Concentration students participate in planned practice experience that integrates classroom theory, the learning of practice skills and the continued development of social work attitudes, ethics, and values. Prerequisite for 2-year students: successful completion of foundation-year course work and field internship. Prerequisite for students with advanced standing: successful completion of advanced standing prerequisite courses and BSW-year internship. Field must be taken concurrently with concentration-year course work, or after core concentration course work. Concentration-year field requires a minimum of 20 hours a week experience at the assigned field agency. Any deviation from this standard requirement must be approved by the Director of Field Education.

SOWK 4971 Experimental Class (3 Credits)
Experimental courses allow GSSW to provide a wide variety of course offerings that respond to current issues and themes in the profession as they arise, as well as providing specialized courses that relate to the interests and areas of expertise of our faculty. All experimental courses are offered as electives open to all students. Prerequisite: determined by each instructor.

SOWK 4990 Topics in Social Work (1-3 Credits)
This topics course provides students with the opportunity to learn content appropriate to graduate social work education that is not currently incorporated into the standard MSW curriculum. Given the ever-changing nature of social work practice, theory, and research, topics of importance emerge each year that have particular relevance for a period of time or may be new emergent topics that will have relevance for the future of the discipline of social work. As such, this course provides a mechanism through which courses may be offered on a one-time basis. Topics may be related to social work practice, theory, or research. Topics vary from term to term and may be limited by program administrators, faculty, or by student interest.

SOWK 4992 Directed Study (1-10 Credits)
A permanent catalog course delivered on an individual basis when the course is not offered that term. Directed studies are approved under extenuating circumstances to provide an opportunity to complete a required course. Prerequisite: approval of instructor and MSW Director. Credit hours vary according to the catalog course taken.
SOWK 4999 Capstone (0-1 Credits)
This course is a 0-1 credit (Pass-Fail) required course in which students document their work through the development of an individual portfolio. Students are asked to upload artifacts (papers, presentations and field accomplishments) from both classroom and field internship that demonstrate how they have met the CSWE foundation and concentration specific EPAS competencies and practice behaviors. Students complete a reflection statement on their learning as it relates to the EPAS competencies.

SOWK 5000 Seminar in Professional Social Work Issues (2 Credits)
Examines the dilemmas and challenges confronting the social work profession and social work education. Examines the nature of professional education, the nature of the profession itself and the forces internal and external to the profession that have an impact upon practice and education. Required.

SOWK 5101 Social Welfare Policy Analysis and Development (3 Credits)
Applies analytical techniques to development of social welfare policy stressing the ability to formulate a policy hypothesis (i.e., a statement, in testable form, of a basic premise undergirding a policy position) and to reach conclusions based on analysis of empirical evidence related to the policy hypothesis. Required.

SOWK 5110 Introduction to Advanced Quantitative Research Methods (3 Credits)
This required doctoral course introduces students to quantitative approaches to conducting social research. The course includes material related to measurement, sampling, research design, data collection, and data analysis. While each of these topics encompasses technical issues to be mastered by doctoral students, the logic and underlying rationale of these research methods is of prime importance in this course. A second component of the course requires students to define and begin to develop a substantive area of intended study and research during their enrollment in the doctoral program. Elements of articulating a substantive research area and steps toward defining key research questions in a topical area are reviewed. Aspects of conducting literature reviews leading to the articulation of a substantive research area are discussed in class sessions.

SOWK 5111 Quantitative Methods for Assessing Social Interventions (3 Credits)
Social work researchers are in a unique position to contribute to knowledge about the causes of individual and societal problems and to test interventions that seek to prevent or ameliorate such problems. A variety of qualitative and quantitative research methods are used to advance knowledge about etiological factors contributing to individual and social problems and to assess the outcomes of specific social policies and practice strategies. This course presents a detailed examination of quantitative methods and designs that are useful in assessing the effects of social interventions. Measurement, sampling and design issues in generating and testing research questions and hypothesis are explored. Experimental, quasi-experimental, and survey research designs are assessed and applied to practice and policy issues and problems. Special emphasis is placed on developing skills necessary to conduct intervention research. Cognate students may be permitted on a case by case basis, space permitting.

SOWK 5120 Introduction to Advanced Qualitative Research Methods (3 Credits)
This course provides a substantive doctoral-level review of content on qualitative research methods and strategies. It is developed for students from social science disciplines. The content includes the nature of the method, the epistemological implications and assumptions, and appropriate applications. Student learning and evaluation includes the experience of developing a research proposal based on qualitative methodology and conducting data collection for a mini-research project. This class a prerequisite for SOWK 5121, Qualitative Data Analysis. This course is required for social work doctoral students. Students from other departments may register with permission from the professor.

SOWK 5121 Qualitative Data Analysis (3 Credits)
The focus of this course is on data analysis and interpretation, demonstration of the science of the analysis, and presentation of findings in oral and written forms. Students are expected to conduct qualitative analyses on textual data they collected as part of SOWK 5120 or as a result of some other qualitative data collection experience. Over the course of the term students learn to code and analyze their data, interpret findings, orally present those findings, and write a final paper in which they demonstrate a rigorous engagement with qualitative data analysis and the literature relevant to their topic. This course is for SOWK PhD students only. Cognate students may be permitted on a case by case basis, space permitting.

SOWK 5130 Mixed Methods Research in Social Work (3 Credits)
This course introduces doctoral students to mixed methods research in social work and the social sciences. Students explore mixed methods as a third research paradigm that strategically combines both quantitative and qualitative methods within a single inquiry. The course encourages students to actively reflect on previous quantitative and qualitative research training. Specific topics for the course include: history and language of mixed methods research; relevant paradigms and epistemological debates; mixed methods design and research questions; and analysis and dissemination consideration. SOWK PhD students only. Cognate Students will be allowed to register on a case by case basis, space permitting.

SOWK 5201 Statistical Methods (5 Credits)
Examines the use and interpretation of statistics in educational and human services research, including descriptive and inferential statistics. Required.

SOWK 5202 Correlation and Regression (4 Credits)
Examines correlational and multiple regression research designs and their application to social work and social science problems. This course is for SOWK PhD students only. Cross-listed with RMS 4911, SOWK 5952. Prerequisite: SOWK 5201.

SOWK 5203 Multivariate Analysis (5 Credits)
Provides a conceptual understanding of common multivariate statistical techniques as applied to research in social work and the social sciences. Prerequisite: SOWK 5201.
SOWK 5300 Social Science Theory and the Philosophy of Science (3 Credits)
This foundation doctoral level course introduces traditional issues and recent developments in the philosophy of science, and provides an overview of social science theory and theoretical frameworks. It examines philosophical questions on scientific inquiry and the consequences modern science imposes on our basic understanding of knowledge and nature. The course analyzes and critiques the social-and-behavioral-science foundations that undergird the social work knowledge base and current social work theories. There are no prerequisites for this course. This course is required to social work doctoral students.

SOWK 5301 Social Work Theory in Research and Practice (3 Credits)
This course builds on SOWK 5300, Philosophy of Science and Social Work Theory, to examine how theories, conceptual frameworks, perspectives, and models are used specifically within social work research, education, and practice. This course explores how theories are used in research and in social work interventions on individual, family, group, organizational, community, and policy levels. The course analyzes and critiques the social work knowledge base and the current state of social work theories. This course is required for social work doctoral students. Prerequisite: SOWK 5300.

SOWK 5401 Quantitative Research Methods (4 Credits)
Focuses on basic elements of quantitative social research methods: measurement, sampling, research designs, data collection and data analysis. Emphasizes logic and underlying rationale, as well as technical issues. Prior understanding of computer-based statistical analysis is helpful. Required.

SOWK 5403 Advanced Social Welfare Policy Analysis (3 Credits)
Applies analytical techniques to development of social welfare policy stressing the ability to formulate a policy hypothesis (i.e., a statement, in testable form, of a basic premise undergirding a policy position) and to reach conclusions based on analysis of empirical evidence related to the policy hypothesis. This course is for SOWK PhD students only.

SOWK 5405 Qualitative Data Analysis (4 Credits)
Provides an understanding of analysis methods used to draw meaning from qualitative data, methods that must be practical, applicable and understandable to other observers. Prepares students to use a systematic, scientific process of analysis that captures the meaning of data while avoiding research self-delusion and unreliable or invalid conclusions. Topics include data collection, data reduction, data display, and conclusion drawing and verification. Methods include application of computer software. Prerequisite: SOWK 5402. Required.

SOWK 5450 Social Work Knowledge Integration and Publication (3 Credits)
This required doctoral course introduces students to integrating knowledge for social work scholarship through the use of tolls that support academic argumentation and exposition. It provides students with the skills, expertise, and readiness necessary to compose a number of scholarly documents, including academic publications and the dissertation proposal. The course focuses on the preparation and writing of the comprehensive examination proposal as an example of such documents. The major product of the class is a paper designed to meet the requirements of the comprehensive examination proposal. Advisors and mentors participate in class presentations and critiques as a part of preparing the student for their ongoing scholarship.

SOWK 5500 Pedagogy in Social Work Education (3 Credits)
This foundation course examines philosophies, theories, and pedagogical models that are utilized in social work education. It explores how various perspectives shape the approaches and techniques used and how these in turn impact classroom effectiveness and issues of classroom management. The course incorporates concepts and develops skills based on evidence-based teaching. This course is a required course for social work students and has no prerequisite. This course is for SOWK PhD students only.

SOWK 5500 Pedagogy in Social Work Education (3 Credits)
This 3-hour required course provides classroom instruction and teaching opportunities designed to prepare doctoral students for faculty positions in undergraduate and graduate level social work education. Students work with a faculty mentor to pursue practicum placements that match their substantive interests. Students are expected to devote approximately 8 hours to the practicum per week. Restricted to Ph.D. students only.

SOWK 5590 Multivariate Analysis (5 Credits)
This course is designed to provide students with an introduction to common multivariate statistical analyses. Provides a conceptual understanding of common multivariate statistical techniques as applied to research in education and the social sciences. Cross listed with RMS 4913. Prerequisite: SOWK 5300.

SOWK 5592 Correlation and Regression (4 Credits)
Examines correlation and multiple regression research designs and their application to educational and social science problems. Cross listed with RMS 4911. Prerequisite: SOWK 5300. Required.

SOWK 5590 Special Topics (1-3 Credits)
This special topics course provides students with the opportunity to learn content appropriate to graduate social work education that is not currently incorporated into the standard PhD curriculum. Given the ever-changing nature of social work practice, theory, and research, topics of importance emerge each year which have particular relevance for a period of time or may be new emergent topics that will have relevance for the future of the discipline of social work. As such, this course provides a mechanism through which courses may be offered on a one-time basis. Topics may be related to advanced social work theory, pedagogy, or research. Topics vary from term to term and may be initiated by program administrators, faculty, or by student interest.

SOWK 5591 Independent Study (1-10 Credits)
This is an opportunity for students to undertake special study in a defined area of interest with faculty consultation.
Graduate Tax Program

The Graduate Tax Program was created at the University of Denver in 1975 in response to the demand for trained tax specialists in both the legal and accounting professions. Initially an evening program catering to the needs of practicing attorneys and accountants employed in the Denver area, it has evolved into one of the few such programs to offer a curriculum designed for both the full- and part-time student. The Graduate Tax Program also offers its degrees in an online format for working professionals who live more than 50 miles from Denver. The Program, accredited by the Association to Advance Collegiate Schools of Business (AACSB) and offered subject to acquiescence by the American Bar Association, is offered to highly qualified students who are graduates in law, accounting, or business.

The Graduate Tax Program prepares students for entry into professional tax practice in both the public and private sectors. Through the interdisciplinary nature of the program, the law graduate learns the accounting aspects of tax practice, and the accounting graduate acquires a thorough understanding of the legal process.

Master of Laws in Taxation

A candidate for the LLM must have earned a Juris Doctorate (JD) or equivalent degree from an accredited law school, or in the case of a foreign candidate, must have completed a primary law degree with high academic standards from a recognized foreign university.

In order to be considered for admission, applicant must submit:

- completed application (through the DU Graduate Admissions (https://gradadmissions.du.edu/apply) application);
- $65 non-refundable application fee
• final official transcripts with Proof of Diploma/Certificate for all post-secondary coursework, including proof of JD or JD-equivalent degree; international transcripts not issued in English must be accompanied by a certified English translation; applicants may upload unofficial transcript copies for review purposes only
• personal statement/essay of interest and purpose that elaborates upon applicant's background and interest in taxation
• resume or CV
• at least one letter of recommendation
• International applicants must submit an official TOEFL or IELTS score report directly to the Graduate Legal Studies department from ETS or other testing authority (institution code 4842-03). GTP English proficiency requirements for English language standards for International candidates are: 80 internet-based/550 paper-based TOEFL, or 6.0 IELTS; English Conditional Admission option http://www.du.edu/learn/graduates/internationalapplicants.html
• Tuition Deposit: If accepted into the program, a $250 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment

Applications are accepted on rolling basis. Fall, Winter and Summer quarter start terms available (Spring term is available with departmental approval).

All required application materials must be received by the Graduate Legal Studies department in accordance with the following deadlines:
• 6 weeks prior to beginning of the quarter term for international applicants
• 3 weeks prior to beginning of the quarter term for domestic applicants

Master of Taxation
A candidate for the MT must have earned a Bachelor’s degree from an accredited institution, preferably in accounting or a business discipline. Other majors/disciplines are considered on an individual basis.

Graduate Tax Program will conduct a holistic review of applicants, and will consider, among other things: GPA, TOEFL/IELTS (if applicable), work experience, academic records, letters of recommendation and personal statement of interest.

In order to be considered for admission, applicant must submit:
• completed application (through DU Graduate Admissions application (https://gradadmissions.du.edu/apply));
• $65 non-refundable application fee
• final official transcripts with Proof of Diploma/Certificate for all post-secondary coursework; international transcripts not issued in English must be accompanied by a certified English translation; applicants may upload unofficial transcripts for review purposes only
• GRE or GMAT scores required (some exceptions apply)

Official GRE must be sent from ETS to the Institution code 4842-03. GMAT score report sent directly to us from GMAC. Use GMAT code number MZR-GT-68 or select University of Denver/Daniels College of Business/Graduate Tax Program from the pull-down menus on GMAC.com.

The GRE or GMAT may be waived if the applicant meets one of the following conditions:
1) previously earned a graduate degree from an accredited institution; 2) has passed ALL parts of the CPA exam; 3) has obtained a bachelor degree in accounting or business with a major in accounting with a GPA of at least 3.0.

Please contact Graduate Legal Studies to receive a waiver confirmation.

• personal statement/essay of interest and purpose that elaborates upon applicant’s background and interest in taxation
• resume or CV
• at least one letter of recommendation
• International applicants must submit an official TOEFL or IELTS score report directly to the Graduate Legal Studies department from ETS or other testing authority (institution code 4842-03). GTP English proficiency requirements for English language standards for International candidates are: 80 internet-based/550 paper-based TOEFL, or 6.0 IELTS; English Conditional Admission option available to academically qualified applicants http://www.du.edu/learn/graduates/internationalapplicants.html
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• 6 weeks prior to beginning of the quarter term for international applicants
• 3 weeks prior to beginning of the quarter term for domestic applicants
## Master of Laws in Taxation

### Degree Requirements

All students must complete 45 quarter hours within the approved GTP curriculum. Curriculum is applicable to both online and onsite degree options (with the exception of the Low Income Tax Payer Clinic).

### Coursework Requirements

#### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TAX 4200</td>
<td>Corporate Taxation I</td>
<td>4</td>
</tr>
<tr>
<td>TAX 4330</td>
<td>Corporate Taxation III</td>
<td>4</td>
</tr>
<tr>
<td>TAX 4310</td>
<td>Civil &amp; Criminal Tax Procedure</td>
<td>4</td>
</tr>
<tr>
<td>TAX 4020</td>
<td>Individual Tax Problems</td>
<td>4</td>
</tr>
<tr>
<td>TAX 4320</td>
<td>Partnership Taxation</td>
<td>4</td>
</tr>
<tr>
<td>TAX 4110</td>
<td>Property Transactions</td>
<td>4</td>
</tr>
<tr>
<td>TAX 4100</td>
<td>Tax Accounting</td>
<td>4</td>
</tr>
<tr>
<td>TAX 4010</td>
<td>Tax Principles, Research and Writing</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Elective Courses

Select 15 quarter hours from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAX 4500</td>
<td>Consolidated Returns (3 quarter hours)</td>
<td></td>
</tr>
<tr>
<td>TAX 4250</td>
<td>Ethics in Tax Practice</td>
<td></td>
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<tr>
<td>TAX 4386</td>
<td>Graduate Tax Externship</td>
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<tr>
<td>TAX 4300</td>
<td>Corporate Taxation II (4 quarter hours)</td>
<td></td>
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<tr>
<td>TAX 4470</td>
<td>Employment Tax (2 quarter hours)</td>
<td></td>
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<tr>
<td>TAX 4210</td>
<td>Estate &amp; Gift Taxation (4 quarter hours)</td>
<td></td>
</tr>
<tr>
<td>TAX 4230</td>
<td>Estate Planning (3 quarter hours)</td>
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<tr>
<td>TAX 4430</td>
<td>Exempt Organizations (3 quarter hours)</td>
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<tr>
<td>TAX 4220</td>
<td>Fiduciary Income Taxation (4 quarter hours)</td>
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<tr>
<td>TAX 4420</td>
<td>International Taxation (4 quarter hours)</td>
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<tr>
<td>TAX 4120</td>
<td>Qualified Pension and Profit Sharing Plans (4 quarter hours)</td>
<td></td>
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<tr>
<td>TAX 4600</td>
<td>Seminar: Selected Topics (2-4 quarter hours; course topics vary)</td>
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<tr>
<td>TAX 4490</td>
<td>State &amp; Local Taxation (2 quarter hours)</td>
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<tr>
<td>TAX 4240</td>
<td>Tax and Financial Planning (3 quarter hours)</td>
<td></td>
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<tr>
<td>TAX 4410</td>
<td>Taxation-Natural Resources (3 quarter hours)</td>
<td></td>
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<tr>
<td>TAX 4991</td>
<td>Independent Study (requires professor approval)</td>
<td></td>
</tr>
<tr>
<td>TAX 4315</td>
<td>Low Income Taxpayer Clinic (2 quarter hours; may take 4 quarter hours total)</td>
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</tbody>
</table>

Total Credits: 45

Students must earn and maintain a cumulative GPA of at least a 2.7 (77/B- if matriculated prior to Fall 2015) to remain in good standing.

A full-time student is expected to earn the degree in one year or over four quarters; a part-time student can earn the degree in 2-3 years. Program time limit is 5 years from the time of matriculation. Fall, Winter or Summer quarter matriculation is permitted; Spring quarter matriculation is available by departmental permission.

Dual J.D./LL.M. in Taxation degree available to those pursuing a J.D. at the Sturm College of Law

## Master of Taxation

### Degree Requirements

All students must complete 45 quarter hours within the approved GTP curriculum. Curriculum is applicable to both online and onsite degree options (with the exception of the Low Income Tax Payer Clinic).

### Coursework Requirements

#### Required Courses

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>TAX 4200</td>
<td>Corporate Taxation I</td>
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<tr>
<td>TAX 4330</td>
<td>Corporate Taxation III</td>
<td>4</td>
</tr>
<tr>
<td>TAX 4310</td>
<td>Civil &amp; Criminal Tax Procedure</td>
<td>4</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>------------</td>
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<tr>
<td>TAX 4020</td>
<td>Individual Tax Problems</td>
<td>4</td>
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<tr>
<td>TAX 4320</td>
<td>Partnership Taxation</td>
<td>4</td>
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<tr>
<td>TAX 4110</td>
<td>Property Transactions</td>
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<tr>
<td>TAX 4100</td>
<td>Tax Accounting</td>
<td>4</td>
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<tr>
<td>TAX 4010</td>
<td>Tax Principles, Research and Writing</td>
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</tbody>
</table>

**Elective Courses**

Select 15 quarter hours from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAX 4500</td>
<td>Consolidated Returns (3 quarter hours)</td>
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<tr>
<td>TAX 4250</td>
<td>Ethics in Tax Practice</td>
<td></td>
</tr>
<tr>
<td>TAX 4386</td>
<td>Graduate Tax Externship</td>
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<tr>
<td>TAX 4300</td>
<td>Corporate Taxation II (4 quarter hours)</td>
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<tr>
<td>TAX 4470</td>
<td>Employment Tax (2 quarter hours)</td>
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</tr>
<tr>
<td>TAX 4210</td>
<td>Estate &amp; Gift Taxation (4 quarter hours)</td>
<td></td>
</tr>
<tr>
<td>TAX 4230</td>
<td>Estate Planning (3 quarter hours)</td>
<td></td>
</tr>
<tr>
<td>TAX 4430</td>
<td>Exempt Organizations (3 quarter hours)</td>
<td></td>
</tr>
<tr>
<td>TAX 4220</td>
<td>Fiduciary Income Taxation (4 quarter hours)</td>
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</tr>
<tr>
<td>TAX 4420</td>
<td>International Taxation (4 quarter hours)</td>
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<tr>
<td>TAX 4120</td>
<td>Qualified Pension and Profit Sharing Plans (4 quarter hours)</td>
<td></td>
</tr>
<tr>
<td>TAX 4600</td>
<td>Seminar: Selected Topics (2-4 quarter hours; topics vary)</td>
<td></td>
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<tr>
<td>TAX 4490</td>
<td>State &amp; Local Taxation (2 quarter hours)</td>
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<tr>
<td>TAX 4240</td>
<td>Tax and Financial Planning (3 quarter hours)</td>
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<tr>
<td>TAX 4410</td>
<td>Taxation-Natural Resources (3 quarter hours)</td>
<td></td>
</tr>
<tr>
<td>TAX 4991</td>
<td>Independent Study (requires professor approval)</td>
<td></td>
</tr>
<tr>
<td>TAX 4315</td>
<td>Low Income Taxpayer Clinic (2 quarter hours; may take 4 quarter hours total)</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**

45

Students must earn and maintain a cumulative GPA of at least a 2.7 (77/B- if matriculated prior to Fall 2015) to remain in good standing.

A full-time student is expected to earn the degree in one year or over four quarters; a part-time student can earn the degree in 2-3 years. Program time limit is 5 years from the time of matriculation. Fall, Winter or Summer quarter matriculation is permitted; Spring quarter matriculation is available by departmental permission.

**Courses**

**TAX 4010 Tax Principles, Research and Writing (2 Credits)**

Research sources, techniques, and practice; in-depth research of selected areas. Emphasis on argument and communication of conclusion; evaluation of legislative history and administrative authorities.

**TAX 4020 Individual Tax Problems (4 Credits)**

Using the Internal Revenue Code and the Federal Income Tax Regulations as a basis, substantive issues relating to individual taxation are covered. Areas included are general concepts of gross income, individual employee benefits and deductions, charitable deductions, alternative minimum tax, deductibility and classes of interest, office in home and vacation homes, and a general overview of the interrelationships of various statutory and non-statutory principles. Cross listed with LAWS 4292.

**TAX 4100 Tax Accounting (4 Credits)**

Adoption of and change in accounting periods; income recognition and deduction allowance under the cash and accrual methods, including discussion of the time value of money; prepaid and contested income and expenses; income and deduction reversals; accounting method and practice changes; installment sales; long-term contractors; inventory accounting method and practice changes; installment sales; long-term contractors; inventory accounting, including LIFO and manufacturing's inventories and net operating losses; income tax allocation for financial reporting.

**TAX 4110 Property Transactions (4 Credits)**

Basis of property; expenditures and current expense comparison; depreciable status; amortization of intangible property; depreciation methods; property casualties and losses; profit or loss computation and characterization for taxable property dispositions; limitations on passive losses; lessor and lessee reporting; tax-deferred dispositions.

**TAX 4120 Qualified Pension and Profit Sharing Plans (4 Credits)**

An in-depth study of ERISA, labor departments rules, and Internal Revenue Code provisions relating to qualified deferred compensation. The course is geared toward an understanding of all the pension and profit sharing rules required for plan qualification, with emphasis on qualified plan planning for both incorporated and unincorporated forms of business.
TAX 4200 Corporate Taxation I (4 Credits)
The federal income taxation of corporations and their shareholders with emphasis on the creation of the corporation, establishment of its capital structure, operational alternatives, distributions to shareholders, stock dividends and redemptions, personal holding company, and accumulated earning tax.

TAX 4210 Estate & Gift Taxation (4 Credits)
Taxation of gratuitous transfers under the federal estate and gift tax codes, including taxable inter vivos gifts, annual exclusion, gift-splitting, gift tax charitable deduction, gift tax on powers of appointment, estate tax on owned interests, property transferred inter vivos with retained interests and powers, property subject to powers of appointment or transferred in contemplation of death, jointly owned property, life insurance proceeds, annuities and employee death benefits, marital deduction, charitable deduction, estate tax credits, estate tax deductions, valuation problems.

TAX 4220 Fiduciary Income Taxation (4 Credits)
Federal income taxation of estates and trusts. Included is a discussion of the concept of an estate or trusts; trust accounting income for a simple and complex trust; calculation of taxable income, including special rules on the calculation of distributable net income, capital gains, personal exemptions, and charitable contributions; the separate share rule and trapping distributions; income in respect of a decedents; the grantor trust rules under Section 671-678; and the calculation of the alternative minimum tax.

TAX 4230 Estate Planning (3 Credits)
Estate analysis, including fact gathering and the analysis of data; the psychological aspects of "role playing" in estate planning; the members of the team (the attorney, the CPA, the life underwriter, the trust officer); life insurance in an estate and business planning context; planning with trusts, including revocable, short-term, and irrevocable; the transfer of a closely held business interest from one generation to the next, including full and partial stock redemptions, cross purchase agreements, private annuity, installment sale, retirement, recapitalization, qualified and nonqualified plans of deferred compensation; special estate planning considerations for the professional corporation, the highly paid executive, and the farmer and rancher; specific cases analyzed. Prerequisite: TAX 4210.

TAX 4240 Tax and Financial Planning (3 Credits)
This is an introductory, integrated course focusing on personal financial planning. Topics covered include cash flow projections and budgeting, annual and multiple period income tax planning, an introduction to taxation of investments, an insurance and liability coverage insurance and liability coverage survey, retirement planning, and estate and succession planning.

TAX 4250 Ethics in Tax Practice (4 Credits)
An examination of the ethical rules and considerations affecting lawyers and accountants in tax practice, including transactional, compliance and controversy matters.

TAX 4300 Corporate Taxation II (4 Credits)
A continuation of Corporate Taxation I with emphasis on corporate reorganizations, operation, liquidation of subsidiary corporations and corporate division, and carryover of tax attributes. Prerequisite: TAX 4200.

TAX 4310 Civil & Criminal Tax Procedure (4 Credits)
Statute of limitations on assessment/collection of deficiencies, definition of deficiency, restrictions on assessment and collection; statute of limitations on overpayments, claims and suits for refund, and limitations for criminal prosecutions; regulations and rulings-- retroactive revocation; administrative settlements, closing agreements and compromises; civil penalties; tax return preparer penalties; civil litigation--injunctions, jurisdiction of Tax Court, District Court and Court of Claims, small claims procedure, authority to increase deficiencies, choice of forum; jeopardy assessments and termination of taxable years; criminal tax investigations-- administrative summons, document production (taxpayer and third party), constitutional protections, common law privileges, strategies; professional responsibilities and ethics for the tax practitioner.

TAX 4315 Low Income Taxpayer Clinic (2-4 Credits)

TAX 4320 Partnership Taxation (4 Credits)
Tax treatment of partnership income in the hands of the partner; the conduit rule; problems associated with the formation, operation, and dissolution of the partnership; sales of the partnership interest; withdrawal and retirement of partners; basis adjustments, unrealized receivables, and substantially appreciated inventory.

TAX 4330 Corporate Taxation III (4 Credits)
Advanced corporate taxation problems with emphasis on collapsible corporations; liquidations; detailed study of sections 305, 306, 307; loss carryovers and Subchapter S corporations. Prerequisite: TAX 4300.

TAX 4366 Graduate Tax Externship (2-4 Credits)
The Graduate Tax Program (GTP) encourages students to gain practical experience and to develop professional skills in the field of taxation. Externships are supervised by faculty and GLS department who interact with the eligible student and the employer or organization that provides the externship. The externship should provide a new learning experience for the student intern and must be related to taxation. Satisfactory completion of the externship will result in a passing grade for the externship. The GTP Director or a full time GTP faculty member may serve as Faculty Supervisor for GTP externs.

TAX 4410 Taxation-Natural Resources (3 Credits)
Tax problems encountered in the acquisition, operation, and disposition of natural resources properties; pre-production expenditures, depletion, depreciation, and ad valorem taxes; emphasis on overall tax planning for natural resource ventures.
TAX 4420 International Taxation (4 Credits)
Introduction to U.S. international taxation with an equal emphasis on inbound and outbound transaction. Resident and nonresident alien taxation, withholding taxes, effectively connected (business) income, foreign investment in U.S. real estate, tax treaties, branch taxes, earnings stripping, conduit financing rules, foreign personal holding companies, controlled foreign entities, foreign tax credit, foreign personal holding companies, controlled foreign corporations, passive foreign investment companies, export transactions, Subpart F manufacturing rules, outbound property transfers, and transfer pricing. Cross listed with LAWS 4344.

TAX 4430 Exempt Organizations (3 Credits)
The statutory exemption for “charities,” social welfares and social clubs, homeowners’ associations fraternal orders, employee benefit organizations, mutual or cooperative companies, business and professional leagues, labor unions, exempt organizations, property title companies, federally organized or chartered organizations, and political organizations’ activities, funds, and lobbying activities; prohibited transaction rules; the private foundation; the unrelated business and debt-financed income tax exposures; excise tax exemptions; administrative appeal and declaratory judgment procedures; anti-discrimination considerations; discrimination considerations; charitable contributions.

TAX 4470 Employment Tax (2 Credits)
Explore existing employment tax risks, recognize employment tax planning opportunities through appropriate compensation and entity structuring techniques, analyze proper worker classification, and highlight preventative techniques to avoid personal liability.

TAX 4490 State & Local Taxation (2 Credits)
Taxable incidents, privilege tax, discrimination, and multiple taxation under the Commerce Clause of the United States Constitution; taxation based on class legislation and Equal Protection Clause; nexus or jurisdictional due process allocation and apportionment formulas; business versus nonbusiness income; multi-state tax compact; unitary concept; residence definitions; nonresident income sources; tax credits and short-period returns for individual income tax payers; sales of tangible personal property; retail and wholesale sales; taxable and nontaxable leases; contractors rule, exemptions, and resale certificates under sales and use tax statutes; valuation techniques for real personal property; and administrative and judicial appeal of property tax valuations and assessments.

TAX 4500 Consolidated Returns (3 Credits)
Methods used by multiply related corporations to report income and losses; impact of corporate combination and separation; timing problems.

TAX 4600 Seminar: Selected Topics (2-4 Credits)
Recognition of tax problems and opportunities for a broad range of transactions encountered by individuals. Areas include family income splitting and other tax reduction and avoidance techniques; portfolio transactions, including short sales, puts and calls, and commodity futures; structuring agreements in contemplation of marriage or arising out of separation or divorce; personal insurance; charitable contributions; net operating losses; alternative minimum tax; various year-end planning techniques.

TAX 4980 Internship (0 Credits)
The Graduate Tax Program (GTP) encourages students to gain practical experience and to develop professional skills in the field of taxation. Internships are supervised by faculty who interact with the eligible student and the employer or organization that provides the internship. The internship should provide a new learning experience for the student intern and must be related to taxation. Satisfactory completion of the internship results in a passing grade for the internship. The GTP Director or a full time GTP faculty member may serve as Faculty Supervisor for GTP interns. Students must obtain approval from the GTP Director or a full-time GTP faculty member.

TAX 4991 Independent Study (1-5 Credits)
Opportunity to study and write in any area agreed upon between the student and a member of the faculty. The student is required to produce a written work of publishable quality to receive a final grade for the course. The 4- quarter-hour maximum may be applied toward graduation requirements with no more than 2 quarter hours in any one quarter.

**DU-Illiff Joint PhD**

**Joint Doctoral Program in the Study of Religion**

The PhD in the Study of Religion is a joint venture between the University of Denver and the Iliff School of Theology. With faculty from both schools equally available for coursework and mentoring, the Joint PhD combines the expansive opportunities of the University of Denver with the deep theological resources of the Iliff School of Theology. Coursework in all content areas emphasizes cross-discipline research. Classes are taught by faculty from the University’s Graduate School of Professional Psychology, Social Work, Education and International Studies, Anthropology, English, Philosophy, and more. These degrees equip students to become scholar-teachers who are committed to addressing contemporary social and spiritual matters.

**DU Iliff Joint Doctoral Program in the Study of Religion**

Office: Iliff School of Theology I-408
Mail Code: 4842
Phone: 1-303-765-3136
Email: Jointphd@illiff.edu
Web Site: http://www.du.edu/duiliffjoint/
Doctor of Philosophy in the Study of Religion

The Joint Doctoral Program in the Study of Religion (JDP), housed at the University of Denver and the Iliff School of Theology, has been developing leaders in the field of religion for over thirty years. The program offers students a rich and rigorous, yet flexible and interdisciplinary, environment for academic conversation and study. Students in the JDP benefit from a strong sense of community. Our students participate in a range of colloquia, workshops, and symposia that promote innovative and relevant scholarship. The JDP prepares students for careers in academia, religious communities, governmental organizations, counseling centers, and a variety of other vocational venues. Through close peer and faculty relationships and support, students develop their professional identities within the academic study of religion.

Across various specializations, JDP faculty are committed to educating all our students in the critical study of religion and to helping them develop the ability to understand their areas of specialization as a part of the larger discipline. The curriculum of the JDP seeks to prepare students to understand and participate in conversations about key ideas, themes, theories, questions, problems, and trends in the study of religion, including those within professional organizations such as the American Academy of Religion.

Spheres of Inquiry for Interdisciplinary study

The academic program utilizes lenses for study and research called spheres of inquiry.

- Lived Religion (persons and communities)
- Conceptual Approaches to Religion (issues, concepts, and social and cultural phenomena)
- Religion in Text, Image, and Artifact

The spheres are not discrete tracks of study but are intended to create spaces for conversation among faculty and students who have different areas of specialization. Each year, three colloquia will be offered, one for each sphere, focusing on a different theme. One faculty member will serve as moderator, but several faculty will participate as determined by their research interests. During their course work, students must take one colloquium in each sphere, though they may take more than one if they choose, since the themes will vary year to year.

Program Strengths for In-Depth Study

The JDP has resources to offer specialized study in a limited number of subject areas. The strengths of JDP faculty determine the most productive opportunities for study and for directed research, such as dissertation projects. The academic areas below are not distinct concentrations, but rather areas of strength among the current faculty of DU and Iliff.

- Bible, Ancient Judaism, Early Christianity
- Religion, Art, and Media
- Religion, Race, and Ethnicity
- Religion and Its Publics (U.S. and International
- Theories of Religion
- Religion and Human Experience

Certificate in Latinx Studies

Highlighting our commitment to diversity and our celebration of inclusive excellence, the Joint PhD program in the Study of Religion offers a certificate in Latinx Studies. Guided by faculty at both DU and Iliff, Joint PhD students consider questions of Latinx histories and culture from a theological and religious studies perspective and engage directly with Latinx communities through a variety of field placement and outreach opportunities. This certificate prepares student to teach Latinx Studies focusing on religion, theology, and social praxis.

Joint PhD in the Study of Religion

Following are the simple steps to apply for the Joint PhD Program in the Study of Religion at the University of Denver and the Iliff School of Theology. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated priority deadline: January 15. The program admits for the fall quarter only. Late applications will be considered but priority consideration for admission and program scholarships will be given to applicants who meet the priority deadline.
- A $65 non-refundable application fee is required for an application to be processed.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- A completed master’s degree relevant to the student’s proposed concentration(s) from a HLC accredited American university or a comparably accredited institution outside the United States as approved by DU’s Office of International Admission is required. In special cases, a student who
is admitted with a master’s degree in a field other than Religious Studies or a closely related field may be required to take remedial coursework that would not count as part of the student’s program. Such course work would not be covered by financial aid.

- A grade point average from all graduate work of no less than 3.0 (B) is required for admission into the program.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Paper transcripts should be sent to the following address:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

  Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Joint Ph.D. Program is 100 (iBT) or 600 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 7.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.
- Students wishing to pursue advanced study in the Bible, Ancient Judaism, and early Christianity must have demonstrated proficiency in ancient Greek and/or ancient Hebrew equivalent to one-year of study at the time of application. Proficiency must be documented by a transcript from a regionally accredited institution or by examination by a qualified examiner approved by the appropriate JDP faculty.

Test Scores
- Graduate Record Examination aptitude scores for general test are required for all applicants. When reporting scores to the Joint Ph.D. Program, please use institution code 4842 for the University of Denver. Applicants should take the entrance exam well in advance of their intended application date. Please allow at least 14 business days for your general test scores to be received. Applications will not be processed until scores have been received. Entrance exam scores older than five years from the date of the application may not be acceptable for admission.

Personal Statement
- A statement of purpose outlining the professional and/or academic goals and describing the applicant’s preparedness and background for pursuing doctoral work in the chosen field must be submitted. The length is typically 3-5 pages. Please be sure to identify specific faculty with whom you wish to work. The personal statement can be uploaded and attached to your online application as one document before submission.

Research Paper
- A research paper that represents the applicant’s best effort in an academic field of study directly related to the proposed field of study is required. Length is typically 10-20 pages, not to exceed 25 pages. The research paper can be uploaded and attached to your online application before submission.
Recommendation Letters
- Three letters of recommendation are required from qualified persons, including graduate and/or undergraduate faculty familiar with the applicant’s academic work. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
- The DU/Iliff Joint PhD Program awards merit-based scholarships. Scholarship determinations are made at the time of admission. No separate application is needed.

Application Status
- We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

Contact Information
- Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

  Electronic transcripts should be sent to gradinfo@du.edu.
  For more information call (303) 871-2706.

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Certificate in Latinx Studies
Only students admitted to the DU/Iliff Joint Doctoral Program in the Study of Religion may apply.

Students will need to complete the certificate application form and an interview with the Latinx Certificate Coordinator.

Students must demonstrate a commitment to Latinx communities and Latinx Studies and demonstrate an initial awareness of Latinx cultural contexts and the effects of systemic inequities experienced by these communities and the religious or social legacies of such experiences.

Doctor of Philosophy in the Study of Religion

Degree requirements

Coursework requirements
Core coursework requirements
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>RLGN 4000</td>
<td>Theories and Methods in the Study of Religion</td>
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<tr>
<td>RLGN 5000</td>
<td>Pedagogy and the Teaching of Religion</td>
<td>4</td>
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<tr>
<td>RLGN 6000</td>
<td>Dissertation Proposal Seminar</td>
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<tr>
<td>RLGN 5010</td>
<td>Lived Religion Colloquium</td>
<td>4</td>
</tr>
<tr>
<td>RLGN 5020</td>
<td>Conceptual Approaches to Religion Colloquium</td>
<td>4</td>
</tr>
<tr>
<td>RLGN 5030</td>
<td>Religion in Text, Image, and Artifact Colloquium</td>
<td>4</td>
</tr>
</tbody>
</table>

Additional coursework
- Complete 42 credits of additional elective coursework, including any approved transfer credits, before beginning dissertation research. The maximum number of Independent Study credits allowed is 12.

Comprehensive Exam Review Courses
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>RLGN 6010</td>
<td>Comprehensive Review I: Theories and Methods in the Study of Religion</td>
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</tr>
<tr>
<td>RLGN 6020</td>
<td>Comprehensive Review II: Area Theories and Methods</td>
<td>4</td>
</tr>
<tr>
<td>RLGN 6030</td>
<td>Comprehensive Review III: Knowledge in a Professional Field</td>
<td>4</td>
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</tbody>
</table>
**Dissertation Research**

Complete 8 credits of dissertation research. Register for 1 dissertation research credit each quarter beginning in the fall of the year following completion of comps and dissertation proposal course until 8 credits are reached. Then register for 1 credit every fall until graduation.

**Total Credits**

Minimum number of credits required for degree: 90 credits

**Non-coursework Requirements**

- Successful defense of a dissertation proposal
- Demonstrated competence in a second language (other than English). Students demonstrate competence by passing a reading comprehension examination offered by DU's Center for World Languages and Cultures. For those students who need to demonstrate expertise in ancient texts an exam will be administered by appropriate faculty.
- Writing and successful defense of a dissertation
- Successful completion of the oral defense
- Completion of all requirements for the degree within seven years.

**Certificate in Latinx Studies**

**Program Requirements**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>RLGS 4676</td>
<td>Latino Religious Cultures: Methods and Theories</td>
</tr>
<tr>
<td>RLGN 4608</td>
<td>Hispanic Ethics and Theology</td>
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**Elective Courses**

Choose from the following selection of courses to complete 12 credit hours of elective coursework.

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
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<tbody>
<tr>
<td>RLGN 4204</td>
<td>Multi-Cultural Pastoral Care &amp; Counseling</td>
</tr>
<tr>
<td>RLGN 4401</td>
<td>Race, Gender, Class: Historical &amp; Social Analysis of Racism in the Modern World</td>
</tr>
<tr>
<td>RLGN 4402</td>
<td>American Indian Cultures and Religious Traditions</td>
</tr>
<tr>
<td>RLGN 4404</td>
<td>Race and Religion in the United States</td>
</tr>
<tr>
<td>RLGN 4405</td>
<td>Social Construction &amp; Selfhood</td>
</tr>
<tr>
<td>RLGN 4409</td>
<td>Social Movements from Liberationist Perspectives</td>
</tr>
<tr>
<td>RLGN 4504</td>
<td>Muslims, Jews and Christians in Medieval Spain</td>
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<tr>
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<td>SOWK 4764</td>
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DU Iliff Joint Doctoral Program in the Study of Religion

**Downs Syndrome (DS) Joint Doctoral Program in the Study of Religion**

**INTS 4794**
Inequality in Latin America and the Caribbean

**INTS 4664**
Political Economy of Brazil and India

**Internship/Field Placement**
Complete a 4 credit hour field placement assignment within a Latinx community service setting approved by the Latinx Certificate Coordinator. In some cases, the field placement may be replaced by an intensive Latin American immersion equivalent.

**Total Credits**
24

**Minimum number of credit hours to fulfill the Certificate: 24 credits**

**Non-coursework requirements:**
- Students must demonstrate competency in Spanish language as evidenced by passing a Spanish qualifying exam. 2000-level Spanish-speaking courses are available at the university, but undergraduate classes will not count toward the 90-hour degree, and financial aid may not be applied to these undergraduate classes.
- A comprehensive exam in Latinx Religion, Theology, or Ethics.
- Students will write a dissertation on a topic of Latinx Religion, Theology, or Ethics.
- At least one dissertation committee member must also be Latinx Certificate faculty.

**Courses**

**RLGN 4000 Theories and Methods in the Study of Religion (4 Credits)**
This course begins with a brief overview of the history of the study of religion in the west, from antiquity to the modern period. When we reach the modern period, the course shifts to considering 'representative' theories of religion, broken down roughly along ideological and/or disciplinary lines.

**RLGN 4101 Ph.D. Colloquium in Biblical Interpretation (2 Credits)**
Discussion of selected topics in the field of biblical studies, e.g., northwest Semitic inscriptions, Hebrew poetry, Judges, Acts of Andrew, literature of rabbinic Judaism, American biblical studies.

**RLGN 4102 Hebrew Bible Seminar: Language and Text (4 Credits)**
This seminar focuses on the Biblia Hebraica Stuttgartensia; Hebrew grammar and syntax; and text critical methodology.

**RLGN 4103 New Testament Seminar: Language and Text (2-4 Credits)**
This seminar focuses on advanced Greek grammar, reading and vocabulary building; textual criticism; and reference tools.

**RLGN 4104 Hebrew Bible Environments (4 Credits)**
An exploration of the Hebrew Bible in its historical contexts.

**RLGN 4105 Empire and the Rise of Christianity (4 Credits)**
This course covers approximately the first five centuries of Christian history with a view toward understanding the role empire played in the rise of Christianity, both in terms of the confluence between Christianity and the Roman Empire as well as its role in the development of Christian beliefs, practices, production of discourse, institutions, and strategies of social control.

**RLGN 4106 Second Century Life & Thought (4 Credits)**
An attempt to understand Christian life and thought in the Roman Empire in the Second-century by analyzing primary sources.

**RLGN 4107 Women in Early Christianity (4 Credits)**
An exploration of the role women played in early Christianity, with attention given to the social and literary constructions of women in Greco-Roman antiquity.

**RLGN 4108 Jewish and Christian Non-Canonical Literature (4 Credits)**
This seminar examines Jewish and Hellenistic backgrounds; the social scientific study of early Christianity; and the New Testament in its literary environment.

**RLGN 4109 Formation of the Bible (4 Credits)**
This course focuses on the development of the Christian Bible. Some attention, however, will be given to the emergence of the Jewish canon, primarily as it relates to and impacts the Christian canon. The chronological expanse of the course ranges from the Hellenistic through the late Roman period. The approach of the course is necessarily literary and historical, but theoretical issues about what constitutes scripture and canon will also be given attention.

**RLGN 4110 Hebrew Reading (2 Credits)**
Advanced work in biblical languages or a selected issue in a language study.

**RLGN 4111 Greek Reading (2 Credits)**
Selected readings from the New Testament and other early Christian literature. Greek I, II and Exegesis are prerequisites. Offered each year. May be repeated for credit.

**RLGN 4112 Language Seminar (2-4 Credits)**
Advanced work in biblical languages or a selected issue in a language study.
RLGN 4115 Hebrew Bible Literature: Genesis (4 Credits)
Interpretation of selected Hebrew Bible literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4116 Hebrew Bible Literature: Exodus (4 Credits)
Interpretation of selected Hebrew Bible literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4117 Hebrew Bible Literature: Leviticus (4 Credits)
Interpretation of selected Hebrew Bible literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4118 Hebrew Bible Literature: Numbers (4 Credits)

RLGN 4119 Hebrew Bible Literature: Deuteronomy (4 Credits)
The book of Deuteronomy for centuries has been viewed as laying out a political view of Israel’s life together. Josephus, for example, described Deuteronomy as Israel’s politeia or “form of government.” Government certainly is an issue in the book, particularly as it involves the conduct of self and others. More recently, Deuteronomy is understood to play a foundational role in the books of the Former Prophets within the theory of the Deuteronomistic History. This course examines these and other critical issues in the study of Deuteronomy.

RLGN 4125 Hebrew Bible Lit-Job (4 Credits)
Interpretation of selected Hebrew Bible literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4128 Hebrew Bible Literature: Jeremiah (4 Credits)

RLGN 4129 Hebrew Bible Literature: Jonah (4 Credits)
Interpretation of selected Hebrew Bible literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4130 Hebrew Bible Literature: Prophetic Literature (4 Credits)
Interpretation of selected Hebrew Bible literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4131 Hebrew Bible Literature: Wisdom Literature (4 Credits)
Interpretation of selected Hebrew Bible literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4135 Poetry in the Hebrew Bible (4 Credits)
In this course, we will analyze poems primarily from the books of Job, Lamentations, Psalms, 2 Isaiah, and Jeremiah. Class sessions will be divided between studying some aspect of Hebrew prosody (e.g., metaphor, parallelism, lineation) and looking at the ways in which various poets use these particular devices. We will be particularly interested in identifying how poets bring their messages to life, engage their audiences, challenge (or uphold) the status quo, and revitalize the community’s imagination and, in turn, its faith in YHWH. Each week, we will read about a particular aspect of poetry and prepare specific poems with the readings in mind; the readings will provide us with a language that we might discuss specifically how the poets impart and encode their messages.

RLGN 4141 New Testament Literature: Mark (4 Credits)
Interpretation of selected New Testament literature. Each course focuses on a book or selected topic. Different courses are offered each year.

Interpretation of selected New Testament literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4143 New Testament Literature: John (4 Credits)
Interpretation of selected New Testament literature. Each course focuses on a book or selected topic. Different courses are offered each year.

Interpretation of selected New Testament literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4145 New Testament Literature: Romans (4 Credits)
Interpretation of selected New Testament literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4146 New Testament Literature: Corinthians (4 Credits)
Interpretation of selected New Testament literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4147 New Testament Literature: Galatians (4 Credits)
Interpretation of selected New Testament literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4148 New Testament Literature: Hebrews (4 Credits)
Interpretation of selected New Testament literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4150 New Testament Literature: Revelation (4 Credits)
Interpretation of selected New Testament literature. Each course focuses on a book or selected topic. Different courses are offered each year.

RLGN 4151 Studies in Early Christianity (4 Credits)
A critical study of themes and selected movements within early Christianity and other religions of the Greco-Roman world. May be repeated for credit.
RLGN 4152 Identity in the Hebrew Bible (4 Credits)
This course explores diverse constructions of selfhood in the Hebrew Bible in conversation with theories of identity and the self from a range of disciplines, including anthropology, philosophy, sociology, and psychology. In this class, we will consider how the biblical texts present different models of selfhood through discourse, practice, and ritual. Each class session will focus on a different aspect of identity: gender, social class, ethnicity, nationality, colonialism, the body, and kinship and family. Throughout the course, we will discuss the implications of these constructs of identity for ethics, agency, and theology.

RLGN 4153 War, Politics, & Society in the Hebrew Bible (4 Credits)
This course examines the interrelationship between war, politics, and society in the Hebrew Bible and their interplay both in the texts and in larger historical, social, and cultural contexts.

RLGN 4160 Teaching the Bible (4 Credits)
Designed to integrate faith development theory, biblical interpretation and confluent education. Education instructional models for the purpose of assisting students to develop professional self-understanding and functional skills as interpreters and teachers; experience in teaching adults in a local setting.

RLGN 4201 Seminar on Pastoral Psychology (1-4 Credits)

RLGN 4202 Theological Themes in Pastoral Care (4 Credits)
Theological bases of pastoral care. Contributions of contemporary pastoral care to doctrinal theology.

RLGN 4203 Theodicy and Tragedy (4 Credits)
Study of tragic and theological literature for pastoral care in tragic circumstances.

RLGN 4204 Multi-Cultural Pastoral Care & Counseling (4 Credits)
Examines multicultural issues in pastoral care and counseling and explores the dynamics and complexities of culture, race and other socializing factors in pastoral care conversations.

RLGN 4205 Process Theology and Pastoral Care (4 Credits)
This course creates a conversation between process theology and spiritual care. Utilizing an aesthetic approach, we develop a constructive framework of care from themes found in process theology.

RLGN 4206 Post Traumatic Stress Disorder: Pastoral Psychological and Theological Responses (4 Credits)
Students are paired with veterans and provide time-limited supervised spiritual care over the course of 8 weeks. Using a case study format, students review and reflect upon the spiritual care they are providing using theological and psychological perspectives.

RLGN 4301 Colloquium in Comparative Study of Religion (0-4 Credits)
Critical analysis of the literature concerning (a) methods, (b) primary problems and (c) perspectives in the comparative study of religions. Examination of historical, anthropological, psychological and phenomenological approaches to the study of religions.

RLGN 4302 Buddhist Philosophy (4 Credits)
An introduction to the Buddhist philosophical tradition that covers both the different philosophical movements within Buddhism as schools of thoughts and major philosophical issues, such as the theory of karma and determinism, the nature of mind, proofs for past and future lives, theories of knowledge, ethics, the doctrine of emptiness and the nature of enlightenment.

RLGN 4303 Sacred Space and Place in Comparative Perspective (4 Credits)
This course examines sacred spaces and sacred places from a comparative perspective. Through close reading and discussion of primary and secondary sources, students are challenged to think critically and theoretically about sacred spaces and places.

RLGN 4304 Material Divinity (4 Credits)
This course explores how religion happens in material culture- broadly defined as images, devotional and liturgical objects, architecture and sacred space, works of art, and mass-produced artifacts.

RLGN 4305 Pilgrimage in Comparative Perspective (4 Credits)
This is a comparative course that examines the dynamics of pilgrimage from a number of different angles - theoretical, doctrinal, ritual, social - and which utilizes a variety of sources - including classical, ethnographic studies of actual pilgrimages, and focused studies of particular pilgrimage places - with the goal of gaining a thorough understanding of the phenomena of pilgrimage in all of its complexity.

RLGN 4306 Sufism (4 Credits)
This course examines the assortment of attitudes, rituals, and orientations that fall under the umbrella of tasawwuf known in the West as “Sufism.” Special attention will be placed on pilgrimage (ziyarat) and its mediation between believer, saint, and Allah.

RLGN 4321 Islam, Gender, and Sexuality (4 Credits)
This course examines issues surrounding gender and sexuality in Islam. Through a close reading of religious texts, critiques of patriarchy, and historical studies, students are challenged to think critically about the construction of gender roles and the regulation of sexual practices in Islam. By the conclusion of the class, students gain insight and understanding regarding the ways modernity has radically altered norms surrounding gender and sexual preference in Muslim-majority societies.

RLGN 4401 Race, Gender, Class: Historical & Social Analysis of Racism in the Modern World (4 Credits)
An historical survey of the role of racism, sexism and classism in shaping the oppressive institutional structures of the existing world order and of how sociological analysis of these structures can help justice and peace activists direct effective action toward the elimination of race, gender and class oppression.
RLGN 4402 American Indian Cultures and Religious Traditions (4 Credits)
A survey of the worldviews of Native American people, as these pertain to both inter-tribal beliefs and Native American ceremonial life, with an attempt to show how Native American practice proceeds from their worldview.

RLGN 4403 Sects, Cults & New Religions (4 Credits)
An exploration of non-mainstream religious groups. Topics include innovation and recruitment; "cult" controversies; sectarian Christianity, gender and sexuality; UFO religions; and religion and marginalized racial projects.

RLGN 4404 Race and Religion in the United States (4 Credits)
An exploration of the different ways in which race is understood religiously in the United States and how race impacts both white and racial minority religious institutions. Specific topics include the black church, the Nation of Islam, Native American theology, the Christian far right, Asian American religions, Latino/a religions, and multiracial congregations.

RLGN 4405 Social Construction & Selfhood (4 Credits)
This course invites us into a collection of investigations into the intersections of social structures and individual identity or selfhood. While reading in a variety of disciplines and genres, we are drawn together around the questions of how one understands the possibilities for individual or communal agency in light of the formative, systemic power of social structures and institutions. Beyond conceptual understanding of this relationship, we ask questions of how to encourage coherent religious, educational, and other forms of practice in light of the realities of social construction. These reflections are particularly important for persons who are interested in social change and the very real barriers to its generation.

RLGN 4406 Education and Social Change (4 Credits)
This course investigates the role of education in maintaining and transforming social structures, identity, and commitments. We examine how educational practices can contribute towards social change in both religious and public settings.

RLGN 4407 Ritual Studies (4 Credits)
By reading some of the most important "classic" and recent theorists of ritual, and by learning to observe and understand ritual behavior, this class will examine the important role of ritual in defining religious groups, creating religious identity, forming religious beliefs, and structuring how we view the world. Prerequisite: Masters students need permission of instructor.

RLGN 4408 Science & the Christian Right (4 Credits)
An examination of the American Christian Right's challenges to mainstream scientific theories and practices. Specific topics include Intelligent Design movement, reparative therapy of homosexuality, denial of human-driven climate change, and opposition to stem cell research.

RLGN 4409 Social Movements from Liberationist Perspectives (4 Credits)
Liberationist thought has greatly impacted how social movements, and the theological and ethical perspective which inform them, has been implemented to bring about social and political change since the mid-twentieth century. But with the state of the new millennium, many have proclaimed the death of liberation theology, dismissing its significance as a passing fad. The purpose of this course is to explore the roots, development, and history of liberationist thought as it first manifested itself within a Latin American context then expanding to other continents and faith traditions, and how that thought has been utilized to inform social movements.

RLGN 4410 American Christianity and Indian Genocide (4 Credits)
A collaborative research seminar exploring different aspects of the history of the relationship between American Christianity and genocidal campaigns against native peoples, including the colonial period through the 20th century. Students will research particular personalities and historical events related to this topic, including the campaigns of the military on the 18th century Western frontier, sites of massacres including Sand Creek in Colorado, and other events normally obscured by accounts of US history. Students will learn the relationships of ideology and worldview to the narration of history, as well as skills in identifying and working with primary historical sources.

RLGN 4411 Contemporary Sociology of Religion (4 Credits)
This course examines contemporary theoretical and empirical issues in the sociological study of religion. Principal topics include secularization and religious revival, rational choice, politics, ethnography, and religion and racial/ethnic diversity in the United States.

RLGN 4412 Health & Healing, Death & Dying: Technologies of Inspiration and Expiration (4 Credits)
Through this course, students will encounter a variety of perspectives on the nature, morality, justices, and injustices of health, healing, and dying.

RLGN 4501 Holy Spirit: History and Traditions (4 Credits)
What have Christians believed and written about the Holy Spirit through the centuries? Why does Pentecost show up in such different ways across the pages of Christian theology and literature? In the midst of the European Enlightenment, why did John Wesley hold such special reverence for the role of experience in Christian thought and education? Why has the Pentecostal legacy functioned simultaneously as a subversive trope for critiquing dominant church paradigms while also sparking creative, re-interpretations of Christian tradition among so many reformers? These are just a few of the questions explored in this class as we discuss historical and theological works by contemporary scholars in pneumatology and church history.

RLGN 4502 Historiography (4 Credits)
This course surveys the various theories and methods developed by historians since the emergence of the historical profession from the roots of historicism and philosophy of history in the mid-1800s; and examine the relationship of history to theology, cultural theory and literary studies.

RLGN 4503 Women in Medieval Europe (4 Credits)
This class focuses on the role of medieval women, who struggled to find a voice in the political, religious, social and literary arenas of medieval Europe from about 1100 to 1600. Through primary and secondary source readings we look at everyday women's lives in this period. The class also includes the lives and careers of some of the most famous women writers and leaders of the period, such as Hildegard of Bingen, Eleanor of Aquitaine, Marie de France, Margery Kempe, Julian of Norwich, Queen Isabel of Castile, Teresa of Ávila, and Queen Elizabeth I of England.
RLGN 4504 Muslims, Jews and Christians in Medieval Spain (4 Credits)
An exploration of the "Golden Age" of cross-cultural encounters that occurred in Medieval Spain from the Muslim conquest in 711 to the fall of Granada and the expulsion of Jews in 1492. This course offers an overview of the historical and ecumenical dimensions of Jewish, Christian, and Islamic coexistence, known as "La Convivencia," and critical reflection on the relevant lessons this era still holds in the post 9/11 period.

RLGN 4505 16th-Century Spanish Mystics & Reformers (4 Credits)
Early modern Spain witnessed the emergence of Catholic and Protestant individuals whose timeless works and popular appeal in subsequent centuries rested largely upon the practice of contemplation in action. This course examines the works of such mystics and reformers as Teresa of Avila, John of the Cross, Ignatius of Loyola, Juan de Valdes, Constantino Ponce de la Fuente and others. It also explores the influence of Islam and Judaism on these sixteenth century religious movements, as well as modern Spain’s subsequent rejection of this pluralistic legacy as it sought to define its new national identity.

RLGN 4506 The Pursuit of Happiness: A History (4 Credits)
This course provides a historical examination of key concepts, major questions, and practices about humanity’s search for happiness from the Hellenistic-Roman period of Antiquity through the Early Christian and Medieval periods. The content centers on the role of Classical moral philosophy and Christian theology in the formulation of eudemonic theories about the problem of happiness in relation to metaphysical and religious influences as well as to socio-cultural, political, and institutional norms and practices that shaped Christian notions of human purpose and potential. The legacies of these ancient ideas on the development of modern assumptions about happiness and human flourishing are also discussed towards the end of the course.

RLGN 4520 Religion and Film (4 Credits)
Can film elicit the holy? Does the story of Jacob and Esau look different when told by a North African filmmaker? How does a Buddhist sensibility shape the form of Japanese films? Can we ask theological questions about secular films? In this course films are the primary texts, supplemented by readings, lecture and discussion. Students develop the film literacy and theological and theoretical acumen to explore these and other interactions between religion and film in cultural context. While there is no explicit prerequisite, background in film or literary criticism and/or theological or religious studies is helpful.

RLGN 4521 Theories of Religion and Media (4 Credits)
This course asks whether the changes in religion's location, the nature of religious identity and community, and the nature of religious authority that are developing in the digital age are something new in the history of religion? Or, has religion always been rooted in its mediations and have religion and media changed and adapted in relationship to each other? We will explore the discourses at the interface of communications, cultural and religious studies on the mediation of religion in contemporary digital culture and in the history of religion, and carry out independent research.

RLGN 4601 Theology and Human Sexuality (4 Credits)
A critical survey of both historical and prevailing concepts of human sexualities in various religious, cultural, and theological traditions. An examination of the phenomenology of sexuality in relation to issues of power, identity, as well as in relation to the politics of sexual difference.

RLGN 4602 Systematic Theology I (4 Credits)
Systematics focuses on the importance of system in Christian theology, and on the development of students’ own systematic theology, through a reading of three prominent systematicians, classical, modern, and contemporary. Quarter 1 - method, doctrine of God, sin, and Christology. Quarter 2 - the work of Christ, faith, eschatology, ecclesiology, and sacraments. Either quarter may be taken independently.

RLGN 4603 Systematic Theology II (4 Credits)
Systematics focuses on the importance of system in Christian theology, and on the development of students’ own systematic theology, through a reading of three prominent systematicians, classical, modern, and contemporary. Quarter 1 - method, doctrine of God, sin, and Christology. Quarter 2 - the work of Christ, faith, eschatology.

RLGN 4604 Religion in the Public Square (4 Credits)
What is the proper role of religion in the public debates necessary to healthy democracy? Some argue that religion in the public square threatens the fundamental democratic right the freedom of conscience; others that only religion can insulate the communal values that make democracy possible. This course examines the best and most prominent arguments in this contemporary debate.

RLGN 4605 Feminist Theology (4 Credits)
Analysis of feminist theology with attention to methodological issues, the relation of contemporary feminist visions to historical material, the ideas of God/Goddess and the question of what it means to be female. Prerequisite: At least one introductory level theology course.

RLGN 4606 Theology and Culture (4 Credits)

RLGN 4607 Liberating Sex (4 Credits)
The purpose of the course is to search the Christian Scriptures, in spite of its accusations of being patriarchal, to find biblically-based guidelines for developing an ethical sexual lifestyle that is aware of how racism, classism, and specifically sexism influences the current conversation on sexual ethics. This course focuses on developing healthy models that foster intimacy and vulnerability for a disjointed and at times oppressive community.

RLGN 4608 Hispanic Ethics and Theology (4 Credits)
The primary sources of Latino/a theological and ethical thought are read to discover its foundational tenets. The course explores this contextual approach to religion to discover how it could serve to liberate the Latino/a community from prevalent oppressive social structures. Comparisons are made with Eurocentric ethics and theology.
RLGN 4610 Ethics of Neoliberalism and Globalization (4 Credits)
People of faith have responded to the triumph of the free market economy around the world in a variety of ways. To some, “neoliberalism” seems to hold the key to sustained economic growth worldwide and, eventually, to nothing less than the eradication of poverty itself. To others, it represents the unleashing of corporate greed on a scale previously unknown, with momentous and often disastrous consequences for the working poor, the economically marginalized, and the environment. Does the new global economy signify the lifting of all boats or the race to the bottom? Does it further Christian ethical values, or subvert them?

RLGN 4611 Theology and the Challenge of Postmodernism (4 Credits)
An examination of representative postmodern thinkers, how they have changed the context for theology, and how theology has responded to them.

RLGN 4612 African Theology and Post-Colonial Discourse (4 Credits)
This course attempts to examine the relationship between the emergence of African Theology and the historical conditions which characterize Africa’s encounter with the European/American will to power. The initial hypothesis to be tested is the claim that the will to power provides the locus classicus for formulating the identity of African theological reflection. This makes the latter a part of a much larger discourse on Africanity. The course takes the student through a close reading of basic texts produced by African theologians themselves. All the major issues characteristic of the discourse of African Theology is dealt with.

RLGN 4613 Augustine and His Influence: 400 C.E. to 1000 C.E. (4 Credits)
Theological contribution of the great North African Bishop; his major writings, such as Confessions, City of God and The Trinity; and his anti-Pelagian, anti-Donatist, and anti-Manichaean writings.

RLGN 4614 Liberation Theologies (4 Credits)
Consideration of contemporary liberation movements with focus on feminist, black and Third World theologies. Special concern is with what the various perspectives of sex, race and class analysis suggest for one another and for theology and social ethics generally.

RLGN 4615 Being Human in the Modern World (4 Credits)
What does it mean to be human? After a brief survey of traditional Christian answers to this question, we focus on the theological anthropology that has become the de facto theory of human nature since the emergence of the modern western world in the early 19th century. Theological anthropology can be the driver of other doctrines in a systematic theology; it also underpins work not necessarily seen as theological, such as ethics, development, and human rights. A rich understanding of this anthropology is necessary for theological reflection in our current context.

RLGN 4616 Sin and Evil (0-4 Credits)
This course is a critical and interdisciplinary exploration of the ideas of sin and evil. Most religious traditions have some account of human brokenness, pain and suffering. Christians have traditionally used the language of sin and evil to describe these phenomena. These ideas implicate a wide range of issues such as human nature, God, the environment, ethics, the law, and society itself. In this course we examine the historical, theological, and philosophical content of the ideas of sin and evil within various strands of Christianity, and in relation to other religious traditions. The course will also critically engage secular descriptions of and reactions to sin and evil.

RLGN 4617 Forgiveness (4 Credits)
In the histories of philosophy and religions, ‘forgiveness’ emerges as a grounding concept for thinking about God, self, and community. This course examines core texts and contexts within a range of religious, philosophical, and theological discourses on forgiveness, ‘loving the enemy’, and reconciliation. The course explores a variety of spaces of forgiveness as well as the possibility that the ‘impossibility of forgiveness’ must be allowed to emerge as a valued theological, ethical, and civic principle of personal and communal identity.

RLGN 4620 Fanon, Foucault and Friends (4 Credits)
This course reads the primary sources of post colonialists (mainly Fanon) and postmodernists (mainly Foucault) to explore creating ethical approaches to globalized manifestations of race, class, and gender oppression. Special attention is given to the use of Christianity as a liberationist response to global structures of oppression in spite of its historic use in causing much of said oppression.

RLGN 4621 Kierkegaard and Existential Theology (4 Credits)
Kierkegaard and the origins of existentialism; twentieth-century forms of existentialism and recent developments; the decline of neo-orthodoxy and resurgence of phenomenology.

RLGN 4622 Schleiermacher as Resource (4 Credits)
Consideration of the theology of Friedrich Schleiermacher. Analysis of the philosophical and theological predecessors of Schleiermacher as well as the tradition of theological liberalism that followed him.

RLGN 4640 Doing Christian Ethics from the Margins (4 Credits)
Many of us have been taught religion through the eyes of white, middle-class males. How then do we do ethics from the perspective of the disenfranchised? The aim of this course is to enable students to: construct ethical responses to case studies from the perspectives of those suffering from race, class and gender oppression; to investigate Biblical protest narratives as to the resistance and struggle against race, class and gender domination and oppression; and to examine various liberationist ethical interpretations as a source for overcoming dominant religious power structures.

RLGN 4641 Formative Figures in Christian Ethics: The 20th Century White Male Canon (4 Credits)
This course on formative white male figures in Christian Ethics examines the ethical canon from a historical perspective. Special attention is given to texts and traditions as living changing heritages.
RLGN 4701 Topics in the Study of Religion (0-4 Credits)
RLGN 4702 Topics in Biblical Studies (0-4 Credits)
RLGN 4703 Topics in Theological Studies (0-4 Credits)
RLGN 4761 Social Ethical Issues (4 Credits)
Examination of the scope of Christian social ethics and the relationship of the analytic and diagnostic task to normative and prescriptive endeavor. May be repeated.

RLGN 4762 Justice & Peace Struggles (2,4 Credits)

RLGN 4991 Independent Study (1-4 Credits)

RLGN 5000 Pedagogy and the Teaching of Religion (4 Credits)
This course looks at pedagogical methods as they relate to the teaching of religion. Students design syllabi and materials appropriate for the teaching of religion in at least two different contexts. In addition, the course covers theoretical issues related to the teaching and learning process.

RLGN 5010 Lived Religion Colloquium (4 Credits)
This weekly colloquium functions as a collaborative space in which students and faculty of the JDP come together to discuss an interdisciplinary body of scholarship focused on religion as it is lived by persons and communities. The specific theme of the colloquium changes each time it is taught.

RLGN 5020 Conceptual Approaches to Religion Colloquium (4 Credits)
This weekly colloquium functions as a collaborative space in which students and faculty of the JDP come together to discuss an interdisciplinary body of scholarship focused on conceptual approaches to the study of Religion. The literature may focus on specific issues, concepts, and/or social and cultural phenomena. The specific theme of the colloquium changes each time it is taught.

RLGN 5030 Religion in Text, Image, and Artifact Colloquium (4 Credits)
This weekly colloquium functions as a collaborative space in which students and faculty of the JDP come together to discuss an interdisciplinary body of scholarship focused on texts, images, and/or artifacts through which religion, culture and worldview can be studied. The specific theme of the colloquium changes each time it is taught.

RLGN 5101 Methods for Interpreting Biblical Texts (4 Credits)
This seminar addresses critical study of biblical texts, the history of interpretations and hermeneutics.

RLGN 5102 Religious Identity in Antiquity (4 Credits)
An exploration of the way individuals and communities understood their religious beliefs and behaviors during the Hellenistic and Roman periods. The focus is on varieties of Jews and Christians (including how they formed their identities in relation to each other), but consideration is also given to the Greco-Roman religious context.

RLGN 5103 Coptic I (2 Credits)
The course is dedicated to introducing students to Coptic, the last phase of the Ancient Egyptian language and the only one to be recorded in an alphabetic script showing vowels. This portion of the process is designed to introduce the most frequent vocabulary as well as the acquisition of key skills for the understanding of the Coptic language and for the interpretation and understanding of Coptic texts.

RLGN 5104 Coptic II (2 Credits)
The course is dedicated to introducing students to Coptic, the last phase of the Ancient Egyptian language and the only one to be recorded in an alphabetic script showing vowels. This part of the module is designed to promote the acquisition of key skills for the understanding of the Coptic language and for the interpretation and understanding of Coptic texts. The last half of the class requires the student to demonstrate proficiency at reading Coptic.

RLGN 5105 Coptic Readings (2 Credits)
Selected readings from Coptic texts drawn from ancient canonical and noncanonical sources, including discoveries at Nag Hammadi. It includes advanced vocabulary building and advanced grammatical and syntactical constructions. May be repeated for credit.

RLGN 5201 Ph.D. Colloquium in Religion and Psychological Studies (1-4 Credits)
A review of contemporary developments in psychology and theology offered during the winter quarter each year for doctoral students in the religion and psychological studies concentration.

RLGN 5401 Colloquium: Post-Colonial Discourse and Other Myths: A Theological Critique of Dominance (4 Credits)
Selected topics in religion and social change, approached from the disciplines and perspectives of history, ethics, sociology, international studies and social transformation. Offered annually.

RLGN 5402 Religion and Social Change Colloquium: Selected Topics (1-4 Credits)
This is a topics course for the Religion and Social Change concentration colloquia.

RLGN 5750 Professional Development (0 Credits)
This course provides the "nuts and bolts" on not only surviving, but also thriving within the academy. Assuming that the student’s goal is an eventual tenure-track position, the course demystifies the PhD route so that the student, through a working knowledge of the academy, can better position her/himself to succeed. Besides providing professional development, the course attempts to raise the level of involvement of PhD candidates in the profession, from presenting papers to publishing articles.
RLGN 5991 Independent Study (1-10 Credits)
RLGN 5992 Directed Study (1-5 Credits)

RLGN 6000 Dissertation Proposal Seminar (4 Credits)
This seminar focuses upon the range of research topics and methods in religious and theological studies by examining dissertations and dissertation proposals related to the Joint Ph.D. Program at Iliff and the University of Denver. Bibliographic and research methods and matters of style and format receive particular emphasis. Students present their own dissertation proposals for discussion.

RLGN 6010 Comprehensive Review I: Theories and Methods in the Study of Religion (4 Credits)
Students meet weekly for review and discussion of the bibliography for theories and methods in the study of religion. The bibliography is available on line and students are encouraged to read in advance of the course. The final exam is the comprehensive exam in theories and methods in the study of religion. This course is taken in the fall quarter of the student’s third year.

RLGN 6020 Comprehensive Review II: Area Theories and Methods (4 Credits)
Students meet weekly for review and discussion of the bibliography for theories and methods in one of the current areas of JDP program strength: 1) Bible, ancient Judaism and early Christianity 2) Religion, Race and Ethnicity 3) Media, Art and Religion 4) Religion and its Publics 5) Religion and Human Experience or 6) Theories of Religion. Bibliographies are available on line and students are encouraged to read in advance of the course. The final exam is the comprehensive exam in the area. This review course and exam is taken in the fall quarter of the student’s third year.

RLGN 6030 Comprehensive Review III: Knowledge in a Professional Field (4 Credits)
Students work individually or in small groups with their dissertation advisor and committee members or other faculty in the students’ chosen field of specialization. The purpose is to synthesize coursework, fill in gaps, and expand knowledge needed as a professional in the specific field. The final exam is the comprehensive exam in the major field. This review course and exam is taken in the winter quarter of the student’s third year. It must be coordinated with Comp Review IV, and between these two reviews the student must have at least 3 different faculty examiners.

RLGN 6040 Comprehensive Review IV: Knowledge in Minor Areas or Subfields (4 Credits)
Students work individually or in small groups with faculty in the students’ chosen subfield or minor area of study, or with the dissertation advisor on a deeper area of specialization within the professional field. The final exam is the comprehensive exam in the subfield or minor area. This review course and exam is taken in the winter quarter of the student’s third year. It must be coordinated with Comp Review III and between these two reviews the student must have at least 3 different faculty examiners.

RLGN 6991 Independent Study (1-10 Credits)
RLGN 6992 Directed Study (1-5 Credits)
RLGN 6995 Dissertation Research (0-10 Credits)
Joint Doctoral Program students use these credits as they work on their dissertations, beginning upon completion of comprehensive exams. Normally 8 credits are completed by each student.

Josef Korbel School of International Studies
The Josef Korbel School of International Studies is one of the world’s leading schools for the study of international relations. Our interdisciplinary programs prepare tomorrow’s global leaders for careers in commerce, government, diplomacy, military affairs, economic development, global health and humanitarian relief. Coming together from over 20 different countries, our students provide diverse perspectives that supplement the experience and research of our renowned faculty.

Conflict Resolution
Office: Sie Complex Room 4008
Mail Code: 2201 S. Gaylord St., Denver, CO 80208
Phone: 303.871.6477
Email: cri@du.edu
Web Site: http://www.du.edu/conflictresolution

Master of Arts in Conflict Resolution

Josef Korbel School of International Studies focuses on aspects of ethnicity and cultural differences, globally organized efforts in cooperation, and justice, human rights, and diplomacy. The Department of Communication Studies and the Graduate School of Social Work explore group dynamics. The Sturm College of Law and University College have developed training programs in mediation. The Daniels College of Business offers a management specialty. More than 20 different classes in the Conflict Resolution curriculum are offered on campus at least once each year. Courses
emphasize theories of conflict resolution, mastery of techniques for alternative dispute resolution, and courses on intractable conflict, creating agreement, and organizational and management issues.

**Master of Arts in Conflict Resolution**

Following are the simple steps to apply for master’s program in International Studies at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

**Apply Online / Application Deadlines**

- Applications for graduate study at the University of Denver must be submitted online. Apply online (http://www.du.edu/learn/graduates).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: January 15, for Fall quarter or November 1, for Winter quarter. These are priority deadlines and the program will continue to consider applications on a rolling basis.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars, Rangel Fellows, Pickering Fellows.

**Course and Degree Prerequisites and Requirements**

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

**Transcripts**

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Paper Transcripts should be sent to the following address:
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802
- Electronic transcripts should be sent to gradinfo@du.edu.

**Language Proficiency**

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Josef Korbel School of International Studies is 95 (iBT) or 587 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 7.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
- Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

**Test Scores**

- Applicants must take either the GRE General Test or the GMAT and submit the scores to the University of Denver. DU’s ETS Institution Code is 4842.

**Personal Statement**

- In 500-700 words, answer all of the following questions:
• What is your career goal upon completing your graduate degree and what are your longer-term career goals?
• Explain why you have chosen to pursue a graduate degree and how the degree program you have chosen will prepare you to reach your specific career goals.
• What skills and previous experiences have helped position you to reach your career goals and how will the Josef Korbel School help you achieve these goals.

Resume / C.V.
• A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters
• Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
• To receive priority consideration for merit-based scholarships we strongly encourage you to apply to the Josef Korbel School prior to the application deadline (November 1 for winter admission and January 15 for fall admission).

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu). Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.
• For more information call (303) 871-2706

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures (http://bulletin.du.edu/graduate/gradpolicy) provides complete details regarding admission requirements.

Master of Arts in Conflict Resolution

Degree Requirements

Coursework Requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4920</td>
<td>Conflict Resolution</td>
<td>5</td>
</tr>
<tr>
<td>CRES 4221</td>
<td>Negotiation Theory and Practice</td>
<td>3,5</td>
</tr>
<tr>
<td>CRES 4222</td>
<td>Mediation Theory and Issues</td>
<td>5</td>
</tr>
<tr>
<td>CRES 4225</td>
<td>Conciliation and Reconciliation</td>
<td>5</td>
</tr>
<tr>
<td>COMN 4310</td>
<td>Communication and Collaboration (or other graduate COMN course* approved by Degree Director)</td>
<td>4</td>
</tr>
</tbody>
</table>

Select two classes from the following (minimum of 4 credits total):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 4201</td>
<td>Persuasive Communications - Digital, Oral, Written</td>
</tr>
<tr>
<td>MGMT 4202</td>
<td>Profiles in Leadership and Management</td>
</tr>
<tr>
<td>MGMT 4203</td>
<td>Foundations of Strategy</td>
</tr>
<tr>
<td>MGMT 4204</td>
<td>Ascend Industry or Topic Ideation and Research</td>
</tr>
<tr>
<td>MGMT 4301</td>
<td>MS Management Organizational Behavior</td>
</tr>
<tr>
<td>MGMT 4302</td>
<td>MS Management Human Resource Management</td>
</tr>
</tbody>
</table>
MGMT 4303  Conflict and Change Management

Specialization (Special Topics) requirements
Select four of the following (or approved substitutions by Degree Director) (minimum of 12 credits total):
- CRES 4333  Resolving Contentious Public Issues
- CRES 4400  Restorative Justice
- CRES 4410  Intractable Conflict
- CRES 4420  Negotiating Difficult Situations
- CRES 4840  Managing Organizational Conflict in the Workplace
- CRES 4850  Creating Agreement
- CRES 4860  Public Forum Facilitation
- CRES 4870  Conflict Vulnerability Assessment
- CRES 4880  Grant Writing: The Research Proposal and Conflict Analysis

Emphasis (skills/methodology) requirement
- CRES 4111  Reflective Practice and Evaluation 5

Practical and Professional Techniques
- COMM 4701  Topics in Applied Comm (40 hr Mediation Training) 4
- CRES 4961  Professional Development (three quarters of registration) 0

Internship
- CRES 4981  Internship (variable credits) 1-5

Practicum
- CRES 4971  Practicum 3-5

Thesis (optional) (up to 5 credits)
- CRES 4995  Thesis Research 1-5

Elective requirements
All remaining courses to total minimum of 62 credits

Total Credits 62

* COMM classes are offered through the Organizational Communication program at University College at 4 credits each.

Minimum number of credits required for degree: 62
Non-coursework Requirements
- Internship
- Practicum
- Thesis (Optional)

Courses
CRES 3401 Caribbean Conflict Resolution (3 Credits)
A travel course offering students an opportunity to view a broad spectrum of conflict—from interpersonal to community to intercultural—in Caribbean countries. Local conflicts and conflict resolution processes are examined, along with visits to governmental and non-governmental organizations and cultural sites to develop an understanding of how particular methods and approaches for solving disputes are applied within this political and cultural setting.

CRES 4111 Reflective Practice and Evaluation (5 Credits)
Course is designed for practitioners who would like to become more reflective and theory oriented in their practice, and for researchers who wish to work with actual data and questions from practice. The goals are to learn techniques for making theories of practice explicit, to examine ways practice and research may modify theory, and to explore how to introduce and expand reflective practice into conflict resolution.

CRES 4221 Negotiation Theory and Practice (3,5 Credits)
An overview of negotiation theories, strategy and tactics to understand the role of power perceptions, communications, and ethics affect bargaining processes and outcomes.

CRES 4222 Mediation Theory and Issues (5 Credits)
An analysis and critique of the nature and role of third parties in conflict intervention including conciliator, arbitrator, facilitator, monitor, trainer. Theoretical perspectives and case studies are used to understand the situations in which third parties operate, what values and resources they bring to their roles, and how power issues affect mediator functioning. Ethical guidelines are also considered.
CRES 4225 Conciliation and Reconciliation (5 Credits)
Societies are often divided along ethnic, racial, or religious lines. Without work at the grassroots level, international peace agreements regularly fail within five years of ratification. How do we create sustainable post-conflict relationships? How does justice factor into peace, or into the sustainability of peace agreements? This course explores these questions by building on concepts and themes introduced in Mediation Theory (CRES 4222), and analyzing topics such as multilevel interventions and their challenges, second track diplomacy, and citizen dialogue. Reconciliation is a key factor in peace building – Voice, Acknowledgement, and Repair are specifically considered within this realm. Focus is also on the challenges presented by deep-rooted, protracted conflicts, allowing for more complete understanding of the situations in which third parties must operate.

CRES 4333 Resolving Contentious Public Issues (5 Credits)
The course covers collaborative governance work, including identity politics of contentious public issues. Natural resources disputes and the range of processes used to address these conflicts, including theories and concepts useful for understanding environmental and policy disputes, case studies, and world views that premise these disputes, provide insight into constructing interventions best suited to the characteristics and context of each contentious issue.

CRES 4400 Restorative Justice (3 Credits)
This course explores four leading Restorative Justice practices - Victim-Offender Mediation, Conferencing, Talking Circles, and Truth Commissions - to understand how needs of victims are addressed, and embracing notions of forgiveness, reconciliation and social healing within a set of principles based on social justice.

CRES 4410 Intractable Conflict (3 Credits)
This course is focused on factors that lead to intractability, along with strategies for violence prevention and conflict transformation. Conflict mapping and analysis, sources of intractability, and social, psychological, economic and political dimensions of intractable conflicts are examined.

CRES 4420 Negotiating Difficult Situations (3 Credits)
What should a negotiator do when the win-win approach fails and important interests are at stake? This course addresses a variety of tactics and ploys of unethical behavior and dirty tricks used in persuasion and bargaining. Students learn how to recognize and counter such techniques and practice in simulated and real world settings. Prerequisite: CRES 4221.

CRES 4810 Conflict Resolution Topics (3,5 Credits)
Fields of interest to Conflict Resolution Students such as negotiation, international conflict resolution case studies, restorative justice, conflict transformation, methods for conflict resolution research.

CRES 4820 Topics in Conflict Resolution (1-5 Credits)
Fields of interest to Conflict Resolution Students such as negotiation, international conflict resolution case studies, restorative justice, conflict transos, methods for conflict resolution research.

CRES 4830 Topics in Conflict Resolution (3-5 Credits)
Fields of interest to Conflict Resolution Students such as negotiation, international conflict resolution case studies, restorative justice, conflict transformation, methods for conflict resolution research.

CRES 4840 Managing Organizational Conflict in the Workplace (3,5 Credits)
A broad study of conflict in organizations that may involve gender, race, age, disability and other issues, using lecture, case studies, group dialogue, and team projects to develop systems of management and evaluation.

CRES 4850 Creating Agreement (3 Credits)
Multilateral agreements are as complex as they are difficult to create. What are the key elements in this process? The history of such negotiations is one of both successes and failures. This course examines the development of criteria necessary for creating satisfactory and acceptable agreements involving multiple parties through a series of case studies that link negotiation theory and praxis.

CRES 4860 Public Forum Facilitation (3 Credits)
Diverse democracies require high quality communication and coordination to function well. In the current era, however, polarization, cynicism and apathy have become the norm, they obstructing possibilities for collaborative problem-solving. What are the best processes for making public decisions in a democracy? This course examines the tools of advocacy, debate, dialogue and deliberation through the lens of facilitation in public forums.

CRES 4870 Conflict Vulnerability Assessment (3 Credits)
This course guides students seeking to specialize in early warning and conflict prevention approaches at the community, societal, or country level through the contemporary scholarly literature, policy-related instruments and models that seek to define and measure “conflict vulnerability.

CRES 4880 Grant Writing: The Research Proposal and Conflict Analysis (3,5 Credits)
This course is designed to cover key elements of social research methods that are important principles of evidence-based policy, known for its rigor and precision in careful data collection - including quantitative and qualitative methodology analysis and expert opinion to build facts and findings from context-free, context rich and colloquial environments into a coherent whole - to support informed decision-making capability.

CRES 4961 Professional Development (0 Credits)
To develop the specialized knowledge, skills, attitudes, values, norms, and interest needed to perform professional roles in the Conflict Resolution practitioner community. It involves informal socialization including lessons learned incidentally through association with mentors, networking with practitioners, and observations of conflict resolution processes in all areas of life. Students gain an awareness of how self-image and activities play an active part in professional socialization.
CRES 4971 Practicum (3-5 Credits)
Students design, execute, and evaluate conflict resolution interventions. Student involvement in planning, implementation, reflection, and evaluation may look different in different contexts, but all elements are present in some form. Students are supervised by faculty with relevant theoretical expertise and practice experience.

CRES 4981 Internship (1-5 Credits)
CRES 4985 Internship (4-8 Credits)
CRES 4991 Independent Study (1-5 Credits)
CRES 4995 Thesis Research (1-5 Credits)

Institute for Public Policy
Office: Sie International Relations Complex
Mail Code: 2201 South Gaylord Street, Denver, CO 80208
Phone: 303-871-2468
Email: ipps@du.edu
Web Site: http://www.du.edu/ipps

Public policy is a highly disciplined, evidence-based approach to the analysis and solution of contemporary issues, such as fiscal policy, entitlement reform, health care, national security, regulation, education and immigration.

The graduate program in public policy, which offers the master of public policy (MPP) degree, gives you the opportunity to analyze, create and articulate innovative policies responsive to the most challenging issues facing this nation, while respecting and supporting your passion to serve responsibly.

Career Advancement
MPP graduates enjoy exciting careers as public policy professionals — running government agencies, leading nonprofit organizations, serving as consultants to corporations or political campaigns, or developing a perspective for a client with a legislative or regulatory agenda. The MPP program will provide you with the analytical and critical thinking skills you need, as well as the professional contacts that will open the door to professional success.

Faculty Expertise
Faculty members in the MPP program are academics, policy experts, legal scholars, and former and current elected officials. Our instructors represent a wide range of policy expertise, including political history, economics, health policy, regulatory policy, lobbying, education policy, constitutional law and quantitative analysis.

Flexibility
Most MPP classes are offered in the evenings, allowing you to gain real-life public policy experience during the day through full-time employment or policy internships. In addition, our flexible dual-degree program gives you the opportunity to enhance your future career by combining your MPP with several other relevant graduate degrees.

Opportunity
The University of Denver’s campus is located just minutes from downtown Denver, a regional hub for major corporations, financial institutions, law firms, nonprofit organizations, think tanks, and more government offices than any other U.S. city outside of Washington, D.C.

Master of Public Policy
Following are the simple steps to apply for graduate study in Public Policy at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online.
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: January 15, for Fall quarter; or November 1, for Winter quarter. These are priority deadlines and the program will continue to consider applications on a rolling basis.
• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Proof of a bachelor’s degree is required from a regionally accredited college or university.

Transcripts
• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
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• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Public Policy program is 95 (iBT) or 587 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted is 7.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual (http://www.du.edu/media/documents/graduates/gradpolmanual.pdf) for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores

• The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

Personal Statement

• A personal statement of professional objectives is required. When it comes to graduate school admission, the personal statement/essay represents your chance to truly shine. In addition to providing a tremendous opportunity to convey the quality of your writing to admissions committees, the personal statement allows you to highlight your purpose for pursuing graduate studies. Write your personal statement in such a way that the selection committee is intrigued by you and wants to meet you in person.

• The personal statement should be two to three pages, preferably double-spaced, and should address these three areas:
  • What led you to your interest in pursuing this degree? Do you have a particular policy topic that interests you?
  • What are your professional and career goals? Ten years from now, what type of work do you hope to be doing in the field of public policy?
  • How would a degree from the Institute for Public Policy Studies at the University of Denver help you achieve your professional goals?

• The statement should be submitted via upload through the online application process.

Resume

• Please submit a professional resume. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters

• Three letters of recommendation are required. Letters of recommendation should be written by professors if you are a recent college graduate. If you have been out of school for some time, you may have the letters written by supervisors or others who can speak to your academic potential. These letters should be solicited and uploaded by recommenders through the online application system. Letters must be received by the program’s stated deadline.
Financial Support
- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, January 15. Information about financial aid can be found on the Office of Financial Aid website. International students are not eligible for federal financial aid.

- After application files are complete and after applicants have been interviewed, each prospective student will be carefully considered for need-based and merit-based funds. The Institute for Public Policy Studies awards the scholarships listed below.

- Gov. Richard D. Lamm Scholarships. Gov. Richard D. Lamm Scholarships are awarded on a merit-basis to applicants who demonstrate a passionate interest in current public policy problems and offer unique solutions. Students may be awarded Lamm Scholarships of up to $10,000. The Lamm Scholarship Fund was created by, Institute for Public Policy Studies co-director and former three-term Colorado Governor, Richard D. Lamm. No additional application is required.

- Dean’s Scholarships. Dean’s Scholarships are merit-based and generally awarded for $2,500–$7,500. All applicants who meet the January 15 deadline are considered.

- Graduate Research Assistantship Tuition Waivers and Stipends. The Institute for Public Policy Studies awards two to four MPP students to assist faculty on research projects. Assistantship awards include tuition waivers credited directly to a student’s tuition bill and stipends in the form of a salary. Assistantship awards range from $7,500 to $15,000. All applicants who meet the January 15 admission application deadline and make note in their application packet (e.g., cover letter and resume) that they wish to be interviewed for this type of award will be considered.

Application Status
- We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

Contact Information
- Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

  Electronic transcripts should be sent to gradinfo@du.edu.
  For more information call (303) 871-2706

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information. International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Public Policy
In conjunction with other graduate programs at the University of Denver, MPP students can take specialized and approved courses in various policy specific areas. Policy emphases are available in the following areas:

- Education Policy
- Business and Government
- Energy and Environmental Policy
- Social Policy and Nonprofit Management
- Communications and Public Affairs
- Global Health
- International Policy and National Defense
- Political and Global Economics
- Customized

Each emphasis has a distinct list of requirements that will fulfill the MPP elective credits. Additionally, students are encouraged to explore experiential learning opportunities such as internships in the specific area as well as complete the required Policy Memorandum on a topic that is relevant to the emphasis.

Great Issues Forums
The Great Issues Forums are a series of policy seminars focused on the nation's most important current issues. The graduate program in public policy offers five of these two-day, full-day courses every year for two quarter hours of credit each. Students must complete six forums (12 hours) to earn the MPP. The topics of these seminars rotate frequently, as expertise and events warrant, and are an integral part of the MPP program.

Degree requirements

Coursework requirements

Minimum number of credits required for the degree: 60 credits

Non-coursework requirements

- Policy Memorandum

Policy Memorandum

As the capstone project of the MPP experience, the Policy Memorandum integrates the knowledge and skills learned in and outside the classroom. The Policy Memorandum provides an opportunity to experience firsthand the type of practical and professional work often required of a policy analyst. Students identify and define a real-world policy issue; analyze the issue by conducting research, gathering data and interviewing professionals with opposing views; analyze the costs and benefits of the issue; and recommend courses of action.

Courses

PPOL 4100 American Public Policy System (4 Credits)

The American Policy Agenda, which is required for MPP students, will provide an intensive overview of the development of American public policy in the 20th century, with special emphasis on the interconnection between the values of the public and private sectors. Through the lens of a useful descriptive model, graduate students will learn concepts of the role of government have evolved from: the (1) constitutional period, wherein political society was thought to be a rational device for the protection of property and liberty and prosperity was equivalent to the free management of affairs; to the (2) administrative period, wherein powerful regulatory agencies were created to control concentrations of corporate power and the idea developed that the market does not always reflect the social good; to the (3) bureaucratic period, wherein the stock market collapse of 1929 and the Great Depression reversed key ideas of limited government inherent in the constitution and, beginning with the New Deal, social engineering in the "public interest" defined virtually every problem as "national;" to the (4) social welfare period, wherein government became the source of vast entitlements and benefits and interest groups came to dominate the policy debate; to the (5) current period of stalemate, gridlock, and reconsideration, wherein big government is a given, along with a utilitarian social contract defined as that which provides the most efficiency, the most productivity, and the most consumption for the most people.

PPOL 4200 Microeconomics for Public Pol. (4 Credits)

Microeconomics for Public Policy Analysis will provide a comprehensive, case-based overview for the MPP student of the consequences of contemporary public policies for individuals, households, and firms. Public policy is often said to consist of the distribution of scarce or valuable resources or benefits through the mechanisms of the public sector. This course will provide the opportunity to gain fluency and expertise in the application of economic analysis to such problems as transfer payments, entitlements, government subsidies, taxation, housing, education, labor, welfare and crime. Issues concerned with exploring the government's role in encouraging innovation, maintaining a growing economy, and budgeting under conditions of "surplus," will be explored using contemporary policy initiatives. Two competing visions of public policy will be examined: the role of economic policy in securing the benefits of "ordered liberty," which accords to the individual; and (2) the vision of public policy as fundamental to the correction of anomalies in the market and in the distribution of scarce resources, often based on interest group claims of "disparity" and "inequality".

PPOL 4300 Quantitative Analysis-Pub Pol (4 Credits)

This course will provide the MMP student with the tools of mathematical analysis needed for the advanced study of public policy issues and evaluation of alternatives. Topics will include descriptive statistics, probability, sampling, estimation, inference and hypothesis testing, variable analysis and correlation, regression theory, reliability and validity, and prediction and simulation. Students needing review of college-level algebra will be referred to appropriate tutorials.

PPOL 4400 Analytical & Critical Skills (4 Credits)

This course will provide the student with the analytical tools necessary to evaluate competing points of view, using empirical techniques, logic, and statistical inference. Case studies will be drawn from the current legislative and regulatory environment and will provide the MPP student with opportunities to construct a course of action, based on the use of logically consistent arguments and on the persuasive use of facts and empirical data. Students in this course will also learn the history and development of the scientific method, how to distinguish speculation, theory, fact, and opinion, how to identify the validity, ideological content or irrationality of data, how to identify the intentional obfuscation of issues, and how to evaluate one's own prejudices and vulnerability to argument not based on evidence.

PPOL 4500 Cost-Benefit Analysis/Pub Pol (4 Credits)

How do we determine if programs have met their objectives? Increasingly, this is a matter for empirical evaluation. This course will focus on quantitative approaches to program evaluation and on the primary tool available to the policy analyst in the modern organizational framework, cost-benefit analysis. Various issues will be considered, including the "costs" associated with taxes (and tax expenditures), governmental mandates, health and safety regulation, environmental regulation, government "investments," such as those in education, defense, law enforcement, and the regulation of financial industries.
PPOL 4501 Great Issues Forum (2 Credits)
The Great Issues Forums are unique short courses devoted to a single policy issue and taught by a nationally-recognized authority in the area. These courses will occur on a periodic basis, with at least two forums to be offered each academic quarter. Participation in these courses is required for graduate students in the MPP program. Each course will be taught on an intensive workshop basis, over the course of two or more days, for example, all-day sessions on Friday and Saturday. Specific topics will be determined by the immediacy of the policy issue and its relevancy to the curriculum of the MPP.

PPOL 4502 Issues Forum II (2 Credits)
The Great Issues Forums are unique short courses devoted to a single policy issue and taught by a nationally-recognized authority in the area. These courses will occur on a periodic basis, with at least two forums to be offered each academic quarter. Participation in these courses is required for graduate students in the MPP program. Each course will be taught on an intensive workshop basis, over the course of two or more days, for example, all-day sessions on Friday and Saturday. Specific topics will be determined by the immediacy of the policy issue and its relevancy to the curriculum of the MPP.

PPOL 4504 The Policymaking Environment (2 Credits)
This forum aims to provide MPP students with a robust understanding of the essentials of the policymaking process in the United States. We will be examining in sequence three basic topics: 1) The political values and principles that establish the parameters for the policymaking environment; 2) The set of governmental and non-governmental actors who participate in policymaking and how they relate to each other; and 3) What policymaking models can help to explain the way policy is made by those actors.

PPOL 4506 The American Fiscal Future: Solvency, Security, and Sovereignty in the 21st Century (4 Credits)
This course provides the opportunity for students to gain a comprehensive understanding of American fiscal policy, the derivation of the social welfare state, the consequences of debt and deficits for American public policy and social stability, and the policy alternatives to current dysfunctional policies.

PPOL 4600 Regulatory Policy (4 Credits)
This course will provide the MPP student with a solid understanding of the legal basis for policy action, through a case-based examination of executive and legislative authority, judicial policy-making, the expansion of the due process and equal protection clauses of the 14th Amendment, and the expansion of administrative authority under the Administrative Procedure Act. Such issues as affirmative action, government contracting, school finance, antitrust, and substantive due process will be presented utilizing a combination of traditional legal analysis and the cost-benefit approach of the policy specialist.

PPOL 4700 Public Management & Budgeting (4 Credits)
This course introduces students to the topic of public management, which includes concepts such as organizational structure, performance management, and strategy development. In addition, the instructor will teach the techniques and concepts of government and non-profit budgeting/financial management. The budgeting process includes program development/implementation, cost and revenue estimation and projection, and budget evaluation. The relationship between public management and budgeting will be explored.

PPOL 4701 Topics in Public Policy (4 Credits)
Various topics in public policy are covered. Topic subjects to change each term as deemed appropriate with local, regional and federal policy issues and regulation changes. Prerequisite: PPOL 4100.

PPOL 4806 Decision Making in Public Policy (4 Credits)
Provides a new perspective on the process of decision-making in the public and private sectors. Viewed from the perspective of a significant paradigm shift, the "rational model" of policy-making is contrasted with emerging theories based on a view of human nature that is unpredictable, idiosyncratic, and context-based. Case studies are drawn from the current financial crisis and from the ongoing debate over economic stimulus and recovery. Additional examples are provided from the New Deal era, the Vietnam war, Watergate, and from the wars in Afghanistan and Iraq.

PPOL 4807 The Public Policy Implications of Retiring the Baby Boomers (4 Credits)
The first baby boomers start drawing Social Security in 2008, and they they start turning 65 in 2011. American Retirement Policy has long undertaken three major obligations with regard to the elderly: Social Security, Health Care and Long Term Care. The shock of 76 million baby boomers impacting these three systems (and related programs like Veteran's programs, Military retirement, Federal Civil Service Retirement, etc.) will be profound. Your generation will soon be running a nation of 50 Florida's. This class will look at the public policy options of these three programs. We will also look at the politics of retirement policy, the demography of the next 50 years, tax policy in an aging society, how other developed countries are handling similar problems, and we will develop a comprehensive plan for meeting these multiple challenges.

PPOL 4808 Health Care Policy (4 Credits)
No prerequisites. The purpose of this course will be to explore the assumptions, the history, the development and the current practices of the U.S. health care systems. What are its strengths and what are its weaknesses? How do we explain its paradox of excess and deprivation? We will spend some limited time examining other nation's health care systems for comparative purposes. The course will cover a broad range of topics and will explore a systems approach to health, obtaining an understanding of the integration of the public and private sector, free-market and government regulation; the effects on the doctor/patient relationship, the new health care demands, the search for quality, the role of new technologies and the changing ethical standards. Such a course cannot be designed to describe a functional world of health care delivery for even as the description is being formulated, the practical and functional aspects of that world are changing.
**PPOL 4810 Building a Sustainable America (4 Credits)**
This course has a viewpoint: endless economic and population growth are sustainable. Opposing viewpoints are welcomed, even encouraged, but the purpose of this class is to start developing a new, more sustainable agenda for America. No trees grow to the sky and no geometric growth curves are sustainable. The first census in 1790 found four million Europeans living in North America. (Estimate of Native Americans vary widely.) That means that between 1790 and 1990, America had six doublings of its population (4, 8, 32, 64, 128, 256). Note that two more doublings would give us one billion Americans. Sustainable? Desired Public Policy? Similarly, U.S. and world economic growth has been growing exponentially. America’s GDP is now 13 trillion dollars and there are serious questions whether the world’s eco-systems can provide 6.5 billion people (the current world population) anything close to an American standard of living. Nor can the eco-system tolerate economic growth at historic rates. Many thoughtful observers think that a whole new phase of human development has been reached, call it the Sustainability Revolution, which will have as profound impact on human history as did the Industrial Revolution. Our globe is warming, our glaciers are melting, our oceans are expanding, our coral dying, our deserts creeping, our water-tables falling: we seem to be headed to a time of convergence. For the first time in history, humankind has itself become a geological force. New public policy solutions need to be brought forth and debated. We will attempt to do exactly that.

**PPOL 4811 The Strategy of Public Policy (4 Credits)**
Public Policy is formed in many ways: legislation, court rulings, initiative campaigns, executive orders, and regulations, not to mention many other subtle instruments that are often invisible to the public. All of these tools make analyzing policy a difficult task, and they make choosing the right strategy for getting a policy implemented even more complicated. How is it that policy makers choose to implement their policies? Are any options more effective than others? To understand the policy process in the U.S., policy analysts must understand the institutions that exist in government.

**PPOL 4812 Supreme Court & Public Policy (4 Credits)**
This course, which is specifically designed for graduate students in public policy, provides the necessary professional background for students to understand the role of the Supreme Court of the United States in the formulation of public policy. Central to the course are the due process and equal protection clauses of the 14th Amendment to the U.S. Constitution, which are the key to understanding the vast expansion of Supreme Court power since the New Deal. The course also provides a basis for the student to understand the constitutional basis for administrative regulation, as well as freedom of expression issues inherent in the 1st Amendment.

**PPOL 4820 What Works in Public Policy - and What Doesn't (4 Credits)**
The goal of this course is to analyze the implications for public policy of significant public policy failures and successes. Selected major public policy initiatives are examined with a view toward judging their ultimate success or failure and the reasons for these outcomes. There is an emphasis on discussing unintended consequences and the role of modern economic theory. The role of ideology and politics in policy outcomes is also a focus. Policy areas that are evaluated include: Social Security and Medicare; the decline of the cities; federal fiscal and tax policy; and deregulation of financial markets.

**PPOL 4900 Public Sector Internship (0-10 Credits)**
Students will gain hands-on experience with policy issues in a variety of settings.

**PPOL 4910 Private Sector Internship (1-10 Credits)**
Students will gain hands-on experience with policy issues in a variety of settings.

**PPOL 4920 Non-Profit Sector Internship (1-10 Credits)**
Students will gain hands-on experience with policy issues in a variety of settings.

**PPOL 4991 Independent Study (1-10 Credits)**
Students will work in collaboration with faculty from the Institute for Public Policy Studies to complete an independent study project.

**PPOL 4992 Directed Study (1-5 Credits)**

**PPOL 4995 Independent Research (1-10 Credits)**
The Policy Memorandum research project is designed to provide the MPP student with a capstone experience that will synthesize the knowledge and skills that were acquired during the 60 quarter hours of formal coursework. Included among the skills that students will apply are research, quantitative methods, economic analysis, cost-benefit analysis, budgeting and project management.

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**International Studies**
Office: Anna & John J. Sie International Relations Complex
Mail Code: 2201 S. Gaylord St., Denver, CO 80210
Phone: 303-871-2544
Email: korbeladm@du.edu
Web Site: du.edu/korbel/

**Doctor Of Philosophy in International Studies**
The Ph.D. degree is designed as a five to seven year program provided the student a) enters with a closely related master’s degree and b) is able to devote full-time study during the entire period. The student working toward this degree must earn a grade average of 3.5 or higher for a minimum of 135 hours of graduate credit, of which 90 hours must be earned at the University of Denver. Students select two of the three fields available: Comparative Politics, International Relations, and Political Theory. In addition, each student must meet the core curriculum and field training,
methodology and foreign language requirements, pass written and oral comprehensive field exams, file an approved prospectus, and successfully write and defend a dissertation.

**Master of Arts in Global Finance, Trade and Economic Integration**

The Global Finance, Trade, and Economic Integration (GFTEI) program provides students with a multi-disciplinary, policy-focused examination of the global economy. Courses within this degree focus on the complex changes underway in the global economy, including the emerging patterns of finance, trade, and human capital flows and their effect on national economies; the effect of globalization on state capacity, policy autonomy, and national economic conditions; the relationship between economic, political, and social outcomes; corporate governance and competition; and the interaction of interest groups, states, and multilateral agreements and organizations. All students within this degree receive training in advanced statistical methods, including econometrics. Students also select from a diverse collection of “hard” and “soft” skills courses (e.g. Art of Forecasting, Professional Communications, Project Management, Time Series and Panel Data, and Social Entrepreneurship.)

Students pursuing the GFTEI degree are required to select one specialization that is tied to their intellectual and career aspirations. Some students have chosen to pursue two specializations. Examples of specializations that students have pursued recently include international political economy, international business, economic development, energy and environment, the political economy of Africa, China, the European Union, or Latin America, international security, and qualitative methods.

This degree is intended for students who intend to pursue careers in four domains:

1. International economic policy analysis for public sector agencies, such as the Department of Commerce and the International Trade Administration
2. Analyst positions in multilateral institutions and organizations, such as the World Bank, the United Nations and the Organization for Economic Cooperation and Development;
3. Research and analyst positions within non-governmental organizations, such as Oxfam and Action Aid; and
4. Private sector careers as economic policy consultants, country risk or international project analysts, or international project managers.

Students who seek a more specialized and technical training in portfolio allocation might consider creating their own “customized, flexible dual degree” with DBB that allows them to earn an MS in Finance along with the GFTEI degree (for more information, see Instructions for proposing a Flexible Dual Degree Program (http://www.du.edu/media/documents/graduates/flexdual.pdf)).

Students may be interested to know that the course, “Economics: Fundamental Knowledge, Global Applications” (INTS 4536), offered each fall, is designed for students who have never successfully completed an undergraduate course in Introductory Macroeconomics & Microeconomics (or undergraduate Principles of Economics or undergraduate International Economics). INTS 4536 will prepare students who do not possess this basic economics background to enroll in INTS 4310 (Int’l Trade) and INTS 4320 (International Monetary Relations).

**Master of Arts in International Administration**

The goals of the International Administration Degree Program are first to establish the foundation of management skills (people, programs or policies) required to become a leader in a non-profit or public sector organization in an international context, and second to provide students the opportunity to gain expertise in a specific policy area of the students’ choice such as human rights, development, security, or health affairs.

**Master of Arts in International Development**

The MA in International Development focuses on development theory, policy-making and analysis, politics of institutions, and in-demand practical skills. The program prepares students for careers in government, multilateral and bilateral development agencies, non-governmental organizations, and the private sector. Development graduates also enter relevant doctoral programs.

The program reflects an approach to development that emphasizes not only economic issues but also the importance and interrelatedness of sustainable economic and human development, human rights, and environmental sustainability. We emphasize the diversity of needs, desires, opportunities, and constraints that are experienced by individuals of differing socioeconomic classes, ethnicities, and genders, as well as differences among nations and regions.

Students gain analytical skills that address not only policy issues, but also the logics and workings of diverse institutions that create, negotiate, and implement development policy. Students also engage the many power differentials that profoundly influence processes central to sustainable development. These power differentials exist not only among nations, but also among public- and private-sector partners within development programs; between development practitioners and their intended beneficiaries; and among those intended beneficiaries. Thus we also engage with actors and processes across scalar levels from the most macro-level international institutions and initiatives to the most micro-level agendas and actions taken by communities, firms, families and individuals.

The program provides training in practical skills that have been identified as key by development employers, including communications, quantitative analysis, and administration. Through internships, students gain experience in meeting the challenges of development practice while applying these skills and their knowledge of ideas, institutions, and processes that have influenced the course of international development.
Master of Arts in International Human Rights

This degree is for students with academic or career interests in human rights and humanitarianism. Graduates typically seek and obtain positions in international non-profits; international rights advocacy organizations, international aid agencies, governmental and intergovernmental organizations, the human rights legal profession and academia.

Because of its integrative and interdisciplinary nature, the human rights curriculum leads to flexible career options which link human rights to development, health, security, humanitarian assistance, etc., and provides fascinating research possibilities beyond the MA degree. The program combines intellectual breadth and multidisciplinary grounding, specialized themes, and practical experience. For breadth, the core offers courses in human rights theory, history, law, foreign policy, and economic development. Our specialized themes include courses linking human rights to security, economic development, health, humanitarian assistance, administration, etc. For practical experience, students are offered skills courses, internships and opportunities for fieldwork crafted to enhance professional qualifications.

Combined with an exceptional group of distinguished alumni and current students, the remarkable scholarly and practical credentials of the faculty associated with this program speak volumes. The Korbel School has the leading interdisciplinary human rights program in the United States.

Ninety credit hours are required to complete the degree, which typically requires two years of full-time study. The degree can also be completed on a part-time basis.

Master of Arts in International Security

The International Security program provides education and training from a multi-disciplinary perspective on issues associated with the causes, consequences, and means of preventing and mitigating threats across the range of levels of analysis. The Security Program defines both security and threats broadly and interactively, ranging from and making linkages across traditional systemic/state level threats associated with the use of violence and those associated with the provision of human security at the societal/individual level. Utilizing a diverse faculty and an array of teaching approaches/practical exercises, our aim is allow students to master, analyze, and test theories, policies, and approaches to the challenges of international security as well as develop the analytic and communications skills necessary to become leading practitioners in the security field via the public, private, non-profit, and/or international sectors.

At the completion of the Security Curriculum, students will have a clear understanding of the foundational concepts, theories, and approaches associated with the study and practice of international security and are able to relate these approaches to each other and to real world security challenges. In addition, students will have developed the analytic, professional, and communications skills necessary to provide and articulate professional level analysis as well as developed one or more sub-areas of expertise within the international security field.

Master of Arts in International Studies

The Master of Arts in International Studies combines an in-depth study of one of the principle fields of international studies with an issue-oriented specialization, skills courses, and opportunities for internships or advanced research. It is the "traditional" professional international studies curriculum long favored by students pursuing career options in the government, private, and non-profit sectors, as well as those considering a PhD. It is also our most flexible degree, as it allows you to tailor a program according to your particular needs and interests. Ninety credit hours are required to complete the degree, which typically requires two years of full-time study.

Certificate in Homeland Security

This certificate program is offered to currently enrolled Josef Korbel School of International Studies’ Master’s or PhD students. The Homeland Security Certificate Program is a professional certification program focused on preparing participants to step directly into career opportunities in the local, state, and national homeland security profession.

Certificate in International Studies with a Concentration in Global Health Affairs

The Certificate in Global Health Affairs (CGHA) is the first global health program to be based in a school of International Studies. Unlike certificates offered by schools of medicine or public health, which emphasize biomedical approaches to health, CGHA places social and political solutions at the forefront of global health action. Combined with a degree, the seven-course CGHA sequence prepares students for systematic, evidence-based approaches to a broad range of global health problems relating to development, diplomacy, security, trade, and humanitarian rights.

CGHA’s core emphasis lies in building sound decision-making skills in an arena often suffused with inefficiency and blindness to political, social, and cultural context. Substantive courses address the widest conception of the causes and consequences of individual and population health, emphasizing short- and long-term effects, the increasing globalization and personalization of health; and interactions between health and other key areas of human endeavor such as politics, development, trade, and conflict. Practical courses combine basic analytic, management, and epidemiologic skills with innovative new technologies such as social marketing, Geographic Information Systems, and mobile telephony.

Students who graduate with the certificate in global health affairs distinguish themselves as leaders and innovators through the pursuit of the "science of service" on and off campus. While most GHA students take advantage of traditional internship opportunities at leading international health organizations, many also pursue action-oriented research and leadership projects through a network of partner agencies and through our own student-led community-based research projects in Nairobi, Delhi, and Jerusalem. Students are encouraged, but not required, to undertake action-oriented research projects including a thesis or Significant Research Paper, which may be completed for course credit. Throughout the GHA program,
students build an evidence-based framework for evaluating project impacts on served communities, service agencies, their own career paths, and their community at DU.

**Certificate in International Studies with a concentration in Humanitarian Assistance**

The mission of the Humanitarian Assistance Program is to prepare students to work in the humanitarian field. The program provides students with the theoretical and practical underpinnings for humanitarian work which is technically sound, engages with affected communities, responds to the diverse needs of affected populations and sets the stage for sustainable and inclusive recovery and development.

A limited number of students pursuing a master's degree at Korbel are admitted to the Humanitarian Assistance Certificate Program each year. Admission is extremely competitive on the basis of experience, focus and motivation.

Applications will be accepted from Korbel students at the beginning of each academic year (due late September). Students will be informed about whether they have been accepted by mid-November.

All certificate students are required to do the following:

1. Complete core humanitarian coursework comprised of two courses which aim to introduce students to key aspects of humanitarian assistance (one focused on policy and the other on field operations) and two additional courses directly related to humanitarian assistance.
2. Take three elective courses in one of three tracks: (personalized tracks are also possible)
   a. Monitoring, Evaluation and Analysis
   b. Management/Operations
   c. Policy/Advocacy
3. Complete an internship (150 hours) with an organization whose core work includes international humanitarian assistance or humanitarian policy/ advocacy. This is a critical component of the Certificate. It is unlikely that students in the Certificate Program will find appropriate internships in Denver. Certificate candidates should plan to spend some significant time interning at an appropriate location (either in the US or abroad) in order to fulfill this requirement.

**Certificate in international studies**

Certificate programs are reserved for students who are co-enrolled in a MA level program within the Josef Korbel School of International Studies. Those who have been accepted to a MA level program and are interested in applying to the certificate programs should contact JKSIS for more information.

**Master of Arts in international administration, international studies, international security, global finance trade & economic integration, international development, international human rights**

Following are the simple steps to apply for master’s program in International Studies at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

### Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (http://www.du.edu/learn/graduates).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: January 15, for Fall quarter or November 1, for Winter quarter. These are priority deadlines and the program will continue to consider applications on a rolling basis.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars Rangel Fellows, Pickering Fellows

### Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

### Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
• Paper Transcripts should be sent to the following address
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802
• Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
  • Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Josef Korbel School of International Studies is 95 (iBT) or 587 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 7.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
  • Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
  • Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
  • Applicants must take either the GRE General Test or the GMAT and submit the scores to the University of Denver. DU’s ETS Institution Code is 4842.

Personal Statement
  • In 500-700 words, answer all of the following questions:
    • What is your career goal upon completing your graduate degree and what are your longer-term career goals?
    • Explain why you have chosen to pursue a graduate degree and how the degree program you have chosen will prepare you to reach your specific career goals.
    • What skills and previous experiences have helped position you to reach your career goals and how will the Josef Korbel School help you achieve these goals.

Resume / C.V.
  • A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters
  • Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
  • To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
  • To receive priority consideration for merit-based scholarships we strongly encourage you to apply to the Josef Korbel School prior to the application deadline (November 1 for winter admission and January 15 for fall admission).

Application Status
  • We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu). Applicants will receive login information post application submission.

Contact Information
  • Mail official transcripts and any supplemental admission materials not submitted with the online application to:
    University of Denver
Office of Graduate Studies  
Mary Reed Building, Room 5  
2199 S. University Blvd.  
Denver, CO 80208-4802

- Electronic transcripts should be sent to gradinfo@du.edu.
- For more information call (303) 871-2706

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures (http://bulletin.du.edu/graduate/gradpolicy) provides complete details regarding admission requirements.

Doctor of Philosophy in International Studies
Following are the simple steps to apply for doctoral study in International Studies at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines  
- Applications for graduate study at the University of Denver must be submitted online. Apply online (http://www.du.edu/learn/graduates).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: January 15. The doctoral admits for the fall quarter only.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars Rangel Fellows, Pickering Fellows

Course and Degree Prerequisites and Requirements  
- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)  
- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Paper Transcripts should be sent to the following address  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802
- Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)  
- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Josef Korbel School of International Studies is 95 (iBT) or 587 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 7.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt
from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

- Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

**Test Scores**
(http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official Graduate Record Examination (GRE) scores which have been taken within the last five years are required. The University of Denver’s ETS Institution Code is 4842.

**Personal Statement**

- In 750-1,000 words, answer all of the following questions:
  1. Your career goals and objectives.
  3. The faculty from the Josef Korbel School with whom you wish to work and why.

**Resume / C.V.**

- A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

**Recommendation Letters**

- Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

**Writing Sample**

- Submit an approximately 20 page writing sample through the online application process.

**Financial Support**

- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
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**Application Status**

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- Mail official transcripts and any supplemental admission materials not submitted with the online application to:
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802  
  
  - Electronic transcripts should be sent to gradinfo@du.edu.
  - For more information call (303) 871-2706

**International Applicants**

- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

*The Graduate Policies and Procedures provides complete details regarding admission requirements*

**Doctor of Philosophy in International Studies**

**Degree Requirements**

**Coursework Requirements**

**Core coursework requirements (four courses):**

International Studies Core
### International Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4324</td>
<td>Int’l Political Economy</td>
</tr>
<tr>
<td>INTS 4501</td>
<td>Comparative Politics in the 21st Century</td>
</tr>
<tr>
<td>INTS 4900</td>
<td>International Politics</td>
</tr>
<tr>
<td></td>
<td>Plus one Political Theory course from the following list:</td>
</tr>
<tr>
<td>INTS 4820</td>
<td>Democracy and War</td>
</tr>
<tr>
<td>INTS 4822</td>
<td>Contemporary Political Thought</td>
</tr>
<tr>
<td>INTS 4599</td>
<td>Ethics and International Affairs</td>
</tr>
</tbody>
</table>

**Field Requirement (five courses in each of two fields as specified below):**

#### Comparative Politics (CP)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4501</td>
<td>Comparative Politics in the 21st Century</td>
</tr>
<tr>
<td>INTS 4327</td>
<td>Advanced Issues in International Relations and Comparative Politics ¹</td>
</tr>
<tr>
<td>INTS 4349</td>
<td>Comparative Public Policy and Finance</td>
</tr>
</tbody>
</table>

Plus two additional courses in Comparative Politics (consult with Martin Rhodes and Tim Sisk before selecting your additional CP courses)

#### International Relations (IR)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4900</td>
<td>International Politics</td>
</tr>
<tr>
<td>INTS 4648</td>
<td>Theories of Security in World Politics</td>
</tr>
<tr>
<td>INTS 4320</td>
<td>Int’l Monetary Relations</td>
</tr>
<tr>
<td>or INTS 4310</td>
<td>International Trade</td>
</tr>
<tr>
<td>INTS 4903</td>
<td>Social Construction of International Society</td>
</tr>
<tr>
<td>or INTS 4622</td>
<td>Global Governance</td>
</tr>
<tr>
<td>INTS 4327</td>
<td>Advanced Issues in International Relations and Comparative Politics ¹</td>
</tr>
</tbody>
</table>

#### Political Theory (PT)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4820</td>
<td>Democracy and War</td>
</tr>
<tr>
<td>INTS 4822</td>
<td>Contemporary Political Thought</td>
</tr>
</tbody>
</table>

Plus three additional courses in Political Theory (for questions regarding this field, see Alan Gilbert or Micheline Ishay)

#### Methodology (two courses): ²

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4010</td>
<td>Epistemology</td>
</tr>
<tr>
<td>or INTS 4522</td>
<td>Philosophy of Social Science</td>
</tr>
<tr>
<td>INTS 4500</td>
<td>Social Science Methods</td>
</tr>
</tbody>
</table>

#### Elective requirements (if applicable): ⁵⁵

Electives may be used to meet the remaining coursework total of 135 hrs. Note-with approval from the student’s advisor, the chairperson of the department and the Office of Graduate Studies, doctoral students may reduce the required hours for a doctoral degree by up to 45 hours with an earned master’s degree from a regionally accredited university.

**Total Credits: 135**

---

1. INTS 4327 Advanced Issues in International Relations and Comparative Politics is an advanced research course that combines the study of comparative and international political economy with research methods. Many PhD students write one of their two extended research papers while taking this course. *Offered only every other year; not annually.*

2. Methodology training beyond these required courses is a matter of individual needs and interests, and students should consult their advisor or potential dissertation committee chair and members about available options. A limited fund is available to fund students to study at methods courses outside of DU, at for example, methods summer schools. Awards for this purpose will be made on a competitive basis and only when students and their advisors can prove that such training is vital for completion of the Ph.D. dissertation.

3. INTS 4522 Philosophy of Social Science is offered every other year.

**Minimum number of credits required for degree: 135 hrs.**

**Non-coursework Requirements**

- **One Extended Research Paper:** PhD students are required to write an extended research paper during their period of fulfilling course work requirements. Students demonstrate a capacity for independent research in writing the extended research paper.

- **Foreign Language Proficiency:** Non-native English speakers should pass the Test of English as a Foreign Language (TOEFL) with a minimum score of 95 (internet based), 240 (computer-based) or 587 (paper-based), and native English speakers need to demonstrate proficiency in one foreign language.

- **Comprehensive Written Exams:** An 8 hr. comprehensive exam is given to students upon completion of their coursework. Students must test in both selected fields. One week after the written exam a 1.5 oral exam is given for each field made up of three tenured faculty members in each field.
• Students cannot progress towards prospectus stage until they successfully pass both fields. Prospectus must have approval/signature of all JKSIS committee members.

• **Final Dissertation:** Prior to submitting the final dissertation for graduation, students must successfully pass an oral defense of the dissertation.

## Master of Arts in Global Finance, Trade, and Economic Integration

### Degree Requirements

#### Coursework Requirements

<table>
<thead>
<tr>
<th>Core Coursework Requirements (one course):</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International Studies Core</strong></td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>INTS 4324</td>
<td>Int'l Political Economy (strongly recommended)</td>
</tr>
<tr>
<td>INTS 4372</td>
<td>Great Books in Political Economy</td>
</tr>
<tr>
<td>INTS 4374</td>
<td>The Ethical Foundations of Global Economic Policy</td>
</tr>
<tr>
<td>INTS 4501</td>
<td>Comparative Politics in the 21st Century</td>
</tr>
<tr>
<td>INTS 4900</td>
<td>International Politics (or any one of the Political Theory courses listed under the traditional MA in International Studies degree)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Training Core (three courses):</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4310</td>
<td>International Trade ¹</td>
</tr>
<tr>
<td>INTS 4320</td>
<td>Int'l Monetary Relations ²</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>INTS 4324</td>
<td>Int'l Political Economy ³</td>
</tr>
<tr>
<td>INTS 4370</td>
<td>Political Economy of Globalization ⁴</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialization Area Requirement (three courses):</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialization areas allow students to group at least three elective courses that relate to a particular theme. Students are required to complete at least one specialization but may also choose to complete a second specialization. Students have considerable latitude in the design of their selected specialization area(s). Examples of specializations that students have pursued recently include international political economy, international business, economic development, energy and environment, the political economy of Africa, China, the European Union, or Latin America, international security, and qualitative methods. Students must secure approval from the GFTEI Degree Director when selecting elective courses to complete their chosen specialization area(s).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skills Requirement (three courses):</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4051 or INTS 4057</td>
<td>Statistical Methods II ⁵</td>
</tr>
<tr>
<td>INTS 4303</td>
<td>Econometrics for Decision Making I</td>
</tr>
</tbody>
</table>

A third skills oriented course approved by the GFTEI Degree Director.

<table>
<thead>
<tr>
<th>Elective Requirements</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remaining credits (after taking above) for a total of 90 credits (72 credits for the PCMI program - Note: the PCMI Program is available only to students that matriculated in or prior to Fall Quarter 2016)</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**: 90

---

¹ Prerequisite, grade of B- or better in undergraduate course in Introductory Microeconomics or International Economics. Students who have not completed the undergraduate prerequisites for INTS 4310 should first complete INTS 4536.

² Prerequisite, grade of B- or better in undergraduate course in Introductory Macroeconomics or International Economics.

³ Students who have taken INTS 4324 to fulfill their International Studies Core requirement must take INTS 4370 to fulfill their Program Training Core requirement.

⁴ INTS 4310 and INTS 4320 are recommended as prerequisites for INTS 4370.

⁵ This requirement may be satisfied with less than 15 credit hours if applying degree director approved coursework from another department.

⁶ Students must complete INTS 4050 Statistical Methods I (with a grade of C- or better) before they are eligible to register for INTS 4051 Statistical Methods II. Students will receive elective credit for completing INTS 4050 Statistical Methods I.

⁷ Students may take INTS 4057 Statistics for International Affairs (which combines Stats I and Stats II) instead of INTS 4051 Statistical Methods II, if they have a strong quantitative background and a minimum quantitative GRE score of 148 coming into the program. This is a fast-paced course. Students with a lower quantitative GRE score may not take this course without permission of the instructor.
Minimum number of credits required for degree: 90 credits (72 credits for Peace Corps PCMI students - Note: the PCMI Program is available only to students that matriculated in or prior to Fall Quarter 2016.)

Non-coursework Requirements
• Foreign Language Proficiency: Strongly recommended
• Internship: Required (0-5 credits)
• Thesis or Substantial Research Paper (SRP): Optional (0-10 credits)

Master of Arts in International Administration

Degree Requirements
Coursework Requirements
Core Coursework Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Studies Core</td>
<td>10</td>
</tr>
<tr>
<td>INTS 4501</td>
<td></td>
</tr>
<tr>
<td>INTS 4324</td>
<td></td>
</tr>
<tr>
<td>Administration Core</td>
<td>15</td>
</tr>
<tr>
<td>INTS 4391</td>
<td></td>
</tr>
<tr>
<td>INTS 4394</td>
<td></td>
</tr>
<tr>
<td>INTS 4931</td>
<td></td>
</tr>
<tr>
<td>Public Sector Core</td>
<td>10</td>
</tr>
<tr>
<td>INTS 4349</td>
<td></td>
</tr>
<tr>
<td>INTS 4750</td>
<td></td>
</tr>
</tbody>
</table>

Specialization Area Requirement (three courses): 15
Students are expected to focus their specialization (three courses/15 credit hrs.) in an area approved by the International Administration Degree Director.

Skills Requirements (one course): 5

Methodology/Skills Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4051</td>
<td></td>
</tr>
<tr>
<td>or INTS 4057</td>
<td></td>
</tr>
<tr>
<td>Statistical Methods II</td>
<td></td>
</tr>
<tr>
<td>Statistics for International Affairs</td>
<td></td>
</tr>
</tbody>
</table>

It is recommended that students intending careers in the development field also take:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4333</td>
<td></td>
</tr>
<tr>
<td>INTS 4966</td>
<td></td>
</tr>
</tbody>
</table>

Elective Requirements 35
To reach the 90 total credit hours required for the degree (72 for Peace Corps Master's International students - Note: the PCMI Program is available only to students that matriculated in or prior to Fall Quarter 2016)

Total Credits 90

1 Students must complete INTS 4050 Statistical Methods I (with a grade of C- or better) before they are eligible to register for INTS 4051 Statistical Methods II. Students will receive elective credit for completing INTS 4050 Statistical Methods I.

2 Students may take INTS 4057 Statistics for International Affairs (which combines Stats I and Stats II) instead of INTS 4051 Statistical Methods II, if they have a strong quantitative background and a minimum quantitative GRE score of 148 coming into the program. This is a fast-paced course. Students with a lower quantitative GRE score may not take this course without permission of the instructor.

Minimum number of credits required for degree: 90 hrs. (72 for Peace Corps PCMI students - Note: the PCMI Program is available only to students that matriculated in or prior to Fall Quarter 2016.)

Non-coursework Requirements
• Internship: Strongly recommended, but not required (0-5 credits)
• Foreign Language Proficiency: Required
• Thesis or Substantial Research Paper (SRP): Optional (0-10 credits)
• Students not pursuing a thesis may take either two additional skills courses (a writing course is recommended) or complete one SRP and one additional skills course.

Master of Arts in International Development

Degree Requirements
Coursework Requirements
Program Training Core (four courses): 20
### Economic Development

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4350</td>
<td>Economic Development (^1)</td>
</tr>
</tbody>
</table>

### Politics of Development

Take one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4468</td>
<td>Politics of Development</td>
</tr>
<tr>
<td>INTS 4521</td>
<td>International Development in Cross-Cultural Perspectives</td>
</tr>
</tbody>
</table>

### Sustainable Human Development/Environment and Development (SHD/ED)

Take two of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4110</td>
<td>Food &amp; Nutrition Security for Sustainable Development</td>
</tr>
<tr>
<td>INTS 4200</td>
<td>Water &amp; Sanitation in the Global South</td>
</tr>
<tr>
<td>INTS 4223</td>
<td>Global Dynamics &amp; Local Threats in Agricultural Development</td>
</tr>
<tr>
<td>INTS 4339</td>
<td>Microfinance and Sustainable Development</td>
</tr>
<tr>
<td>INTS 4362</td>
<td>Gender and Health</td>
</tr>
<tr>
<td>INTS 4379</td>
<td>Gender and Development</td>
</tr>
<tr>
<td>INTS 4396</td>
<td>Education and Development</td>
</tr>
<tr>
<td>INTS 4397</td>
<td>The Environment, The Economy, and Human Well-Being</td>
</tr>
<tr>
<td>INTS 4435</td>
<td>Health and Development</td>
</tr>
<tr>
<td>INTS 4484</td>
<td>Agriculture and Sustainable Development</td>
</tr>
<tr>
<td>INTS 4492</td>
<td>Health and Humanitarian Aid</td>
</tr>
<tr>
<td>INTS 4514</td>
<td>Population, Environment, and Development in Latin America</td>
</tr>
<tr>
<td>INTS 4521</td>
<td>International Development in Cross-Cultural Perspectives</td>
</tr>
<tr>
<td>INTS 4625</td>
<td>East African Development and Human Rights</td>
</tr>
<tr>
<td>INTS 4642</td>
<td>Environmental Security</td>
</tr>
<tr>
<td>INTS 4651</td>
<td>Field Knowledge for Agriculture and Sustainable Development</td>
</tr>
</tbody>
</table>

**INTS 4xxx Culture, Food and Agriculture**

**INTS 4xxx Gender, Environment, and Sustainable Development**

### Specialization Area Requirement (three courses):

Each student creates a specialization area by completing at least three elective courses that are linked thematically. Specializations may center on an issue, region, or skill set. Students have great latitude in identifying thematic interests and choosing related courses. Selected specializations must be approved by the International Development Degree Director, who will be available to help identify relevant courses. Students who complete certificate programs may submit their certificate transcript in place of a specialization. Courses listed as SHD/ED options and Skills options are strongly recommended and may be applied to the specialization only if they have not been used to fulfill other requirements.

### Skills Requirements (three courses):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4051</td>
<td>Statistical Methods II (^2)</td>
</tr>
<tr>
<td>or INTS 4057</td>
<td>Statistics for International Affairs (^3)</td>
</tr>
<tr>
<td>INTS 4052</td>
<td>Statistical Methods III (^4)</td>
</tr>
<tr>
<td>or INTS 4332</td>
<td>Data Analysis and Development</td>
</tr>
</tbody>
</table>

One of the following courses will complete the skills requirement:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4333</td>
<td>International Project Analysis</td>
</tr>
<tr>
<td>INTS 4342</td>
<td>Project Management</td>
</tr>
<tr>
<td>INTS 4391</td>
<td>Financial Management and Fundraising of Non-Profits</td>
</tr>
<tr>
<td>INTS 4394</td>
<td>Non-Profit Issues &amp; Techniques</td>
</tr>
<tr>
<td>INTS 4423</td>
<td>Introduction to Epidemiology</td>
</tr>
<tr>
<td>INTS 4555</td>
<td>Professional Communications</td>
</tr>
<tr>
<td>INTS 4557</td>
<td>Cross-Cultural Communications</td>
</tr>
<tr>
<td>INTS 4575</td>
<td>Systems Thinking for Social Scientists</td>
</tr>
<tr>
<td>INTS 4576</td>
<td>Seminar: Community-Based Research Methods</td>
</tr>
<tr>
<td>INTS 4579</td>
<td>International Futures</td>
</tr>
<tr>
<td>INTS 4593</td>
<td>Knowledge for Development</td>
</tr>
<tr>
<td>INTS 4632</td>
<td>Qualitative Research Methods: Working with the Denver Immigrant Community</td>
</tr>
<tr>
<td>INTS 4633</td>
<td>Int'l Project Evaluation</td>
</tr>
<tr>
<td>INTS 4966</td>
<td>Applied Field Methods</td>
</tr>
</tbody>
</table>
Elective Requirements (eight courses):

All other courses to total 90 for completion of the degree (72 hrs. for those Peace Corps PCMI students - Note: the PCMI Program is available only to students that matriculated in or prior to Fall Quarter 2016)

Total Credits

1. Students who have sufficient background in development economics may substitute INTS 4310 International Trade, INTS 4320 Int’l Monetary Relations, or INTS 4370 Political Economy of Globalization with explicit permission from the International Development Degree Director; see pre-requisite requirements.

2. Students must complete INTS 4050 Statistical Methods I (with a grade of C- or better) before they are eligible to register for INTS 4051 Statistical Methods II. Students will receive elective credit for completing INTS 4050 Statistical Methods I.

3. Students may take INTS 4057 Statistics for International Affairs (which combines Stats I and Stats II) instead of INTS 4051 Statistical Methods II, if they have a strong quantitative background and a minimum quantitative GRE score of 148 coming into the program. This is a fast-paced course. Students with a lower quantitative GRE score may not take this course without permission of the instructor.

4. INTS 4052 Statistical Methods III requires successful completion (i.e. grade of C- or better) of either INTS 4051 Statistical Methods II or INTS 4057 Statistics for International Affairs as a pre-requisite.

Minimum number of credits required for degree: 90 hrs. (72 for Peace Corps PCMI students - Note: the PCMI Program is available only to students that matriculated in or prior to Fall Quarter 2016.)

Non-coursework Requirements
- Internship: Required (0-5 credits)
- Foreign Language Proficiency: Required
- Thesis or Substantial Research Paper (SRP): Optional (0-10 credits)
- Students who choose to complete a thesis should prepare a proposal and secure an advisor for the project at least one year before they plan to submit the thesis.

Master of Arts in International Human Rights

Degree Requirements

Coursework Requirements

Core Coursework Requirements (one course):

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4324</td>
<td>Int’l Political Economy</td>
</tr>
<tr>
<td>INTS 4501</td>
<td>Comparative Politics in the 21st Century</td>
</tr>
<tr>
<td>INTS 4900</td>
<td>International Politics</td>
</tr>
</tbody>
</table>

Program Training Core (two courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4940</td>
<td>Introduction to Human Rights</td>
</tr>
<tr>
<td>INTS 4936</td>
<td>International Law and Human Rights</td>
</tr>
</tbody>
</table>

Specialization Area Requirement (three courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4987</td>
<td>Forced Labor and Human Trafficking (required)</td>
</tr>
<tr>
<td>INTS 4955</td>
<td>Human Rights Clinic I ((required) open only to Human Trafficking Clinic Associates)</td>
</tr>
</tbody>
</table>

Methodology
- Project Analysis, Management and Evaluation
- Conflict Resolution
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4920</td>
<td>Conflict Resolution (required)</td>
</tr>
<tr>
<td></td>
<td>Other CRES courses with permission of the Conflict Resolution Institute Co-Directors, Prof. Karen Feste or Prof. Tamra Pearson d’Estrée</td>
</tr>
</tbody>
</table>

**Skills Requirements (six courses):**

Statistics/Methodology/Skills/Project Analysis: choose six courses (30 credits)

**Statistics**
- Select one of the following:
  - INTS 4051 Statistical Methods II
  - or INTS 4057 Statistics for International Affairs
  - or INTS 4052 Statistical Methods III

**Methodology**
- Select one of the following:
  - INTS 4500 Social Science Methods
  - INTS 4632 Qualitative Research Methods: Working with the Denver Immigrant Community
  - INTS 4644 Human Rights Research Methods
  - INTS 4966 Applied Field Methods

**Skills**
- Select three of the following:
  - CRES 4111 Reflective Practice and Evaluation
  - CRES 4221 Negotiation Theory and Practice
  - INTS 4333 International Project Analysis
  - INTS 4342 Project Management
  - INTS 4391 Financial Management and Fundraising of Non-Profits
  - INTS 4394 Non-Profit Issues & Techniques (Prerequisite: INTS 4391)
  - INTS 4497 International Campaign Management
  - INTS 4555 Professional Communications
  - INTS 4576 Seminar: Community-Based Research Methods
  - INTS 4579 International Futures
  - INTS 4955 Human Rights Clinic I (only open to Human Trafficking Clinic Associates)

**Project Analysis**
- Select one of the following:
  - CRES 4111 Reflective Practice and Evaluation
  - INTS 4333 International Project Analysis
  - INTS 4342 Project Management

**Elective Requirements**
- To reach the 90 credit hours required for the degree.

**Total Credits** 90

---

1. Students must complete INTS 4050 Statistical Methods I (with a grade of C- or better) before they are eligible to register for INTS 4051 Statistical Methods II. Students will receive elective credit for completing INTS 4050 Statistical Methods I.

2. Students may take INTS 4057 Statistics for International Affairs (which combines Stats I and Stats II) instead of INTS 4051 Statistical Methods II, if they have a strong quantitative background and a minimum quantitative GRE score of 148 coming into the program. This is a fast-paced course. Students with a lower quantitative GRE score may not take this course without permission of the instructor.

3. INTS 4052 Statistical Methods III requires successful completion (i.e. grade of C- or better) of either INTS 4051 Statistical Methods II or INTS 4057 Statistics for International Affairs as a pre-requisite.

**Minimum number of credits required for degree: 90**

**Non-coursework Requirements:**
- Foreign Language Proficiency: Strongly recommended
- Internship: Required (0-5 credits)
Master of Arts in International Security

Degree Requirements

Coursework Requirements

All International Security students must enroll in INTS 4735 at their first opportunity, and complete INTS 4739 or INTS 4057 in their first year (see Program Training Requirements B, below). Advanced Topics Courses (see Program Training Requirements C, below), cannot be taken until a student has completed the aforementioned courses, as well as any foundational course that are pre-requisites for those courses. Thus, all International Security students are strongly encouraged to complete all Core Coursework, Foundational Coursework (Program Training Requirements A), and the Skills Coursework (Program Training Requirements B), in their first three to four quarters at the Josef Korbel School.

Core Coursework Requirements

International Studies Core (one course): 5

- INTS 4900  International Politics
- or INTS 4324  Int'l Political Economy

Program Training Requirements

A. Foundational Courses (three courses, to be completed during first year): 15

- INTS 4700  United States Foreign Policy
- or INTS 4701  US National Security Policy
- INTS 4702  Major Issues in International Security Policy
- INTS 4703  Security & Strategy

B. Skills Courses (two courses, to be completed during first year, or at first opportunity for Winter Quarter admits): 10

- INTS 4735  Defense and Security Methods
- INTS 4739  Defense and Security Quantitative Analysis
- or INTS 4057  Statistics for International Affairs

C. Advanced Topics: Security (one course): 5

A list of approved Advanced Topics courses will be provided with the release of the JKSIS Graduate Course Schedule each fall. INTS 4735 is a pre-requisite for all Advanced Topics courses, which may also include INTS 4739 or INTS 4057 as pre-requisites. Students may substitute INTS 4996 (Substantial Research Paper) or INTS 4995 (Thesis) for the Advanced Topics Course.

Specialization Area Requirement 15

Any set of three, 4000 level courses that, taken together, represent a common topic, region, or other security related specialization area. Students are welcome to generate their own specialization by topic/region (which must be approved by the International Security Degree Director) or select from the curriculum supported Security Specializations listed below. The phrase "or relevant, for-credit coursework/research" refers to individual work done via an Advanced Topics course, INTS 4991 - Independent Study, INTS 4995 - MA Thesis, or INTS 4996 - SRP, as approved by the International Security Degree Director. Options Include:

Intelligence

- INTS 4753  Intelligence and National Security
- Plus any two of the following courses or relevant, for-credit coursework/research:
  - INTS 4736  Strategic Intelligence Data Collection and Analysis
  - INTS 4738  Current Issues in Strategic Intelligence

Homeland Security

- INTS 4730  Introduction to Homeland Security
- INTS 4731  Homeland Defense: Prevention & Mitigation
- Plus one of the following courses or relevant, for-credit coursework/research:
  - INTS 4736  Strategic Intelligence Data Collection and Analysis
  - INTS 4786  Planning & Assessment in Complex Environments
  - INTS 4907  International Terrorism
  - INTS 4989  North American Defense and Security

Emerging Security Issues

- Any three of the following courses or relevant, for-credit coursework/research:
  - INTS 4539  Food Security in the United States and the World
  - INTS 4630  Civilian Protection in Armed Conflicts
  - INTS 4642  Environmental Security
  - INTS 4xxx Gender and International Security

U.S. National Security

- INTS 4701  US National Security Policy
Plus any two of the following courses or relevant, for-credit coursework/research:

- INTS 4635 Civil-Military Relations
- INTS 4753 Intelligence and National Security
- INTS 4786 Planning & Assessment in Complex Environments
- INTS 4907 International Terrorism
- INTS 4989 North American Defense and Security

Comparative Foreign Policy

Any three of the following courses or relevant, for-credit coursework/research:

- INTS 4147 American Govt & Pol. Making
- INTS 4447 Making of Chinese Foreign Policy
- INTS 4622 Global Governance
- INTS 4701 US National Security Policy
- INTS 4760 Russian Foreign and Defense Policy

Customized regional/topical specialization (with International Security Degree Director approval)

Security Electives

- Any two security courses listed above, which are not being applied toward either the Program Training Requirements or the Specialization Area Requirement.

Elective requirements

- Remaining coursework to total 90 hrs.

Total Credits

90

1 Students may take INTS 4057 Statistics for International Affairs (which combines Stats I and Stats II) only if they have a strong quantitative background and a minimum quantitative GRE score of 148 coming into the program. This is a fast-paced course. Students with a lower quantitative GRE score may not take this course without permission of the instructor.

2 Course may not be used for specialization if it is being counted toward the Foundational Course requirement.

Minimum number of credits required for degree: 90 hrs.

Non-coursework Requirements

- Internship: Required (0-5 credits)
- Foreign Language Proficiency: Strongly recommended
- Thesis or Substantial Research Paper (SRP): Optional (0-10 credits)

Master of Arts in International Studies

Degree Requirements

Core Coursework Requirements

Choose one course from the following list (note: the course should be outside of the student’s chosen field):

- INTS 4324 Int’l Political Economy
- INTS 4349 Comparative Public Policy and Finance
- INTS 4370 Political Economy of Globalization
- INTS 4501 Comparative Politics in the 21st Century
- INTS 4599 Ethics and International Affairs
- INTS 4715 Problems and Challenges of Democratization in Contemporary Democracies
- INTS 4802 Foundational Ideas in Social Science: Marx and Weber
- INTS 4820 Democracy and War
- INTS 4890 Revolutions and State Building
- INTS 4900 International Politics
- INTS 4951 Comparing International Societies
- INTS 4xxx Introduction to Political Theory

Field Requirement (four courses):

Students must choose one field from below and complete four courses (20 credits) within that field

International Politics

- INTS 4900 International Politics
International Studies

Three other courses in International Politics.

Comparative Politics

**INTS 4501** Comparative Politics in the 21st Century

Three other courses in Comparative Politics.

International Political Economy

**INTS 4324** Int'l Political Economy

Three other courses in International Political Economy from the following:

**INTS 4210** Multinational Corporations
**INTS 4303** Econometrics for Decision Making I
**INTS 4310** International Trade
**INTS 4318** Applied Research in International Economics
**INTS 4320** Int'l Monetary Relations
**INTS 4330** International Business Transactions
**INTS 4339** Microfinance and Sustainable Development
**INTS 4341** Illicit Markets in the Americas
**INTS 4349** Comparative Public Policy and Finance
**INTS 4350** Economic Development
**INTS 4369** Political Economy of Global Poverty & Inequality
**INTS 4370** Political Economy of Globalization
**INTS 4397** The Environment, The Economy, and Human Well-Being
**INTS 4399** Issues in Global Economics and Financial Security
**INTS 4427** The Political Economy of Sustainable Development in Africa
**INTS 4536** Economics: Fundamental Knowledge, Global Applications
**INTS 4643** Japan in East Asia: Economic, Business, and Trade Relations
**INTS 4646** European Integration: States in Transition
**INTS 4650** Globalization and Economic Crime
**INTS 4653** Political Economy of the Resource Curse
**INTS 4664** Political Economy of Brazil and India

Political Theory

Any four of the following:

**INTS 4526** Modern Islamic Political Thought
**INTS 4599** Ethics and International Affairs
**INTS 4710** Topics in International Studies
**INTS 4802** Foundational Ideas in Social Science: Marx and Weber
**INTS 4804** Realism and Democracy
**INTS 4820** Democracy and War
**INTS 4822** Contemporary Political Thought
**INTS 4890** Revolutions and State Building

**INTS 4xxx** Introduction to Political Theory

**Specialization Area Requirement (three courses):**

A three-course (15 credit) specialization. Students may design a customized specialization area with the approval of International Studies Degree Director. Students are only required to have one specialization, but may complete two if they wish. Students can consult with faculty with expertise in a particular specialization, pending final approval by the International Studies Degree Director, to get a list of suggested courses for any of the standard specializations.

**International Development (for questions see Sally Hamilton or Aaron Schneider):**

**INTS 4350** Economic Development
**INTS 4468** Politics of Development

Plus any course listed under the M.A. in International Development requirement for SHD/ED

**International Security (for questions see Lewis Griffith):**

Choose three of the following courses:

**INTS 4700** United States Foreign Policy
**INTS 4701** US National Security Policy
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4702</td>
<td>Major Issues in International Security Policy</td>
</tr>
<tr>
<td>INTS 4703</td>
<td>Security &amp; Strategy</td>
</tr>
<tr>
<td>INTS 4940</td>
<td>Introduction to Human Rights (required)</td>
</tr>
<tr>
<td></td>
<td>Human Rights (for questions see Claude d'Estree):</td>
</tr>
<tr>
<td>INTS 4703</td>
<td>Security &amp; Strategy</td>
</tr>
<tr>
<td></td>
<td>Plus one course from each of two subfields:</td>
</tr>
<tr>
<td></td>
<td>Legal and Organizational - choose from:</td>
</tr>
<tr>
<td>INTS 4936</td>
<td>International Law and Human Rights</td>
</tr>
<tr>
<td>INTS 4941</td>
<td>Human Rights and International Organizations</td>
</tr>
<tr>
<td></td>
<td>Regional and Country Focus:</td>
</tr>
<tr>
<td>INTS 4875</td>
<td>Human Rights and Foreign Policy</td>
</tr>
<tr>
<td></td>
<td>Topics - choose from:</td>
</tr>
<tr>
<td>INTS 4939</td>
<td>Human Rights: Genocide</td>
</tr>
<tr>
<td>INTS 4987</td>
<td>Forced Labor and Human Trafficking</td>
</tr>
<tr>
<td></td>
<td>Theoretical Issues - choose from:</td>
</tr>
<tr>
<td>INTS 4804</td>
<td>Realism and Democracy</td>
</tr>
<tr>
<td>INTS 4935</td>
<td>International Humanitarian Law of Armed Conflict</td>
</tr>
<tr>
<td></td>
<td>Conflict Resolution (for questions see Karen Feste):</td>
</tr>
<tr>
<td>INTS 4920</td>
<td>Conflict Resolution</td>
</tr>
<tr>
<td></td>
<td>One course in Intervention, Peacebuilding, or Peacekeeping</td>
</tr>
<tr>
<td></td>
<td>One course in Negotiation, Mediation, or Conciliation (or International Organization, if approved by International Studies Degree Director)</td>
</tr>
<tr>
<td></td>
<td>Global Health Affairs (for questions see Randall Kuhn):</td>
</tr>
<tr>
<td>INTS 4367</td>
<td>Global Health Affairs</td>
</tr>
<tr>
<td>INTS 4516</td>
<td>Major Diseases in Global Health (From Pathophysiology to Action)</td>
</tr>
<tr>
<td></td>
<td>Plus a third approved course from the list of GHA courses or an approved health course offered in another unit of the university</td>
</tr>
<tr>
<td></td>
<td>Policy Analysis</td>
</tr>
<tr>
<td>INTS 4750</td>
<td>The Policy Making Process</td>
</tr>
<tr>
<td>INTS 4349</td>
<td>Comparative Public Policy and Finance</td>
</tr>
<tr>
<td></td>
<td>And one course on a particular policy issue.</td>
</tr>
<tr>
<td></td>
<td>Environmental Policy</td>
</tr>
<tr>
<td>INTS 4642</td>
<td>Environmental Security</td>
</tr>
<tr>
<td>INTS 4397</td>
<td>The Environment, The Economy, and Human Well-Being</td>
</tr>
<tr>
<td>INTS 4972</td>
<td>Global Environmental Governance</td>
</tr>
<tr>
<td></td>
<td>Also recommended to deepen the specialization are INTS 4484, INTS 4653, INTS 4514, INTS 4539, and INTS 4566.</td>
</tr>
<tr>
<td></td>
<td>Homeland Security</td>
</tr>
<tr>
<td>INTS 4730</td>
<td>Introduction to Homeland Security</td>
</tr>
<tr>
<td>INTS 4731</td>
<td>Homeland Defense: Prevention &amp; Mitigation</td>
</tr>
<tr>
<td>INTS 4734</td>
<td>Homeland Sec &amp; Civil Soc</td>
</tr>
<tr>
<td></td>
<td>Technology Policy</td>
</tr>
<tr>
<td></td>
<td>Humanitarian Assistance</td>
</tr>
<tr>
<td></td>
<td>While there is no formal specialization available in Humanitarian Assistance, interested students may build a customized specialization by taking at least 15 quarter hours from the following list of courses. Approval for this customized specialization must come from the International Studies Degree Director. Students interested in such a specialization must understand seats are available only on a space-available basis after Humanitarian Assistance Certificate students have had the opportunity to register for their required courses.</td>
</tr>
<tr>
<td>INTS 4581</td>
<td>Introduction to Humanitarian Systems</td>
</tr>
<tr>
<td>INTS 4496</td>
<td>Field Operations for Humanitarian Assistance</td>
</tr>
<tr>
<td>INTS 4492</td>
<td>Health and Humanitarian Aid</td>
</tr>
<tr>
<td>INTS 4935</td>
<td>International Humanitarian Law of Armed Conflict</td>
</tr>
<tr>
<td>INTS 4056</td>
<td>Information Management in Humanitarian Crises</td>
</tr>
<tr>
<td>INTS 4583</td>
<td>International Protection in the Humanitarian Context</td>
</tr>
<tr>
<td></td>
<td>Customized Specialization</td>
</tr>
<tr>
<td></td>
<td>Three interrelated courses as approved by the International Studies Degree Director.</td>
</tr>
<tr>
<td></td>
<td>Skills Requirements</td>
</tr>
</tbody>
</table>
Methodology/Skills: A package of three courses (15 credits) from the various methods and skills courses offered at the Josef Korbel School and, with permission, from other units at the University of Denver. The list below contains examples of the types of courses that students may choose and do not exhaust the possibilities. The best choices for each student will depend on each student’s specific career goals.

<table>
<thead>
<tr>
<th>Quantitative Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4051</td>
<td>Statistical Methods II 1</td>
</tr>
<tr>
<td>INTS 4052</td>
<td>Statistical Methods III 2</td>
</tr>
<tr>
<td>INTS 4057</td>
<td>Statistics for International Affairs 3</td>
</tr>
<tr>
<td>INTS 4333</td>
<td>International Project Analysis</td>
</tr>
<tr>
<td>INTS 4345</td>
<td>The Art of Forecasting</td>
</tr>
<tr>
<td>INTS 4575</td>
<td>Systems Thinking for Social Scientists</td>
</tr>
<tr>
<td>INTS 4633</td>
<td>Int’l Project Evaluation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management and Communications Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4342</td>
<td>Project Management</td>
</tr>
<tr>
<td>INTS 4391</td>
<td>Financial Management and Fundraising of Non-Profits</td>
</tr>
<tr>
<td>INTS 4394</td>
<td>Non-Profit Issues &amp; Techniques</td>
</tr>
<tr>
<td>INTS 4555</td>
<td>Professional Communications</td>
</tr>
<tr>
<td>INTS 4557</td>
<td>Cross-Cultural Communications</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Issue-Oriented Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4423</td>
<td>Introduction to Epidemiology</td>
</tr>
<tr>
<td>INTS 4483</td>
<td>Practical Applications in Global Health</td>
</tr>
<tr>
<td>INTS 4493</td>
<td>Humanitarian Aid in Complex Emergencies</td>
</tr>
<tr>
<td>INTS 4735</td>
<td>Defense and Security Methods</td>
</tr>
<tr>
<td>INTS 4736</td>
<td>Strategic Intelligence Data Collection and Analysis</td>
</tr>
<tr>
<td>INTS 4739</td>
<td>Defense and Security Quantitative Analysis</td>
</tr>
<tr>
<td>INTS 4954</td>
<td>Human Rights Research and Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Qualitative and Field Methods</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4010</td>
<td>Epistemology</td>
</tr>
<tr>
<td>INTS 4966</td>
<td>Applied Field Methods</td>
</tr>
</tbody>
</table>

It is recommended that students take at least one statistics course for their skills requirement. Additional recommended skills courses include INTS 4333, INTS 4345, INTS 4437, or INTS 4438.

**Elective requirements (seven courses):**

<table>
<thead>
<tr>
<th>Remaining coursework to total 90 hrs.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Credits</td>
<td>90</td>
</tr>
</tbody>
</table>

1. Students must complete INTS 4050 Statistical Methods I (with a grade of C- or better) before they are eligible to register for INTS 4051 Statistical Methods II. Students will receive elective credit for completing INTS 4050 Statistical Methods I.

2. INTS 4052 Statistical Methods III requires successful completion (i.e. grade of C- or better) of either INTS 4051 Statistical Methods II or INTS 4057 Statistics for International Affairs as a pre-requisite.

3. Students may take INTS 4057 Statistics for International Affairs (which combines Stats I and Stats II) instead of INTS 4051 Statistical Methods II, if they have a strong quantitative background and a minimum quantitative GRE score of 148 coming into the program. This is a fast-paced course. Students with a lower quantitative GRE score may not take this course without permission of the instructor.

**Minimum number of credits required for degree: 90 hrs.**

**Non-coursework Requirements**

- Foreign Language Proficiency: Strongly recommended
- Internship: Optional but strongly recommended (0-5 credits)
- Thesis or Substantial Research Paper (SRP): Optional (0-10 credits)

**Certificate in Homeland Security**

**Program Requirements**

**Coursework Requirements**

Complete the following courses:                                                                 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4147</td>
<td>American Govt &amp; Pol. Making</td>
</tr>
<tr>
<td>INTS 4730</td>
<td>Introduction to Homeland Security</td>
</tr>
</tbody>
</table>
INTS 4731 Homeland Defense: Prevention & Mitigation
INTS 4736 Strategic Intelligence Data Collection and Analysis
or INTS 4989 North American Defense and Security
INTS 4753 Intelligence and National Security
INTS 4907 International Terrorism
INTS 4989 North American Defense and Security
or INTS 4786 Planning & Assessment in Complex Environments

Total Credits 35

Minimum number of credits required for certificate: 35

Certificate in International Studies with a Concentration in Global Health Affairs

Program Requirements

Coursework Requirements

Core Coursework Requirements
Students are strongly encouraged to complete one or both courses before taking other classes.

INTS 4367 Global Health Affairs
INTS 4516 Major Diseases in Global Health (From Pathophysiology to Action)

Methods and Practice Core

INTS 4483 Practical Applications in Global Health
INTS 4423 Introduction to Epidemiology

Elective Requirements
Select three of the following:

Health Issues and Interactions
INTS 4435 Health and Development
INTS 4492 Health and Humanitarian Aid
INTS 4362 Gender and Health
INTS 4368 HIV & AIDS in International Affairs
INTS 4366 Reproductive Health
INTS 4465 Population and Society
INTS 4397 The Environment, The Economy, and Human Well-Being

Methodological
INTS 4596 Mobile Technology for International Development
INTS 4058 Applied Time-Series Analysis
INTS 4632 Qualitative Research Methods: Working with the Denver Immigrant Community
MFJS 4912 Seminar in Media Film & Journalism Studies (International Health Communication and Development)
INTS 4576 Seminar: Community-Based Research Methods
INTS 4056 Information Management in Humanitarian Crises
INTS 4342 Project Management

Total Credits 35

Minimum number of credits required for certificate: 35

Non-coursework Requirements

• All GHA candidates must conduct a single, 150-hour health-related practical experience or a suitable alternative (see below). This experience must take place during the student’s course of study and the work must be carried out off campus. As an alternative to a traditional internship, this requirement could be fulfilled through current employment, an RPCV local internship, independent research (as long as it has an off-campus field component), or work on a GHA service-based research project. To qualify as health-related, a substantive component of the internship/practicum should focus on health issues. If this condition is not met within the context of the internship/practicum, the student may instead submit an additional, separate report on the health implications of their internship/practicum to the certificate director in order to fulfill the requirement. See the GHA Director for guidelines. It is possible for students to fulfill both a degree and certificate requirement with one internship/practicum.

Students are encouraged but not required to base their internship on their required proposal for INTS 4367 Global Health Affairs, and to prepare a thesis, significant research paper, or independent study based on one of their internships or other self-driven or faculty-driven research.
## Certificate in International Studies with a Concentration in Humanitarian Assistance

### Program Requirements

#### Coursework Requirements

**Core Coursework Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>INTS 4496</td>
<td>Field Operations for Humanitarian Assistance</td>
</tr>
<tr>
<td>INTS 4581</td>
<td>Introduction to Humanitarian Systems</td>
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And two of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>INTS 4056</td>
<td>Information Management in Humanitarian Crises</td>
</tr>
<tr>
<td>INTS 4492</td>
<td>Health and Humanitarian Aid</td>
</tr>
<tr>
<td>INTS 4583</td>
<td>International Protection in the Humanitarian Context</td>
</tr>
<tr>
<td>INTS 4652</td>
<td>Contemporary Issues in Refugee Studies</td>
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<tr>
<td>INTS 4787</td>
<td>Civil-Military Practices in Humanitarian Responses</td>
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<tr>
<td>INTS 4935</td>
<td>International Humanitarian Law of Armed Conflict</td>
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**Elective Requirements**

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<tr>
<th>Course Code</th>
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<tr>
<td>INTS 4342</td>
<td>Project Management</td>
</tr>
<tr>
<td>INTS 4391</td>
<td>Financial Management and Fundraising of Non-Profits</td>
</tr>
<tr>
<td>INTS 4394</td>
<td>Non-Profit Issues &amp; Techniques</td>
</tr>
<tr>
<td>INTS 4497</td>
<td>International Campaign Management</td>
</tr>
<tr>
<td>INTS 4555</td>
<td>Professional Communications</td>
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<tr>
<td>INTS 4557</td>
<td>Cross-Cultural Communications</td>
</tr>
<tr>
<td>INTS 4920</td>
<td>Conflict Resolution</td>
</tr>
<tr>
<td>INTS 4057</td>
<td>Statistics for International Affairs &lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>INTS 4332</td>
<td>Data Analysis and Development</td>
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<tr>
<td>INTS 4333</td>
<td>International Project Analysis</td>
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<tr>
<td>INTS 4423</td>
<td>Introduction to Epidemiology</td>
</tr>
<tr>
<td>GEOG 3130</td>
<td>Advanced Geographic Information Systems &lt;sup&gt;2&lt;/sup&gt;</td>
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<tr>
<td>GEOG 3100</td>
<td>Geospatial Data</td>
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<tr>
<td>PPOL 4400</td>
<td>Analytical &amp; Critical Skills</td>
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**Policy/Advocacy**

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<tr>
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<tr>
<td>INTS 4497</td>
<td>International Campaign Management</td>
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<tr>
<td>INTS 4931</td>
<td>International Organizations</td>
</tr>
<tr>
<td>INTS 4934</td>
<td>Intervention: Policies &amp; Pract</td>
</tr>
<tr>
<td>INTS 4936</td>
<td>International Law and Human Rights</td>
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<tr>
<td>INTS 4941</td>
<td>Human Rights and International Organizations</td>
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<tr>
<td>INTS 4987</td>
<td>Forced Labor and Human Trafficking</td>
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<tr>
<td>INTS 4495</td>
<td>Civil Wars and International Responses</td>
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<tr>
<td>INTS 4595</td>
<td>Civil Wars and International Responses: Evaluating Post-War Peacebuilding</td>
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<tr>
<td>CPSY 4500</td>
<td>International Disaster Psychology: Foundations</td>
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<tr>
<td>CPSY 4606</td>
<td>Gender-based Violence &lt;sup&gt;2&lt;/sup&gt;</td>
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### Total Credits

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>INTS 4057</td>
<td>Statistics for International Affairs &lt;sup&gt;1&lt;/sup&gt;</td>
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Students may take INTS 4057 Statistics for International Affairs (which combines Stats I and Stats II) only if they have a strong quantitative background and a minimum quantitative GRE score of 148 coming into the program. This is a fast-paced course. Students with a lower quantitative GRE score may not take this course without permission of the instructor.

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<sup>1</sup> Only one non-INTS course may be counted towards the Certificate. Only one elective may be double-counted towards a degree.
Minimum number of credits required for certificate: 35

Non-coursework Requirements
- An internship (150 hours) with an organization, whose core work includes international humanitarian assistance or humanitarian policy/advocacy, is required for the Humanitarian Assistance Certificate. These are usually completed by students in the summer between the first and second years of the MA program. Students arrange their own internship placements but should consult with the HA program director for ideas and approval. Internships must also be approved by the JKSIS Office of Career and Professional Development before the internship starts.

Courses

INTS 4035 Social Inquiry and Qualitative Methods for Development (5 Credits)
This course will also touch upon effective writing beyond. It will begin by critically asking what it means to undertake (inter- or cross-) disciplinary research "on" development, "in" development studies, world history to give space to the voices of marginalized and subaltern people, will also be discussed in the class.

INTS 4034 Topics in Globalization and Postcolonialism (5 Credits)
Rarely used twenty years ago, the term "globalization" has proliferated recently in both popular and scholarly arenas to describe the increasing flows of capital and commodities, migrants and ideas across national borders. Postcolonialism denotes the world conditions after the end of the European colonial empires. More importantly it refers to the critical analysis of the political and cultural legacy of colonialism, as well as the intellectual effort to deconstruct its underlying assumptions. This seminar will essentially consist of discussions of the readings. Its objective is to familiarize the students with some classical works that have contributed to define the field, as well as recent research that has expanded the debate to contemporary issues such as development, humanitarian aid, transnationalism, conflicts, or environment. Some theorists, who have criticized the dominant narrative of the colonial empires, will also be discussed in the class.

INTS 4033 Natural Resources and Armed Conflicts Under International Law (5 Credits)
The course will offer a description and an assessment of how international law regulates the relationship between natural resources and armed conflicts. Attention will be given to principles and rules regulating access to natural resources in the pre-conflict phase; protecting the resources pending the conflict; regulating the exploitation of the resources during and after occupations and international administrations. The role of transnational corporations in fueling conflicts will be considered with reference to recent developments such as certification schemes, the emerging legal framework on transparency in business, and the debate on corporate responsibility for international crimes. The concept of "illegal exploitation of natural resources" will be analyzed in light of the relevant resolutions of the United Nations Security Council. Finally, possible solutions to the issue of armed conflict resources (i.e. resources fueling the initiation of conflicts) will be considered from a legal perspective.

INTS 4032 International Trade B (5 Credits)
This course is the second part of the MIS trade sequence. It covers the basic theory, evidence and policy applications.

INTS 4031 International Business: Strategy and Practice (4 Credits)
This course focuses on applied issues in international business. Students will learn to think strategically about international business issues, and will in turn be able to apply that thinking to best practices. The following subject areas will be covered: country selection, entry mode theory, exporting, born-global businesses, organizational structures internationally, negotiation, consumption, culture, and demand. Other potential topics include global supply chain management/sourcing, country of origin effects, etc.

INTS 4011 Comparative Genocide (5 Credits)
This course examines the historical origins, patterns, and legacies of contemporary genocides around the world. We begin with the UN Convention on the Prevention and Punishment of the Crime of Genocide in 1948, which legally codified the definition of genocide and compelled ratifying parties to prevent its reoccurrence. Yet as we'll see, genocide has instead reoccurred with alarming frequency. We will discuss the definitional and analytical challenges facing this subject, as well as academic and policy debates regarding how to define and prevent genocide. We will also explore different approaches to seeking justice and reconciliation in the aftermath. To do so, this class will ground theoretical debates in empirical case studies.

INTS 4010 Epistemology (5 Credits)
An introductory course covering philosophy and history of science, epistemology, causality, and the logic of inquiry as related to international studies. The relation between theory and practical politics is explored, and differences between empirical and normative theory are examined in the context of foundational principles of politics and social science.

INTS 4009 International Trade A (5 Credits)
This course will focus on the principles and practice of international trade. It will cover the basics of trade theory, including the theory of comparative advantage, trade liberalization, and trade policy. It will also cover the role of trade in economic development and the impact of trade policies on developing countries.

INTS 4008 International Business: The Global Firm (4 Credits)
This course will focus on the role of multinational corporations in the global economy. It will cover topics such as international trade theory, international investment, and international finance. It will also cover the role of multinational corporations in the global economy and the role of international organizations in the global economy.

INTS 4007 International Finance (4 Credits)
This course will cover the fundamentals of international finance, including topics such as foreign exchange markets, international monetary systems, and international trade. It will also cover the role of international organizations in the global economy, including the International Monetary Fund and the World Bank.

INTS 4006 International Trade (4 Credits)
This course will cover the principles and practice of international trade. It will cover the basics of trade theory, including the theory of comparative advantage, trade liberalization, and trade policy. It will also cover the role of trade in economic development and the impact of trade policies on developing countries.

INTS 4005 International Business (4 Credits)
This course will cover the principles and practice of international business. It will cover the basics of international business theory, including the concept of the multinational enterprise, the role of international organizations in the global economy, and the role of international trade in the global economy.

INTS 4004 International Politics (4 Credits)
This course will cover the principles and practice of international politics. It will cover the basics of international politics theory, including the concept of the international system, the role of international organizations in the global economy, and the role of international trade in the global economy.
INTS 4036 Mobilities: Critical Perspectives on Forced and Voluntary Migration (5 Credits)
The mobility of people across international borders, be they labeled as refugees or economic migrants, is becoming a crucial debate both within academia and in the public sphere. Migrants are presented as potential promoters of peace and actors of development in their country of origin, but also as a threat to the national cohesion in their country of destination. This course deals with key issues related to the field of migration studies. Building on an anthropological perspective on the predicaments and strategies of people, it will offer a critical scrutiny of existing categories such as the distinctions between forced and voluntary migration, between situations of conflict and development. At the conceptual level, the course questions the narrow framework of the nation-state to relocate migration processes in all their complexity and proposes new approaches that take into account ongoing circulation and the existence of transnational ties. At the practical level, it stresses the normality and potential of human mobility throughout history to renew the policy debates of states and international organizations.

INTS 4037 International Security (5 Credits)
This course provides an introduction and (partial) overview of International Security studies: the (construction of) threats and use of force by states and non-state actors to achieve political and military objectives. It will deal with some of the discipline’s “classical” debates and foundational texts (alliance theory, deterrence, and the causes of war) as well as explore a variety of international security issues. Questions addressed will include: the systemic impact of violent conflict, cooperation under the security dilemma, communal and intra-state conflicts, the political economy of conflict, and new security issues. The reading list includes a variety of concepts and approaches to encourage attention to different strategies for research. The approach is eclectic, and broad enough to allow students to explore a range of conceptual and practical issues within contemporary security studies.

INTS 4038 Climate Change and International Law (5 Credits)
This course explores the role that international law plays in devising ways to mitigate further climate change, and to adapt to those impacts that are already inevitable. The course includes an examination of the current international legal framework on climate change, notably the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. Particular attention is paid to the upcoming UN Climate Change Conference in Paris in November/December 2015; one of the main objectives of this conference is to achieve a legally binding, universal agreement on climate change. As the effects of climate change are widespread, the course also addresses other relevant areas of international law – including human rights law, trade law, biodiversity, and migration – and explores developments in climate change litigation and the concept of climate justice. The course will enable students to understand and critically assess the role of international in addressing climate change.

INTS 4039 Violence, History and Memory in Twentieth Century Africa Law (5 Credits)
This course offers historical, theoretical and empirical perspectives on the impact of conflict in the modern history of Africa. Opening with a guided discussion of broad debates over models of warfare and violence that apply social, cultural, materialist and instrumental theories of causation, the course then proceeds through a series of case studies in seminars. These include colonial wars of decolonization in Algeria and Kenya, the Biafran War of secession and its repercussions in Nigeria, contrasting genocides in Burundi and Rwanda, the Red Terror in revolutionary Ethiopia, liberation struggles in Southern Africa, the ‘African World War’ in Congo, interlinked conflicts in Sierra Leone and Liberia, and other cases of contemporary significance. In each case, students will be encouraged to consider the means of violence employed, the causes and motivations of conflict, issues of gender, youth, religion, politics and ethnicity, the personal and communal impacts of experiencing and witnessing various forms of violence, and the transnational dynamics of conflict. Throughout, questions of culpability, ethics and moralities will be tackled in relation to the various approaches to transitional or retributive justice, the problem of ‘living together again’ dominated by the pressures of memory, silence, memorialization and mythico-history.

INTS 4050 Statistical Methods I (5 Credits)
An introductory course featuring statistical reasoning, probability, sampling, statistical inference, nominal and ordinal measures of association, and correlation. Open only to students with no prior background in statistics.

INTS 4051 Statistical Methods II (5 Credits)
This course is a continuation of Statistical Methods I, covering the fundamentals and primary methods of statistical inference. Topics include two-sample hypothesis testing, analysis of variance, chi-square goodness-of-fit tests, chi-square contingency analysis, correlation, simple regression and multiple regression. Emphasis will be on problem solving, computer applications (using Stata) and interpretation of results. This course is offered in the Winter quarter only. Prerequisites: INTS 4050.

INTS 4052 Statistical Methods III (5 Credits)
This course will serve as continuation of Statistical Methods II. This will be an applied, non-calculus based course on statistical techniques used in nonparametric and multivariate analysis. Emphasis will be on applications and data analysis using the statistical software package SAS. Prerequisite: INTS 4051 or INTS 4057.

INTS 4056 Information Management in Humanitarian Crises (5 Credits)
Accurate, reliable and timely data collection, processing, analysis and dissemination (four steps in information management) are critical for the effective implementation of both development and humanitarian programs. In humanitarian responses, there are numerous challenges to managing information in what may be a rapidly evolving situation. This course introduces students to the theory of information management and its application in the humanitarian context.
INTS 4057 Statistics for International Affairs (5 Credits)
This is a fast-paced course which serves as an introduction to basic and intermediate concepts in statistics and probability, as well as the primary methods of statistical inference. Topics include data collection, presenting data in tables and charts, summarizing and describing numerical data, basic probability, discrete probability distributions, normal distribution, sampling distributions, confidence interval estimation, single-sample and two-sample hypothesis testing, analysis of variance, chi-square goodness-of-fit tests, chi-square contingency analysis, simple regression and multiple regression. Emphasis will be on statistical reasoning, problem solving, computer applications (using Stata), and interpretation of results. This course is offered in the Fall quarter only. Prerequisite: Strong quantitative background and a minimum quantitative GRE score of 148 or permission of the instructor.

INTS 4058 Applied Time-Series Analysis (5 Credits)
This course serves as an introduction to time-series analysis and panel data analysis techniques. Topics include moving averages, exponential smoothing, time-series decomposition, model identification and estimation, Box-Jenkins method, ARMA and ARIMA models and VAR analysis. Panel data analysis includes fixed effects and random effects models. Emphasis will be on computer applications (using Stata) and interpretation of results. This course is offered in the Winter quarter only (and occasionally in the Spring quarter instead of Winter). Prerequisites: INTS 4051 or INTS 4057.

INTS 4087 Tch Conflict & Nuclear War (0 Credits)

INTS 4110 Food & Nutrition Security for Sustainable Development (5 Credits)
This policy-oriented course will examine structures and processes that result in varying food security outcomes across space and time. Food security outcomes reflect interactions among political, economic, socio-cultural, and physical environmental systems. These systems, which are both dynamic and permeable, give rise to particular forms and patterns of food production, distribution, and consumption, and to more or less environmentally-sustainable uses of the natural resources critical to food and nutrition security. Ultimately, food security is realized when all people within a population consume sufficient nutrients to live active and healthy lives. This normative focus on human health and well-being, as the metric by which food security outcomes will be measured, is critical to the framing of this course. Political, economic, and social institutions--positioned at scales encompassing global, national, "local" (micro-regional, community), and household--are simultaneously charged with producing food in particular physical environments and/or making food available and accessible to their populations, and with protecting environmental resources and public health in ways that contribute to nutritional components of human development. The term "political ecology" has been used to describe an analytical framework that explicitly focuses on the interactions among the structures of political economy and those of physical/biological ecologies (including human), together with the socio-cultural contexts that influence structural impacts and help to explain outcomes. This framework incorporates both an explicit navigation among scales (of power and of analysis) and a long-term perspective. Cumulatively, the readings and exercises of this course will build a political ecology of policy domains central to improving food security and nutrition outcomes in both global north and south. We will examine policy issues and constituencies, institutional approaches, theoretical perspectives, and empirical analyses. You will have opportunities to engage with institutional approaches through structured exercises, including a mid-term graded exercise. You will also have an opportunity to produce an independent project that will include your own policy recommendations.

INTS 4141 Domestic/Int'l Conseq:Drug War (5 Credits)
Domestic and international policy and the impact of the drug war on both.

INTS 4142 After the Fall: Russia & China (5 Credits)
Provides analysis of the historical rise of Russia and China, and their complex inter-relationship and interaction with the United States and the world.

INTS 4147 American Govt & Pol. Making (5 Credits)
Examines governmental fragmentation affects and policies and examines how policy issues engage different segments of the government.

INTS 4151 History, Culture and Conflict (5 Credits)
An introductory course examining how and why historians develop diverse interpretations of events and periods. Methods of analyzing evidence, selecting research material, and supporting arguments are discussed and evaluated in assessments of selected historical cases. Methodological ties between the historiographic approach and social sciences including anthropology and psychology, as well as the study of gender are also drawn.

INTS 4200 Water & Sanitation in the Global South (5 Credits)
The current water governance systems are intertwined with politics and power and prioritize some groups and water uses over others. Worldwide, there are 750 million people who lack basic water access and 2.5 billion who lack sanitation access. Water is life. It sustains ecosystems, it fuels energy and industry, it enables livelihoods, it is essential for food security, health and nutrition, and it is central to many social and spiritual practices. Inadequate access to safe drinking water, sanitation facilities and hygiene practices deepens income poverty, weakens health, undermines education and exacerbates gender inequality. This interdisciplinary course will explore water and sanitation issues in the Global South. Political ecology and the hydro-social cycle will be introduced as concepts for moving beyond technical water and sanitation planning to consider how water is related to broader issues of power, politics, culture, and society. We will learn about practical and applied approaches for planning water, sanitation and hygiene (WASH) programs, discuss interactions between society and water, and critically examine constructions of water scarcity. In this process we will move between scales at the community, river basin, regional and global level. Several special topics will be explored including gender and water, multiple use water services, water privatization, water and culture, WASH technologies, sustainability, health and behavior change. This course will focus on the water needs of communities in the Global South from a perspective of social justice.
INTS 4210 Multinational Corporations (5 Credits)
The emergence of sweeping new legal rights for MNCs in relation to their foreign direct investment and cross-border trading activities under the avalanche of bilateral investment treaties negotiated in the last few decades and under multilateral conventions such as NAFTA represent what many have termed "revolutionary" changes in the nature of state sovereignty as it relates to state-investor relations. That expansion of investor/MNC rights in relation to state sovereignty has thus seemingly reached a point calling for re-examination of the nature and appropriate scope of MNC rights, as well as the nature of MNE accountability and responsibilities which are the flip side of such rights.

INTS 4220 Political Economy of Energy & Sustainable Development (5 Credits)
The main purpose of this course is to understand critically the conceptual and empirical issues underlying the linkages between energy and sustainable development within the current global political economy(GPE) and Geopolitics. What is sustainable development? What are the global dimensions of sustainable development? What are the linkages between energy and sustainable development? How does the discourse of the linkages between energy and sustainable development relate to the underlying political economy and geopolitics of global capitalism? How does the discourse of the linkages between energy and sustainable development relate to the underlying causes of inequality and poverty in the world? In order to do this, we will look at the relationships among energy, geopolitics, geoeconomics, economic growth, poverty and inequalities in several different dimensions.

INTS 4221 India in the Global Economy (5 Credits)
The main purpose of this course is to understand critically the conceptual and empirical issues underlying the linkages between Indian economic development and the world economy within the current global political economy(GPE). What is sustainable development? What are the global dimensions of sustainable development? What are the linkages between Indian strategy for development and sustainable development? Is the Indian strategy for development sustainable? How does the mainstream Indian development discourse relate to the underlying political economy of global capitalism? What are the deep underlying causes of inequality and poverty in India? In order to do this, we will look at the relationship between India's development strategy, energy, economic growth, poverty and inequalities in several different dimensions.

INTS 4222 Slavery & Genocide: A Comparative Analysis (5 Credits)
This course attempts to examine the similarities and differences between slavery and genocide by using comparative techniques. Since both slavery and genocide studies have definitions problems we will work toward clarity since politics has played a major role in naming events. Beyond definitions, we need to take a close look at the political economy of both slavery and genocide.

INTS 4223 Global Dynamics & Local Threats in Agricultural Development (5 Credits)
Many low- and middle-income countries in which agriculture plays a key role for development are characterized by high levels of socio-economic inequality, a mixed human rights record and a dominance of transnational corporate power in domestic agricultural export markets. At the same time, these countries face processes of environmental degradation through anthropogenic and natural drivers of change that affect the availability of ecosystem services and thus shape agricultural development and human wellbeing. This course offers an in-depth study of the political, socio-economic and social-ecological conditions for sustainable agricultural development in low- and middle-income countries. We explore the political economy of agricultural production and trade in countries that depend to a significant extent on the export of agricultural commodities as a source of foreign revenue. We examine the design and implementation of global policy frameworks, international agreements, and national strategies for agricultural production and trade, with a particular focus for the governance of natural resource use. Our goal is to assess the relevance and effectiveness of current governance structures for agriculture to respond to local-, regional-and global-scale environmental changes and socio-economic challenges in ways that address current and future human needs. Through case studies from selected agricultural sub-sectors and diverse countries from across Asia, Africa and Latin America, we investigate local strategies for natural resource use in the context of poverty, inequality, and environmental change. The course provides a comprehensive coverage of the political economy of agricultural development and an introduction to social-ecological systems analysis as a theoretical framework for interdisciplinary research in the field of sustainable development.

INTS 4224 Trade Unions in the Global Economy (5 Credits)
Trade unions are major influences in the political economy of most nations, even as they face apathetic or hostile governments and increasingly powerful multinational corporations. As globalization has created common employers across national boundaries, trade unions have struggled to establish institutions and mechanisms to defend workers and build global power. The course will familiarize students with the underappreciated role of trade unions in the global economy. Having a grasp of the subject matter is essential to anyone working in the international arena for governments, corporations, non-governmental organizations and trade unions.

INTS 4225 Civic Strategies for Fighting Extremism (5 Credits)
This course will teach students hands-on community organizing, technology and intervention strategies for action to help combat extremism. The students will spend time working directly with community and government agencies on security strategies, identifying online risks, and learning about social media strategies for intervention. Some of the skills covered include network analysis, resource management, cognitive behavior change and political psychology, public narrative, power mapping, asset-based community development, and group facilitation.

INTS 4226 Social Entrepreneurship & Global Poverty (5 Credits)
This course provides an overview of the role of social entrepreneurs, innovative small firms, and entrepreneurial NGOs in sustainable development and poverty alleviation. Market-driven strategies are increasingly important for all organizations, in government, public, or private sectors, to encourage local solutions that are sustainable and do not require ongoing subsidy. Entrepreneurial NGOs and small firms are a great source of local innovation and adaptation, identifying potential strategies that can be scaled up through partnerships with governments, social purpose organizations, or private capital. These market-driven strategies are based on a good understanding of customers, the value provided, and how to best deliver products and services to vulnerable populations in a responsible way. Further, a strong customer and market focus ensures that all social purpose organizations (both for-profit businesses and NGOs) meet customer needs effectively and develop new products and services efficiently.
INTS 4260 Global Dynamics & Local Threats in Agricultural Development (5 Credits)
Many low-income and middle-income countries in which agriculture plays a key role for development are characterized by high levels of socio-economic inequality, a mixed human rights record and a dominance of transnational corporate power in domestic agricultural export markets. At the same time, these countries face processes of environmental degradation through anthropogenic and natural drivers of change that affect the availability of ecosystem services and thus shape agricultural development and human wellbeing. This course offers an in-depth study of the political, socio-economic and social-ecological conditions for sustainable agricultural development in low- and middle-income countries. We explore the political economy of agricultural production and trade in countries that depend to a significant extent on the export of agricultural commodities as a source of foreign revenue. We examine the design and implementation of global policy frameworks, international agreements, and national strategies for agricultural production and trade, with a particular focus for the governance of natural resource use. Our goal is to assess the relevance and effectiveness of current governance structures for agriculture to respond to local-, regional- and global-scale environmental changes and socio-economic challenges in ways that address current and future human needs. Through case studies from selected agricultural sub-sectors and diverse countries from across Asia, Africa and Latin America, we investigate local strategies for natural resource use in the context of poverty, inequality, and environmental change. The course provides a comprehensive coverage of the political economy of agricultural development and an introduction to social-ecological systems analysis as a theoretical framework for interdisciplinary research in the field of sustainable development.

INTS 4270 Gender, Security & Human Rights (5 Credits)
This course examines the gendered dimensions of security and human rights, with a particular focus on periods of violence and insecurity. Gender equality has been at the heart of human rights and development efforts over the past half-century. Governments and multinational organizations have created legal and normative instruments to address the ongoing marginalization of women and girls around the world, such as the 1979 Convention on the Elimination of Discrimination Against Women (CEDAW) and the 1995 Beijing Platform of Action. More recently, these same actors have turned their attention towards the importance of “gendering” discussions of international security. For instance, UNSCR 1325, passed in 2000, is a landmark legal framework that aims to secure women’s inclusion in post-war peace processes. Despite these formal achievements, gender-based violations and insecurity continue persist around the globe. Moreover, there remain profound gaps between legal provisions aiming to promote women’s equality and the lived experience of women on the ground. Drawing from critical feminist analyses, this class will introduce you to the concepts of gendered rights and security, challenge you to think about intersectionality as a lens through which to understand “rights,” and increase your understanding of the contemporary human rights and security crises unfolding around the world today.

INTS 4280 Contemporary Peace Operations: Disarmament, Demobilization, & Reintegration (5 Credits)
Disarming, demobilizing and reintegration (DDR) of former fighters in the aftermath of conflict is as old as war itself. Tens of thousands of soldiers were voluntarily DDR(ed) during the Roman-Etruscan wars in the 3rd century BC and virtually every conflict since. In fact, no fewer than 60 DDR initiatives have taken place globally since the UN and major bi-lateral engagement the late 1980s. While most were launched in the wake of international or civil wars as part of an internationally mandated peace support operation, shifting conflict dynamics and emergent caseloads over the last decade continue to alter the landscape in which DDR operations are implemented. Whether occurring in a humanitarian crisis, as an outcome of a peace accord or during active conflict, DDR represents a voluntary civilian led non-violent policy option for peacebuilding and human security for the international community. Often applied in a post conflict environment, the global caseload in 2014 was estimated at approximately 250,000 DDR candidates spread across more than 20 planned or ongoing DDR operations. Presently, DDR targets persons in combatant and non-combatant roles from statutory armies and non-state armed groups. It is not uncommon for DDR to serve as tool for security sector reform and transformation efforts aimed at downsizing and legitimizing armed forces under civilian control. In doing so DDR is a unique policy tool that enhances the resilience of local, national and regional actors, by addressing various peace consolidation issues spanning the civilian and security sectors. The course will utilize illustrative global case studies to examine 3 distinct and clearly identifiable ‘generations’ of DDR since the late 1980s. Tracking the evolution of DDR in contemporary peace operations, the course will demonstrate the critical role DDR continues to play in peacebuilding and recovery in settings as diverse as the Balkans and Philippines where DDR is used to facilitate the ‘normalization of relations’, to the Sahel, the Horn of Africa, South America and the Middle East where DDR addresses mercenaries and terrorism. DDR’s current role in stabilization efforts in the Ukraine, Afghanistan and The Sudan will be juxtaposed with political stability and development issues in Central America and Southern Africa where gang violence and veterans’ concerns are related to DDR outcomes. The first generation of DDR occurred in the wake of the Cold War. Typified by verifiable caseloads under unified command and control, these occurred regionally in Latin America and Southern Africa. In the mid-2000s a 2nd Generation policy approach emerged in response to the perception by the international community that DDR, and reintegration specifically, was not achieving intended development aims. This led to a broad range of initiatives targeting communities as a means to facilitate enabling conditions for DDR. Presently, DDR is undergoing a 3rd shift. The monetization of DDR is creating a cottage industry for former fighters traveling across international borders rejoining armed groups as mercenaries. At the same time peace operations are receiving DDR mandates in areas where conflict is ongoing and insurgent groups slatted for DDR are associated with ‘terrorist’ organizations complicating the legal and political environment.

INTS 4290 Gender, Environment, and Development (5 Credits)
This course is concerned with how and why gender matters in producing environmental, economic, and social outcomes of planned and unplanned development. It is also concerned with gender as a human rights issue and the equity and ethical dimensions of environmental and related economic planning. Beyond these practical implications of gendered environments, the course will engage theoretical and ideological underpinnings for the gendered structures of environmental control and management encountered in a wide range of physical environments.

INTS 4303 Econometrics for Decision Making I (5 Credits)
The first course in a two course sequence in Applied Econometrics. Introduces basic probabilistic techniques for the quantitative analysis of economic and social data and their application to international public policy decision making. Prepares students to: compile and analyze data sets; build and test regression models; interpret and critically evaluate applied econometric studies; and conduct their own applied econometric research using computerized statistical packages. Prerequisite: INTS 4051 or INTS 4057.
INTS 4310 International Trade (5 Credits)
An intermediate course analyzing causes and consequences of international trade. Classical, neo-classical, and product- cycle models included. Topics include international specification, terms of trade of developed and less- developed countries, distribution of gains from trade, instruments and uses of commercial policy, nominal and effective protection, and theory of customs unions and economic integration. Prerequisites: macro and micro economics.

INTS 4318 Applied Research in International Economics (5 Credits)
The purpose of this course is to critically review the literature in political economy and introduce students to some recent empirical work to analyze data and test relevant theories and hypotheses in political economy, IPE and related social science disciplines. The course provides students with the tools necessary to conduct and critically evaluate empirical analysis in these fields. Two data sets are handed out during the course and students analyze them. The final paper deals with a substantive empirical issue.

INTS 4319 Governing the Global Economy: The Effectiveness of Multilateral Economic Institutions (5 Credits)
Multilateral Economic Institutions are the primary mechanisms by which the global economy is governed when it is governed at all. This course examines the institutions and theoretical foundations that are at the center of this system of global governance by studying their history, sources of authority, and ideological underpinnings. Simultaneously, each multilateral economic institution/ regime is examined from an empirical perspective in order to determine the impact of these institutions and whether or not they are accomplishing their respective tasks in the governance of the global economy. The course is both theoretical and empirical and there is a bias to the course - it is that the MEIs are among the most written about and least understood institutions in the global economy. In addition, the course also examines the practical reality of multilateral economic negotiations through an examination of recent attempts to govern segments of the global economy; including international trade, finance, and climate.

INTS 4320 Int'l Monetary Relations (5 Credits)
An intermediate course examining history of the monetary system, foreign exchange rates, balance of payments analysis, and adjustment processes under different exchange systems, current status problems, and prospects for reform. Prerequisites: macro and micro economics.

INTS 4324 Int'l Political Economy (5 Credits)
The course examines 3 contrasting visions of international political economy: economic security, trade and finance.

INTS 4327 Advanced Issues in International Relations and Comparative Politics (5 Credits)
The purpose of this course is to train students in advanced research in the fields of International Relations and Comparative Politics. The course achieves these ends through an investigation into a particular empirical theme (of the professor’s choosing in any given year). While due emphasis is placed on the major findings of the specified literature, as much or more attention is given to the research design, methods and evidence of the selected literature. Students will learn what constitutes a falsifiable hypothesis and what the alternatives to falsifiability are, examine various scholars’ methods of operationalization and measurement, consider the merits of treating rival explanations to one’s own, and judge the veracity of findings by these and other criteria. In addition, students will apply such knowledge gained by writing their own original research paper during the quarter. The course aims to assist primarily PhD candidates in their abilities to carry out research, to assess the quality of other scholars’ research, to teach in the fields of International Relations and Comparative Politics, and to excel in their comprehensive exams. Please note that this course is offered only once every other year. Thus PhD candidates must enroll in the first year it is available in their course program.

INTS 4330 International Business Transactions (5 Credits)
INTS 4332 Data Analysis and Development (5 Credits)
INTS 4333 International Project Analysis (5 Credits)
An advanced course in techniques of proposal assessment, implementation, and evaluation. Emphasis on computerized benefit-cost analysis, including methods adopted by the World Bank and other donor agencies. Projects drawn from industry, agriculture, and public health sectors used as cases for study. Prerequisites: INTS 4010 and 4055.

INTS 4339 Microfinance and Sustainable Development (5 Credits)
This class provides an overview of the principles of microfinance and its role in sustainable approaches to international development. The course introduces students to the main business models of microfinance, leading microfinance institutions (MFIs) around the globe, typical products and services, and how microfinance has evolved over 25 years. In addition, we examine both NGO and for-profit organizational structures, and how they balance development and financial sustainability. Topics include: How "microcredit" evolved in poverty alleviation, and how it became "microfinance;" Lending methodologies that allow MFIs to deliver credit at large scale to poor clients; Challenges to measuring social impact and development outcomes; Commercialization of microfinance, and how the push to access private sector capital has financed global expansion and competition; How social entrepreneurship continues to innovate new strategies around the globe; Whether NGO microfinance organizations can serve the poor as efficiently and at the same scale as profit-driven MFIs, and conversely, whether for-profit MFIs can achieve the same development impact as NGOs; How different target clients and organizational structures influence the business choices microfinance organizations make to balance financial sustainability and development; Challenges and opportunities, including those facing NGOs that blend microfinance with other development approaches. While many see microfinance as a powerful tool for eradicating global poverty, questions remain about its impact, efficacy, and whether it will continue targeting the poorest of the world’s population as an increasingly market-driven strategy. We review the fundamentals of microfinance, how commercialization has created more efficient and sometimes regulated financial institutions, and the distinction between "financial services for the poor" and "microfinance as poverty alleviation." In addition, we review microfinance’s appeal to donors, its growth and expansion around the globe, and the challenges of such growth for individual MFIs. Each week, we examine a different microfinance organization (MFI) to understand its development strategy (target clients, products and services, organizational structure), and its business strategy for reaching financial sustainability. In addition to the readings and case studies, we have occasional guest speakers from the industry. Students work in small groups to research an individual MFI and present it to the class.
INTS 4341 Illicit Markets in the Americas (5 Credits)
This course applies the understandings of International Political Economy (IPE) to the study of illicit market activity in the western hemisphere. While sociologists, criminologists, legal scholars and law enforcement agencies have all contributed substantially to this area of study, IPE has only recently been applied. So what can this approach contribute? Through IPE, we can place illicit market activity within the larger structure of trade and monetary relations, the rise of the informal sector and the existence of economic and other inequalities in particular regions. We can consider the nature and impact of North-South relations and the process of structural adjustments as advised by international financial institutions. Further, we can evaluate the overall function and effectiveness of law enforcement, governing institutions and international organizations in controlling illicit market activity. Finally, through IPE, we can consider the ideational context of participation in illicit market activity.

INTS 4342 Project Management (5 Credits)
Course introduces the skills and techniques to be a successful project manager.

INTS 4345 The Art of Forecasting (5 Credits)
Course defines forecasting techniques and expert systems. Will cover Delphi techniques, expert systems, modeling and economic forecasting.

INTS 4349 Comparative Public Policy and Finance (5 Credits)
Course aims to provide in-depth treatment of the question "why do size, form, financing, and distributive outcomes of government differ so greatly across nations?".

INTS 4350 Economic Development (5 Credits)
This course combines an introduction to the theories and key issues in economic development with a rigorous analysis of empirical evidence from low- and middle-income countries in Asia, Africa, and Latin America. The course enables participants to develop an in-depth understanding of diverse local, national, and regional patterns of economic development, and to critically assess the design and potential social and economic consequences of global policy frameworks and national economic development strategies. The course starts with providing an outline of global trends in poverty, inequality and growth, including a discussion of key concepts and ways of measuring economic development. Part I focuses on classical, neoclassical, and institutional theories of economic development. Linkages between the intellectual basis of different theories and major political currents and ideologies, and the associated policy design, are assessed. In part II, core themes in economic development are explored, including agriculture, trade, industrialization, labor, and the environment. The analysis of diverse country studies illuminates how historically specific social, political, and institutional conditions shape development outcomes. In part III, we examine the design and implementation of economic development policy through an analysis of international aid agendas and institutional modalities of ODA, with a particular focus on emerging donors. We investigate the strength and weaknesses of national economic development policies through an in-depth study of selected country case studies. Please note that a masterying of quantitative economics is not a requirement for this course.

INTS 4355 Finance and Development (5 Credits)
An advanced course which examines the relationship between financial system organization and economic performance. The political economy of financial innovation, liberalization and globalization, state-finance-industry relations, micro-lending, stock markets and regional financing are discussed with reference to Latin America, Asia and African countries.

INTS 4362 Gender and Health (5 Credits)

INTS 4363 Discrimination, Minorities, and Rights of Indigenous People (5 Credits)

INTS 4364 Global Poverty and Human Rights (5 Credits)
This course explores the many dimensions of global poverty and human rights and well-being of people around the world. Three particular areas are emphasized and explored in detail. The first is the exact dimensions and extent of globalization. The second is the exact nature of another complex thought called poverty. The third area explores the connections between globalization, poverty, and human rights. After rigorous discussion of the conceptual foundations, we focus on the U.N. millennium development goals for poverty reduction in particular. At the end we will be able to explore the analytical foundation of alternative policies, strategies and evaluate these for formulating alternative strategies addressing human rights issues and global poverty reduction.

INTS 4366 Reproductive Health (5 Credits)
This course introduces students to the wide tangle of social issues surrounding reproductive and sexual health today. We begin with an in-depth look at the historical and cultural variations in definitions of reproductive and sexual health in order to provide important background for the various medical, legal, ethical, political, issues that inform reproductive health programs and policies. We end with a topical focus on HIV/AIDS and a look at international health programs designed to address reproductive health in "vulnerable" populations. The course necessarily vacillates between examining the local and the global at both micro and macro levels in order to cover both the current knowledge about sexuality and reproduction and the broader social impact of advances in reproductive health technology.

INTS 4367 Global Health Affairs (5 Credits)
Introductory survey class for all students interested in intersection of international affairs and global health and security, development and economics.

INTS 4368 HIV & AIDS in International Affairs (5 Credits)
Upon completion of the course, students will understand (a) the concept of global health security; (b) HIV/AIDS as an epidemiological phenomenon; (c) the political, economic and social contexts of HIV/AIDS in specific regions of the world; (d) HIV/AIDS as a threat to security and gender; (e) security considerations of HIV/AIDS impacts in development and as a human right.
INTS 4369 Political Economy of Global Poverty & Inequality (5 Credits)
The main purpose of this course is to understand the underlying causes of inequality and poverty in the world. In order to do this, we look at the relationship between economic growth, poverty, and inequalities in several different dimensions. First, the process of sustainable growth itself is analyzed. Second, the implications of different types of growth for income distribution and poverty are studied. Finally, the implications of such inequalities for human welfare in developing economies in particular are studied. After an initial exploration of the income-based measures of poverty and inequalities we focus on the more recently developed social capabilities approach developed by Amartya Sen and others.

INTS 4370 Political Economy of Globalization (5 Credits)
An introductory course on the nature of global economic integration in the postwar period, including contending theoretic perspectives, and several applied issues and policy dilemmas such as the evolving nature of firms (e.g. globalization of production), the "new international of labor," and the status of national sovereignty/policy autonomy in an integrated world economy, politics and markets, and current themes in political economy.

INTS 4372 Great Books in Political Economy (5 Credits)
This course investigates several contemporary approaches to Political Economy, ranging from institutionalist to Marxist, anti-essentialist, and (postmodernist) feminist thought. Rather than attempt to survey quickly a lot of literature, we carefully read a limited number of influential (and provocative) texts that present a range of perspectives with which most students are largely unfamiliar. These are very challenging texts, and students must be prepared to spend a good bit of time on the assigned readings weekly.

INTS 4374 The Ethical Foundations of Global Economic Policy (5 Credits)
This seminar course explores the contending ethical theories that underlay contemporary debates over global economic policymaking. We explore the ethical foundations of neoclassical, Austrian, institutionalist and Marxian and economic theory (including utilitarianism, welfarism, libertarianism and egalitarianism) in order to better understand why and how these diverse economic theories generate distinct policy prescriptions. For example, we examine the controversy over "free trade" versus "fair" trade that is now at the center of policy debate in the U.S. and across the globe, and explore the contending ethical theories that inform this debate. This is a reading intensive seminar. We examine central works of Amartya Sen, Milton Friedman, Robert Nozick, Michael Walzer, and other leading economists and political theorists.

INTS 4378 Terrorism, Transportation, and Homeland Security (5 Credits)
This course is designed to introduce students to the critical role that transportation plays in homeland security. Transportation is one of the most important critical infrastructures because society and economy are totally dependent upon the efficient movement of freight and people. Not surprisingly, terrorists, on numerous occasions and in many countries, have launched attached against aircraft, ships, railway stations, airports and other transportation facilities. In the U.S. the devastating 9/11 attack proved to be a turning point and led to fundamental changes in the struggle against terrorism, including the largest governmental reorganization in many decades, the creation of the Department of Homeland Security and its Transportation Safety Administration. In this course, students analyze the degree to which a safe and secure transportation system for goods and people has emerged. Accordingly the course deals with such topics as the contemporary structure and role of transportation, the nature of the terrorist threat, including the potential of the weapons that are or might become available (ranging from WMD's to suicide bombers to cyber-attacks), the difficulties inherent in safeguarding such facilities as airports, rapid transit, railroads, and seaports, the efficacy of the policies that have been implemented and the kinds of changes that might further enhance transportation and homeland security.

INTS 4379 Gender and Development (5 Credits)
This course is concerned with how and why gender matters in outcomes and impacts of planned and unplanned development. It is also concerned with gender as a human rights issue and the equity and ethical dimensions of development planning. Beyond these practical implications, the course engages theoretical and ideological underpinnings for the gendered structures of economic, political, and social power encountered in a wide range of economic and social development contexts. Throughout the quarter, the class examines interactions among structural and cultural (including ideational) factors that together comprise and construct gendered environments. Structural and cultural factors are, at the least, mutually reinforcing, and may be mutually constitutive. The class interrogates the ways in which each set of economic and social transformations broadly encompassed within a human-rights or human-development approach to international development. The class also engages interacting dimensions of change, including economic, social, political, physical environmental, and human biological dimensions. The class explicitly examines all interactions across scales from global to local. If we were looking for a label for this approach, it could be called "gendered political ecology." We could also use a term coined by Dianne Rocheleau and others, "feminist political ecology," which suggests the need to examine the responsibilities, freedoms, and control of resources, together with the varying forms of agency, strategy, and tactic deployed by women (often in partnership with men) to redress these inequalities. The class considers numerous cases from the Global South, and some from the Global North. In many of these case studies we immerse us in the diversity and complexity of gender and development interactions and in the "grounded agency" (Radcliffe 2006) through which women and men attempt to secure livelihoods – that is, "making a living and making living meaningful" (Bebbington 2000) – to enjoy long and healthy lives, and to participate in full citizenship. These cases also illustrate myriad patterns of gender construction across ethnicity, class, age, marital status, and other differences among women and men. This is a policy-oriented course. The class explores the ways in which the gendered division of labor and resources, and the socio-cultural construction of masculinities and femininities, influence perceptions, formulation, and implementation of development policies and practices. The class traces the differential impacts of development policies and initiatives on women, men, and gender relations in the developing world as well as efforts to target women through more gender-sensitive development initiatives. Ultimately, this course considers how ideologies and institutions of global development might yet enable women’s empowerment and facilitate equity in a deeply unequal and interconnected world.

INTS 4384 Middle East and U.S. Security (5 Credits)
The course will examine current US strategies toward the Middle East, terrorism, and how Homeland Security in US will respond.

INTS 4386 Transnational Migration in the Americas (5 Credits)
The course examines movement of various nationalities from other nations into North, South and Central America.
INTS 4391 Financial Management and Fundraising of Non-Profits (5 Credits)
This course will introduce students to the legal, governance and financial structures that enable non-profit organizations to function effectively. It will also provide a practical orientation to financial management issues, such as budgeting, financial reporting, and independent audits. Finally, a comprehensive presentation will be given of the fundraising methods needed to sustain the viability of non-profit organizations. These methods include: annual campaigns, direct mail, special events, major gifts, corporate fundraising, foundation grants, and planned giving. The course combines exploration of the general conceptual issues with an emphasis on practical "how-to’s" and skill building.

INTS 4394 Non-Profit Issues & Techniques (5 Credits)
Nonprofit management issues and techniques looks at current NGOs and issues in working with corporations.

INTS 4396 Education and Development (5 Credits)
Education is a major component of the human capital. It is both an indicator and a driver of an improved quality of life. Developed economies have already achieved high in terms of the average education of their populations. Most of the middle income and some low-income countries have also succeeded in enrolling a high percentage of their children in elementary schools, thanks to the internationally coordinated emphasis in this sector in the sixties and seventies of the last century. On the flip side, some of the developing regions are still struggling to provide basic education to a large share of their school age population. Research on economic growth and development has established a close connection between the economic performance of a country and the level of education of its population. These results have prompted a resurgence of focus on education in the global development agenda. From the Jomtien conference on Education for All (EFA) in 1990 to the Millennium Declaration, the world community has set targets on universal primary and gender balances at the higher levels of education. Despite the thrust on national commitment on education, supported by international efforts like the EFA/Fast Track Initiative, there still remains some inertia and uncertainties on issues like equity of access along different dimensions of deprivation - gender being an important one, balancing the demand and supply of education, the relative importance of basic education for capability creation and social cohesion versus mid-level education for knowledge diffusion or higher education for knowledge generation. Discussion of these issues in a regional comparative context is important in understanding and suggesting education policies for developing countries. This course is primarily intended for students who have a broader interest on human capital development, and specific interest on educational policies and their outcomes. Students with a general interest on development policies and developing economies would also find the course beneficial. It is expected that, after actively participating in the course, the students gather or enhance their understanding of the major education policy issues and debates in the context of developing countries. Students will also identify the best practices by analyzing the national education policies of some of the high performing countries and regions in the developing world. Students use this knowledge to examine the national and international education policy initiatives and develop their own recommendations as necessary.

INTS 4397 The Environment, The Economy, and Human Well-Being (5 Credits)
In this course we will explore the role of the environment plays in society and the determination of human well-being, and how this can be addressed from an economic perspective. A core premise of the course is that the human economy is embedded within the broader context of human society, which in turn is embedded within a natural environment. The natural environment provides a variety of goods and services, which, through interactions between the environment, individuals, and society, contribute to human well-being. Some of these services are directly used by people. Others contribute indirectly by allowing for the continued provision of other services. As such, any discussion of human well-being and development that ignores the natural environment is inherently problematic. We will specifically adopt an economic perspective, but one that goes well beyond that of conventional neoclassical economics.

INTS 4399 Issues in Global Economics and Financial Security (5 Credits)
The course discusses global economic and financial security issues through the prism of the current crisis and its aftermath. We begin by developing the analytical framework and then applying it to key countries/regions. We consider the causes, the policy responses and prospects. We look at ways of ensuring global monetary and financial stability, including appropriate policies to ward off financial crises and asset prices bubbles. Other key topics, including food and energy security and the role of finance in promoting development, are also discussed as time permits. The focus is on applied economics and finance, and their importance as analytical tools in policy discussions on economic security and development. This course is less narrowly technical, more policy and political economy oriented, but nonetheless appropriate for students concentrating in global markets, development, finance and trade. These are a few guest speakers on special topics, in addition to answering questions about career choices and professional development.

INTS 4423 Introduction to Epidemiology (5 Credits)
Decisions and policy related to global health are based on data from various disciplines such as demography, medicine, and epidemiology. Therefore, it is crucial to correctly understand and interpret what health data and the data in general tell us. This course provides the knowledge and skills required to critically assess data, and understand both strengths and limitations of data and research. This course covers the basic principles and concepts of descriptive and analytic methods in epidemiology and their application to research and practice in public and global health.

INTS 4427 The Political Economy of Sustainable Development in Africa (5 Credits)
This course introduces the political economy of sustainable Development in sub-Saharan Africa (SSA). It uses a multidisciplinary approach that draws on literature from development economics, international relations, comparative politics, sociology, and anthropology, as well as a broad range of country case studies. We engage with the main theoretical and empirical debates on sustainable economic and human development in SSA and examine a diverse range of country case studies. The topics covered include past and current political and economic conditions for economic growth and the improvement of human welfare levels, sustainable agricultural development and governance of natural resources, increased resilience - socially and economically - to rapid environmental change, and the role of foreign aid in African development. We explore the region's integration into the global political economy and examine the role of the state in Africa's development today. The course helps students to understand the major development challenges facing African societies today by illuminating patterns as well as diversity in development trajectories across the region.
INTS 4428 Political Economy of Human Rights (5 Credits)
What does one mean by human rights? What can be the political economy of such rights? These are the two central questions that we will explore in this course. The goal is to understand the underlying social, political and economic processes that led in an evolutionary sense to the present human rights discourse. The nature and implications of economic rights will be given special attention. In particular, the implications of such rights for human wellbeing in both advanced capitalist and developing economies will be studied. The social capabilities approach to rights developed by Amartya Sen and others will be extended to the understanding of human rights.

INTS 4435 Health and Development (5 Credits)
Looks at how health status of populations affects culture and environment, and also how successful development affects health.

INTS 4437 American Public Opinion & Foreign Policy (5 Credits)
This course examines American public opinion and its impact of foreign policy. The course begins with an investigation of what is public opinion in general and how it is collected, analyzed and used. The primary sources of American public opinion data and analyses are identified. The course proceeds to outline the controversies of American public opinion related to foreign policy decision-making using historical perspectives and the most recent challenges from the first Iraq War to the Arab Spring. Although foreign policy is often a secondary issue for the public compared to domestic issues, in recent times it has been mostly responsible for the transition from a Republican-dominated era to the Democrats’ ascendancy. A series of principles that have informed practitioners and foreign policy experts concerning American opinion related to foreign policy is examined and affirmed or debunked. Also, media and its persuasive power in opinion formation are considered. At the conclusion of the course, students should be familiar with a selection of foreign policy challenges that America has confronted in the modern era, the role of public opinion in the national decision-making and the existence of guiding principles of public opinion and their exceptions.

INTS 4438 International Public Opinion and Foreign Policy (5 Credits)
This course examines international public opinion and introduces the major international opinion trends that impact foreign affairs. The course first reviews international public opinion worldwide, then by major regions and finally a selection of leading countries. The theoretical question is how public opinion influences foreign policy in countries around the world, and if and when it does, under what conditions. Also, how international opinion affects American foreign policy, including the views of foreign publics toward America and its policies, is also examined. The course begins with an investigation of the history of collection and diffusion of international survey research, the quality of the data and the techniques used to collect it. The relationship of public opinion research and democratic government and media freedom is examined. The second part of the course outlines some of the public opinion benchmarks, their variations and similarities among countries and regions, and their change over time. A variety of the best sources of opinion data are used. Benchmarks include: level of satisfaction with the direction of own nation; satisfaction with and preferences for form of government; satisfaction with and preferences for economic system, the role of government intervention and entrepreneurial values; nationalism and approach to neighbors; attitudes toward Americans, American leadership and foreign policy; and impact of cell phones and Internet on opinion formation and collection. The course’s orientation is both from an American foreign policy perspective and from the perspective of key international organizations, such as the UN, OAS, EU, etc. At the conclusion of the course, students should be familiar with the history and sources of international public opinion research, the major similarities and differences in international and regional public opinion, and the impact that it has on both American and international, multinational organization foreign policy decision-making. When available, there are guest speakers concerning the impact of public opinion on foreign policy decision makers.

INTS 4447 Making of Chinese Foreign Policy (5 Credits)
This seminar course examines and analyzes the making of foreign policy in China, a rising power in the 21st-Century. We look at and identify major driving forces behind China's foreign policy-making, including ideational sources (historical legacy, strategic culture, communism, and nationalism), domestic and institutional sources (foreign policy making institutions, elite politics and key players), and international sources (international system and regimes). We also examine China's strategic relations with major powers and its Asian-Pacific neighbors. This course is aimed to equip students with sophisticated understanding of the ongoing debate about the role that a rising China has played and will play in world affairs.

INTS 4450 Democracy and Militarism in Latin America (5 Credits)
Many note that even as democratization has taken place throughout Latin America, there has been a persistent and evolving role for the military, police and private security forces in many cases. The purpose of the class is to explore this apparent contradiction by examining the various internal and external pressures that have come to bear on these societies. Through approaches derived from comparative politics and international political economy we study domestic factors such as interest groups, political parties, social movements and governing institutions on one hand, and the role of international relations and organizations on the other. From this standpoint, the state becomes a mediator of internal and external pressures and is shaped by these pressures in turn. In the first half of the class, we specifically apply institutions, political realist, class analytic and market globalization perspectives to the study of the military. In the second half, we look at the interplay between democratic development and security issues in a changing global environment. This includes a study of the nature of democratization in Latin America, so heavily applauded by scholars, politicians and others, the impact of the truth and reconciliation process that emerged after the bureaucratic-authoritarian era, and the role of civil society and international organizations. In the final part of the class, we turn to the issue of citizen security amid high levels of crime, gang activity, and drug trafficking with a focus on Central America.
INTS 4453 Political Economic Development in Latin America (5 Credits)

In the first five weeks of the class we consider various theories of political economy. These include dependency, hegemonic stability, class conflict, neoclassical economic theory, and the study of institutions and international regimes. Each approach is illustrated through examination of a historic issue in development - patterns of land ownership, the role of the military, the rise or revolutionary politics, neoliberal development and the promotion of democracy. During this time, students are asked to choose a theoretical framework as a foundation for the required research paper. A term paper prospectus including a description of the framework is due week five. In the second five weeks of the class we consider specific topics in political economic development in the last three decades or what is often called the "global era." These topics include the emergence of "uneven" development, the rise of social movements and role of civil society, transnational migration, the rise of illicit networks of trade, and U.S. foreign policy considerations. Students are encouraged to draw from this or closely related material for the subject matter of the research.

INTS 4459 Global Business, Governance & Corporate Social Responsibility (4 Credits)

In an increasingly globalized world, civil society, states and businesses are trying to discern how to govern business conduct across the borders of nation-states. Many of the issues our society faces today—global financial crises, environmental degradation, and corruption, to name a few—are impossible to tackle within a given country. This course will dive into contemporary global governance mechanisms to better understand the opportunities and challenges that states, business, and civil society face when in engaging with issues such as global financial crises, labor standards, respect for human rights and the environment.

INTS 4460 Politics of China's Modernization (5 Credits)

After more than a century of decline and stagnation, China is reemerging as a great power in the twenty-first century. China's rise to the glorious has never been easy and still faces many changes in the year ahead. This course is designed to provide students with a comprehensive understanding of China's rise in the context of its political development. We examine how revolution, nationalism, communism and liberalism have all affected the development of modern China with a focus on the political dynamics of the People's Republic of China (PRC) and the politics of post-Mao economic and political reform. We start by analyzing the rise of the Chinese Communist Party and its state and nation building efforts in the early years of the PRC and move on to examine the Mao's failed socialist transformation and political campaigns (the Hundred Flow Campaign, Great Leap Forward, and the Cultural Revolution). The remainder of the course explores political dynamics of post-Mao economic and political reforms and the prospect for a democratic China. This course aims at equipping students with an analytical perspective for understanding contemporary Chinese politics.

INTS 4465 Population and Society (5 Credits)

Population can play a key role in defining the fates of societies, yet Auguste Comte's notion that "demography is destiny" has been subject to two centuries of oversimplification, misinterpretation, and manipulation. This course seeks to reverse key misconceptions and open up new avenues of inquiry through an in-depth look at the key elements of population - population size and growth, demographic events, and population structure - and their relationship to development, security, health, the environment, and human rights. The course begins with a look at theories on the relationship between population and the fates of societies from Malthus to Marx to the present day. In doing so, we move from thinking of population change in aggregate to considering the impact of three demographic events - birth, death, and migration - that occur according to highly measurable and predictable age and sex patterns. Armed with a powerful conception of demographic change as a product of population structures and events, we explore the implications of demographic shift and long-term demographic structures for national and global outcomes under a range of political, economic, and social conditions. We will use case studies to address salient issues such as the limits to the human life span; prospects for reversing or mitigating the effects of very low fertility; the consequences of coercive solutions to population control; prospects for global migration; and the impact of HIV/AIDS on society.

INTS 4468 Politics of Development (5 Credits)

Course explores political factors and parties which affect developing nations and hinder new development.

INTS 4483 Practical Applications in Global Health (5 Credits)

This course is designed for students interested in a career in Global Health with a focus on low resource settings including humanitarian settings. This course focuses on analyzing and developing solutions to global health problems in a systematic and creative way. Students are introduced to a problem-solving paradigm and, working in small groups, apply this model to a global health issue of interest to them. In addition, we cover other critical issues that need to be considered in addressing global health issues including equity, social determinants, and health systems as well as leadership, innovation and working in multidisciplinary teams. At the completion of the course, students should be able to: apply a methodical approach to problem solving in global health; analyze the range of factors that contribute to global health problems and understand the importance for finding solutions; examine critically the implications of policy or programmatic solutions to global health problems; develop and present a program proposal.

INTS 4484 Agriculture and Sustainable Development (5 Credits)

This course provides an overview of world agriculture and an introduction to agricultural populations, politics, policy paradigms, and institutions. It contains modules in: the history of agricultural production for economic growth and food security; global distributions of (1) agricultural production regimes, (2) land (including historical and contemporary "land grabs") and other productive factors, and (3) uses of agricultural products for food, fuel, feed, fiber, and agro-based construction materials; effects of agricultural trade on economic growth, livelihoods, and food security; relationship between humanitarian food aid and agricultural production and food security; social organization of agriculture and related productivity and human development issues, with special attention to gender; environmental constraints to agricultural sustainability and agricultural constants to environmental sustainability (climate change, water demands and conversation, agricultural energy production and consumption, causes of soil loss and degradation); technological change and innovation in agriculture; and culture and agriculture.

INTS 4485 International Economic Negotiations (5 Credits)

The purpose of the course is to explore the challenges confronting international trade and economic policy, as well as current negotiations designed to address these circumstances.
INTS 4492 Health and Humanitarian Aid (5 Credits)
According to the World Health Organization, “Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” In order to address health in humanitarian settings we must therefore respond to a range of needs and consider the diversity within affected populations. In this course, students will have the opportunity to explore some key sectors of humanitarian aid and how they relate to health. By following a specific ongoing crisis throughout the quarter, each student will have the opportunity to gain a better understanding of the particular challenges inherent in humanitarian assistance and to analyze how the “theory” is actually implemented in practice. Whether the student’s future is in the field or at headquarters, internationally or at home, he or she will likely need to quickly and critically review and summarize available information in order to inform decision-making.

INTS 4493 Humanitarian Aid in Complex Emergencies (5 Credits)
This course will focus on the evolution of humanitarian actions, in the context of the international system, since World War II. Complex humanitarian emergencies will be the focus. Themes will include: disasters, conflicts and humanitarian action; the political economy of conflicts and humanitarian aid; civil-military cooperation; and the impacts of humanitarian intervention on the delivery of aid. Vulnerability analysis, capacity analysis, and risk analysis will be key tools. The structure and function of EWS (early warning systems), especially in the context of famine, also will be key.

INTS 4495 Civil Wars and International Responses (5 Credits)
Throughout the post-cold war period and into the 21st century, the scourge of war today is seen in mostly internal conflicts fought along ethnic, religious, ideological, or economic lines that divide societies and lead to devastating armed conflict. This course investigates the problem of contemporary civil wars. This course explores theories, concepts, and empirical research in the analysis of contemporary civil wars and in-depth, student-led evaluation of specific cases. The course covers these themes: evaluation and patterns of armed conflict and war termination in the 1990s and early 2000s with a focus on methods for systematic, multi-causal conflict assessment methodologies; exploration of the processes of escalation in armed conflict and of concomitant peacemaking by international mediators; and evaluation of the concepts of “peace processes” and scrutiny of the terms of negotiated settlements in armed conflicts today. The principle learning outcomes for the course is to gain a complex and detailed understanding of the modal form of contemporary armed conflict-civil wars and concomitant international intervention by the international community (particularly the United Nations) to this form of armed conflict. Students who successfully complete the course gain an understanding of contemporary civil wars, issues in conflict duration and processes of war termination, and introduction to the scholarly and policy-relevant literature that has developed in the last two decades related to challenges of conflict prevention and of “peacemaking” or negotiation and mediation of civil war conflicts.

INTS 4496 Field Operations for Humanitarian Assistance (5 Credits)
Within a disaster response, various interrelating factors determine the ability of the humanitarian community to adequately respond. From coordination among governments, donors, non-governmental organizations (NGOs) to internal working components within an agency that drive programmatic support, the realm of humanitarian operations is a complex system that should be understood by anyone with an interest in supporting relief efforts. The main focus of this course is concentrating on the practical, specific systems that drive field operations - namely security, logistics, finance, monitoring and evaluation, human resources, administration, and advocacy that support program planning and implementation. Through understanding these components, the challenges that are encountered, and how each interrelates within an organization and the wider response community students gain a balanced understanding of humanitarian operations. While each emergency response comes with varying contextual challenges, the humanitarian imperative mandates the relief community to respond in a neutral manner based on need. Doing so, places strains on the operational systems that need to be overcome to provide quality interventions. Through this course we take an in depth look at both theoretical and practical ideals for humanitarian assistance.

INTS 4497 International Campaign Management (5 Credits)
This course will examine the principles of political campaign management and their application in a number of international political, public affairs and human rights campaigns. It will be an introduction to the tools of political campaign management: message development, survey research, audience targeting, paid and earned communications, fundraising and organizational structure. Case studies of campaigns in countries such as Sweden, the UK, and Australia will be used as examples of these techniques. Class will be comprised of lectures, discussion and some simulation exercises. Efforts will be made to bring outside specialists and experts to the class or by teleconference. Readings may include contemporary journals, periodicals, newspaper reports and excerpts from major studies of campaign and organizational management.

INTS 4498 Global Community Health (5 Credits)
The aim of this course is to explore global health challenges and solutions from the perspective of community and networks. Faculty presentation, global field exemplars, active participant dialogue, and students’ presentations comprise the teaching-learning strategies.

INTS 4499 National Security and Defense Transformation (5 Credits)
Change brings with it challenges – at the individual, organizational, and systemic levels. It involved behaviors and cultures with often deep-seated traditions. This course explores the scope and magnitude of the transformational forces at work in our national security and defense establishments. By its nature the course is about warfare – how the nation goes about the business of preparing, equipping, and training itself to deter and if necessary to fight traditional wars and the new kinds of challenges that might lead to armed conflict. It is also about sociology, bureaucratic politics, the role of the media, economics, healthcare, power....
INTS 4500 Social Science Methods (5 Credits)
This course focuses on issues and techniques in qualitative research methodology. This is not just an abstract course about competing conceptions in the social sciences. It is an advanced course in the practical matters and issues that underpin all research activity. It provides students with the essential basic training they will need for critically analyzing political and social science research conducted by others and, most importantly, for engaging in their own research design and prospectus and dissertation writing. For those Ph.D. students already advanced in their own research, it will allow for a critical evaluation of their own research designs and strategies. The course covers the following topics: what is a question or ‘puzzle’ in political and social science; what makes a research project feasible; causation and explanation in social science; causality and casual inference; the quantitative-qualitative debate; theory, concepts, operationalization and measurement; concepts and concept formation; the comparative method; case-oriented versus variable-oriented comparisons; identifying dependent, independent and mediating variables; selecting cases and establishing an explanation; conducting case studies; problems of selection bias; the importance of skepticism and rival hypotheses; research design and the classics: Barrington Moore, Tocqueville, Skocpol.

INTS 4501 Comparative Politics in the 21st Century (5 Credits)
This is a core course in the Graduate School of International Studies curriculum; it is designed to provide a basic foundation of knowledge essential to expertise in contemporary international affairs. The course critically explores theories, approaches and research methods for analyzing political processes within countries and societies around the globe. The point of departure is new approaches to governance - a term that refers to how governments and societies interrelate to manage social problems in the globalized 21st century. Why is the “inside-out” perspective of comparative politics so important to today’s interdependent world? How do domestic social forces interact with political institutions and how do these interactions affect prospects for democracy, development, and conflict management? Which emerging theoretical approaches offer the most explanatory power in today’s rapidly changing world? Through readings, instructor presentations, guided discussion, and multimedia curriculum resources (including an Internet-based module) the curriculum facilitates a broad overview and critical assessment of the current state of comparative politics. We explore how cutting-edge comparative politics research offers us bedrock theoretical and methodological skills for interpreting contemporary international affairs and for making policy prescriptions. Pedagogically, learning is encouraged through assignments and exercises designed to improve students’ practical skills to interpret research findings and apply them to current events and policy concerns. Another feature is the extensive use of case studies to illustrate concepts and theory in today’s most intriguing societies. The knowledge base gained in this class enables students to undertake more advanced graduate-level study in a wide range of topics such as development and international political economy, human rights, democratization, ethnic conflict, environmental politics, public policy, and contemporary problems of war and peace in deeply divided societies.

INTS 4502 Comparative Revolutions (5 Credits)
An intermediate course focused around the major revolutions that occurred in England, France, 19th century Europe, and in Russia and China during the 20th century. Emphasis is placed on historical facts, key theoretical debates generated during the various social upheavals, and diverse interpretations seeking to understand the nature and causes of revolutions and their impact on societies. Prerequisites: INTS 4702.

INTS 4509 Food Security, Nutrition, and Sustainable Development (5 Credits)
This policy-oriented course will examine structures and processes that result in varying food security outcomes across space and time. Food security outcomes reflect interactions among political, economic, socio-cultural, and physical environmental systems. These systems, which are both dynamic and permeable, give rise to particular forms and patterns of food production, distribution, and consumption, and to more or less environmentally-sustainable uses of the natural resources critical to food supply.

INTS 4513 Political Science and International Affairs (5 Credits)
Major intellectual contributions to international relations during the past century will be placed in their historical contexts, and the emergence of challenges and new theoretical syntheses will be examined in this course. Theories about international security and international political economy will be given particular attention, but the formation of political community (at the sub-national, national, regional, global, and transnational levels) and global environmental issues will also be considered. The course will proceed through the past century in approximate chronological order, beginning with the end of the nineteenth century and continuing through 1990s efforts to define the post-Cold War period. It will conclude with a discussion of the post September 11 world and consider contemporary debates about power transition and global governance.

INTS 4514 Population, Environment, and Development in Latin America (5 Credits)
This course engages the complex and interlinked dynamics of changes in population, systems of production, and the physical environment. Navigating among scales from global to local, we examine the interactions of trade regimes, markets, natural resource tenure systems, migration, livelihoods, technologies, health, and natural resource stocks. Taking a political ecology perspective, we will interrogate the distributions of wealth and power that affect control of natural resources, human well-being, and environmental sustainability. We also investigate the multiple social and cultural meanings of “natural resources” to actors who are variously positioned in terms of class, ethnicity, and gender. These dimensions of the population/environment/development nexus are examined for the following sectors: water conflicts and watershed management in the Andes; colonization, cattle, and energy development in the Amazon; non-traditional agricultural exports and aquaculture development in Central America; and forests throughout Latin America.
INTS 4516 Major Diseases in Global Health (From Pathophysiology to Action) (5 Credits)
As future global health practitioners and policy makers, it is imperative that we each have a complete and solid understanding of the mechanisms, physiology, epidemiology, transmission patterns, and clinical impact of the major diseases affecting global health. How and when does a person transition from simple HIV infection to full-blown AIDS? Why is dracunculiasis so readily amenable to eradication whereas filariasis is not? For what populations is co-infection with HIV and TB or HIV and malaria so critical and why? On the individual patient level, how and why do certain diseases manifest so differently in resource-poor versus resource-rich or urban versus rural settings? Who are the vulnerable populations and how does disease impact them physiologically? When and where would specific program interventions work over other programs and for whom? In this course, the students develop an understanding of the etiology, agents, vectors, burden, methods of detection, basic treatment complexities, and life cycles of major diseases impacting the world. Specifically, this course details HIV/AIDS, TB, malaria, maternal/reproductive health, some protozoa, helminthes, and major parasites, chronic disease such as cancers and diabetes, and violence/trauma. As there is no shortage of amazing and interesting diseases globally, students learn a sound method of inquiry with which to address and disease process. Students also apply this method directly toward program analysis, and in the development of teaching sessions for community health workers.

INTS 4517 Politics of Deeply Divided Societies (5 Credits)
This course focuses on the politics, conflicts, and conflict transformation approaches to deeply-divided societies. While ethnic, religious, and other types of communal conflict have been around for millennia, since the decline of colonization, and especially since the end of the Cold War, such struggles seemed to have exploded onto the world scene. This course focuses on these "contemporary" ethnic, religious, racial, and other communal conflicts to better understand why and how such conflicts develop. We then examine both theory and practice on what can be done to ameliorate or remedy them. Units focus on the nature of identity and identity politics; the use of political violence to pursue identity or nationalistic goals, and nonviolent approaches to identity conflicts. We then look at alternative political and conflict-transformational approaches to such conflicts including frameworks for living together (such as consociationalism, federalism, and power-sharing, and scenarios for separation (partition or succession). We also look at the negotiation, mediation, and other peace processes that have been utilized to try to accomplish such ends, and examine which have worked better than others and (to the extent possible) why. Readings will include both case study and theoretical material. Students are required to make several short class presentations, participate actively in discussions and exercises, and prepare and present a term paper analyzing one currently destructive deeply-divided society, analyzing the cause of the current unrest, and possible remedies to that situation.

INTS 4521 International Development in Cross-Cultural Perspectives (5 Credits)
Explores cultural dimensions of economic and social change from perspectives of actors who create, promote, negotiate, and resist different agendas from global to local.

INTS 4522 Philosophy of Social Science (5 Credits)
What is the nature of social science and the knowledge that it produces? This course, which is intended to complement INTS 4500 Social Science Methodology and INTS 4010 Epistemology, introduces students to the leading mainstream perspectives on the philosophy of social science. Special attention is given to Positivism and Post-Positivism, Post-Structuralism, Pragmatism, and Scientific Realism.

INTS 4525 Religion-State Relations in Comparative Perspectives (5 Credits)
This seminar course provides an introduction to the key readings, concepts and debates on religion-state relations. While the focus is on the Western political tradition we explore the case of India and the Islamic world at the end of the course. Themes such as freedom of belief, the role of religion in the public sphere and debates over the political construction, location and meaning of secularism are examined.

INTS 4526 Modern Islamic Political Thought (5 Credits)
This seminar course explores the key writings of Muslim thinkers who have shaped Islamic political thought during the 20th Century. We begin with the writings of Jamal Eddin Al Afghani and his Egyptian disciple Muhammad Abduh. We then proceed to read from the selected writings and speeches of Hassan al-Banna (founder of the Muslim Brotherhood), Sayyid Qutb (radical Egyptian Islamist theoretician), Adul Ala Maududi (Pakistani Islamic thinker and founder of Jamaat-i Islami) and Ayatollah Ruhollah Khomeini (leader of Iran's 1979 Islamic Revolution). We also investigate some of the writings of Islamic reformist thinkers such as Abdolkarim Soroush, Nasser Hamed Abu Zayd and Khaled Abou El Fadl. The emphasis in this course is on understanding the historical and political context which has shaped Islamic political thought during the 20th Century.

INTS 4534 Topics in Middle East Politics (5 Credits)
The 2011 Arab Spring is widely viewed as a turning point in the modern politics of the Middle East and North Africa. Longstanding authoritarian regimes and dictators have fallen while others cling to power in the face of popular protests. The region is headed for uncertain waters with Islamist parties on the ascendance, liberal and secular forces struggling to assert themselves while a Western world watches these developments with a combination of hope, concern and consternation. This course is devoted to examining the Arab Spring revolutions and more broadly the changing politics of the Arab-Islamic world. We do so by collectively reading one book per week on the Arab Spring and other situations in the Middle East. Specific themes that are analyzed include the legacy of authoritarianism, the process of democratization, religion-state relations, the role of external powers and the transformation of Islamist politics. Part of the course looks at how these books have been reviewed both in intellectual and scholarly journals. This class is designed for students who seek a deeper grasp of the Middle East and a more refined understanding of the politics and history of this region. This is not an introductory course on the Middle East, Islam, or the Arab world and previous course work is assumed. Those uncertain about their status should consult with the instructor before enrolling.

INTS 4536 Economics: Fundamental Knowledge, Global Applications (5 Credits)
This course provides an introduction to the methods used to analyze contemporary global economic events by examining the environment in which individual economic agents interact. We analyze what the economic problem is, how consumers and business firms make economic decisions, how markets work and how they fail, and how government public policy decisions affect individual and aggregate behavior in both domestic and international markets. A special feature of the course is the application of economic principles to real world problems.
INTS 4539 Food Security in the United States and the World (5 Credits)
This course discusses: food security in the United States (community food security, food insecurity); global water crisis; land degradation; land deals; climate change; dictatorship and kleptocracy; economic approaches (westernized view, food justice, food sovereignty); World Food Summit; achieving food security (the agriculture-hunger-poverty nexus, biotechnology for smallholders in the (sub)tropics); risks to food security (fossil fuel dependence, genetic erosion in agricultural and livestock biodiversity, hybridization, genetic engineering and loss of biodiversity, price setting, treating food the same as other internationally traded commodities); access to basic food supplies; infant feeding; determining nutritional status; supplementary feeding; therapeutic feeding; malnutrition, nutrient requirements and sources.

INTS 4543 Religion and International Studies: The Apocalyptic Tradition (5 Credits)
The relationship between religion and international politics is an important and understudied topic. For year, religion was, at best, a handmaiden to international relations as scholars focused on state actors only. Since 9/11 this has changed in dramatic fashion because of the rise of radical Islam, the importance of the religious right in the United States and its role in Middle East politics, and a growing awareness of how religion can divide populations within states and in many regions of the world. This course begins with an evaluation of the thousand year history of religious conflict before 1648 when faith and international politics were inseparable. We study the struggles between Islam and Christianity as well as "heresy" in both of these religions which lead to events like the Protestant Reformation. We explore the role of religion in politics from the eighteenth to the twentieth centuries and conclude with readings on such topics as suicide bombing, shifting religious values, demographics, and projections on how religion will shape international politics in the 21st century.

INTS 4549 Managing Microfinance: Balancing Business with Development (5 Credits)
This course builds on the topics in "Introduction to Microfinance" and delves more deeply into the challenges of managing microfinance institutions (MFIs) and effective social entrepreneurship. How do MFIs make sure they stay in business (with good risk management and financial management) and make sure they have real social impact? How can they innovate financial services and other market-based solutions that create lasting economic opportunity or social change? Whether a market-oriented NGO or a socially-motivated business, an MFI needs a clear development strategy, a clear business strategy, and the operational tools to implement both strategies well. Regardless of legal structure, both NGO and for-profit MFIs need good management and financial information to meet both sustainability and social goals. Whether used for poverty alleviation or and banking services for the poor, there are shared characteristics among successful microfinance organizations, as well as common pitfalls and challenges. As organizations figure out the "business" side of providing loans and savings, they also need to figure out which development services have greatest benefit for clients, choose strategies for social change (e.g. basic education, health care, business skills), and assess how well those strategies are working. For example, large-scale MFIs in India and Latin America have been very successful financially, but have only recently focused on their social impact. Smaller NGOs may serve the poorest and provide many development services, yet struggle to find a viable business strategy and sustainability. MFIs share challenges faced by many development organizations: (1) How do we balance our financial and impact goals; (2) How do we choose where to invest resources for greatest impact (e.g. financial services for many or in-depth assistance for fewer?); (3) What information do we need to ensure financial transparency and accountability; (4) How do we assess social and financial performance to keep improving our business strategies? This class will use weekly readings and case studies of specific microfinance organizations to: Illustrate business challenges and specific business risks in microfinance; Review basic financial statements and key financial measures to assess financial performance and risk, for both for-profit and nonprofits; Review different approaches to answering the question "are we making a difference?"; Analyze management situations of "too much profit" and "too much development"; Compare pros and cons of for-profit and HGO legal structures, and implications; Discuss governance and boards of directors, compare and evaluate approaches; Highlight examples of social entrepreneurship powering market-driven change in microfinance and other areas (mobile banking, small-scale solar electricity, etc). Cases include Adelante Foundation, BRAC, Fonkoze, Kenya Women's Finance Trust, ACCION's Center for Financial Inclusion, and others. The first half of each class focuses on a real MFI case study to highlight the issues and understand the topic; the second half on the financial implications of these risks, the financial principles involved, and how well the tools work. Students gain a better understanding of financial statements, MFI operations (with case studies from around the globe), and credit risk, as well as key principles of financial management and good governance that apply to any non-profit or social business.

INTS 4555 Professional Communications (5 Credits)
INTS 4557 Cross-Cultural Communications (5 Credits)
This course is designed to prepare graduate students for careers as international professionals by focusing on the cultural factors that influence communication in international relations as well as the rules that prescribe and prescribe behavior. The course emphasizes culture and will explore how different cultures: perceive and interpret their surroundings, and create and communicate a shared, cultural construct of reality and identity; develop unique communication rules; and evolve culture-specific verbal and non-verbal communication behaviors. Students will immerse themselves in a particular culture (its history, values, world views and associated thought processes, religion, gender and social perception, language, and nonverbal communication) and research its communication conventions, practices, standards, core metaphors, terms, cultural premises, and meaning systems. Students are expected to demonstrate a critical and informed awareness of cultural content and identity, as well as the communication imperatives and procedural issues in their country through class presentations, discussions, and a long paper. The course rationale is that cross-cultural communication is inevitable, and without an understanding of the cultural communication imperatives, it is very difficult, virtually impossible to understand, work with, manage, or influence individuals from another culture. The course will involve theory and proven models, but will primarily focus on cultural immersion, skills development, practical applications, and case studies—exploring how culture both influences and reflects communication dynamics, how to communicate effectively in a multicultural environment, and how to manage and resolve cross-cultural conflicts.
INTS 4566 Global and Sustainable Development (Case of Coffee & Chocolate) (5 Credits)
In recent years, the issue of sustainable development has received considerable attention from academia, governments, and international organizations. Of particular concern are countries that are heavily dependent on the export of commodities. Can sustainable development be achieved by such countries? Chocolate (cocoa) and coffee are not only among the world's most popular little pleasures, they are also among the most traded commodities. Originating in Latin America and Africa respectively, their global diffusion has influenced the culture, society and politics of developed and developing countries for decades and continues to do so today. Coffee exports (the primary source of foreign exchange for many poor countries such as Ethiopia) are valued at about 9 billion annually. 25 million people in Asia, Latin America, and Africa struggle to earn a living through coffee production, it too is a major source of income for many countries in Latin America and West Africa. Yet, many problems have been identified such as farmers unable to earn a survival wage, the exploitation of child labor, and the damage that production processes inflict upon the environment. In short, these important commodities are apparently contributing little to sustainable development. Various organizations and individuals are involved in efforts to change this situation by promoting the establishment of specialty, organic and fair trade coffee and chocolate products. The degree to which these efforts can help turn the existing situation around remains unclear but the lives of millions of people and the future of many countries hangs in the balance. This seminar is designed to address such issues. We explore the meaning of sustainable development and consider the nature of globalization and the ways in which it has shaped the cultivation and consumption of coffee and chocolate over time. In order to understand this linkage, we utilize the concept of the "commodity chain", an approach that allows us to conceptualize the nature of the international linkages, their key nodes, the distribution of power, and the ways in which external factors influence a country's development efforts. The course is divided into three parts. In the first, we cover the basic concepts and seek to answer such questions as: 1) How have the coffee and cocoa commodity chains been shaped by globalization? 2) What has been the role of key actors - producers, local traders, governments, and multinational corporations - in shaping production and consumption patterns over time? In the second part we consider three basic forces that have shaped the commodity chains - the state and its policies, culture and consumption patterns, and entrepreneurs and technology. Here the questions are: 1) How have the policies of producing and consuming states affected the commodity chains? 2) How have changes in consumption patterns reflected in the growth of Starbucks influenced the situation in developing countries? 3) How have external technologies such as transportation and communication technologies as well as internal technologies such as instant coffee changed the chains? In the third part, we focus explicitly on two dimension of sustainable development - the environmental and the socio-economic. We seek to answer such questions as 1) To what extent are contemporary patterns damaging the environment? 2) What is condition of producers and how have these changed over time? 3) How effective are fair trade and other campaigns designed to promote sustainable development?

INTS 4567 Democratization in Africa (5 Credits)
Since the mid-1970s, the world has seen an ongoing wave of democratization. Some 70 countries have undergone transitions to democracy since the 1970s, with some 40 countries having gone through such a transition in the 1990s and early 2000s. Perhaps nowhere is the "third wave" more fully felt than in sub-Saharan Africa, which has seen since the 1990s a myriad of transitions from one-party states to multi-party democracies, as well as war-to-democracy transitions as countries today raise a number of important retrospective questions about the underlying drivers of democratization, the various paths that countries go through on the road to democracy, whether such changes are sustainable over time (and why or why not). The very word "transition" is rightly questioned: Is there a proverbial point of no return when democracy is "consolidated" and country goes from the transitional category to a fully formed democracy? While democratization may lead to peace over time, the actual process of political reform is destabilizing for societies, and that in the short term there may be real and direct threats to peace in democratizing societies as a result of the uncertainty and competition that democracy introduces into restive social environments. In Africa, despite celebrated transitional elections and a few clear success stories (such as Namibia), democratization has been fraught with challenges, from elections as the spark to civil war or massive political violence, to corruption, fraud, and rent-seeking by elected elites, to widespread discontent over the inability of democratically elected regimes to foster socio-economic development. As well, there is a critical concern that electoral processes in Africa are often accompanied by widespread political violence. Thus, Africa's experience with democracy lies between the powerful force of liberation that guided the continent's politics in the formative years, and the uneven, non-linear, and for the most part elusive goal of "consolidation." The course explores democratization - the means and methods by which countries in recent years have moved form a non-democratic to democratic regime type. What theories, concepts, and methods should be used to understand democracy and democratization in today's complex, multiethnic societies? How does the Africa experience relate to broader theories and perspectives on democratization?

INTS 4569 Migration (5 Credits)
Migration is a fundamental feature of our lives. Indeed, every aspect of our civilization and our self-conception is shaped by the exodus of all humans from our origin as a species in Southern Africa 200,000 years ago. In our own era, the aging of western populations, the rise of new economic powers, and dramatic improvements in human capital have given rise to an era of labor migration unparalleled in magnitude and diversity, though not entirely unique. New technologies have risen to facilitate further migration, enable the transmission of resources and knowledge across borders, and create new transnational patterns of residence and livelihood that challenge our notions of nation, identity, and even the very meaning of the term migrant. To put it simply, migration is the human face of our modern era of globalization, entailing incredible costs, risks, and returns for migrants along with important impacts for host societies, and the global system. Migration comes in many varieties in terms of destruction, permanence, and level of coercion, yet common theoretical, empirical, and policy unite these different forms of mobility. This course offers a holistic view of the migration process from multiple perspectives, at multiple levels of analysis, and on multiple aspects of our world today. As a uniquely individual behavior, migration has proven over time to be notoriously unfriendly to policy, which is often ineffectual or even counterproductive. We explore this cross-cutting concern through case studies illustrating the promise and pitfalls of migration policy.
INTS 4575 Systems Thinking for Social Scientists (5 Credits)
The purpose of this course is to introduce students to systems thinking as an approach for understanding and analyzing real-world issues. In addition to introducing the basic principles of systems thinking, questions that will be addressed include: Why do systems behave the way they do? Why do systems resist change and often end up getting worse when we try to change them? How do you find points of leverage within a system? This course uses examples drawn from a range of issues across the field of international studies. In doing so, it illustrates how systems perspective can allow you to see parallels between seemingly disparate issues. This course introduces both qualitative and quantitative approaches for analyzing systems and discusses the benefits and limitations of each. Quantitative, computer-based modeling is used in this course, but no background is required.

INTS 4576 Seminar: Community-Based Research Methods (5 Credits)
This course offers a weekly seminar in methods for community-based research in health, development, population, and humanitarian assistance. The course is intended as preparation for students preparing for a community-based research partnership in Delhi, Nairobi, Jerusalem, or Iquitos, Peru but is open to all students preparing to go to the field. Focus is on practical methods for gathering quantitative and qualitative data at the individual, household, village/neighborhood, facility, and total community level including "windshield observation", key informant surveys, household surveys, and gathering of secondary data from census and other government and non-government sources. Methods of data collection include Geographic Positioning System (GPS), facility/provider surveys, community governance/needs assessments, and knowledge-attitude-practice (KAP) behavioral surveys. Topics of particular emphasis include maternal and child health (MCH), water and sanitation (WASH), and primary health care (PHC). Students learn to design, revise, collect, enter, and analyze basic surveys using Excel and the Stata statistical software package. The final project for the course includes a community "desktop assessment" document and a plan for further data acquisition and analysis for the student's focus community.

INTS 4579 International Futures (5 Credits)
Futures forecasting involved decisions about priorities. Decisions require forecasting the trajectory of a society with and without interventions of various kinds. This course involved students in the forecasting and analysis process. In the lab, students learn to use the International Futures (IFs) forecasting system. That system represents multiple issue areas (demographics, economics, energy, agriculture, education, health, socio-political, and environment subsystems) and is supported by a very large database. Students study the structure of each of these modules, learn how they represent the underlying subsystems, how they are linked to other subsystems, and what they tell us about the processes of change globally and in countries and regions around the world. Students use the system for forecasts and analyses of their own.

INTS 4581 Introduction to Humanitarian Systems (5 Credits)
The Humanitarian field has changed significantly since the founding, in 1863, of what is now the International Committee of the Red Cross. Since the early 1990s there have been efforts to improve coordination between humanitarian actors and to improve the quality of international humanitarian response. High profile humanitarian crises such as the Rwandan genocide, the 2004 Indian Ocean Tsunami, and the Haitian earthquake have highlighted weaknesses in the system and spurred reform efforts. Through readings, class discussions, guest speakers, group work and individual assignments, students gain a better understanding of the development of humanitarian systems and policies and how these affect current humanitarian practice. Key debates in the humanitarian system are also discussed and students have the opportunity to grapple with some of the key ethical dilemmas facing humanitarians today. At the completion of the course, students should be able to: Discuss the history of humanitarianism; recall key components of the humanitarian infrastructure; describe the humanitarian principles, their interpretation and application; identify ethical issues which may arise for humanitarians; discuss the implications for humanitarian practice of key emerging challenges.

INTS 4583 International Protection in the Humanitarian Context (5 Credits)
At the conclusion of World War II after witnessing the horrific and historic loss of life, and in an effort to save future generations from the direct impact of war and conflict, the Western powers created several important legal instruments to protect civilians. These instruments are largely derived from human rights, refugee, and international humanitarian law. These initial legal instruments were later combined with additional instruments, both regional and international in scope, and are collectively and cumulatively considered the legal framework for "International Protections." After sixty years of the progressive legal and theoretical development of international protection and its practical implementation, a slow but evident shift has developed over time. Theoretically speaking, a shift from the end of the Cold War's position of absolute sovereignty to the ideals of the 1990s and the "responsibility to protect" which developed in direct response to the failed efforts of the international community to protect in Bosnia, Rwanda and other conflicts. As a result of the changing nature of conflicts, confusing mandates, ambiguous definitions, and political will, we have witnessed the failure of international protection in numerous humanitarian settings.

INTS 4591 Advcd Fundraising Workshop (5 Credits)
This course compliments INTS 4391, in which an overview of non-profit fundraising - along with financial management - is given. In this course, we take an in-depth look at the major methods of non-profit fundraising, namely, annual giving, special events, corporate fundraising, grant writing, major gifts, and planned giving. The teaching methodology to be employed is that each 3 hour class session is, in effect, an intense workshop on a specific fundraising topic. During each class session, a fundraising professional from the community, who is actively engaged in the particular fundraising activity being discussed, joins the professor in leading the workshop. Due to the advanced nature of this course, enrollment is limited to those who have already been introduced to the major methods of fundraising through the previous completion of INTS 4391, the concurrent enrollment of INTS 4391, or previous fundraising experience or educational pursuit in the fundraising field that is judged by the professor to be sufficient to be an active participant in this course.
INTS 4593 Knowledge for Development (5 Credits)
Knowledge plays a critical role in improving human welfare. Rapid progress in science and technology in the recent times and an increasingly interconnected world facilitated by such progress have raised the potential for using knowledge in bringing development everywhere in the world within foreseeable future. This course examines the role of science, technology and innovation in achieving economic and social development through creation, diffusion, transfer and adaptation of knowledge within and across national boundaries. Course participants examine the role of knowledge and innovation in fostering economic growth and social development. They scan the modern science and technology challenges and opportunities especially those useful for development. They also study the various activities, institutions and policies that can help developing countries devise (or strengthen) and maintain a state of the art knowledge system. They have hands-on experience of designing a knowledge policy plan for a developing country or region. The course brings in material from various disciplines though the major focus remains on international development. It can be cross listed as a development, a technology policy or a GFTEI course. No prerequisites.

INTS 4595 Civil Wars and International Responses: Evaluating Post-War Peacebuilding (5 Credits)
Today, civil wars constitute the principle, realized threat to international security (measured in lives lost). This seminar critically explores the problems to international peace and security posed by contemporary civil wars and the efforts of international - primarily, United Nations - "peace building" missions to implement negotiated settlements aimed at substantially ending such wars and preventing their recurrence. The concept of peace building seeks to capture the complex, multidimensional task of implementing the terms of settlements to end war preventing the recurrence of war, and addressing the deep-seated causes of social conflict and deep divisions that gave rise to protracted armed conflict in the first place. Furthermore, the notion of peace building have been augmented by the concept of state building, which implies that the principle strategic objective of external efforts is to help develop and create legitimate, capable states that are able to realize the provision of security and human development and to manage future social conflict through nonviolent bargaining processes and institutions. The scope of the course includes the analysis of theories, concepts and empirical research in the analysis of post-war international interventions in civil wars and in-depth, student led evaluation of specific cases. Prerequisite: INTS 4495.

INTS 4596 Mobile Technology for International Development (5 Credits)
The purpose of this course is to create awareness of the opportunities and limitations of mobile technology in the context of development challenges. We explore how mobile technology innovation around the world intersects and diverges with broader trends in Information Communication Technology (ICT) for development. For practitioners and policy makers, it is increasingly important to be familiar with mobile technologies available to support development and humanitarian assistance programs, research and policy objectives. Furthermore, with the rapid increase in mobile technology pilots around the world, it is critical to have the knowledge and tools to be able to critically assess these initiatives. This ensures that the appropriate technology investments are made by governments, the private sector, humanitarian assistance organizations and other development stakeholders to effectively, equitably and efficiently meet their goals.

INTS 4599 Ethics and International Affairs (5 Credits)
This course examines the following: social "science" and ethics, power-rivalry and capitalism versus human rights and democracy, what are the dimensions of poverty, what role does the World Bank play, "laws of people," two classes of human rights (according to Rawls), national interest, and tolerance.

INTS 4622 Global Governance (5 Credits)
This course surveys a range of arguments about how, whether, and/or the conditions under which global or transnational issues are governed. It examines different ways of thinking about governance and the governance process. It unpacks the variety of authorities that govern transnational issues. This course also considers different arguments about how the variety of actors engaged in a particular issue affects to the amount and type of governance possible. The course is intended for both masters and PhD students.

INTS 4624 Private Actors and Conflict (5 Credits)
General approaches to conflict focus on violence between the military forces or states. The conflicts of the last two decades, however, involved a variety of other actors: private military companies training or fighting with armies, relief workers trying to mitigate the impact of conflict on non-combatants, environmental NGOs working to lessen the impact of conflict on endangered species, multinational corporations trying to continue their business dealings, paramilitary and/or other citizen groups trying to defend their private property or other rights, criminal networks working to exploit conflict for personal gain, and terrorist networks. How do these different actors behave in conflict situations? Does their presence alter the way conflict unfolds, strategies of conflict (and conflict resolution), and/or the prospects for long-term security (peace, stability and development)? How? How do we decide whether these actors are public or private? How do today’s “private” actors in conflict compare with the past? Is this a new phenomenon or simply a return to what has been typical at numerous points in history? This course explores the questions presented by the variety of actors involved in conflict today, compare today’s situation with the past, and examine the way states and non-state actors are coming to terms with each other in conflict situations.
INTS 4625 East African Development and Human Rights (5 Credits)
For our purposes, East Africa encompasses the countries of Sudan, South Sudan, Ethiopia, Eritrea, Djibouti, Somalia, Kenya, Uganda, Rwanda, Burundi, and Tanzania. This course begins with an introduction to the cultural richness and diversity of East African societies, with an overview as to how tribes, chiefdoms, and states function. Religious influences are noted. This history of development, as externally conceptualized, begins with the Berlin Conference of 1884/85 and the so-called “scramble for Africa.” If features socio-economic and socio-political processes. 20th- and 21st-Century external development programs are covered, most recently exemplified by the former Soviet Union, the United States, and China. Principles of induced development and participatory development are contrasted. Regarding the latter, indigenous innovations are stressed. The history of human rights, as externally conceptualized, begin much later, with the 1969 refugee-related innovations of the Organization of African Unity (now, the African Union). The “classic” issues of tribalism, corruption, and resource exploitation are covered, as well as the “late-breaking” issues of food security, refugee repatriation, and child soldier rehabilitation. Conceptually and theoretically, the course is grounded in disciplinary understandings derived from cultural anthropology, political science, ecology, and history. Resource use, in the context of socio-cultural systems development, are foundational. Special projects are featured, exemplified by those involving University of Denver personnel in Kibera, Kenya (water and sanitation); Mai Misham, Ethiopia (literacy); and Juba, South Sudan (indigenous leadership). At the broadest level, examples are most often drawn from the water/sanitation, agricultural, and health/mental health sectors.

INTS 4626 Civil Resistance (5 Credits)
Civil resistance is the application of unarmed civilian power using nonviolent tactics such as protests, strikes, boycotts, demonstrations, without using or threatening physical harm against the opponent. This method of struggle occurs worldwide in places as diverse as Russia, Moldova, Serbia, Spain, Egypt, Iran, Maldives, the Niger Delta, the West Bank, Thailand, and Burma, among many others. As a consequence of the growing use of civil resistance, the foreign policy community has become interested in understanding the causes, dynamics, outcomes, and consequences of civil resistance campaigns. This course serves as a primer on the topic of civil resistance, introducing students to the primary texts in the field, as well as the policy implications of empirical research on the topic. This five primary goals of this course are to: (1) present leading theories and concepts for understanding civil resistance; (2) explore international history to evaluate theories of civil resistance; (3) apply these theories to analyze current trends and make predictions about future development; (4) provide students with opportunities to synthesize their knowledge in a major written assignment; and (5) allow students to deepen their knowledge about several historical cases around the globe.

INTS 4627 African Security (5 Credits)
This is intended to be an advanced political science graduate course examining African politics and (in)security. The aim of this course is to introduce students to theoretical frameworks that, in turn, facilitate their understanding of African politics, conflict and security issues – especially as they pertain to human security. Importantly, this class takes a critical look at the concept of sovereignty as it relates to security. Through the reading, students become familiar with major analytic frameworks and debates in the analysis of contemporary African politics; students become conversant in relevant political, civil-military and human security issues as they relate to sub-Saharan Africa. The focus of this course is for the student to develop an analytical framework by which to make sense of context. Context is important, but without a cohesive theoretical framework to inform the practitioner it is insufficient. With the understanding that modern elites benefit from the existing structures and associated incentives, this course seeks to understand the modern African state in order to best engage said structures/elites to further development and, most importantly, individual security. Of note, it is clear that security is a fundamental condition for effective governance and development. Further, whereas it is true that weak empirical states, interstate wars, and conflicts over natural resources have proliferated throughout the continent and that ethnic, religious and regional violence is a common syndrome, we often forget basic (human) security needs. Specifically, we overlook that importance of access to potable water or an individual’s ability to pursue economic gain without fear of violence. At the heart of security lies the individual. Weak states or elites might affect inter-state relations and security (e.g. militant groups in under-governed spaces), but it is the individual who suffers. Thus, security in this context seeks to understand issues that affect individual lives.

INTS 4628 Soc Movements: Latin America (5 Credits)
The past year has been witness to Tahrir Square and Occupy, reminding us of the power and innovation of popular sectors making their voices heard. Latin America is a particularly useful place to explore popular movements, as it has long been the site of popular protest and national revolution, and it is currently a region governed by a significant number of Leftist governments with important ties to social movements. This course addresses major theories of social movements, including classical, structural, and new social movement theories. These theories have attempted to answer fundamental questions of what triggers mobilization among excluded groups, how they facilitate their action, and what changes they potentially trigger to basic rights and identities. The course also places social movements in their broader context, locating them in the political, social and economic structures that have shaped exclusion in Latin America over time. In the process, the course explores the role of popular movements in broader processes of democratization, economic development, and citizenship. We examine traditional and well-studied examples of social movements, including movements among workers, indigenous, women, environmentalists, and advocates for democracy and human rights. We also explore newly emerging and transnational movements, including those that articulate alternative models of globalization. The course takes an interdisciplinary approach, drawing on economics, sociology, anthropology, and political science. It places special emphasis on the political economy of popular organization, acknowledging the contested nature of development and the ongoing struggle for deeper democracies and more equitable societies.
INTS 4629 Cultures of Globalization: Networks, Commodities, Affections (5 Credits)
This course explores the effects of neoliberal globalization on the lives of individuals and their communities. In an increasingly interconnected world, how do everyday people and communities negotiate the opportunities, dislocations, and/or disjunctures engendered by neoliberal globalization? Does globalization contribute to increasing global homogeneity or does it restructure difference and inequality in new ways? We explore how a ground-up view of globalization can highlight some of its contradictory effects. We discuss how globalization influences increasing inequality, restructures individual and group identities, as well as the relation between globalization and migration. From a ground-up perspective, we attune to growing global connections to understand how transnational commodity circuits intersect with individual lives and communities. We ask: How are commodity chains also cultural objects that shape, and are shaped by, how we see the world? Moreover, we pay attention to the development of grassroots networks and social movements that forge connections across borders to channel and/or challenge the current trajectory of globalization. We also find it imperative to understand the affective dimension-how do human beings think about their emotional relationships, families, and identities in relation to changing global dynamics? We end by examining alternatives to thinking in terms of neoliberalism, while examining its ramifications in the current economic context. A central question we ask is: As everyday life becomes increasingly commoditized, how do people cope, find support and value, and reveal alternate ways of conceptualizing how we can all connect to one another.

INTS 4630 Civilian Protection in Armed Conflicts (5 Credits)
Studies of armed conflict tend to focus on the production of violence to the neglect of how civilians might instead be protected. In this course, we will study how to limit violence against civilians. We will begin with an overview of theories of violence and legal and ethical frameworks governing the use of force. We will then consider how various actors throughout society, from state actors, to international actors, to illegal arms actors, to NGO’s, to civilians and their communities—the would-be victims of violence—can either promote or restrain the use of violence. We will also consider the conditions under which the protection of civilians is most feasible as well as research methods for analyzing populations and their protection strategies. In their final projects, students will analyze the threats of violence faced by a particular population and design appropriate protection strategies and policies to deal with them.

INTS 4631 The Politics of Civil Society (5 Credits)
Every intractable problem of politics, many significant changes in regimes and much of the pressure on government for good or ill, depending on the point of view, emerges from the civil association of citizens. There are limits, however, to what people can and cannot do. In this way, the overall objective of this class is to explore how people exert political power outside of the formal political structures. Towards this end, student gain a greater understanding of the make-up and roles of civil society, beginning with its origins and definitions and working up to current thinking, including the post-Berlin Wall opening up of civil society. The class considers the linkages between social and political objectives, studying how both formal and informal forms of associations limit and open up the possibilities of people’s power.

INTS 4632 Qualitative Research Methods: Working with the Denver Immigrant Community (5 Credits)
This course provides training in ethnographic and engaged research methods while giving students the opportunity to apply their skills to the local Denver immigrant community. This class requires a commitment to doing fieldwork outside of the classroom and to organizational partners in the community. Students should expect to spend 3-4 hours a week in the field and 1-2 hours on their field note write-ups. Students will work on the Wage Theft in the Denver Construction Industry project being led by Professor Galemba and Professor at the Sturm College of Law in collaboration with El Centro Humanitario, a day laborer center in Denver. The project examines wage theft experienced by Latino day laborers who work in the construction industry, especially in light of a January 2015 law that stiffens penalties for wage theft. Students will conduct collaborative rapid assessment ethnography in teams to study day laborers, employers and employer associations, lawmakers, non-profit stakeholders, and trade unions. They will gain experience with participant observation, qualitative interviews, data security protections, data coding and qualitative date coding software, analysis, and writing. The course culminates in a public presentation to share results with the community. Spanish skills are a plus, but are not required for all students.
INTS 4633 Int'l Project Evaluation (5 Credits)
It is important that those planning careers in multilateral and bilateral development agencies, non-profit organizations, private-sector companies, and professional services organizations have an understanding of the many considerations involved in development interventions and the competencies of a project manager to lead teams in carrying out these interventions. The school currently offers three courses that are organized around the traditional international project cycle. This cycle includes six sequential but not necessarily linear phases: identification/selection, preparation, appraisal, implementation, completion/transition, and evaluation. Future project managers managers working at various stages of the project cycle need to develop technical, leadership/interpersonal, personal/self-management, and international development specific competencies. The purpose of the International Project Evaluation course is to provide students with a better understanding of and practical tools for designing, implementation, and reporting project evaluations. Project managers rely on evaluation at various stages of the international project cycle. They use evaluation during the implementation of development projects to determine causes of any observed variance between project milestone targets and actual progress, and to support the formulation of corrective actions. They also use evaluation to determine the extent to which a development project has met its desired outcomes at completion, and also the causes of any shortcoming. Finally, project managers use evaluation to determine the impacts of a development project several years after its completion, and the extent to which the project outcomes can be attributable to desired changes in the conditions of the target population or area. In all cases, a good evaluation design and implementation allows the project manager to identify supportable findings, conclusions, and recommendations. These recommendations can be directed to decision makers to support changes necessary to correct project deficiencies or to provide lessons learned for designing subsequent development interventions. Moreover, a project manager should use evaluation as a way to build evaluation capacity and appreciation among intervention stakeholders, which is known to further the obtaining of desired outcomes and produce more sustainable impacts. More specifically, this course covers the approaches that four organizations use to evaluate project, programs, and policies - the U.S. Government Accountability Office (GAO), the World Bank, United Nations Development Program (UNDP), and the United States Agency for International Development (USAID). Each of these organizations has developed templates for the design of an evaluation, similar methods and techniques for data collection and analysis, and common elements in reporting evaluation findings. The latter two organizations also have protocols to contract out evaluations to other groups through the preparation of statements of work. In this course, we have the opportunity to compare evaluation approaches and to apply these approaches in preparing evaluation projects. Small student teams produce a statement of work for an evaluation, as well as develop and present plausible findings, conclusions, and recommendations based on the evaluation design. Out of necessity, these are plausible results, as there is insufficient time to implement an evaluation design during the 10-week quarter.

INTS 4634 Practical Public Diplomacy (5 Credits)
When Madeleine Albright spoke at the Korbel School, she made a plea for more courses on the nuts and bolts rather than the theory of diplomacy. This course is a response to that plea; drawing on 28 years of experience as a Foreign Service Officer and practitioner of public diplomacy. In this hyper-connected world of ours, public diplomacy has taken on ever more importance. It is essential to use the traditional tools of public diplomacy, such as exchanges, cultural centers, language courses, etc., and meld them with the new tools of social media and social networks. The course is a combination of lectures and student presentations as well as talks by numerous experts in various aspects of the practice of public diplomacy.

INTS 4635 Civil-Military Relations (5 Credits)
Who guards the guardians? has been a long-standing dilemma in international politics. How can we make sure that military leaders enjoying the control of coercive power submit to civilian political authorities? How can military organizations be powerful enough to counter external threats without becoming themselves a threat to the political community they should protect? How can hierarchical institutions created to exert physical violence be compelled to respect human rights and democratic values? These questions lie at the heart of civil-military relations theory. Analyzing the different ways in which military organizations, political authorities and the broader society interact is crucial to understand political outcomes such as state-building, democratization and the outbreak of war. This course provides students with a comprehensive understanding of the problems surrounding civil-military relations. Besides looking at the theoretical foundations of the field, it offers a comprehensive overview of civil-military relations over time and across countries. Specifically, it focuses on some topical and yet poorly understood cases and phenomena, such as the impact of the rise of private military and security companies on control over the use of force and the role played by military in Middle Eastern countries such as Turkey, Egypt, Syria, Libya, and Pakistan.

INTS 4637 Comparative State building (5 Credits)
The modern state is of central interest to students of political science, Latin America, development, sociology, and public policy. For some, the state is an instrument of repression and domination; for others it is the shepherd of development. For all, it has been the fundamental unit of national political authority for at least the last two hundred years. This course explores the nature of state authority and the processes by which different types of states emerged at different moments in world history and in different regions of the world, as well as how the nature of states has evolved over time. We explore the modern states that emerged first in Western Europe, and then the transplantation, imposition, and emergence of state authority in other regions, including Africa, East Asia, and Eastern Europe. The second half of the course focuses entirely on Latin America, highlighting the way in which states emerged and shifted over time in that region through close study of particular cases. We end the course with a consideration of the nature of state authority in the current world characterized by more intense flows of people, goods, capital, and ideas.

INTS 4638 Modern Iranian History and Politics (5 Credits)
The Islamic Republic of Iran remains a mystery for many in the West. The policies of the Iranian regime represent one of the greatest challenges to U.S. foreign policy today, as reflected in the global debate about Iran's controversial nuclear program. War seems inevitable and Iran and the West are in confrontation on a number of fronts around the world. How did we get to this point in global affairs? What is the relevant historical background needed to understand Iranian culture, society, politics and foreign policy at a deeper level? What are the key moments in modern Iranian history that have shaped the contours of the current conflict between Iran and the United States? These are the overarching questions that this course seeks to examine. The course is the first of a two course sequence that seeks to demystify Iranian politics and society. Themes explored include the origins of Iran's troubled relationship with the West, the emergence of the modern Iranian state, the construction of Iranian national identity, the tension between religion and politics, the struggle for democracy and the persistence of authoritarianism and the roots of the 1979 Islamic Revolution.
INTS 4639 Post-Revolutionary Iranian Politics (5 Credits)
The focus of this course is on Iran’s post-revolutionary period. The goal is to provide students with an objective examination of Iranian society and politics. Several themes are explored: the rise of religious politics and the consolidation of clerical rule, the nature and interaction between Iranian state institutions, civil-military relations, the Iranian economy, the domestic opposition and the prospects for democracy, the crisis in US-Iranian relations, and the role of women in Iranian society.

INTS 4640 Global Financial Crisis (5 Credits)
This course provides an in-depth and critical analysis of the global economic crisis of 2007-2009. The goals of the class are to provide: a) an understanding of the causes of the crisis, b) an overview of the onset of the crisis, including its similarities and differences with past crises, and c) a critical appraisal of the policy response to the crisis, including financial bailouts, monetary policy, fiscal policy and regulatory reforms since 2009. The class will take both a US and a global perspective, and will conclude with an outline of the aftermath and general lessons to be drawn. This course goes well beyond a historical treatment of the global economic crisis and provides general analytical frameworks that can be used to understand economic crises more generally. Each class will be organized around one or two topics related to a theoretical understanding of economic crisis and will apply them to an understanding of the 2008 crisis. The frameworks draw from the fields of microeconomics, macroeconomics, finance, international relations, global political economy, real estate and international economics, integrating and extending the knowledge obtained from other economic and policy courses. Basic Macroeconomics and Microeconomics, while not strictly a prerequisite, is highly recommended. Basic economic concepts will be used repeatedly during the class and basic knowledge of economics will be assumed. The format of the course is a classroom discussion of the reading and class debate. As such, it is imperative that you come well-prepared, having done all of the readings as this course entails a substantial amount of readings to prepare for class. The instructor has a point of view, but challenging that point of view will be encouraged, and even required. Lively class participation will be essential to the success of the course. Visitors from the worlds of finance and policy will contribute on occasion and will be announced.

INTS 4641 East Asia in the Global Political Economy (5 Credits)
The main purpose of this course is to understand critically the conceptual and empirical issues underlying the linkages between the East Asian Regional Economy and the Global Economy. What is the role of the East Asian Regional Economy within the current global political economy (GPE)? What is sustainable development in the East Asian Regional Economy? What are the global dimensions of sustainable development in the East Asian Regional Economy? What are the linkages between technology and sustainable development in the East Asian Regional Economy? After an initial exploration of these issues we focus critically on the more recently developed social capabilities approach developed by Amartya Sen and others. In particular, we explore the limits of policies under the existing institutional arrangements and examine the need for fundamental changes in the global political economy and the East Asian Regional Economy. For this purpose we try to find the approximate but deep casual structure of GPE and the place of the East Asian Regional Economy within this GPE.

INTS 4642 Environmental Security (5 Credits)
This course surveys the expanding literature on the complex interrelationships between the environment, natural resources, conflict, and human security. Since the dawn of agriculture (~7000 BCE), but rapidly accelerating in the industrial age (1750 CE to present), humanity has conducted an uncontrolled experiment in bending the natural environment to fit human needs and desires. Despite the perceived distance that technology has placed between our physical environments and our daily lives, human interactions with our natural environment are still fundamental. Since the end of the Cold War, much attention has been paid to the role of natural resources and environmental scarcity as a source of conflict, ranging from “water wars” between states sharing a common river basin to communal conflict between pastoralists and farmers in the Sahel. This course will survey the expanding literature on environmental impacts on conflict, as well as conflict impacts on the environment, and the potential for making co-management of valuable natural resources and wildlife a source of cooperation, rather than conflict, between communities and states.

INTS 4643 Japan in East Asia: Economic, Business, and Trade Relations (5 Credits)
This course presents an overview of Japan’s economic, business and trade relations in East Asia (ASEAN plus China, South Korea and Taiwan). The focus is on the evolution of Japan’s economy and big business and its shifting role and impact in East Asia. The course is organized to provide a backdrop to understanding: (a) the growth of big business in Japan; (b) the rise of the ‘developmental state’ in Japan and its impact on East Asia; (c) the experience of Japanese multinationals with foreign direct investment in East Asia and creation of Asian production networks; and (d) the current trend of free trade agreements and other emerging trade arrangements in East Asia. Students work in groups to explore, for example, the experiences of major Japanese companies in East Asia or a period or specific event connecting the economy of Japan with those in East Asia.

INTS 4644 Human Rights Research Methods (5 Credits)
This course is about how social science research can be used as a tool to understand and promote human rights. The field of human rights is bedeviled by several challenging obstacles to research, including reporting bias, hidden abuses, missing data and politicization of the facts. To deal with these obstacles, we learn about various methodological tools and how they are applied for the analysis of special human rights topics. By the end of the course, students are equipped to compile and present information to highlight patterns of rights abuses and identify patterns of cause and effects.
INTS 4646 Human Rights and the Middle East (5 Credits)

Not only have the global financial turmoil threatened by the Eurozone crisis and the negotiations of a trade agreement between the European Union (EU) and the United States made the study of EU integration increasingly important for students of International Relations. As a unique political entity distinct from both states and traditional international organizations, the EU remains an unidentified object, whose development has challenged the traditional paradigms of both international relations and political science. Besides providing an in-depth knowledge of a crucial political and economic actor, the study of the EU integration process, its drivers and its shortcomings will therefore enhance students' understanding of some of the most crucial theoretical debates underlying today's international studies. This course intends to provide students with a comprehensive knowledge of the politics and institutions of the EU, analyzing its development from its origins until the present day and beyond. It will do so by focusing on the following core issues: Firstly, it will briefly analyze the history of the EU, seeking to identify the rivers of the integration process and explain why, after the end of World War II, European countries have set aside their centuries-old antagonism and embedded themselves within an ever closer political Union. Secondly, it will examine what the EU is and how it functions, analyzing its key institutions, the architecture of its system of multilevel governance and its policy-making processes. Thirdly, it will investigate some key consequences of European integration, focusing on topical debates such as whether and to what extent the shifting of national decision-making powers at the EU level has created a democratic deficit, what is the impact of EU enlargement on both the Union and the institutions, societies and economies of new member states and what have been the economic and political consequences of the introduction of a single currency. Finally, the course intends to engage students in a debate on what is the future of the European Union in light of the latest development brought about by the entering into force of the Lisbon Treaty and the economic and financial crisis suffered by Southern European member countries. Prerequisite:

INTS 4647 Critical Issues in International Humanitarian Assistance (5 Credits)

In recent decades, the humanitarian system has undergone significant changes related to developments in global governance, lessons learned and relationships between agencies (UN/NGO), governments (donors, affected countries), as the nature of crises themselves the contexts in which they occur and actors involved in crisis response continue to evolve, the humanitarian system and those that work within it must contend with new challenges and critiques. Through readings, class discussions, guest speakers and assignments, students have the opportunity to gain a better understanding of the major emerging policy issues and internal and external challenges facing the international humanitarian system. The class discusses important debates in the humanitarian system and students have the opportunity to grapple with some of the key ethical dilemmas facing humanitarians today. This course is aimed at those with an interest in humanitarian policy as well those who wish to explore the challenges that may face them as they prepare to work in the humanitarian field. Prerequisite: INTS 4581.

INTS 4648 Theories of Security in World Politics (5 Credits)

In the 40 years following World War II, the study of security assumed a divide between international relations (the politics between states) and domestic politics (the politics within states) and gradually became separated from studies of international economics. International or national security largely centered on one empirical and two different theoretical enterprises. The empirical enterprise explored the relationship between the US and Soviet Union, focusing particularly on deterrence and the effect of nuclear weapons. The theoretical enterprises explored the likelihood of conflict between states in different systems and scenarios (when does conflict occur? When is stability more likely?) and examined the causes and consequences for actors of pursuing different strategies (What determines which strategy states will choose and what are the consequences for security – i.e., war, conquest, security gain, security loss, etc. – of different choices). After the end of the Cold War debates about the meaning of security joined change in the prevalence of intra-state conflicts and growing attention to terrorism in ways that led many scholars to question the usefulness of assumed differences between international and domestic politics, and, to a lesser extent, between security and economics. Also studies of conflict and stability have increasingly focused on a variety of transitional and global actors that do not fall into the realm of the nation, the state, or even the "international" system at all. This course focuses on this post Cold War security agenda. The class begins with a (rather old by now) debate over the definition of security, then consider the role of states and other actors and finally turn to a list of prominent questions. In examining these questions, the class reads texts based in a variety of explanations, research strategies and methods. Students are encouraged to think about prominent explanations that stretch across the questions in different weeks. Students should also consider the costs, benefits, and alternatives to the research strategies and methods that individual authors have chosen. While the focus is on the substance of debates in security studies, the professor hopes to also spend time each session talking about how to frame productive questions and research strategies. In the way of background, if students have never read Kenneth Waltz, Man, the State, and War, they are recommended to do so. It would also be useful to have some familiarity with some basic texts in political theory, particularly Hobbes, Machiavelli, Kant, and Weber.

INTS 4649 Human Rights and the Middle East (5 Credits)

This course is shaped in three parts; each focuses on a set of critical human rights questions drawn from different phases of the Arab uprisings. Part I focuses on the Arab Uprising and Promises of Human Rights Progress and asks: 1. What can we learn from past contagion of human rights struggles, while the class analyzes the Middle Eastern social transformation? 2. What are the main causes that shook the Arab Middle East? 3. What was/is the role of major social actors? Part II covers the Rise of the 2012 Islamist tides, which gained new momentum after the electoral victory of the Muslim Brotherhood in Tunisia and Egypt and asks: 1. Are these religious trends consistent with human rights efforts? What accounts for waves of contagious revival of religious fundamentalism in the Middle East and North African region before and after 2012? 3. What is the impact of religious fundamentalism and nationalism among Israelis and Palestinians? Part III analyses the Possible Paths of Democratization and Human Rights in the Middle East and explores: 1. What accounts for different Revolutionary Arab Paths? 2. Is there a human rights answer to the Israeli/Palestinian quandary regarding one or two state solution? What are the current and possible roles of external forces for the region (international and/or regional)?
INTS 4650 Globalization and Economic Crime (5 Credits)
This course explores the policy issues raised by international economic crime, a phenomenon that has mushroomed with globalization and now accounts for some estimates amounting to one-fifth of all international commerce. But who gets to define “crime”? Are there standards applicable globally to all situations? Nation states, corporations, nongovernmental organizations and political advocacy groups have issued multiple and often conflicting definitions of acceptable and unacceptable behavior and have been free in affixing blame on other sectors. Issues to consider include economic liberalization in the increase of crime, readings that focus on the political, technological and economic factors that encourage criminal activity and on the direct and indirect economic costs of activities such as identity theft and counterfeiting; mislabeling and trade in illicit goods; political corruption; money-laundering; and securities and accounting fraud. The class discusses activities posing definitional challenges to policymakers, such as currency and commodity speculation, re-export, gray marketing and state sponsorship of organized crime. This class also looks at policy options available when state-supported criminal economic activity is deemed to violate peremptory norms, creating a substantial domestic effect, or constitute an act of war. This course examines self-help programs such as due-diligence and know-your-customer rules as well as statutory regimes such as the U.S. Foreign Corrupt Practices Act, and the movement toward transparency and uniform financial standards.

INTS 4651 Field Knowledge for Agriculture and Sustainable Development (5 Credits)
Agriculture across the globe faces numerous challenges: feeding a growing population; adapting to climate change; reversing environmental degradation; and adapting to changing food consumption patterns, natural disasters, resource scarcity, global trade agreements and political pressure. Farmers and related businesses must deal with these challenges while also maintaining livelihoods and contributing to economic growth. These economic, environmental, social and political challenges shape the entire agricultural system. These challenges influence what the farmers grow and other important production and marketing decisions; these challenges also can discourage fundamental change. Farmers must negotiate tradeoffs that have negative consequences in one area to gain benefits in another. This class will analyze sustainability in agriculture through a regional lens, engaging with agricultural people and systems along the Front Range. We aim to understand the economic, environmental, social and political issues that regional farmers face while taking a fine-grained look at critical components of farming: land, labor and water.

INTS 4652 Contemporary Issues in Refugee Studies (5 Credits)
This course is designed to provide a stimulating interdisciplinary environment in which students explore contemporary issues in refugee studies. Through examination of relevant international instruments, research, case studies, agency policies and reports, students will begin to develop the skills necessary for understanding refugee-serving agencies and associated programs in large scale refugee operations. Specific topics will be given to recent developments in - refugee terminology, refugee status determination, urban refugee populations, refugee camps, durable solutions, and extremely vulnerable refugees. Throughout, the course will focus on humanitarian assistance and protection frameworks, including analysis of guiding principles and associated policies of refugee-serving organizations such as the United Nations High Commissioner for Refugees (UNHCR). The importance of reliance on refugee voices to frame the debate will also be emphasized. At the end of this course students should be able to integrate and apply knowledge of innovation policy and practice to begin to address contemporary challenges faced by humanitarian agencies working with refugee populations.

INTS 4653 Political Economy of the Resource Curse (5 Credits)
This course is about one of the more curious findings/non-findings in the history of economics and international relations; that valuable natural resources, such as oil, natural gas, and other mined commodities are not, in the main, associated with better development outcomes and may even depress long-run rates of economic growth and discourage democratization and effective governance. Common sense would seem to suggest that if one finds oneself sitting on a gold mine, then one should mine gold (or drill oil, as in the example above). But countries that have specialized in the production of extractive or “point-source” resources, such as mined commodities like gold, diamonds, and oil, tend to be poor, creating a nagging sense that specialization in extraction is a losing proposition in the global division of labor, condemning countries to be the “hewers of wood and drawers of water.” This course briefly reviews the basic economics of the resource curse before turning to a discussion of its effects for deeper institutional determinants of long-run development outcomes: democracy, gender equality, state capacity, and civil strife. It then moves into the realm of interstate politics, examining the ways that resource wealth shapes the foreign relations of resource exporters and major importers, principally the United States and China. The last third of the class investigates both domestic and multilateral attempts to address the resource curse through policy interventions, including civil society-led good governance initiatives like the Kimberley Process and the Extractive Industries Transparency Initiative. This course assumes no deep knowledge of economics but will be of interest to students across the realms of security and development.

INTS 4658 Understanding Diplomacy in Peace and War (5 Credits)
The role of the US in the world has changed greatly in the past half-century. The purpose of this course is to examine how the practice of that change has been both informed by, and informs the scholarly political science literature. This course draws on several broad themes in international relations - democratic peace, balance of power, civil-military relations, war and its termination—and relates them to experiences in the practice of diplomacy worldwide.

INTS 4664 Political Economy of Brazil and India (5 Credits)
This course deals with two emerging powers, Brazil and India. We trace the political economy of both countries over time, and spend particular time exploring their historical trajectory, current emergence, challenges they face, and the significance of emerging powers for the international political economy. The course is organized around an understanding of their insertion into the international economy, the implications of international insertion for domestic transformation, and the politics of incorporating newly mobilized domestic social and political actors, especially as this plays out in existing political institutions. Students help define some areas of concentration for the course by identifying policy areas in which concentrated research will occur. This course takes an interdisciplinary approach by drawing on political science, economics, and sociology, and we are concerned to understand the potential for emerging powers to alter international relations, as well as the implications of different strategies of international insertion for domestic social sectors, especially those that have traditionally been excluded.
INTS 4670 Gender, Security & Human Rights (5 Credits)
This course examines the gendered dimensions of security and human rights, with a particular focus on periods of violence and insecurity. Gender equality has been at the heart of human rights and development efforts over the past half-century. Legal and normative instruments have been created to address the ongoing marginalization of women and girls around the world, including the 1979 Convention on the Elimination of Discrimination Against Women (CEDAW) and the 1995 Beijing Platform of Action. More recently there has been increasing attention to the importance of “gendering” discussions of international security. For instance, UN Security Council Resolution 1325, passed in 2000, is widely seen as a landmark framework for ensuring women's inclusion in the post-war peace process.

INTS 4675 Advanced Topic: Defense & Security Policy Lab (5 Credits)
This is an advanced topics course centered on International Security students gaining, developing, and practicing their professional skills (specifically research and analytics, integration of creativity, academic material, and analysis, peer to peer leadership and coordination, project management and collaborative tools, and communications) via engagement with material/techniques associated with as well as the actual development and execution of a group based professional grade defense/security policy analysis. While the class will contain some traditional academic elements to provide all participants with an enhanced tool kit of skills and analytic options, the bulk of the class takes place through the development of the group defense/security policy analysis executed by 6 person student Project Teams that will be developed through an iterative process over the course and then presented to a group of defense and security professionals for their appraisal. Through this process, security students will be able to get a sense of how real world projects are developed and executed as well as the challenges that confront the production thereof.

INTS 4680 Introduction to Political Theory (5 Credits)
Political theory analyzes and interprets the foundations of political life and evaluates its principles, concepts and institutions. It is fundamentally concerned with the normative political relationships among human beings that revolve around the organization and basis of government. This course provides an introduction to Western political theory through key texts and thinkers that are essential reference points in the social science literature. The focus will be on the Enlightenment tradition and the approach will be geared toward understanding how the seminal texts and thinkers of this period have shaped—and continue to shape—our understanding of political ideas and norms. This course will also have a pragmatic component, where the books and ideas under consideration will be applied to contemporary international debates and issues. Please note that this course is geared toward students without a strong background in political theory. No previous knowledge is required or assumed. All that is needed is an open mind and willingness to work hard. Professor Nader Hashemi will be the course coordinator and guest lectures will be delivered by several Korbel faculty members. For more information about the study of political theory at the Josef Korbel School, go to: www.du.edu/korbel/politicaltheory/.

INTS 4700 United States Foreign Policy (5 Credits)
An intermediate course on issues and perspectives for evaluating American foreign policy. Topics discussed include theories of foreign policy; historical epochs in Superpower relations: the Cold War, Dente, and confrontation; America's role in the post-Cold War; war, peace, and trade in relation to U.S foreign policy planning and assessment.

INTS 4701 US National Security Policy (5 Credits)
An intermediate course which examines the post-war history of U.S. policy and America’s response to the post-Cold War environment. Current issues include alternative strategies in nuclear deterrence and arms control; and security policy toward the Third World, Europe and the Atlantic Alliance, and Japan. Prerequisite: INTS 4702.

INTS 4702 Major Issues in International Security Policy (5 Credits)
This course focuses on contemporary challenges to global security. It seeks to familiarize students with the nature of these challenges and analytical tools with which to make sense of (and consider potential responses to) them. In the context of thinking about general issues, students learn about prominent individual instances (or “cases”) of problems, think about problems through different theoretical lenses, and consider both logic and empirical evidence in evaluating different arguments. Beyond the substantive focus, the course also encourages students to develop analytical skills and their ability to communicate their analyses effectively.

INTS 4703 Security & Strategy (5 Credits)
This course will focus on the array of factors, options, and realities associated with the creation and execution of Strategy in order to achieve security objectives. The course begins with and centers on the classic works, concepts, and thinkers associated with strategy and then seeks to apply the foundational ideas to a range of current security challenges.

INTS 4704 Globalization and Security (5 Credits)
Course uses historical approaches to evaluate connections between economics and security and how views on security have been shaped.
INTS 4706 Topics in Int'l Studies (1-5 Credits)
INTS 4708 Topics in Int'l Studies (1-5 Credits)
INTS 4709 Topics in Int'l Studies (1-5 Credits)
INTS 4710 Topics in International Studies (5 Credits)
INTS 4711 Topics in Int'l Studies (5 Credits)

INTS 4713 Advanced Quantitative Methods for Spatial and Big Data Analysis (5 Credits)
This course provides a basic introduction to two areas of quantitative research methodology with increasing relevance for social scientists. In the first module, students are familiarized with spatially disaggregate data, spatial polygons, and point data. As a concrete application, the course will provide students with a hands-on introduction to evidence-driven computational modeling, a technique that makes it possible run simulations on representative geographic topologies of real world cases. A second module of the course will focus on the analysis of Big Data. In particular, how data gleaned from social media sites may be used for substantive social science research. Emphasis will be placed on the limitations of current research and general difficulties in using data from various social media sites. The course will serve as a point of departure for students (and faculty) interested in applying these methodologies to their own research. A good understanding of basic quantitative methods is a prerequisite; knowledge of advanced quantitative methods is an asset.

INTS 4715 Problems and Challenges of Democratization in Contemporary Democracies (5 Credits)
This is a course in the field of comparative democratization studies. The class covers political science perspective topics such as the transition to democracy, consolidation of democracies, how and why democracy has spread around the world and the debates on the virtues and perils of democracy and on the nature and quality of the resulting representative democracies. The class focuses on the major explanatory factors for democratization: the case study/actor-centric approach, the statistical/structure-centric approach, and the region-centric approach. Additionally, the class studies many of aspects that might influence the process of democratization such as: institutional design and institutional functioning, political culture, democratic support, and the structure of the party system. The geographical focus is global, due to the comparative nature of the theoretical discussion, but it will be mostly focused upon the Southern, Eastern European, and Latin American cases and the time frame is concentrated to the so-called “Third Wave of Democratization” that started with the Greek and Portuguese transition during the mid-1970s.

INTS 4720 Capital Markets in Africa (5 Credits)
Capital markets – the buying and selling of equity and debt – are vital to the functioning of an economy. Using a comparatives study of capital markets in America and Africa, we will explore how they work, and how inefficiencies and structural challenges can inhibit private investment and access to capital among middle and lower classes in emerging economies generally. The tools in this course will also allow students to assess the efficiency of capital markets in emerging economies throughout the world. The course comprises five modules: 1) Banking and microfinance; 2) Mortgage and housing finance; 3) Private equity (including venture capital); 4) Stock markets: 5) Mobile money. For each module, we will begin with a study of how the industry functions in the United States, which is widely regarded to have the most efficient capital markets. We will then compare the US model to markets in Africa, examining the structural and practical limitations that impede those markets in sub-Saharan Africa (and, by extension, other emerging markets). The course will not attempt a comprehensive analysis of specific African countries, although examples will be drawn from specific markets. Instead, we will focus on many of the structural challenges to the development of mature capital markets in sub-Saharan African countries (mostly excluding South Africa). We will explore questions such as, Can microfinance be profitable? Why isn’t housing finance widely available? What types of “mobile money” systems are developing in Africa, and what are their business models? Why aren’t there more IPOs in Africa? Class participation is important, as the subject matter will range beyond the readings.

INTS 4723 Citizens in Representative Democracies and Comparative Political Behavior (5 Credits)
Citizens’ behavior and attitudes are fundamental for understanding the nature of the relationship between citizens and the state, and for assessing the QUALITY OF representative contemporary democracies and the nature of modern citizenship. This course focuses on the core aspects of citizens’ behavior and their core political attitudes. First, departing from a classification of the different modes of political participation, the class discusses some of the most important aspects that might influence the individual act of participating. Second, departing from the classic models of voting behavior, the class discusses how citizens make up their mind when they vote and the theoretical implications of that process. Third, departing from Easton’s and Almond and Verba’s seminal works, this course studies the key dimensions of political support and political attitudes and the relationship among them. This class deals extensively with key concepts such as democratic support, political disaffection, political disengagement, political discontent, and social capital. The study of the factors influencing the different levels and evolution of these attitudes across countries are also covered. This course and its materials refer to studies using survey data and survey indicators, so some basic knowledge of statistics is recommended, although it is not a must.

INTS 4730 Introduction to Homeland Security (5 Credits)
This course will examine the post-1945 history of United States efforts at homeland security, and include an overview of other national efforts (e.g., by the Soviet Union, Switzerland, and Israel.) It will then turn to identifying and analyzing the spectrum of issues associated with U.S. homeland security, in the context of evaluating the United States post-9/11 response to date. Those issues include: framing homeland security, prevention, response and recovery overview, foreign actors and issues, domestic actors/issues, problems of intelligence, terrorism vs. violent crime, public expectations, role of the media, funding and resources, and how to address broad spectrum threats.

INTS 4731 Homeland Defense: Prevention & Mitigation (5 Credits)
This course will examine the following issues: political leadership, foreign and domestic intelligence organization and functions, role of intelligence, principles of indications and warning, legal/civil rights issues: balancing human rights and security, law enforcement, Public health, and the role of various U.S. federal agencies: Department of Energy, Environmental Protection Agency, the INS, border security among others, plus the role of first responders in prevention/detection, and establishing indicators and reporting procedures.
INTS 4734 Homeland Sec & Civil Soc (5 Credits)
Examines host of potential societal consequences of homeland security efforts.

INTS 4735 Defense and Security Methods (5 Credits)
The purpose of this overview course in defense analysis methods is to provide students with the foundations to successfully conduct research and analysis in defense-related topics, whether within the national security community, in academia, or as a contractor. This course should also help prepare the student to complete his or her Master’s thesis. The course aims to improve the student’s ability to comprehend and assess the graduate-level readings assigned in other courses, and to write research papers and complete other written assignments for those courses. The course is intended to provide take-away skills that can be applied to professional activities after graduation: in particular, students should have greater confidence in their abilities to locate, read, commission, design, or conduct relevant research, and to draft research proposals. This class focuses on methods employed in both policy analysis and the social sciences. The emphasis is on qualitative rather than quantitative methods.

INTS 4736 Strategic Intelligence Data Collection and Analysis (5 Credits)
Course focuses on analytical prod. of strategic intel to int'l security issues.

INTS 4737 Current Issues in Strategic Intelligence (5 Credits)
Advanced seminar which investigates current issues relative to strategic intel within international studies.

INTS 4739 Defense and Security Quantitative Analysis (5 Credits)
This course is the follow-on to INTS 4735 Defense and Security Methods and is designed to engage students in a professional conversation about the applicability of quantitative analysis and big data based analytics for the execution of defense and security analysis/research. Continuing the development of the students’ individual research design proposal, but now introducing an array of quantitative ideas, options, and methods, this course begins with the foundational realities of coding and descriptive statistics before introducing students to bivariate and multivariate analysis, index/scale construction, and hypothesis testing techniques. In addition, the course continues to develop the students ability to engage with and understand real world defense and security research, in this case particularly quantitative analysis. Prerequisites: INTS 4735.

INTS 4742 International Weapons Proliferation (5 Credits)
This course explores the worldwide proliferation of weapons and military hardware. Special attention is given to weapons of mass destruction including fundamental principles of weapons development and deployment; unique characteristics and effects of nuclear, biological, and chemical weapons; and delivery systems. Capabilities and strategies to counter this international problem are developed.

INTS 4744 Gender and International Security (5 Credits)
In this course we will pay particular attention to the gendered dimensions of human security as they relate to war and political violence. We will talk about how security is a distinct concept from human rights or human development, but will also discuss how all are necessary and related. We will explore feminist approaches to international security and critically engage concepts like militarization, peacekeeping, and intervention. We will emphasize the importance of looking at structural cases of insecurity and at the linkages between various forms of insecurity. We will pay particular attention to the agency of local actors and to the strategies employed by women and women’s movements to oppose war, secure peace, and promote human security. We will cover landmark international resolutions—such as R2P and UN Resolution 1325—in order to breakdown the impact these resolutions have had on gendered power dynamics in conflict zones, as well as to identify areas were more attention is needed.

INTS 4746 Gender and Human Rights (5 Credits)
This course examines the gendered dimensions of human rights, with a particular focus on human rights during (and after) periods of violence and insecurity. Gender equality has been at the heart of human rights and development efforts over the past half century. Legal and normative instruments have been created to address the ongoing marginalization of women and girls around the world, including the 1979 Convention on the Elimination of Discrimination Against Women (CEDAW), the 1995 Beijing Platform of Action, and the 2000 UN Security Council Resolution 1325. Indeed, measures to prevent discrimination based on sex have been ingrained in nearly every human rights treaty since the United Nations Charter in 1945. Yet, gender-based rights violations continue to occur around the globe with alarming pervasiveness and frequency. Drawing from critical gender analyses and postcolonial feminist thinking, this class will introduce you to the concept of gendered rights, challenge you to think about intersectionality as a way of considering “rights,” and introduce you to many of the contemporary human rights crises unfolding around the world today. Critically, this class takes an inclusive view of “gender,” examining the human rights of women, men, queer, trans, or gender non-conforming people.

INTS 4750 The Policy Making Process (5 Credits)
Governments make public policies through a complex process, which varies in its details from country to country and even from issue to issue within the same country. In this course we study various parts of those processes and some of the inputs into them. In addition, we play close attention to problem framing or problem definition in those policy processes. Within all these disparate policy processes political actors must have some notion of what problem they are trying to solve and what constitutes the set of feasible solutions to those problems. These ideas about problems and feasible solutions are not given exogenously, are not some fact of nature, but instead arise from complicated interactions among actors and institutions in the policy process. The quest we ask throughout the course is how policy problems and solutions could be framed differently, how we can learn to look outside the conceptual box that partisans to policy debates try to draw for us. Students write a series of papers during the course following a policy issue of their choice through the policy process.
INTS 4751 European Foreign and Defense Policy (5 Credits)
The focus of this course is on foreign and defense policies of key states and international organizations in modern Europe, from the Atlantic to the Ural. After introducing Europe as a cultural, political, and geographical construct, we focus on the North Atlantic Treaty Organization and the European Union before turning to a comparative analysis of six leading European states. Security in an increasingly globalized world deals not only with defense issues, but also with economics, human rights, and questions of identity. We focus on Germany, France, the United Kingdom, Italy, Russia, and Turkey, underscoring their bilateral and multilateral associations with other European states, the United States, and the European Union, NATO, OSCE, and Council of Europe. We conclude with considerations of what "Europe" really means, and what the future holds for this vital content.

INTS 4753 Intelligence and National Security (5 Credits)
Focuses on the craft of U.S. Intelligence and its role in the making and implementation of national security policy.

INTS 4758 Pol Economy of Development (5 Credits)
This course will introduce students to the framework of political economy and to the various applications of political economy to examine the challenges and opportunities of international development. The course will provide students an understanding of the different strands of development theory and the debates regarding political economy within each of these strands. This will be followed by an evaluation of the impact of these theoretical approaches on our understanding of the following key concepts in international development: growth and human development, poverty and inequality, trade and services, industrialization and technology, rural development and agriculture, labor and migration, biodiversity and climate change. These various areas of international development will be further interrogated by an examination of global agendas such as Millennium Development Goals; international agendas of International Financial Institutions; and national concerns of state sovereignty and domestic resource allocation. The course will provide students the tools to engage with current development debates on the different trajectories followed by early and late developers, on policy responses to development dilemmas, and the relationships between political, economic and social dimensions of development.

INTS 4759 Globalization/ Postcolonialism (5 Credits)
Rarely used twenty years ago, the term "globalization" has proliferated recently in both popular and scholarly arenas to describe the increasing flows of capital and commodities, migrants, and ideas across national borders. Postcolonialism denotes the world conditions after the end of the European colonial empires. More importantly, it refers to the critical analysis of the political and cultural legacy of colonialism, as well as the intellectual effort to deconstruct its underlying assumptions. This seminar will essentially consist in discussions of the readings. Its objective is to familiarize the students with some classical works that have contributed to define the field, as well as recent researches that have expanded the debate to contemporary issues such as development, humanitarian aid, transnationalism, conflicts, or environment. Some theorists who have criticized the dominant narrative of the world history will also be discussed in the class.

INTS 4760 Russian Foreign and Defense Policy (5 Credits)
Course explores Russian foreign and defense policy from Vladimir Lenin to Vladimir Putin - heavy focus on security policy.

INTS 4765 Natural Resources and Armed Conflict under International Law (5 Credits)
The course offers a description and an assessment of how international law regulates the relationships between natural resources and armed conflicts. Attention is given to principles and rules regulating access to natural resources in the pre-conflict phase; protecting the resources pending the conflict; regulation the exploitation of the resources during and after occupations and international administrations. The role of trans-national corporations in fueling conflicts is considered with reference to recent developments such as certification schemes, the emerging legal framework on transparency in business, and the debate on corporate responsibility for international crimes. The concept of "illegal exploitation of natural resources" is analyzed in light of the relevant resolutions of the United Nations Security Council. Finally, possible solutions to the issue of armed conflict resources (i.e., resources fueling the initiation of conflicts) are considered from a legal perspective. Registration by departmental approval only; restricted to students participating in the Geneva travel program.

INTS 4766 State Building and War Making in the Developing World (5 Credits)
This course examines the challenges of state-building and the manifestations of armed conflict in the contemporary world. Surveying different cases and contexts, the course focuses on the role of state and non-state armed groups, the drivers of communal conflict, the historical dimensions of multifaceted state-building processes, and the legacy of colonial rule. Particular attention is paid to conflicts in the Middle East, North Africa, and Sub-Saharan Africa. The purpose of the course is to equip students with a comparative understanding of the complex causes, characteristics, and manifestations of conflict in the developing world and its cross-cutting relations to contemporary international governance. Registration by departmental approval only; restricted to students participating in the Geneva travel program.

INTS 4767 Cultures of Capitalism (5 Credits)
This seminar lays the theoretical foundations for a cultural critique of capitalism. With an eye towards colonialism, modernity, and globalization, readings are devoted primarily to different schools of thought parsing out capital as a social relationship, object of value, and form of mediation. The purpose of this class is to establish temporal and spatial commensurability across tendencies and discontinuities in capitalism by i) locating the phenomenological, ontological, and epistemological conditions of possibility for the reproduction of value and ii) asserting history, experience, and embodied praxis as productive features in the imagined abstraction of economic life and market discourse. More than an attempt to historicize the contemporary moment of deregulation, precariousness, or flexible accumulation, the course is designed primarily to unveil concurrent theories of value and the work of abstraction and reification, morality, and power, labor and materiality foregrounding the processual logics of capitalism. To do so, this course explores the theoretical stakes of production, circulation, and consumption occurring in time-space relations of commodity exchange, markets, and global finance in late capitalism. How to account for the increasing disconnect between the "real" economy and the "fictitious" value of virtual markets, financial derivatives, and future trading? How to make sense of the work of mediation - or perceived gaps therein - between consumers and producers, the labor of abstraction and the concrete reification of economic objects? Registration by departmental approval only; restricted to students participating in the Geneva travel program.
INTS 4768 Introduction to a Critique of Market Society and its Solidarity Alternatives (5 Credits)
This course is taught in French. Le séminaire propose d’introduire ou de conforter une vision "indignée" de l’hégémonie des marchés en s’appuyant principalement sur la lecture socialiste et chrétienne de l’économie par Karl Polanyi et ses critiques en particulier d’Adam Smith et de Karl Marx. Ceci se réfère surtout au concept de marchandise fictive (appliqué aux ressources naturelles comme au travail humain et à la monnaie), de richesse commune partagée et d’interdépendance économique (appliquée aux mécanismes complémentaires et antagoniques de concurrence, de redistribution, de solidarité et de partage). Une large part de cette réflexion interdisciplinaire doit ressortir des propres expériences des étudiant(e)s et de leurs recherches. Elles doivent aussi permettre de comprendre l’élaboration des alternatives, leurs potentialités et leurs limites. La situation de Genève, capitale des spéculations sur les matières premières sera notamment interpellée. Registration by departmental approval only; restricted to students participating in the Geneva travel program.

INTS 4769 Public Policy, Economic Development and Gender (5 Credits)
This course considers a number of topics associated with the links between gender empowerment, economic development and public policy. Topics include the role of gender in shaping political, economic and social opportunities; leadership; the role and global plan of action of international organizations; gender gaps in education, economic participation, health and political opportunity; conflict, HIV/AIDS; property rights; urbanization, international migration; global processes as well as the evaluation of specific policies and interventions, all within the broader context of development economics. The course is applied-oriented and open to students with little background in economics. By the end of the course, it is hoped that participants will be able to critically assess policy documents on the topics covered that are commonly produced by international organizations. Requires departmental approval; registration restricted to students participating in the Geneva travel program.

INTS 4770 The Politics and Economics of International Energy (5 Credits)
Although it is becoming increasingly evident that the world does not face an imminent shortage in the availability of fossil fuels, access to energy resources and security of energy supply remain important preoccupations for governments and companies alike. Utilization of fossil energy resources will be increasingly constrained by environmental considerations and the threat of global warming. Energy will remains a key concern in international relations for the coming decades and will influence the perception of national interest and the pattern of international exchanges and interdependence. The course aims at providing students with the critical knowledge and skills to avoid superficial generalizations and stereotypes - which unfortunately remain all too common. Requires departmental approval; registration is restricted to to students participating in the Geneva travel program.

INTS 4771 Trade and Development (5 Credits)
Development, trade and their interlinkages are among the most controversial topics of today. Economics has much to say concerning these issues, and constitutes a powerful tool in terms of debunking commonly held misperceptions. This course considers a number of topics associated with the links between international trade and development. A particular emphasis is placed on the consequences of trade openness on outcomes in developing countries, i.e. on inequalities, growth and poverty, institutions and financial development, the impact of export instability and countries’ specialization, terms of trade, financial crises, trade and environment. The course is applied-oriented: after reviewing basic theories associated with each topic, each lecture involves presentations of recent empirical papers. By the end of the course, it is hoped that participants will be able to intelligently read and critically assess policy documents on the topics covered that are commonly produced by international institutions. Requires departmental approval; registration is restricted to students participating in the Geneva travel program.

INTS 4772 International Business (5 Credits)
The objective of this course is to better understand how national and international political and economic factors shape the business environment, firm strategies, and associated performance in the contemporary global economy. Even though this course draws on a number of different academic disciplines including economics, political science, and international relations, the goal is always to draw out the implications for forms. This firm-based perspective is what differentiates this course from traditional academic courses on globalization. The firm-based perspective, however, should be of interest to those interested in public policy as well. After all, one cannot effectively design state interventions without examining how firms and other relevant actors will respond. What differentiates this course from one in international business strategy is that the implications for national policy design and regional global governance initiatives are given particular consideration. In so doing, this course seeks to be true to the multi-disciplinary nature of an international affairs program. Furthermore, the focus in this course on matters of considerable contemporary relevance should help prepare international affairs and other students well for job market interviews. The class covers eight important topics. Supporting each topic are online lectures that are posted in advance. Students are responsible for watching these online lectures before the class meets. Failure to do so detracts considerably from the learning experience of all concerned. In class discussion focus on the application of tools in case studies and matters of contemporary policy and business relevance. Registration by departmental approval only; restricted to students participating in the Geneva travel program.

INTS 4773 Violence, History and Memory in Twentieth-Century Africa (5 Credits)
This course offers historical, theoretical and empirical perspectives on the impact of conflict in the modern history of Africa. Opening with a guided discussion of broad debates over models of warfare and violence that apply social, cultural, materialist and instrumental theories of causation, the course then proceeds through a series of case studies in seminars. These include colonial wars of decolonization in Algeria and Kenya, the Biafran War of secession and its repercussions in Nigeria, contrasting genocides in Burundi and Rwanda, the Red Terror in revolutionary Ethiopia, liberation struggles in Southern Africa, the ‘African World War’ in Congo, interlinked conflicts in Sierra Leone and Liberia, and other cases of contemporary significance. In each case, students are encouraged to consider the means of violence employed, the causes and motivations of conflict, issues of gender, youth, religion, politics and ethnicity, the personal and communal impacts of experiencing and witnessing various forms of violence, and the transnational dynamics of conflict. Throughout, questions of culpability, ethics and moralities are tackled in relation to the various approaches to transitional or retributive justice, the problem of ‘living together again’ dominated by the pressures of memory, silence, memorialization and mythico-history. Registration by departmental approval only; restricted to students participating in the Geneva travel program.
INTS 4775 Droit diplomatique international (5 Credits)
Ce cours vise à combler une lacune, l'enseignement du droit diplomatique ne faisant généralement l'objet que de développements à titre incident, ce malgré l'importance séculaire de ce domaine du droit international. Axé sur l'évolution de la pratique étatique des relations diplomatiques (y compris les relations avec les organisations internationales) et la jurisprudence pertinente de la CIJ, le cours se propose d'analyser les grands thèmes du droit diplomatique, tels que le droit de légitimation, la création et l'extinction des relations diplomatiques, les fonctions et droits/obligations liés à la mission diplomatique, le contenu et les limites des immunités des personnes, biens et locaux diplomatiques, ou encore les mécanismes sanctionnant les violations du droit diplomatiques. Il fera finalement une place à la pratique récente relative aux immunités des Chefs d'Etat et Ministres des affaires étrangères. Registration by departmental approval only; restricted to students participating in the Geneva travel program. Students must be fluent in French; course is taught in French only.

INTS 4776 Financial Crises (5 Credits)
This is a seminar designed to go over the literature on the sources, channels, characteristics and impacts of financial crises. The sessions are devoted to the study of papers, some older fundamental contributions and some very recent early analyses inspired by the crises that started in 2007 and is not yet over. The seminar is primarily designed for second-year Master and PhD students. Students from other programmes and departments may attend if they have a strong background in economics. Registration by departmental approval only; restricted to students participating in the Geneva travel program.

INTS 4777 Governing Global Threats: Expert and Legal Regimes (5 Credits)
This course examines major threats to human security (from climate change to nuclear proliferation and terrorism, and the global financial crises), and how these threats can be prevented by legal, political and social mechanisms. Theoretically, this course focuses on various socio-historical approaches to law and expertise in transnational settings. It focuses specifically on the role that legal regimes (either made of treaty-based rules or soft-law regulations articulated by experts) play in contemporary modes of global governance, which go beyond the forms of state authority that are traditionally called upon to interpret and enforce these rules. We will survey different disciplinary approaches to the topic and to illustrate their approach by research.

INTS 4778 Rise and Fall of the "Third World (5 Credits)
This seminar explores ideas and movements for colonial unity and solidarity since the late-19th Century and the programs for solidarity they inspired amongst nations emerging from decolonization. Where and who did these ideas originate? How effectively did they translate into political programs? How were such ideas and programs deployed in changing international contexts? What wider influences did they exert? In what ways did the international system deal with these ideas and programs? What prospects exist for such solidarities in the contemporary world? These and similar questions will be explored in this seminar.

INTS 4779 International Human Rights and Humanitarian Action (5 Credits)
This course addresses the origins, communalities and differences between international human rights law and humanitarian action. While human rights law view 'others' as holders of rights and duties, humanitarianism regards the 'other' as subject of suffering or injustice. These two approaches are mixed in modern frameworks, such as 'human security' or the 'Responsibility to Protect.' The first part of the course covers the foundations of the interplay between human rights and humanitarianism, including (i) their history and context, (ii) approaches towards core legal concepts (e.g., sovereignty, responsibility, relationships between human rights and humanitarian law), (iii) methods of protection, as well as (iv) evaluation of action. The second part of the course examines specific sites of interaction based on case studies. The focus will be placed on (i) responsibility of intervening agencies (e.g., peace operations), (ii) peace settlements and (iii) transitional justice.

INTS 4780 Terror in History: Challenges and Responses (5 Credits)
Terrorism has been a feature of political relations for more than 2000 years and has a history that reaches back far beyond 9/11. This seminar will look at the historical evolution of terrorism and antiterrorism as well as the different stages they have gone through since antiquity. The main focus, however, will be the past 150 years, with the emergence of what David C. Rapoport calls "modern terror." The course will 1) highlight the difficulties of defining the phenomenon; 2) explore the different experiences with and debates about terror—anarchist/social-revolutionary, ethnic, religious, "lone wolf," state (sponsored) terror—in various regions and countries since the 1880's (such as Russia, Italy, Germany, the US, Spain, Ireland, Israel/ Palestine, Namibia, Algeria, etc.); and 3) address how the countries concerned and the international community at large dealt with the challenges deriving from terrorism (e.g., at the League of Nations and the UN).

INTS 4781 Mobilities and Migration: Critical Perspectives on Forced and Voluntary Migration (5 Credits)
The mobility of people across international borders, be they labeled as refugees or economic migrants, is becoming a crucial debate both within academia and the public sphere. Migrants are presented as potential promoters of peace and actors of development in their country of origin but also as a threat to the national cohesion in their country of destination. This course deals with key issues related to the field of migration studies. Building on an anthropological perspective on the predicaments and strategies of mobile people, it will offer a critical scrutiny of existing categories such as the distinctions between forced and voluntary migration, between situations of conflict and development. The course questions the narrow framework of the nation-state to relocate migration processes in all their complexity and proposes new approaches that take into account ongoing circulation and the existence of transitional ties.

INTS 4782 Law without the State (5 Credits)
This course discusses situations, theoretical and empirical, in which law is made primarily outside state power. It reviews instances of private ordering and governance that enjoy a relatively important autonomy from state law. The absence of the state as a possible cause of ethical issues will be entertained. Other parts of the course will proceed at a higher degree of abstraction, asking for instance whether the orderings identified properly deserve to be called law. It will thereby delve into preliminary questions, too often neglected, that influence how the debate is framed on the whereabouts of non-state law: Why does 'being law' matter? How do definitions of what law is matter? What makes a definition of law of good definition? Can something be relatively law but not fully? Who decides on what law is and for whom such pronouncements are authoritative?.
INTS 4783 Economics and Development (5 Credits)
The course provides a broad overview of the sort of topics that development economists work on, both on the micro and on the macro side. On the macro side, we will cover fundamental topics such as household consumption, insurance, credit, land markets, and migration.

INTS 4784 Foreign Policy of Major Powers (5 Credits)
This course is designed to review and analyze leading puzzles of foreign policy, based on the substance of foreign policies of major countries in the present time and the recent past. The objective is to develop analytical skills to use when confronting new foreign policy puzzles. Much emphasis will be given in this course to the relevance of foreign policy scholarship to understanding real-world, contemporary world affairs. It is important that students make themselves aware of what is happening in the world.

INTS 4785 Modern China: Reform and Revolution (5 Credits)
This course introduces the modern Chinese history since 1840s. The focus is on the historical, cultural, political, and economic interactions between modern Chinese state and its people and between China and the outside world. The modern fate of China has been alternating between revolutions and reforms, internal wars and external conflict had been the norm rather than exception until recent decades. It examines the features of modern Chinese political system, economy and social and cultural identities. It also traces the roots of recent reforms in China that have transformed the country in a fundamental way. The relationships between state and society, between politics and economy and between China and foreign powers will be discussed in detail.

INTS 4786 Planning & Assessment in Complex Environments (5 Credits)
The primary mission of this course is to provide participating students grounding in the planning methodologies, approaches, and expectations used within the US government in both military and civilian agencies as well as increasingly in the security related private and non-profit sectors. The starting point for this effort is Operational Art & Design and the military’s Joint Operational Planning Process (JOPP) as well as related literature. Military planning serves as the starting point both because it is the most mature and sophisticated government planning methodology and because most other US government planning practices are direct, contextually appropriate derivatives of DoD planning mechanics.

INTS 4787 Civil-Military Practices in Humanitarian Responses (5 Credits)
Changing U.S. national security priorities following 9/11, including updated Department of Defense doctrine, have led to U.S. military actors prioritizing humanitarian assistance as a central component of theater security cooperation arrangements. This trend includes not only considerations of protection of civilians during military operations but also planning for natural disaster response and steady state engagement to build the capacities of host nations to address crises, including natural and man-made disasters. Through readings, class discussions, group work and individual assignments, students in this course will gain a better understanding of the issues and roles of civilian and military actors in the humanitarian space, with a specific focus on how legal and policy guidance impacts the decision to utilize U.S. military forces in disaster response situations. While this course will focus specifically on how the U.S. government approaches humanitarian activities and the role of the U.S. Department of Defense assets, it will locate this discussion within the broader about the appropriate use of Military and Civil and Defense Assets in international humanitarian community.

INTS 4788 To Save and Defend: The History of Politics of Humanitarian and Security Organizations (5 Credits)
This interdisciplinary seminar looks at the policies and politics of humanitarian and security organizations. We will critically explore and contrast the concepts of “protection,” “save,” and “defend.” We will focus on the perspective of those who save and defend as well as on those who are supposed to be saved and defended. Attention will be given to theories, practices, geographies, organizational cultures and underpinning ideologies of saving and defending.

INTS 4789 Violence, Memory, Cinema: Comparative Perspectives on Latin America & the Middle East (5 Credits)
This seminar aims at investigating the role of cinema (documentaries and fiction) in (re) shaping the collective memories of societies living in a context of armed conflict, post-civil war or political transitions from authoritarian rule. We will focus in particular on the role of the different generations of film directors as social actors in these processes; on the effects of censorship (the State-sponsored one, the forms of self-censorship and its indirect forms through distribution and production); and on the role of film festivals as arenas of power and of circulation of ideas. The first part of the seminar will develop problematically the relations between memory and history through present debates related to the visual arts and the politics of memorialization in Latin America and the Middle East. The seminar topic being at the crossroad of several disciplines, we will explore different anthropological, political, and historical paradigms, including the contributions of film studies. In the second part of the seminar we will focus on the specific topic of ‘exiles and refugees’, their representation through cinema and the contribution of fictions and documentaries in forging national identity and in keeping the memory of those who left and came back or for whom the return has become not an option anymore. In parallel to the main seminar, a series of 3-4 workshops will be organized for watching movies, with the presence of external lecturers. Finally, the seminar is conceived in the larger framework of the contribution of arts to reconciliation and peace-building, an emerging field of academic interest and policy investment.

INTS 4790 International Law and Development (5 Credits)
The course aims at providing a systematic overview of the main issues related to sustainable development from the standpoint of public international law. It strikes a balance between theoretical and practical questions, focusing on primary sources and international decisions. After a concise discussion of the basic principles and notions of the international legal order, the course deals with the evolution of development law from the United Nations resolutions on the New International Economic Order to the Monterrey Consensus and its follow-up. Particular attention will be paid to the attempt to conciliate economic growth with the protection of the environment and human rights. The course is then completed with the examination of (a) the activities of the World Bank Group and the International Monetary Fund in the field of development; (b) the participation of developing countries in international trade; and (c) the promotion of foreign investment as a vehicle for economic growth and development.
INTS 4793 Development Economics (5 Credits)
The course covers major issues in development economics from both the macro and micro perspectives. Topics where research is active will be covered. The focus is on acquiring the necessary theoretical and empirical skills to understand the challenges related to the socio and economic transformation in developing countries.

INTS 4794 Inequality in Latin America and the Caribbean (5 Credits)
This course will examine the historical roots of inequality in Latin America and the Caribbean. It begins by introducing students to the concept of inequality and the social construction of race, ethnicity, gender, sexuality, and class. It then explores how these structures have been shaped by a variety of forces including Spanish and Portuguese colonization, labour systems, cultural practices, and religion. We will also explore how various actors have attempted to challenge this inequality at different points in time through everyday resistance and revolutionary, populist, feminist, black nationalist, and liberation theology movements. This course will approach these issues using a mix of historical and anthropological case studies from across the region that allow us to consider not only how inequality is created, maintained, and challenged on a large scale, but also how it has been experienced in the day to day life of Latin American and Caribbean people.

INTS 4802 Foundational Ideas in Social Science: Marx and Weber (5 Credits)
Marx’s is the most striking and complex theory of revolutionary change. It has inspired millions of workers, peasants, soldiers, students and intellectuals in three large international movements (the International Workingmen’s Association, the Second International, the Third International). “Capital” is perhaps the most striking depiction of how factories and capitalist society operate, from the point of view of workers, of any modern economic theory. It is a theory which novelty explains the tensions in the experience of most non-University educated people between their work experience and the current Washington “consensus” about free markets and democracy. It has motivated and empowered striking democratic movements, often across national boundaries, of the oppressed against the privileged. Where successful, however, Marxian movements both brought about significant, common good oriented improvements and failed to withstand external and internal attacks or resolve basic problems in radicals’ vision of a new society. Further, Marx’s vision has often been interpreted as, except in the immediate unfolding of the revolutions themselves, having little to do with democracy. In radical movements as well as in capitalist societies and academia, Marx has been fiercely attacked. For much of the Cold War, not having read Marx permitted one to expatiate on what Marx’s views are; reading Marx was, until the late 1970s and early 1980s a disqualification even in teaching, let alone in the media. Marx’s views are often misrepresented, dismissed without investigation as “obviously wrong.” This course provides an opportunity to read the first volume of “Capital” and some of Marx’s other main works and test them, in whatever depth desired, against Max Weber, the dominant theorist of American sociology and political science.

INTS 4804 Realism and Democracy (5 Credits)
Course answers questions such as: Can democracy check international cruelty? Why, according to Kant, Doyle, and Rawls, are democracies unlikely to go to war with other democracies? We discuss democratic individuality and Vietnam, democracy, and Realism as well.

INTS 4820 Democracy and War (5 Credits)
This course explores Socrates’ speech at his trial and decision to go to his death as, surprisingly, initiating two central features of modern democratic theory. First, Socrates is often depicted as simply hostile to the many, looking down on Athenian democracy. But what he in fact looks down on is tyrannical mob rule, the “democracy” of a particular interest arbitrarily enforced (what we might call a demented Joe McCarthy-kind of democracy). In contrast, Socrates also incarnates the idea of asking questions in a democracy, that is, dissent (prefiguring what is sometimes called today deliberative democracy). That makes a democracy capable of realizing, sometimes, a common good. Second, Socrates provides a paradigm for modern civil disobedience or satyagraha in Gandhi - we read Gandhi’s translation of Plato’s Apology - and Martin Luther King’s letter from the Birmingham City Jail. Nonviolent civil disobedience is necessary in a modern democracy because party-competition focuses mostly on personality issues and not on fundamental injustices. Further, this kind of protest promises major change even in dictatorships (consider Erica Chenoweth and Maria Stephan, Why Civil Resistance Works). Thus, this emphasis is a novel interpretation of Plato as opposed to, in scholarship and politics, Plato’s supposed link to authoritarian “commander-in-chief” power (Heidegger, Leo Strauss and William Kristol for example) which we also contrast in this course. The course explores the subtlety of these dialogues - the question of what Plato intended to teach his long-standing students like Aristotle who studied with him for 20 years - but leave the main points of Gandhi’s and King’s interpretation intact. Third, the course explores Thucydides, History of the Peloponnesian War and Plato’s response to it in the Republic in terms of modern critiques of Empire building and the “unhinged” wars by American democracy (we look at W. Robert Connor’s elegant break with previous understandings of Thucydides during Viet Nam and John Mearsheimer’s striking criticisms of post-Cold War American policy, echoing Obama’s 2013 speech at the National Defense University, in “America Unhinged.” Thucydides is a far deeper account of imperial expansion and the corruption of and threat to democracy at home than modern realist and neo-realist gestures at him. Neo-realists methodologically attempt to separate global politics from its domestic consequences as supposedly different levels of analysis; this interplay is the heart of Thucydides’ argument and deepest insight into the meaning of war and democracy.

INTS 4822 Contemporary Political Thought (5 Credits)
An examination of current 21st century political theory and how the events of the 20th century helped mold these ideas/concepts.
INTS 4835 Global Dynamics and Local Threats in Agricultural Development (5 Credits)
Many low- and middle-income countries in which agriculture plays a key role for development are characterized by high levels of socio-economic inequality, a mixed human rights record and a dominance of transnational corporate power in domestic agricultural export markets. At the same time, these countries face processes of environmental degradation through anthropogenic and natural drivers of change that affect the availability of ecosystem services and thus shape agricultural development and human wellbeing. This course offers an in-depth study of the political, socio-economic and social-ecological conditions for sustainable agricultural development in low- and middle-income countries. We explore the political economy of agricultural production and trade in countries that depend to a significant extent on the export of agricultural commodities as a source of foreign revenue. We examine the design and implementation of global policy frameworks, international agreements, and national strategies for agricultural production and trade, with a particular focus on the governance of natural resource use. Our goal is to assess the relevance and effectiveness of current governance structures for agriculture to respond to local-, regional- and global-scale environmental changes and socio-economic challenges in ways that address current and future human needs. Through case studies from selected agricultural sub-sectors and diverse countries from across Asia, Africa and Latin America, we investigate local strategies for natural resource use in the context of poverty, inequality, and environmental change. The course provides a comprehensive coverage of the political economy of agricultural development and an introduction to social-ecological systems analysis as a theoretical framework for interdisciplinary research in the field of sustainable development.

INTS 4851 Theories of Non-Violence (5 Credits)
Can a state be non-violent? Course explores topics such as the distinction between power and violence; whether nonviolent politics is possible; the distinction between an ethic of responsibility and an ethic of intention; is capitalism consistent with democracy? This seminar is interactive and class participation is required.

INTS 4855 Geopolitics of South Asia (5 Credits)
This class explores the overlapping sub-national and regional conflicts threatening to destabilize Afghanistan and Pakistan and severely intensify Indo-Pakistan tensions. The seminar analyzes and assesses U.S. efforts to assist the Kabul regime to strengthen national support, reduce corruption, improve services and accelerate economic development. The nature of the Taliban, the dangers of increased poppy production, ongoing cross-border insurgency are studied. Similarly with regard to Pakistan, the seminar examines growing instability, the regional demographics of support and opposition to the current government, the role of the military, including the ISI, and socio-cultural challenges to modernization. The impact of the evolving conflicts in Pakistan and Afghanistan on India’s interests and India’s response are also treated.

INTS 4856 Global Sustainability and Public Policy (5 Credits)
This course considers the interaction of environmental, economic, and energy issues on global ecological systems. It offers an overview of relevant international legal frameworks and national governance systems, the state of major ecosystems — forests and species habitats; wetlands, oceans and rivers, and the atmosphere and selected policy issues related to each. Emphasis is less on “what” to think than “how” to think about and formulate policy responses to complex, multidimensional issues.

INTS 4875 Human Rights and Foreign Policy (5 Credits)
Global human rights issues and how those issues help mold foreign policy decisions.

INTS 4890 Revolutions and State Building (5 Credits)
Marx’s is the most striking and complex theory of revolutionary change. It has inspired millions of workers, peasants, soldiers, students and intellectuals in three large international movements (the International Workingmen’s Association, the Second International, the Third International). "Capital" is perhaps the most striking depiction of how factories and capitalist society operate, from the point of view of workers, of any modern economic theory. It is a theory which novelly explains the tensions in the experience of most non-University educated people between their work experience and the current Washington "consensus" about free markets and democracy. It has motivated and empowered striking democratic movements, often across national boundaries, of the oppressed against the privileged. Where successful, however, Marxian movements both brought about significant, common good oriented improvements and failed to withstand external and internal attacks or resolve basic problems in radicals’ vision of a new society. Further, Marx’s vision has often been interpreted as, except in the immediate unfolding of the revolutions themselves, having little to do with democracy. In radical movements as well as in capitalist societies and academia, Marx has been fiercely attacked. For much of the Cold War, not having read Marx permitted one to expiate on what Marx’s views are; reading Marx was, until the late 1970s and early 1980s a disqualification even in teaching, let alone in the media. Marx’s views are often misrepresented, dismissed without investigation as “obviously wrong.” This course provides an opportunity to read the first volume fo “Capital” and some of Marx’s other main works and test them, in whatever depth desired, against Max Weber, the dominant theorist of American sociology and political science.

INTS 4900 International Politics (5 Credits)
Topics on discussion include: levels of analysis; realism; neo-realist structuralism; international society and the English school; international anarchy; process variables and international institutions; international security institutions; rationalism, constructivism, and the purposes of theory; norms and ideas; gender and identity; and postmodernism and post-structuralism.

INTS 4903 Social Construction of International Society (5 Credits)
Examines recent theoretical work in the field of international relations that treats international society and its practices as social constructs.

INTS 4905 War and Peace (5 Credits)
An intermediate course which examines the historical relationship of war to politics, such as the military profession, military organizations, economics of defense planning, limited use of force, demobilization, war reconstruction, military rule, and civilian control. Current world trends toward democratization focus attention on the issue of creating a democratic army for a democratic state. Readings cover western industrialized, communist, post-communist, and 3rd world countries.
INTS 4906 Classics of International Theory (5 Credits)
Professor will choose various books by classic political theorists for students to read and discuss in class.

INTS 4907 International Terrorism (6 Credits)
This course will examine the literature on international terrorism both before and after 9/11. It will include an overview of the origins, history, goals, strategies, and capabilities of significant terrorist groups (emphasizing Al Qaeda). It will also examine the history of United States and international efforts to combat terror, focusing on post 9/11 debates over grand strategy and tactics (e.g., the relationship between offense and defense, active vs. passive defenses, intelligence reform, multilateralism vs. unilateralism, the relationship between "rogue states" and terror, etc.).

INTS 4912 African Conflicts: Causes and Conflicts (5 Credits)
Twenty years after the "Third Wave" of democratization first swept across the African continent, African states have experienced a wide range of successes and problems in seeking political development through democratic models. Common to nearly all African states, however, is the fact that they were created by colonial powers, forcing many formerly independent people to live under one political roof. Thus before they could go about the business of governing, African states at independent first had to address their artificial natures by building coherent nations out of the many peoples living within their borders. Democratic political systems were seen as the best solution to this governance problem by allowing the many peoples of African states flexible institutions through which they could negotiate their differences, and so govern effectively. Within several years of independent, however, most of the early African democracies had collapsed under the weight of their deep ethnic and religious differences. Decades of authoritarian rule did little to address the problems of governance, and exacerbated ethnic chauvinism and clientelism. Bankrupt and often near collapse by the late 1980s, and under pressure from Western governments, many African states turned back to democracy in the 1990s. Yet their deep ethnic and other divisions remain, as do clientelistic patterns of political behavior. These fundamental conflicts over the state and its governance have characterized African politics since independence. This class reviews the problems of state development in Africa, and the extent to which democratic solutions can resolve those problems. We do so by examining these issues from both the perspective of political science and of conflict resolution. Classes draw primarily on the perspectives of practitioners from the relief and rehabilitation community. Guest lectures include representative of government agencies, international organizations, and NGOs.

INTS 4914 Statecraft and Smart Power in the Digital Era (5 Credits)
This course examines new approaches to the practice of statecraft in an era of rapid global change. Globalization is upsetting traditional international order and institutions, and changing the pace and intensity of decision making. Nation-state governments, while still the primary actors, must adjust to new sub-national, regional and transnational forces and players in a far more complex global arena. Digital Communication is revolutionizing relationships and interaction in the global arena. More groups and the general public are involved or mobilized in public participation than ever before. Vastly more information flows ever more quickly. Partisanship rises with segmentation, threatening fragmentation in public life. The new era reflects the imbalances and strains of major demographic change, especially the impact of an expanding tech-savvy younger generation. A significant youth bulge in volatile developing nations fuels reform efforts, but also creates the potential for conflict arising from continuing injustice and unmet expectations Foreign policy institutions and decision makers here and abroad are increasingly subject to cross-pressures from competing domestic and transnational interests. In the U.S. the Inter-Agency must balance influential single-issue stakeholders and constituencies here and abroad. The course explores how the U.S. and other governments are responding to the new global challenges. Participants see to frame new "rules" of statecraft in the digital era.

INTS 4920 Conflict Resolution (5 Credits)
An introductory course which identifies the collective factors leading to successful reconciliation or agreeable compromises in conflicts; analyzes the role and influence of cultural norms, gender conditioning and different bargaining strategies on the resolution process; applies the practical fundamental of negotiation on particular problem-solving techniques.

INTS 4924 Democratization in the Middle East (5 Credits)
The promotion of democracy process and its implementation of democracy have emerged as a major goal for U.S. and world policy makers and have attracted the attention of many scholars. Democracy is now widely regarded as a political system that minimizes conflict, promotes sustainable development, and is a vital tool in the struggle against terrorism. However, the results of efforts to create democracies in various countries, including Iraq and Afghanistan are a clear illustration of the difficulties involved in making transitions to democracy. In this seminar, we shall focus on what is known about democratization, consider the nature and role of Islam, examine the state of democracy in key countries of the region, and consider the ways in which the U.S. and other external actors might strengthen democratic forces in the region.

INTS 4928 Torture (5 Credits)
This is a reading/seminar course. Students are asked to be well-prepared and contribute to the discussion. We explore mostly modern forms of torture. The use of torture has not abated in the last 100 years despite conventions, treaties and watchdog organizations. What has occurred is that torture has become "stealth", to use Professor Rejali’s term. These "stealth" techniques leave no mark and have been developed equally by democratic states and totalitarian regimes. It is also clear that the U.S. has engaged in state sponsored torture (see The Constitution Project bi-partisan report of April, 2013). An important question before us is if there is any place for torture in the 21st century and if torture is an effective means to gather intelligence. If the answer to both questions is "no," and torture violates the most basic ethical, moral, and legal norms of humanity, they why does it persist?.

INTS 4931 International Organizations (5 Credits)
An intermediate course on approaches to the study of international organizations, including institutionalism, neofunctionalism, complex interdependence, international regimes, and epistemic communities. Case studies examining collective security and peacekeeping, human rights, Antarctica, and the environment are discussed.
INTS 4934 Intervention: Policies & Pract (5 Credits)
Procedures, policies and practices of international organizations and the roles they play in helping resolve internal issues and conflicts.

INTS 4935 International Humanitarian Law of Armed Conflict (5 Credits)
This course is a theoretical and practical introduction to international humanitarianism law (IHL). IHL is known by many other names such as "humanitarian law," "law of conflict," and "laws of war." All these terms refer to the rules regarding the treatment of civilians and non-combatants in areas of armed conflict and the rules of engagement for soldiers and combatants. These "rules" are especially important to know if you eventually work for an IO or NGO that finds itself in areas of armed conflict. Cross listed with CPSY 4560.

INTS 4936 International Law and Human Rights (5 Credits)
An introductory course examining the concept of human rights, including political, economic, social, and cultural rights. International, regional and national institutions, norms and procedures to protect individual and group rights are discussed. Recommended prerequisite: INTS 4940.

INTS 4939 Human Rights: Genocide (5 Credits)
An introductory course examining the concept of human rights, violations. From violence and brutality in classical antiquity, slavery in America, terror in the Soviet Union under Stalin, World War II and the Holocaust, and the Cambodian massacre in the 1970s. The course is designed to understand the extremely diverse conditions of regimes that used mass violence for political ends.

INTS 4940 Introduction to Human Rights (5 Credits)
An introductory course focused around historical and theoretically relevant texts in humans rights. First and second generation rights are emphasized. Early liberal, conservative, and socialist understandings of human rights are highlighted against their respective historical background.

INTS 4941 Human Rights and International Organizations (5 Credits)
An introductory course exploring the changing roles of international organizations in their efforts to protect and promote human rights. Examination of both the global and regional levels of human rights activities of international intergovernmental organizations are discussed. Recommended prerequisite: INTS 4940.

INTS 4951 Comparing International Societies (5 Credits)
Course explores variations in societies of states across time and place.

INTS 4954 Human Rights Research and Design (5 Credits)
The purpose of this course is to acquaint students with graduate level research and writing strategies that facilitate the composition of concise, articulate, and informative pieces of scholarly and policy-oriented work. We explore an array of research options and techniques and look critically at the ways in which different uses of language are constitutive of meaning and structure in written works. This is considered a "skills" course which is designed to allow students to explore in depth a sub-topic of interest within a broader topic in the field of Human Rights. The topic varies each term. The work completed by students is edited minimally, and published in the Human Rights and Human Welfare Digest, the Josef Korbel School's online human rights journal. This digest is intended to serve as a resource for policymakers, non-profit organizations, and human rights advocates, by presenting concise and reliable information that is both informative and accessible. In the first half of the class, we focus on building practical research strategies, including: determining the parameters of research; identifying and accessing appropriate sources of information; using bibliographic management software; and compiling an annotated bibliography. The second half emphasizes the development of writing techniques that culminate in the production of an analytical essay and annotated bibliography of publishable quality. Attention is paid to grammar, syntax, structure, stylistics, and appropriate language use.

INTS 4955 Human Rights Clinic I (0 Credits)
Students in the Human Trafficking Clinic will be asked to undertake a case study on a human rights violation and provide an advocacy report (roughly 5000 words, i.e., 20 double-spaced pages) that includes (a) a synopsis of relevant facts, (b) pertinent domestic (usually constitutional) law of the country where the violation occurs as well as relevant regional and international human rights law, and (c) a recommended course of remedial action using the rule of law. Non-graduating law and JKSIS students may seek an overseas assignment in order to either advance their research or initiate the recommendations in their advocacy report. Additional internship or independent research credit may be available for these overseas ventures.

INTS 4956 Human Rights Clinic II (5 Credits)
Students in the Human Trafficking Clinic will be asked to undertake a case study on a human rights violation and provide an advocacy report (roughly 5000 words, i.e., 20 double-spaced pages) that includes (a) a synopsis of relevant facts, (b) pertinent domestic (usually constitutional) law of the country where the violation occurs as well as relevant regional and international human rights law, and (c) a recommended course of remedial action using the rule of law. Non-graduating law and JKSIS students may seek an overseas assignment in order to either advance their research or initiate the recommendations in their advocacy report. Additional internship or independent research credit may be available for these overseas ventures.

INTS 4965 Technology and Sustainable Development (5 Credits)
Technology has always been a major influence on cultures and societies, national and international. Today, all countries recognize the key role that technology plays in achieving sustainable development and are striving to harness its potential while minimizing its negative impacts. New technologies such as robotics, genetics, information and communication all promise transformations that can greatly improve the quality of life of peoples everywhere. At the same time, they can also develop in ways that do not lead to as sustainable a future. Thus, they generate controversy and difficult policy choices for governments and peoples everywhere. Accordingly, it is essential to understand the nature of technology and its role in social and political change as well as the ways in which it can be controlled and harnessed for positive ends. In this seminar we will focus upon the relationship of technology to sustainable development and pay special attention to emerging technologies and to such issues as technology transfer, the relationship between technology and democracy, technology assessment and control, the role of appropriate technology, and how developing countries can develop modern scientific and technological capabilities that promote sustainable futures.
INTS 4966 Applied Field Methods (5 Credits)
An introductory course for students planning to conduct research in developing countries. Practical information is presented on transforming hypothesis into a fieldwork setting, questionnaire construction and administration, and interviewing techniques.

INTS 4972 Global Environmental Governance (5 Credits)
Global environmental problems pose seemingly intractable problems for international relations and policy. In this seminar, we probe some of the practical and theoretical difficulties associated with solving such problems. These problems include: How can sovereign nation-states agree to cooperate on environmental problems and how can such cooperation include businesses and civil society? No international institution can legitimately coerce nations into such cooperation. Therefore, international institutions much get them to agree to cooperate, must find ways to bring business and civil society into those agreements, and then find ways to monitor and enforce the agreements. This task is harder than it might seem, and we explore both theories and cases that illuminate it.

INTS 4981 Internship (0-5 Credits)
The Josef Korbel School of International Studies (JKSIS) recognizes the importance of practical experience as an integral component of a student’s education. An internship should both complement the student’s academic field of study and relate to his/her career goals. Through internships, students will: Apply acquired academic theory, knowledge, and skills to professional practice; Further develop knowledge and skills needed to work effectively in the field; Gain greater understanding of the private, public, or nonprofit/NGO sectors; Build a network of professional contacts; and Develop career-related skills applicable to the future job search. The course is open to currently enrolled Korbel MA candidates. Registration is by instructor approval after review of materials.

INTS 4987 Forced Labor and Human Trafficking (5 Credits)
This course looks at a brief history of slavery, especially as it pertains to the British, West African, West Indies, and American triangle. We then look at contemporary issues of forced labor, human trafficking and contemporary slavery. Human trafficking is a very complex problem that requires a sophisticated, inter-disciplinary critique.

INTS 4989 North American Defense and Security (5 Credits)
This course will challenge students to analyze the evolving North American Defense and Security environment since 1945. The course will begin by focusing on the history of the Canada - United Status (CANUS) defense and security relationship that began in the wake of World War Two and was predicated upon protecting the North American continent from Soviet attack with the formation of the Permanent Joint board on Defense (PJBD), Military Cooperation committee (MCC), and North American Air Defense Command (NORAD). However, the end of the Cold War and subsequent terror attacks of 9/11 dramatically changed the North American Defense and Security environment and created the need for enhanced cooperation between the United States, Canada, and Mexico.

INTS 4991 Independent Study (1-15 Credits)
A special individual arrangement for students to pursue more advanced work beyond that available through regular courses. Such study is arranged between professor and student prior to registration. Academic grades are assigned for course performance. Tutorial Record Form required.

INTS 4992 Directed Study (1-5 Credits)

INTS 4993 International Students Writing Lab (0-1 Credits)
Emphasizes aiding international students in perfecting their English writing skills as well as assisting them in developing ideas and solutions for specific course papers. Students receive advice on writing logic and structure as the instructor individually reviews draft papers and provides written comments. Classroom sessions provide students with the opportunity to share ideas as well as problems. An online portion will provide students with samples of scholarly writing, exercises, and classroom discussion supplements. Former participants are welcome to attend as part of independent study. Course can be taken for 0 or 1 credit and may also be repeated.

INTS 4995 M.A. Thesis Research (1-10 Credits)
This course allows a student to receive credit for research and writing undertaken as part of the master's thesis or SRP preparation. Such study is arranged between professor and student. Academic grades are reassigned for course performance. Tutorial Record Form required.

INTS 4996 Substantial Research Paper (0-5 Credits)
A Substantial Research Paper (SRP) is a problem-focused paper designed to engage student in the process of applied research. In contrast, an independent study tends to be a more general research project, while an MA thesis involves in-depth academic research typically undertaken by students interested in pursuing a PhD. An SRP is typically shorter than an MA thesis, and does not require a review committee or an oral defense. Rather, the SRP will be supervised and graded by a single appointed faculty member.

INTS 5991 Independent Study (1-15 Credits)

INTS 5992 Directed Study (1-5 Credits)

INTS 5995 Ph.D. Dissertation Research (1-10 Credits)
This course allows a student to receive credit for research and writing undertaken as part of the doctoral dissertation preparation. Grades of "P" (pass) are assigned after the dissertation is accepted by the committee. Prerequisite: Ph.D Candidacy (passing Comprehensive exams).

Morgridge College of Education

The University of Denver Morgridge College of Education is committed to preparing highly competent, socially responsible, ethical and caring professionals to promote learning in diverse settings. With a guiding commitment to excellence, our programs offer high-quality and rigorous
academics with an emphasis on relevant, practical experience through field experiences, research and community-oriented projects. Through our focus on inclusiveness and innovation, we strive to create purposeful learning experiences designed to transform people and ideas.

With several regionally and nationally recognized programs, the College is known for its diverse, high quality students and alumni. The College offers certificate, master’s and doctoral programs in Educational Research, Policy and Practice; Research Methods and Statistics; Library and Information Science; and School and Counseling Psychology.

**Counseling Psychology**
Office: Katherine A. Ruffatto Hall, 2nd floor  
Mail Code: 1999 E. Evans Avenue, Denver, CO 80208  
Phone: 303.871.2473  
Email: edinfo@du.edu  
Web Site: morgridge.du.edu/programs/counseling-psychology/

**Counseling Psychology**
As a graduate student in the Department of Counseling Psychology (CP), you’ll develop the skills necessary to become an effective practitioner, researcher and/or leader in your field. Our goal is to develop professionals who are insightful and self-reflective, who are innovative risk takers and superior critical thinkers. Our highly selective doctoral program is accredited by the American Psychological Association and is well known for providing access to high-quality national internships for our students. This scientist-practitioner program has a strong focus on both research and practice. Similarly, the master’s program has excellent practicum and internship sites all over the Denver area. One of the strengths for our Counseling Psychology program for both master’s and doctoral students is the opportunity to provide counseling in our in-house clinic.

We want our students not only to demonstrate accurate and current knowledge, but to have expertise related to the many issues that confront society, and to have the skills to create effective strategies and approaches to address these challenges.

**Doctor of Philosophy in Counseling Psychology**
The goal of the CP doctoral curriculum at the University of Denver is to educate counseling psychologists who have a solid foundation in science, practice, and culture. Although CP programs may lie at various points on the continuum from a very heavy emphasis on science to a very heavy emphasis on practice, the Counseling Psychology department at DU lies closer to the middle of the continuum. Although the course of study provides students with some flexibility to emphasize either the practice or scientific side of the continuum, we expect that all students will have a solid foundation in science and practice and will approach each aspect of their training from a multicultural informed position. Many of our graduates work in practice settings after graduation, and some are in research/faculty positions across the country. However, when they do so, we believe they are trained to practice from a scientific/critical perspective infused with cultural awareness. In this way, our philosophy is consistent with the perspective of Pepinsky (1954), who suggested that the scientist portion of the scientist-practitioner model is reflected in the way counseling psychology practitioners think about and conduct their practice: they think critically and are appropriately skeptical about theories, research findings, and clinical practices, including their own as well as others. In addition, our students strive for cultural competence in order to be effective with diverse clients.

Counseling psychologists encourage groups of individuals in an array of cultural contexts to better understand themselves and their own behavior, to develop an increased repertoire of adaptive skills, and to more effectively approach life problems in light of this understanding and skill development. Counseling psychologists also help individuals make vocational-educational decisions, take productive action in marriage or family systems, and assist individuals with health-related crises, being careful to take cultural consideration into account. Counseling psychologists are also trained to provide supervision, consultation, and interprofessional/interdisciplinary skills and to use these skills in a variety of settings. Consistently, DU Counseling Psychology department emphasizes multicultural counseling and social justice, health psychology, psychological assessment, group dynamics, and treatment of addictions. Seminars are offered in all of these areas.

The faculty encourages students to develop individualized programs of study commensurate with their career goals. Practicum setting are arranged to further intensify training in particular specialty areas (e.g., college counseling, VA, in-patient, integrative care, correctional settings, community mental health). Students whose goals include college teaching are encouraged to co-facilitate introductory counseling classes with faculty and teach undergraduate courses. Students are also required to participate in and contribute to a pre-dissertation research project that leads to a presentation and/or a submission for publication.

**Master of Arts in Counseling Psychology with a concentration in Clinical Mental Health Counseling**
The Clinical Mental Health Counseling concentration has been designed to meet the requirements necessary to become a Licensed Professional Counselor (LPC). Students who complete this degree and two years of post-master’s work in the field can apply to become a Licensed Professional Counselor in the State of Colorado. Other states may have other requirements. Students completing this concentration often work in agencies or in community settings all over the Denver area. This degree requires two years and 90 quarter credits. It also includes a 200-hour practicum, a 600-hour internship, and two quarters of counseling in our in-house clinic.
Master of Arts in Counseling Psychology with a concentration in General Counseling

This concentration leads to a general Master's degree in Counseling. Students who complete this course of study may work in agencies or apply for further doctoral work. This concentration requires a minimum of 55 quarter hour credits, including a 400-hour practicum, but it does not lead to licensure as a professional counselor.

Master of Arts in Counseling Psychology with a concentration in Research Counseling

Some students wish to develop more advanced research skills as well as counseling skills. This concentration requires two years and 72 credit hours to complete. Students wishing to complete a master's thesis are strongly encouraged to apply to participate in this concentration during the winter quarter of the first year of study. If the student chooses to apply for the Research concentration later, it will take longer to complete the degree. It is recommended they begin discussing this option with their adviser during their first quarter of graduate work. Students who complete a thesis are not required to take the comprehensive examination. This is the only concentration students may pursue if they are interested in writing a thesis. The Research concentration does not meet requirements to achieve licensure.

Master of Arts in Counseling Psychology with a concentration in School Counseling

This concentration allows students to work as counselors in the public schools. It requires a minimum of 72 quarter hour credits including a 200-hour practicum, and a 600-hour internship in a school setting with multiple grade levels of students. This concentration also requires two quarters of counseling in our in-house clinic. The internship provides opportunities to participate in a wide variety of activities, including individual and group counseling, classroom guidance, career and educational planning, assessment or professional development. Successful completion of all requirements of this program ensures that all state performance competencies for the Colorado Department of Education (CDE) have been met. Our program is accredited by CDE, which allows students to serve populations ranging in age from birth to 21.

In order to be certified in School Counseling, you must take the state PLACE exam (Program for Licensing Assessments for Colorado Educators), which is offered four times a year. You may call the Educator Licensing Department of the Colorado Department of Education at 303-866-6628 for more information about the exam, or visit the CDE website at www.cde.state.co.us (http://www.cde.state.co.us). Students typically take the exam near the end of the program or shortly after graduation. You must also take several courses specifically related to schools that are offered through the Child, Family, and School Psychology program, also part of the MCE.

Master of Arts in Counseling Psychology with a concentration in Clinical Mental Health Counseling, concentration in General counseling, concentration in research counseling, concentration in school counseling

Following are the simple steps to apply for the master’s programs in Counseling Psychology at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: Priority Deadline: January 16, 2016 for Fall 2016 Admit (201670). The program will review well-qualified applicants after the deadline until the remaining space has been filled.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.
• Paper transcripts should be sent to the following address:
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802  

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institute code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

• The Graduate Record Exam (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. DU’s ETS Institution Code is 4842.

Statement of Professional Goals

• A statement is required should be submitted via upload through the online application process.

Resume / C.V.

• A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters

• Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

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• We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

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• For more information call (303) 871-2706
International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

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The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of Philosophy in Counseling Psychology

Degree Requirements

A total of 135 hours is the required for the doctorate in the Morgridge College of Education and up to 45 credits from a master’s degree may be eligible to be transferred depending on the content overlap with current courses. Students are able to transfer in up to an additional 15 hours for graduate work provided the credits have been earned after the master’s degree was awarded and it does not conflict with the doctoral residency requirement.

Coursework Requirements for Students Entering with a Master’s Degree That Included a Supervised Practicum/ Clinical Requirement

PROGRAM REQUIREMENTS

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(Register for this Fall, Winter, and Spring terms during internship year for 8 credits per quarter)

* Assumes completion of a supervised field experience of 400 hours in the MA/MS program (if not, see section on coursework required for those who did not complete a practicum as part of their MA/MS program)

** Advanced Practicum I and Advanced Practicum II students are required to spend 15 to 20 hours per week in practicum placement for three consecutive quarters for a total of 500-600 hours per practicum experience (of which 250-300 should be direct client time per practicum setting). Ideally a minimum of 500 to 600 direct service hours will be accumulated at the end of the two practicum experiences. All quarters must be at the same site and must be consecutive. Some students take an additional practicum placement if necessary based on goals for internship and career. For more information on practicum requirements, please see the separate practicum handbook.

*** PhD Clinic is generally taken for two consecutive quarters: either winter-spring, spring-summer, summer-fall, or fall-winter. Students are surveyed about their preferences and these are accommodated if possible.

**** Students must have successfully completed Advanced Practicum I and have completed or are completing Advanced Practicum II.

**RESEARCH REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>RMS 4910</td>
<td>Introductory Statistics (*)</td>
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<td>Correlation and Regression (Prerequisite: RMS 4910)</td>
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<tr>
<td>RMS 4912</td>
<td>Analysis of Variance (ANOVA - Prerequisite: 4910)</td>
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</table>

Total Required: 14-20

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**RMS Electives: Select At Least Two Courses**

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Other statistical/methodology electives can be approved by advisor***

**Total Electives**

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A minimum of 135 credits is required for the PhD in Counseling Psychology.

**Coursework Requirements for Students Entering with a Master’s Degree without Clinical Training (e.g., a supervised Practicum/Clinical requirement)**

For students entering without a supervised M.A. practicum or clinical experience, there are several extra requirements included in the list below.

**PROGRAM REQUIREMENTS**

**FOUNDATIONS**

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**COUNSELING REQUIREMENTS**

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Counseling Psychology Seminar: Supervision (****) 3
Pro-Seminar in Counseling Psychology 1
Psychopathology 3
Consultation 1
Counseling Psychology Seminar: Special Topics (Electives in Counseling Psychology/Special Topics - e.g., Advanced Group, Grief and Loss, Couple Therapy, Family Therapy) 3
PhD Field Experience (students do not pay for these credits) 8

(Students must complete Basic Counseling Techniques with a grade of "B" or better before enrolling in Beginning Counseling Practicum.)

Advanced Practicum I and Advanced Practicum II students are required to spend 15 to 20 hours per week in practicum placement for three consecutive quarters for a total of 500-600 hours per practicum experience (of which 250-300 should be direct client time per practicum setting). Ideally a minimum of 500 to 600 direct service hours will be accumulated at the end of the two practicum experiences. All quarters must be at the same site and must be consecutive. Some students take an additional practicum placement if necessary based on goals for internship and career. For more information on practicum requirements, please see the separate practicum handbook.

PhD Clinic is generally taken for two consecutive quarters either winter-spring, spring-summer, summer-fall, or fall-winter. Students are surveyed about their preferences and these are accommodated if possible. Note that students who enter without practicum experience in their MA/MS program are required to complete both MA Clinic and PhD Clinic, for a total of four quarters of clinic.

RESEARCH REQUIREMENTS

Introductory Statistics (*) 5
Empirical Research Methods (*) 3
Introduction to Qualitative Research (*) 4
Correlation and Regression (Prerequisite: RMS 4910) 4
Analysis of Variance (ANOVA - Prerequisite: 4910) 5
Total Required 14-20

*May test out; see Dr. Green, Dr. Olmos, or Dr. Cutforth regarding testing out or waiving based on previous coursework for RMS 4910, RMS 4930, and RMS 4941 respectively.

RMS Electives: Select At Least Two Courses

Multivariate Analysis (Prerequisite: RMS 4911) 5
Mixed Method Research Design (Prerequisite: RMS 4910, 4941) 4
Item Response Theory (Prerequisite: RMS 4921) 3
Structural Equation Modeling (Prerequisite: RMS 4911) 5
Hierarchical Linear Modeling (Prerequisite: RMS 4911) 4
Latent Growth Curve Modeling (Prerequisite: RMS 4914) 4
Qualitative Data Collection and Analysis 4
Community-Based Research (Prerequisite: RMS 4942) 4
Meta-Analysis Social Science Research (Prerequisite: RMS 4910) 3
Topics in Quantitative Research Methods (Prerequisite: RMS 4939) 3
Other statistical/methodology electives can be approved by advisor***

Total Electives 5-10

Dissertation Credits

Dissertation Research (CNP 5995) can take up to 5 credits prior to comprehensive exams; HOWEVER, must register for at least 1 credit during Fall, Winter, and Spring until graduation.

A minimum of 135 credits is required for the PhD in Counseling Psychology.

Coursework Requirements for Students Entering with a Bachelor’s Degree

(135 qtr. hrs. for completion of PhD requirements)

A total of 135 post-Bachelor’s quarter hours is the minimum required for the doctorate in the Morgridge College of Education for students coming in without a master’s degree.

PROGRAM REQUIREMENTS

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* Students must complete Basic Counseling Techniques with a grade of “B” or better before enrolling in Beginning Counseling Practicum. Beginning counseling is a 10 to 15 hour a week requirement in a practicum placement over two quarters, for a total of 200 hours on site.

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***** Students must have successfully completed Advanced Practicum I.

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### Other statistical/methodology electives can be approved by advisor***

Total Electives: 5-10

### Dissertation Credits

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A minimum of 135 credits is required for the PhD in Counseling Psychology.

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**Master of Arts in Counseling Psychology with a Concentration in Clinical Mental Health Counseling**

### Degree Requirements

#### Coursework Requirements

**Morgridge College of Education Requirements (6 hrs. min.)**

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### Foundations

#### Research

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<td>RMS 4900</td>
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### Program Requirements (70 hrs. min.)

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<td>Counseling Psychology Program Development and Evaluation</td>
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<td>CNP 4743</td>
<td>Fieldwork in Counseling</td>
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<td>Counseling Psychology Beginning Practicum (2 qtrs., 4 credits each)</td>
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<tr>
<td>CNP 4750</td>
<td>Counseling Psychology Beginning Practicum</td>
<td>4</td>
</tr>
</tbody>
</table>
### Master of Arts in Counseling Psychology with a Concentration in General Counseling

**Degree Requirements**

**Coursework Requirements**

**Morgridge College of Education Requirements (6 hrs. min.)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFSP 4312</td>
<td>Learning Application and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4930</td>
<td>Empirical Research Methods</td>
<td>3-5</td>
</tr>
<tr>
<td>RMS 4900</td>
<td>Education Research and Measurement</td>
<td></td>
</tr>
<tr>
<td>RMS 4910</td>
<td>Introductory Statistics</td>
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</tbody>
</table>

**Program Requirements (47 hrs. min.)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CNP 4645</td>
<td>Lifespan Development</td>
<td>4</td>
</tr>
<tr>
<td>CNP 4700</td>
<td>Counseling Theory</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4702</td>
<td>Introduction to Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4710</td>
<td>Career Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4720</td>
<td>Group Counseling Theory</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4730</td>
<td>Counseling Psychology Program Development and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4740</td>
<td>Basic Counseling Techniques</td>
<td>4</td>
</tr>
<tr>
<td>CNP 4741</td>
<td>Int Counseling Techniques</td>
<td>4</td>
</tr>
<tr>
<td>CNP 4743</td>
<td>Fieldwork in Counseling</td>
<td>1</td>
</tr>
<tr>
<td>CNP 4750</td>
<td>Counseling Psychology Beginning Practicum</td>
<td>2</td>
</tr>
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<td>CNP 4750</td>
<td>Counseling Psychology Beginning Practicum</td>
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</tr>
<tr>
<td>CNP 4750</td>
<td>Counseling Psychology Beginning Practicum</td>
<td>4</td>
</tr>
<tr>
<td>CNP 4773</td>
<td>Diversity: Multicultural Counseling Psychosocial Issues</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4784</td>
<td>Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4795</td>
<td>Master of Arts Counseling: Legal and Ethical Issues</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives: (2 hrs. min.)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Discuss electives with your advisor</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

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1. This course is helpful for students intending to apply to doctoral programs.
Minimum number of credits required for degree: 55
Non-coursework Requirements
• Comprehensive Exam

Master of Arts in Counseling Psychology with a Concentration in Research Counseling

Degree Requirements

Coursework requirements

<table>
<thead>
<tr>
<th>Morgridge College of Education Requirements (16 hrs. min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations</td>
</tr>
<tr>
<td>CFSP 4312 Learning Application and Analysis</td>
</tr>
<tr>
<td>Research</td>
</tr>
<tr>
<td>Select one of the following:</td>
</tr>
<tr>
<td>RMS 4930 Empirical Research Methods</td>
</tr>
<tr>
<td>RMS 4900 Education Research and Measurement</td>
</tr>
<tr>
<td>Plus:</td>
</tr>
<tr>
<td>RMS 4910 Introductory Statistics</td>
</tr>
<tr>
<td>CNP 4995 Research - M.A. Thesis</td>
</tr>
</tbody>
</table>

Program Requirements (48 hrs. min.)

| CNP 4702 Introduction to Assessment                       | 3 |
| CNP 4645 Lifespan Development                             | 4 |
| CNP 4700 Counseling Theory                                | 3 |
| CNP 4710 Career Counseling                                | 3 |
| CNP 4720 Group Counseling Theory                          | 3 |
| CNP 4730 Counseling Psychology Program Development and Evaluation | 3 |
| CNP 4740 Basic Counseling Techniques                      | 4 |
| CNP 4741 Int Counseling Techniques                        | 4 |
| CNP 4743 Fieldwork in Counseling                          | 1 |
| CNP 4750 Counseling Psychology Beginning Practicum ¹      | 4 |
| CNP 4750 Counseling Psychology Beginning Practicum        | 4 |
| CNP 4773 Diversity: Multicultural Counseling Psychosocial Issues | 3 |
| CNP 4784 Psychopathology                                  | 3 |
| CNP 4795 Master of Arts Counseling: Legal and Ethical Issues | 3 |

Electives (10 hrs. min.)

| Electives                                                 | 10 |

Total Credits

Minimum number of credits required for degree: 72
Non-coursework Requirements
• Comprehensive examination

Master of Arts in Counseling Psychology with a Concentration in School Counseling

Degree Requirements

Coursework Requirements

<table>
<thead>
<tr>
<th>Morgridge College of Education Requirements (7 hrs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations</td>
</tr>
<tr>
<td>CFSP 4312 Learning Application and Analysis</td>
</tr>
<tr>
<td>Research Requirement</td>
</tr>
<tr>
<td>RMS 4900 Education Research and Measurement</td>
</tr>
</tbody>
</table>

Program Requirements (54 hrs.)

<p>| CNP 4702 Introduction to Assessment                   | 3 |
| CNP 4645 Lifespan Development                          | 4 |
| CNP 4740 Basic Counseling Techniques                  | 4 |
| CNP 4700 Counseling Theory                            | 3 |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNP 4710</td>
<td>Career Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4720</td>
<td>Group Counseling Theory</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4730</td>
<td>Counseling Psychology Program Development and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4741</td>
<td>Int Counseling Techniques</td>
<td>4</td>
</tr>
<tr>
<td>CNP 4743</td>
<td>Fieldwork in Counseling</td>
<td>1</td>
</tr>
<tr>
<td>CNP 4760</td>
<td>School Counseling Practicum</td>
<td>4</td>
</tr>
<tr>
<td>CNP 4773</td>
<td>Diversity: Multicultural Counseling Psychosocial Issues</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4795</td>
<td>Master of Arts Counseling: Legal and Ethical Issues</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4761</td>
<td>School Counseling Internship I (spring semester)</td>
<td>4</td>
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<tr>
<td>CNP 4762</td>
<td>School Counseling Internship II (1 credit each/3 qtrs)</td>
<td>1</td>
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<tr>
<td>CNP 4762</td>
<td>School Counseling Internship II</td>
<td>1</td>
</tr>
<tr>
<td>CNP 4762</td>
<td>School Counseling Internship II</td>
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<tr>
<td>CNP 4762</td>
<td>School Counseling Internship II</td>
<td>1</td>
</tr>
<tr>
<td>CNP 4776</td>
<td>Family Counseling</td>
<td>3</td>
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<tr>
<td>CNP 4784</td>
<td>Psychopathology</td>
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<tr>
<td>CNP 4772</td>
<td>Diversity Seminar: Psycho-Social Issues</td>
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</table>

Other Requirements (9 hrs)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFSP 4303</td>
<td>Risk, Resiliency &amp; Prevention</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4342</td>
<td>Crisis, Intervention and Prevention</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4305</td>
<td>Exceptional Child: Biomedical &amp; Psycho-Social Aspects</td>
<td>3</td>
</tr>
</tbody>
</table>

Possible Electives (4 hrs. min.)

Work with your advisor concerning electives.

Total Credits: 72

Minimum number of credits required for degree: 72

Non-coursework Requirements

- Comprehensive Exam

Courses

CNP 4641 Adolescent Development (3 Credits)

Physical, cognitive, emotional, social, and moral development in adolescents with emphasis on interaction of various aspects of development within an environmental context; focus on normal development with exploration of special problems of adolescents, e.g., substance abuse, teen-age pregnancy, eating disorders and delinquency; critical study, and discussion of literature on adolescence and interviews with adolescents.

CNP 4642 Adult Development (3 Credits)

Literature on normal development of adult thinking and problem-solving processes and the self-esteem. Physiological changes and relationship between cognitive development and developmental tasks of adults included.

CNP 4645 Lifespan Development (4 Credits)

Survey of the principles of development from conception to adulthood, emphasizing biological, environmental, and cultural factors affecting development.

CNP 4700 Counseling Theory (3 Credits)

Basic counseling theories and philosophical principles as a foundation for professional training including history, concepts, techniques and trends.

CNP 4701 Advanced Seminar: Counseling Theory (3 Credits)

Focus on advanced practice issues and (doctoral students only) integration of theory and practice.

CNP 4702 Introduction to Assessment (3 Credits)

Psychological instruments used to assess social, educational, emotional, personality, language, intellectual, behavioral, and perceptual development of adolescents; required practice in administering instruments.

CNP 4704 Psychological Assessment (5 Credits)

Administration, scoring and interpretation of objective and projective personality-assessment techniques, the DSM IV, diagnostic categories, report-writing skills, ethical standards for testing. Lab fee required. Prerequisite: counseling or school of psychology Ph.D. student or instructor approval.

CNP 4705 History and Systems of Psychology (3 Credits)

Historical and philosophical basis of modern psychological theories; basic issues as related to major school of psychology.
CNP 4706 Cognitive Assessment (5 Credits)
This course provides students in Counseling Psychology with experience in individual intelligence, learning and memory, and neurocognitive screening test administration, scoring, interpretation, and report writing. Each student has an opportunity to administer various cognitive measures, with particular emphasis on the Wechsler Scales. Contemporary issues pertinent to the assessment of intelligence are covered. Emphasis is placed on synthesizing and integrating information from cognitive assessment with other sources to produce effective intervention and therapeutic recommendations. Issues regarding the use of such tests are discussed, as well as appropriate use in agencies and clinical practice. Lab fee required.

CNP 4710 Career Counseling (3 Credits)
Career development theories; career counseling and assessment techniques; applications of career counseling to special populations. Lab fee required.

CNP 4711 Advanced Group Counseling (3 Credits)
Advanced group course that concentrates on advanced leadership skills, leadership styles, and leader methods geared toward conducting counseling groups with diverse populations for different problem areas. This class will also focus on the theory and research on group counseling and psychotherapy.

CNP 4712 Grief and Loss (3 Credits)
This course is an opportunity for students to examine their own ideas about grief and loss and come to a clearer understanding of their meaning, with the goal of using this personal growth to facilitate the development of professional and clinical skills. The course will examine current theory, clinical applications, and research implications with an emphasis on personal exploration and cultural considerations.

CNP 4720 Group Counseling Theory (3 Credits)
Theory and research on dynamics of group process, group treatment and leadership strategies; implications for group counseling and psychotherapy. Prerequisite: master's or doctoral student in counseling or related field.

CNP 4730 Counseling Psychology Program Development and Evaluation (3 Credits)
Development, evaluation strategies and techniques for human service agencies and schools; application of research and evaluation skills in applied settings.

CNP 4740 Basic Counseling Techniques (4 Credits)
Basic counseling and interviewing skills; emphasis on building counseling relationships and facilitating client's self-exploration; skills of empathy, advanced empathy, self-disclosure, confrontation and immediacy.

CNP 4741 Int Counseling Techniques (4 Credits)
Sample of counseling techniques and effectiveness with different types of clients. Prerequisite: CNP 4740.

CNP 4743 Fieldwork in Counseling (1 Credit)
Introduction to the field of counseling with special emphasis on practicum placement. Prerequisite: admission to the MA program in counseling psychology.

CNP 4750 Counseling Psychology Beginning Practicum (1-4 Credits)
Supervised practice in counseling for master's students. Prerequisite: CNP 4740, and be a counseling psychology student.

CNP 4751 M.A. Internship (1-4 Credits)
Yearlong, 600-hour supervised field practice for second-year master's students with weekly seminar. Prerequisites: CNP 4750 and be a counseling psychology master's students.

CNP 4752 Counseling Psychology Advanced Practicum I (3 Credits)
Supervised practice in counseling for doctoral students. Prerequisites: CNP 4750 or prior practicum, and be a counseling psychology student.

CNP 4753 Counseling Psychology Advanced Practicum II (1 Credit)
Group supervised practice in counseling for second-year doctoral students with emphasis on process and countertransference issues. Prerequisite: CNP 4752.

CNP 4754 Couns Psych: PhD Internship (1 Credit)
Meets 12-month internship requirement in counseling psychology. Prerequisites: completion of comprehensive examination and dissertation proposal.

CNP 4755 MA Clinic (2-5 Credits)
MA clinic is a required course for all students in the 90-credit Clinical Mental Health Counseling Concentration.

CNP 4756 PhD Counseling Clinic (1 Credit)
On-campus, advanced-experience counseling of clients from the community with close supervision and observation. Prerequisite: Doctoral student in counseling psychology.

CNP 4758 PhD Field Experience (8 Credits)
Required 12-month, 40-hour-per-week internship for doctoral students in Counseling Psychology. Registration for this course indicates full-time enrollment. This course is not graded. Prerequisites: completion of comprehensive examination and dissertation proposal. Department approval is required for registration. Fall quarter enrollment must be done in conjunction with CNP 4754.
CNP 4760 School Counseling Practicum (2-4 Credits)
A minimum of 100 hours supervised practice in School Counseling for Master's students in the School Counseling Concentration. Students must be supervised by a licensed school counselor.

CNP 4761 School Counseling Internship I (2-4 Credits)
100-hour supervised field practice in a school setting for Master's students in the School Counseling Concentration, with weekly seminar. Students must be supervised by a licensed school counselor.

CNP 4762 School Counseling Internship II (1 Credit)
A minimum of 600-hour supervised field practice in a school setting for master's students in the School Counseling Concentration, with weekly seminar. Students must be supervised by a licensed school counselor.

CNP 4769 Cognitive Behavioral Strategies (4 Credits)
Cognitive Behavior Therapy (CBT) is a treatment approach that incorporates a multitude of evidence-based strategies to construct an individualized and comprehensive treatment plan for a wide variety of mental/behavioral disorders. CBT has been extensively investigated in both research and applied setting. CBT offers foundational knowledge and skills to provide an active, client involved approach to resolving individual and family challenges. CBT is structured, goal-directed, and focuses directly on client problem areas. Students will practice and develop the skills necessary to implement CBT techniques and strategies.

CNP 4770 Counseling Psychology Seminar: Research (3 Credits)
Review of current process and outcome research in counseling and psychotherapy; substantive issues, including client and therapist variables as well as methodological issues and experimental designs. Prerequisite: doctoral student.

CNP 4772 Diversity Seminar: Psycho-Social Issues (1 Credit)
Series of courses to analyze social and psychological impacts of oppression related to minority status, socioeconomic status, gender and family configurations; taught using an awareness and knowledge approach; implications for counseling; series includes general seminar and series of 1 credit follow-up seminars on particular topics, e.g., American Indian mental health, African-American mental health and women's mental health. Prerequisites: CNP 4773 and students must take the 3-credit general seminar prior to the individual seminars.

CNP 4773 Diversity: Multicultural Counseling Psychosocial Issues (3 Credits)
This course uses a social justice perspective to examine the impact of oppression of Americans considered having a minority status in the United States. Minority status is defined according to an individual's current experiences and/or his or her group's history of oppression in America. Issues and concepts related to ability, age, class, socioeconomic position, ethnicity, gender, race, religion, sexual orientation, and other issues of oppression will be examined. The course is designed to present a general introduction to multicultural and social justice concepts and issues in multicultural counseling. Due to the extensive amount of material in this area only some selected issues and topics will be presented. Students interested in more specific multicultural diversity topics should take the one-credit Counseling Psychology diversity seminars or courses offered in other University of Denver colleges and departments. Students will be involved in interactive learning including the application of awareness and knowledge of course concepts and issues to themselves as participants in counseling with clients who have experienced oppression. The course is designed for graduate students who are professionals-in-training in mental health, counseling, and counseling psychology. Students should have a basic understanding of professional counseling skills and be willing to participate in counseling role-play activities. However, please note that this is not a clinical skills training course.

CNP 4776 Family Counseling (3 Credits)
Introduction to family counseling, including survey of major theories and research, and in-class demonstrations of techniques. Prerequisite: advanced master's or doctoral student.

CNP 4778 Health Psychology (3 Credits)
Overview of rapidly expanding field of health psychology; wide variety of topics dealing with role of psychological processes in health and health care; includes impact of stress on physical health, and psychological factors that determine health-related behavior, psychological aspects of delivery of health care, and assessment issues in health psychology.

CNP 4780 Counseling Psychology Seminar: Supervision (3 Credits)
Introduces literature and research on counseling supervision, including awareness of individual differences; provides experience supervising master's level counselors. Prerequisites: doctoral student and CNP 4752.

CNP 4784 Psychopathology (3 Credits)
Introduction to psychopathology and overview of several broad topics including schizophrenia, mood disorders and personality disorders.

CNP 4787 Motivational Interviewing (4 Credits)
Motivational Interviewing is a client-centered collaborative style of therapeutic relationship designed to strengthen a person's motivation for and commitment to change. This class will facilitate skill development in managing client ambivalence, eliciting change-talk and honoring the client's autonomy regarding taking steps toward a commonly agreed upon goal.

CNP 4788 Physiological Psychology (3 Credits)
Physiological Psychology is designed to expose students to the field of physiology and highlights its reciprocal relationship with behavior. We will cover topics including the structure and function of the nervous system and areas of research relevant to clinical psychology (e.g., substance abuse, mental illness, and biological rhythms). Given the limited time devoted to each area, more in-depth coverage should be pursued by interested persons.
CNP 4789 Pharmacology of Addictive Behavior I and II (4 Credits)
This class provides a solid base of knowledge about the drugs of abuse including what occurs physiologically with drug use and other addictive behaviors. Additionally, this course explores neuroscience and genetic research on addiction to better understand the changes in the brain that underlie drug use and addictive behaviors.

CNP 4790 Counseling Psychology Seminar: Ethics (3 Credits)
Professional ethics in practice and research in counseling psychology, including informed consent, confidentiality, clients' rights, psychologists' obligations, etc.; basic APA documents. Prerequisite: doctoral student.

CNP 4791 Counseling Psychology Seminar: Counseling Couples (3 Credits)
Introduction to couples counseling, including survey of major theories and research.

CNP 4792 Pro-Seminar in Counseling Psychology (1 Credit)
Introduction to field of counseling psychology required for all first-quarter doctoral students. Prerequisite: counseling psychology doctoral students.

CNP 4794 Counseling Psychology Seminar: Special Topics (1-10 Credits)
Variety of special topics on research and practice in counseling psychology; readings, lectures and projects to provide an in-depth understanding of topics, which vary from to year and cover areas such as counseling women, counseling in business and industry, advanced group therapy, time-limit counseling, vocational counseling, etc.

CNP 4795 Master of Arts Counseling: Legal and Ethical Issues (3 Credits)
Introduction to ethical and legal issues in school and agency counseling for master's students. Prerequisite: master's student in counseling psychology.

CNP 4797 Counseling Addictive Behavior (4 Credits)
Introduction to assessment, treatment and outcome evaluation of chemical and nonchemical addictive behaviors. Requirements include abstinence from a "compulsive" behavior; journaling about one's cognitive, emotional and behavioral reactions during the abstinence period; attending 12-step meetings; participating in a quasi-12-step in class meeting; critiquing a film depicting dynamics of an alcoholic family.

CNP 4799 Infectious Diseases in Addictive Behaviors (2 Credits)
Drug and alcohol abuse and infectious diseases go hand in hand. This class explores the high risk for contracting and spreading infectious diseases among drug abusers. This class helps prepare students to identify such diseases, determine client risk for infection, and educate students about disease prevention and treatment options.

CNP 4800 Consultation (1 Credit)
This course is designed to teach the basic theories of psychological consultation that can be used to guide practice in a variety of settings. Students learn to differentiate process, collaborative and expert consultation. The class format includes presentations from practitioners working in school, medical, forensic, and business settings. In addition, students also learn about the ethical principles that guide their practice and to also become sensitive to how their work with diverse cultural backgrounds may be perceived. Prerequisite: must be enrolled in the Counseling Psychology doctoral program.

CNP 4991 MA Independent Study (1-10 Credits)
CNP 4992 Directed Study (1-10 Credits)
CNP 4995 Research - M.A. Thesis (1-10 Credits)
CNP 5991 PhD Independent Study (1-10 Credits)
CNP 5992 Directed Study (1-10 Credits)
CNP 5995 Dissertation Research (1-20 Credits)

Educational Leadership and Policy Studies

Office: Katherine A. Ruffatto Hall, 3rd Floor
Mail Code: 1999 E. Evans Ave, Denver, CO 80208-1700
Phone: 303-871-2509
Email: mce@du.edu (edinfo@du.edu)
Web Site: http://morgridge.du.edu/programs/educational-leadership-and-policy-studies/

Educational Leadership and Policy Studies
The Educational Leadership and Policy Studies (ELPS) department prepares courageous, visionary and transformative leaders in educational settings at all levels of the education system. To achieve this, the program offers intensive and integrated academic and field-based experiences and competency-based learning that develop and support students as they obtain effective leadership competencies. Partnerships and memberships within national networks with the Alliance to Reform Educational Leadership (AREL), University Council of Educational Administration (UCEA), Wallace Foundation, New York City Leadership Academy, Teach For America, Colorado Association of School Executives (CASE) and partnerships with Denver Public Schools, Aurora Public Schools, and Adams 12 Five Star Schools help the program to continuously improve. Students within the program focus on leadership, policy studies and research that are relevant and appropriate for meeting today's and tomorrow's educational challenges.

All of the degree programs in Education Leadership and Policy Studies engage students in rigorous content, collaborative inquiry, and reflective practice within a tightly connected cohort structure that intentionally builds learning communities and professional networks. Faculty members partner with individuals, schools, districts and organizations to build leadership capacity and improve all educational contexts.

- Lead change in K-12 education as a principal, administrator, researcher or policymaker
- Learn through integrated academic and school-based experiences and projects
- Create learning communities that foster academic achievement and optimal growth and development for all learners
- Focus on leadership, policy studies and research that are relevant and appropriate for meeting tomorrow’s educational challenges

**Doctor of Philosophy in Educational Leadership & Policy Studies**

The **90-quarter-credit hour-program** beyond a master’s degree is designed for individuals interested in acquiring advanced research skills and content expertise. The program consists of the foundational doctoral coursework of the EdD (two courses/quarter; one research and one content course), and a third year of coursework specializing in a research methodology and a specialized focus of study. PhD students complete a traditional dissertation with the option of completing a 300 hour Superintendency Internship.

**Program Accreditation**
Colorado Department of Education (CDE) Approved Educator Preparation Program. Graduates who have completed the Superintendency Internship may apply for Colorado Initial Administrator (Superintendent) License (http://www.cde.state.co.us/cdeprof/Licensure_Prin_req.asp) through the Colorado Department of Education (CDE).

**Doctor of Education in Educational Leadership & Policy Studies**

This **65-credit-hour degree program** builds on prior leadership preparation and/or a Master’s degree in a leadership related program and is designed for individuals interested in pursuing advanced leadership and inquiry skills to impact practice. The program consists of two years of coursework beyond the master’s (two courses/quarter; one research and one content course) and the completion of a Doctoral Research Project (DRP). The Doctoral Research Project is independent research regarding a persistent, complex Problem of Practice with a supportive structure of quarterly research seminars. Students have the option of completing a 300 hour Superintendency Internship.

Applicants must hold a master’s degree in an education-related field, and have completed a principal, teacher-leadership, or other leadership related program or work experience.

**Program Accreditation**
Colorado Department of Education (CDE) Approved Educator Preparation Program. Graduates who have completed the Superintendency Internship may apply for Colorado Initial Administrator (Superintendent) License (http://www.cde.state.co.us/cdeprof/Licensure_Prin_req.asp) through the Colorado Department of Education (CDE).

**Master of Arts in Educational Leadership & Policy Studies with a concentration in Principal Licensure**

The MA in Educational Leadership and Policy Studies with a concentration in Principal Licensure is designed to be completed the year following the principal preparation certificate program and offers extended study of turnaround leadership: issues of culture, diversity, poverty and special needs; business design, and entrepreneurial and data-driven leadership. The MA consists of a total of 45-47 credit hours - the Educational Leadership and Policy Studies with a concentration in Principal Licensure program (30 or 32 credits) and four additional courses (15 credits). The completion of the MA culminates with the design and execution of an action research or school redesign project.

**Program Accreditation**
Colorado Department of Education (CDE) Approved Educator and Aspiring Turnaround Leader Preparation Program. Graduates may apply for Colorado Initial Principal License (http://www.cde.state.co.us/cdeprof/Licensure_Prin_req.asp) through the Colorado Department of Education (CDE).

**Certificate in Educational Leadership & Policy Studies with a concentration in Principal Licensure**

The certificate in Educational Leadership and Policy Studies offers two cohort models that lead to recommendation for Colorado Principal Certification: the Ritchie Program for School Leaders (Ritchie) and Executive Leadership for Successful Schools (ELSS). Both models offer competency-based learning that can be individualized to the leadership needs of the aspiring leader and the needs of the school. Both models focus not only on developing the skills and abilities necessary for success as a school leader, but also on developing a strong commitment to core values essential for ethical and responsible leadership.
The certificate consists of four quarters of coursework (begins and ends in June) and requires a minimum of 300 internship hours that are integrated with coursework. The program can be completed as a certificate and/or combined with additional coursework for a master’s degree.

The cohort structure promotes the development of a rich learning community for collaboration and challenge with many different opportunities for interaction and analysis. Each quarter incorporates face-to-face sessions, inquiry projects, self-assessments, various online learning activities including discussion boards and reflection journals, as well as readings to guide instruction and learning.

Program Accreditation
Colorado Department of Education (CDE) Approved Educator Preparation Program. Graduates may apply for Colorado Initial Principal License (http://www.cde.state.co.us/cdeprof/Licensure_Prin_req.asp) through the Colorado Department of Education (CDE).

Certificate in Educational Leadership & Policy Studies with a concentration in Principal Licensure, master of arts in education leadership and policy studies with a concentration in principal licensure
Denver Public Schools Partner Programs – DPS Ritchie Program for School Leaders (Ritchie) & Executive Leadership for Successful Schools (ELSS)
Executive Leadership for Successful Schools (ELSS) – Main Campus
Executive Leadership for Successful Schools (ELSS) – Aurora Public Schools Cohort
Executive Leadership for Successful Schools (ELSS) - Mountain Cohort
Ritchie Program for School Leaders – Adams County Schools Cohort

Following are the simple steps to apply for graduate study in Educational Leadership and Policy Studies at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).

• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline:
  • Ritchie and ELSS – DPS Partnership Cohorts – December 6
  • ELSS – Main Campus – April 1
  • ELSS – Aurora Public Schools – April 1
  • ELSS – Mountain – ongoing
  • Ritchie – Adams County Schools – April 1

• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.

• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.

• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.

• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.
• Mail official transcripts to:

University of Denver
Office of Graduate Studies
Mary Reed Building, Room 5
2199 S. University Blvd.
Denver, CO 80208-4802

Language Proficiency
(https://bulletin.du.edu/graduate/admissions/additionalstandardsformonnativeenglishspeakers)

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores
(https://bulletin.du.edu/graduate/admissions/additionalstandardsformonnativeenglishspeakers)

• The Graduate Record Examination (GRE) is not required.

Essay
• The essay should be submitted via upload through the online application process.

Resume
• This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters
• Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

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• Electronic transcripts should be sent to gradinfo@du.edu.

• For more information call (303) 871-2706

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.
The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of Education in Educational Leadership & Policy Studies, doctor of philosophy in educational leadership & policy studies

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Course and Degree Prerequisites and Requirements

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- Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official GRE results within five years of the date of application. Scores must be received directly from the appropriate testing agency by the program's stated deadline. DU's ETS Institution Code is 4842.
Essay
- The essay should be submitted via upload through the online application process.

Resume
- This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters
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Doctor of Philosophy in Educational Leadership and Policy Studies

Degree Requirements

Coursework Requirements

Program and Research Requirements

<table>
<thead>
<tr>
<th>Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMN 4821</td>
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</tr>
<tr>
<td>RMS 4940</td>
<td>Structural Foundations of Research in Social Sciences</td>
</tr>
<tr>
<td>ADMN 4819</td>
<td>Organization Theory &amp; Behavior</td>
</tr>
<tr>
<td>RMS 4910</td>
<td>Introductory Statistics ³</td>
</tr>
<tr>
<td>ADMN 4827</td>
<td>Foundations of Educational History and Philosophy</td>
</tr>
<tr>
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<td>Empirical Research Methods</td>
</tr>
<tr>
<td>ADMN 4812</td>
<td>Perspectives in District Administration</td>
</tr>
<tr>
<td>RMS 4931</td>
<td>Survey and Design Analysis</td>
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</table>

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<tr>
<th>Year 2</th>
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</thead>
<tbody>
<tr>
<td>ADMN 4822</td>
<td>Leadership in Complex Systems</td>
</tr>
<tr>
<td>RMS 4941</td>
<td>Introduction to Qualitative Research ³</td>
</tr>
<tr>
<td>ADMN 4836</td>
<td>Improving School Culture</td>
</tr>
<tr>
<td>ADMN 4820</td>
<td>School Administration: Program and Evaluation</td>
</tr>
<tr>
<td>ADMN 4823</td>
<td>Educational Policy Making in the United States</td>
</tr>
<tr>
<td>ADMN 4844</td>
<td>Cost Benefit Analysis for Educational Systems</td>
</tr>
</tbody>
</table>
ADMN 4835  Curriculum Instruction and Student Achievement  3
ADMN 4700  Special Topics in K-12 Administration (Advanced Inquiry and Analysis)  1-5

**Recommended Research Options and Cognate**  28

Minimum of 11 additional research credits (8 at the Intermediate level and 3 at the Advanced level) and 17 credits of Cognate coursework is required. Cognate may include up to 9 credits of ELSS or Ritchie credits with advisor approval.

**Statistics Focus Options**

RMS 4911  Correlation and Regression  4
RMS 4912  Analysis of Variance (ANOVA)  5
RMS 4913  Multivariate Analysis  5
RMS 4914  Structural Equation Modeling  5
RMS 4915  Hierarchical Linear Modeling  4

**Measurement Focus Options**

RMS 4921  Psychometric Theory  3
RMS 4922  Item Response Theory  3
RMS 4913  Multivariate Analysis  5

**Qualitative Focus Options**

RMS 4942  Qualitative Data Collection and Analysis  4
RMS 4945  Community-Based Research  4
RMS 4947  Arts-Based Research  3
RMS 4946  Advanced Qualitative Research  4

**Other Recommended Research Options**

RMS 4932  Meta-Analysis Social Science Research  3
RMS 4951  Mixed Method Research Design  4
ADMN 5900  Research Planning & Design  3

**Dissertation Research**  10
RMS 5995  Independent Research  1-18

**Optional internship**

Needed ONLY if seeking district level (Superintendency) Administrative License.
ADMN 4817  Superintendency Internship (1-6 credits any quarter)  1-6

**Total Credits**  90

1 Indicates Research Courses which a student may have waived or test out.

Minimum number of Year 3 Cognate Area and Additional Research Courses: 28 quarter credit hours.

A minimum of 90 credit hours is required beyond the earned master’s degree. No credit hours from the earned master’s degree can be transferred into the PhD.

**Non-coursework Requirements**

• Comprehensive Exam
• PhD students complete an oral defense and traditional dissertation with the option of completing a 300 hour Superintendency Internship.

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**Doctor of Education in Educational Leadership and Policy Studies**

**Degree Requirements**

**Coursework Requirements**

**Educational Leadership Coursework Requirement**

ADMN 4821  School Reform and Current Educational Issues  3
RMS 4940  Structural Foundations of Research in Social Sciences  3
ADMN 4819  Organization Theory & Behavior  3
RMS 4910  Introductory Statistics  1
ADMN 4827  Foundations of Educational History and Philosophy  3
RMS 4930  Empirical Research Methods  3
ADMN 4812  Perspectives in District Administration  3
RMS 4931  Survey and Design Analysis  3
ADMN 4822  Leadership in Complex Systems  3
A minimum of 65 credit hours is required beyond the earned master's degree. No credit hours from the earned master's degree can be transferred into the EdD.

Non-coursework Requirements

- End of Year One and End of Year Two Reviews
- The completion of a Doctoral Research Project. The Doctoral Research Project is independent research that is supported by quarterly research seminars with faculty, and it is focused on important issues of practice.

Master of Arts in Educational Leadership and Policy Studies with a Concentration in Principal Licensure

Degree Requirements

Coursework Requirements

Morgridge College of Education Requirements

A. Foundations (Completed in year 2)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>RMS 4900</td>
<td>Education Research and Measurement (Summer)</td>
<td>4</td>
</tr>
<tr>
<td>ADMN 4834</td>
<td>Seminar in Multicultural Issues (Summer)</td>
<td>3</td>
</tr>
</tbody>
</table>

B. Program Requirements (Completed in year 2)

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>ADMN 4848</td>
<td>Business Design and Innovation for School Leaders (Fall)</td>
<td>4</td>
</tr>
<tr>
<td>ADMN 4849</td>
<td>Action Research for School Leaders (Winter)</td>
<td>4</td>
</tr>
</tbody>
</table>

C. Principal Licensure Requirements (Completed in year 1)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ADMN 4840</td>
<td>Strategic and Transformative School Leadership (Summer)</td>
<td>7</td>
</tr>
<tr>
<td>ADMN 4841</td>
<td>Instructional Leadership for Equitable Schools (Fall)</td>
<td>7</td>
</tr>
<tr>
<td>ADMN 4842</td>
<td>Human Resource Leadership (Winter)</td>
<td>5</td>
</tr>
<tr>
<td>ADMN 4843</td>
<td>Strategic Resource Management for School Leadership (Spring)</td>
<td>5</td>
</tr>
<tr>
<td>ADMN 4860</td>
<td>Principal Internship (Summer - Ritchie only)</td>
<td>2</td>
</tr>
<tr>
<td>ADMN 4860</td>
<td>Principal Internship (Fall)</td>
<td>2</td>
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</tbody>
</table>

Total Credits ELSS program: 45
Total Credits Ritchie program: 47

Minimum number of credits required for degree:

- 45 with Executive Leadership for Successful Schools (ELSS) program completion
- 47 with Ritchie Program for School Leaders (Ritchie) program completion

Non-coursework Requirements

- ELSS or Ritchie program completion
- Action research project built upon the principal preparation coursework (30 or 32 credits)
Certificate in Educational Leadership and Policy Studies with a Concentration in Principal Licensure

Certificate Requirements

Ritchie Program for School Leaders (Ritchie) Certificate Coursework Requirements

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</table>

Total Credits: 32

Executive Leadership for Successful Schools (ELSS) (Aurora, Campus, DPS partnership, Mountain, and Teach For America cohorts) Certificate Coursework Requirements

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Total Credits: 30

The program consists of four quarters of coursework (begins and ends in June) and requires a minimum of 300 internship hours that are aligned with coursework.

Minimum number of credits required for degree:
- Ritchie Program for School Leaders consists of 32 credit hours
- Executive Leadership for Successful Schools consists of 30 credit hours

Non-coursework Requirements
- 300 internship hours

Courses

ADMN 4700 Special Topics in K-12 Administration (1-5 Credits)

ADMN 4810 School Administration: Case Studies (3 Credits)
Focus on current critical aspects of work of effectivesuperintendents and other administrators in key decision-making roles; includes reading, discussions and guest presenters who are practicing administrators; problem scenarios presented for resolution.

ADMN 4812 Perspectives in District Administration (3 Credits)
District leaders absolutely must focus their actions on the common goal of improving student learning, and school systems must be organized to make this the fundamental priority. The purpose of this course is to examine district-level leadership, policies, and practices that support a school community committed to and focused achievement gaps, providing resources, monitoring and using accountability data, and working with the community and school board leadership.

ADMN 4817 Superintendent Internship (1-6 Credits)
Opportunity to be supervised in on-the-job experience to better prepare school administration students for administration careers. Superintendent's office placement.

ADMN 4819 Organization Theory & Behavior (3 Credits)
Educational institutions are complex, political organizations with a wide variety of constituents and many layers of sometimes competing cultures, systems, and explicit and implicit goals. Leaders who work with these systems must find ways to make meaning of the organization and the context in which work occurs. This course will look at organizational behavior from several points of view, with the goal of understanding major theories that have been developed and learning to apply these theories in the management and study of organizations. The roles and responsibilities of various members of the organizations will be examined as well as the governance and control issues surrounding education. Organizational analysis will be viewed through the lens of structural, political, human resource and symbolic frames.
ADMN 4820 School Administration: Program and Evaluation (3 Credits)
The purpose of this course is to review theories of program evaluation, evaluation designs and analysis, and current trends in evaluation. Program evaluation aims to determine whether a program, regulation, or policy is achieving its objectives by ascertaining whether it had the desired effect on intended outcomes. The evaluation process may include evaluation of programs, products, personnel, policy, performance, proposals, technology, research, theory, and even of evaluation itself. The course equips students with basic evaluation tools and understandings necessary to be thoughtful consumers and effective users of program evaluations in improving policy outcomes and designing more effective programs and policies. It is designed to provide students with the meaning and methods of program and policy instrument evaluation in education with the intent to contribute to informed decision making and enlightened change. Students analyze evaluations of the effectiveness of a variety of programs through discussion, field work, and case studies.

ADMN 4821 School Reform and Current Educational Issues (3 Credits)
An introduction to contemporary issues and theories of educational administration. Overview of major educational administrative and organization trends currently unfolding. These trends are analyzed for validity, education soundness, and leadership implications. Students will also take a closer look at the concept of school reform and the various efforts towards this endeavor.

ADMN 4822 Leadership in Complex Systems (3 Credits)
Roles, responsibilities and behaviors of successful leaders in complex systems; development of understanding and skills that can be used in dealing with many complex issues that face school administrators of the 21st century; functioning effectively in a complex environment where leadership is an interaction between leader, followers and situation and where power and influence affect leader-follower relationships.

ADMN 4823 Educational Policy Making in the United States (3 Credits)
Designed to give educational leaders a foundation in understanding how policy is created. The course examines decision making and the growth of state and federal powers and policy making; the role of state board, the governor's and legislature's significance; the role and power of associations and their impact on decision-making; the changing nature of local boards of education; law making and setting of educational policies using Colorado and legislative process as examples.

ADMN 4827 Foundations of Educational History and Philosophy (3 Credits)
This foundational course examines the various theoretical, ethical, historical and philosophical perspectives that will inform educational leaders as policy and change strategies are formulated.

ADMN 4828 Leadership for the 21st Century: Using Creativity to Build Effective Schools (3 Credits)
Designed to assist leaders, at the district or building level, in the implementation of standards-based education to improve student learning and achievement. Primary emphasis is given to applying strategies for addressing critical issues in sustaining the equitable access to learning in a standards-based educational organization.

ADMN 4834 Seminar in Multicultural Issues (3 Credits)
Extends understanding of complex systems' operations and responses by examining multicultural issues in the historical and social context and complexity of schools and school districts. Opportunities will be provided for students to develop an understanding of issues of diversity and the relationship of these issues to the roles and work of school/district administrators. The exploration of multicultural issues will occur through the examination of various themes relative to school/district administration such as curriculum, administration, human resources, policy and reform. Particular emphasis will be given to the exploration of the historical and future purposes of schooling in a democratic/pluralistic society in an effort to help students to develop critical knowledge and skills essential for providing leadership in 21st century schools.

ADMN 4835 Curriculum Instruction and Student Achievement (3 Credits)
This course will examine educational practices that are meeting success as schools and districts attempt to learn, grow, and reinvent themselves using the principles of organizational learning. Participants will understand basic systems theory and gain practical and theoretical tools to improve curriculum development, instruction, and student achievement.

ADMN 4836 Improving School Culture (3 Credits)
School culture is a complex and challenging issue for most school leaders to shape and manage. The culture of school means many things that will be addressed in this class including school climate, parent engagement, teacher engagement, student connectedness, culturally competent practices, positive youth development, and the quality of human relationships in the school environment. This course will enable school leaders to look in depth at their schools in order to assess its culture, develop specific plans to create a climate of authentic relationships among students, parents, staff, and community.

ADMN 4840 Strategic and Transformative School Leadership (7 Credits)
Effective school administration is guided by research and best practices which inform governance, vision, leadership, and implementation processes. Effective principals base their work on commitment to moral principles, core values, and the many dimensions of effective theory and practice. Understanding personal values, developing leadership skills and building a strong knowledge base regarding research and best practice are a key focus of the course. In addition, this course also examines strategies for visioning, mission building and branding; defining and assessing value and quality; developing competitive strategy; building networks and partnerships; assessing risk and gauging opportunity; building systems and sustainability; recruiting and developing staff, boards and stakeholders; engaging communities; and acquiring sources of funding. Students must be accepted into an ELPS certificate or MA program.
**ADMN 4841 Instructional Leadership for Equitable Schools (7 Credits)**

This course serves aspiring principals in the development and application of skills and knowledge associated with standards-based instructional practices, curriculum planning and development, assessment, and program evaluation. Students are assisted in developing and understanding issues of diversity and multiculturalism and their influence on the development and supervision of the instructional program. Although the major focus is on local aspects of standards-based education, some attention is given to the national role in this area. School leaders need to apply quantitative and qualitative research skills in a variety of ways to understand and improve the work of schools. This course reviews methods, applications, and data sources, including assessments and large-scale datasets, for continuous school improvement and program evaluation. In addition to the issues of instructional leadership, considerable attention is given to the examination of the needs of the individual student in the learning environment as well as research on learning styles, learning theories and models of teaching. Primary focus areas are supports for special education students, English Language learners, gifted students, and students in poverty. Students must be accepted into an ELPS certificate or MA program.

**ADMN 4842 Human Resource Leadership (5 Credits)**

This course focuses upon specific content relative to helping the principal effectively manage human resources within the school setting. It provides examination of organizational dimensions, planning, recruitment, selection, placement and induction, staff development, appraisal, rewards, collective bargaining, and practice of negotiation skills. The course includes study and application of a variety of approaches for supervising and evaluating instruction, including approaches to classroom observation; adapting, adopting, and designing various evaluation systems; advantages and problems of various student achievement and engagement indicators; induction, mentoring, and peer support systems; and leading professional development for self and staff. It includes the relationship of supervision and evaluation of teachers to the improvement of student learning, instruction, assessment and professional development. The legal and technical aspects of teacher evaluation are discussed, while outlining the role and responsibilities of the licensed evaluator in the annual process. Formal and informal classroom observations and conferencing with practicing teachers are part of the requirements for this course. Students must be accepted into an ELPS certificate or MA program.

**ADMN 4843 Strategic Resource Management for School Leadership (5 Credits)**

This course focuses upon specific content relative to helping the principal effectively manage human resources within the school setting. It provides examination of organizational dimensions, planning, recruitment, selection, placement and induction, staff development, appraisal, rewards, collective bargaining, and practice of negotiation skills. The course includes study and application of a variety of approaches for supervising and evaluating instruction, including approaches to classroom observation; adapting, adopting, and designing various evaluation systems; advantages and problems of various student achievement and engagement indicators; induction, mentoring, and peer support systems; and leading professional development for self and staff. It includes the relationship of supervision and evaluation of teachers to the improvement of student learning, instruction, assessment and professional development. The legal and technical aspects of teacher evaluation are discussed, while outlining the role and responsibilities of the licensed evaluator in the annual process. Formal and informal classroom observations and conferencing with practicing teachers are part of the requirements for this course. Students must be accepted into an ELPS certificate or MA program.

**ADMN 4844 Cost Benefit Analysis for Educational Systems (4 Credits)**

This course introduces students to theories and methods of analyzing resources used and benefits gained from educational programs, policies, and organizations. Prerequisites: Introductory Statistics; acceptable Program Evaluation course.

**ADMN 4845 Network and Systems Analysis for Educational Settings (4 Credits)**

This course works with a variety of applied research methods for analysis of networks, systems, and program and policy impacts, with a focus on education and community/social services settings. Prerequisites: Introductory Statistics; acceptable Program Evaluation course; acceptable Policy course.

**ADMN 4848 Business Design and Innovation for School Leaders (4 Credits)**

A school district is a large and complex business organization. By design, the course has a broad focus ranging from legislative issues, to manners and matters of local governance, to school finance, capital planning and budgeting concerns to more directed school and district support services. The course demands practitioners become aware of and demonstrate critical thinking as to what constitutes an effective and equitable use of people, time, technology and money in order to ensure achievement for all students. Being able to think differently, create a culture of innovation, and lead a systematic approach to implementing new ways of doing things is one of the most critical aspects of being a school leader. This course will be enhanced with a design thinking framework that takes a human-centered design approach to helping organizations innovate and grow.

**ADMN 4849 Action Research for School Leaders (4 Credits)**

This course emphasizes the use of research methods which are linked to research needed in schools. Students will learn to identify, analyze and solve problems. Some of the action research methods include focus groups, interviews, observations, school records and surveys. Capstone project will relate directly to the improvement of school policy and practice.

**ADMN 4859 Action Research Capstone (1 Credit)**

Provides support for students as they develop their action research project into the Capstone for the Masters in Educational Administration.

**ADMN 4860 Principal Internship (2 Credits)**

The purpose of a formal internship with a principal is to participate in supervised practical training in many of the aspects of school building administration. It is imperative that an applicant have as many first hand experiences as possible in all phases of building administration which focus upon the standards set for principals in Colorado. Must be accepted into an ELPS certificate or MA program.
ADMN 4991 MA Independent Study (1-10 Credits)
ADMN 4992 Directed Study (1-10 Credits)
ADMN 4995 Research - M.A. Thesis (1-10 Credits)
ADMN 5900 Research Planning & Design (3 Credits)
This course is designed to support doctoral students to design research and successfully defend a research proposal for their culminating project/dissertation.
ADMN 5991 PhD Independent Study (1-10 Credits)
Special projects in the field of education, taken by arrangement of Educational Administration faculty.
ADMN 5992 Directed Study (2-10 Credits)
ADMN 5993 Doctoral Research Seminar (1-4 Credits)
The Doctoral Research Seminar is designed to prepare students to undertake the completion of doctoral research or a dissertation. The research process can often be confusing and overwhelming, especially for students coming from a cohort-based program. This course assists students in turning a research idea into the EDD doctoral research project or a polished dissertation proposal and provides students strategies for making the process manageable and enjoyable.
ADMN 5995 Dissertation Research (1-10 Credits)

Higher Education

Office: Morgridge Office of Admissions
Mail Code: 1999 E. Evans Avenue, Denver, CO 80208
Phone: 303-871-2509
Email: edinfo@du.edu
Web Site: morgridge.du.edu/programs/higher-education/

The Higher Education Department mission is three-fold:

1. Prepare social justice professionals for careers in postsecondary education related to administration, policy, teaching and research, as well as careers in public and private agencies of higher education, for-profit and not-for-profit settings, and in a multicultural and changing world
2. Conduct equity-based research about persistent and/or timely problems facing postsecondary education
3. Provide meaningful service to the University of Denver and broader Colorado community in matters pertaining to postsecondary education, especially related to equity, diversity and social justice

The Higher Education Department (HED) is an “Inclusive Excellence Unit” (www.aacu.org) and supports the concept that inclusiveness and excellence are one and the same. That is, students and instructors from diverse social and cultural backgrounds who become part of the department all bring unique gifts, talents and experiences that make tremendous contributions to the teaching and learning climate of the Higher Education Department.

Doctor of Philosophy in Higher Education

Students in the 90-credit Doctor of Philosophy degree in Higher Education gain knowledge through coursework. Competence is demonstrated by the successful completion and oral defense of a doctoral comprehensive exam, and the successful oral defense and publication of a dissertation.

Doctor of Education in Higher Education

Students in the 65-credit Doctor of Education degree in Higher Education gain knowledge through coursework. Competence is demonstrated by the successful completion and oral defense of a doctoral comprehensive exam, and the successful oral defense of a major research project.

Master of Arts in Higher Education

The 50 credit HED Master’s program is designed to prepare professionals for administrative, leadership, student-centered, and/or policy-focused careers in postsecondary institutions, private and public agencies of higher education, and other educational settings. This generalist program enables students to explore the academic and practitioner-oriented issues related to postsecondary settings and to expand their experiential awareness through practical activities in administration, policy, and research. Elective coursework allows students to complete an optional emphasis in one of three areas: College Student Affairs, Diversity and Higher Learning, or Public Policy and Organizational Change. The final degree requirement is the successful completion of a capstone portfolio.

Accreditation

The University of Denver is accredited as a doctoral degree-granting institution by the Higher Learning Commission (HLC) of the North Central Association (NCA), which is one of six regional educational accrediting bodies recognized by the federal government. The HLC covers a nineteen state (mostly western and Midwestern) area, and over 1,000 institutions of higher learning hold membership in the Association. DU received its first accreditation in 1914 and has maintained accreditation since that time.
Master of Arts in Higher Education

Following are the simple steps to apply for graduate study in Higher Education at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: Priority Deadline: January 16, 2016 for Fall 2016 Admit. The program will review well-qualified applicants after the deadline until the remaining space has been filled.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.

- Mail official transcripts to:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
- Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- The Graduate Record Examination (GRE) is not required.
Statement of Professional Goals
• A statement is required and should be submitted via upload through the online application process.

Resume / C.V.
• This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters
• Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) Website. International students are not eligible for federal financial aid.

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  • For more information call (303) 871-2706

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of Education in Higher Education
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• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

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Doctor of Philosophy in Higher Education

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- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. Applicants to the PhD must have an earned master’s degree prior to matriculating into the doctoral program.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
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**Test Scores** ([http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers](http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers))

- The Graduate Record Exam (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. DU’s ETS Institution Code is 4842.

**Statement of Professional Goals**

- A statement is required and should be submitted via upload through the online application process.

**Resume / C.V.**

- This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

**Recommendation Letters**

- Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

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- Electronic transcripts should be sent to gradinfo@du.edu.

- For more information call (303) 871-2706.

**International Applicants**

- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information ([http://www.du.edu/learn/graduates/internationalapplicants.html](http://www.du.edu/learn/graduates/internationalapplicants.html)). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

*The Graduate Policies and Procedures provides complete details regarding admission requirements.*

## Doctor of Philosophy in Higher Education

### Degree Requirements

#### Coursework Requirements

<table>
<thead>
<tr>
<th>Research Requirement</th>
<th>38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations Courses</td>
<td>13</td>
</tr>
</tbody>
</table>
| RMS 4910  
  Introductory Statistics |
| RMS 4940  
  Structural Foundations of Research in Social Sciences |
| RMS 4941  
  Introduction to Qualitative Research |
| Intermediate/Advanced Methods Courses | 9 |
| HED Research Experience (HED Research Experience can be satisfied through any combination of the following, with advisor approval: Independent study that focuses on research methodology or research practice; HED 4216, Research Processes; additional Research Methods & Statistics (or related) coursework; or internship experiences wherein research practice is a primary component of the internship (e.g., institutional research or policy analysis or program evaluation.) | 6 |
### Dissertations Research Credits

10

Students must register for at least 1 credit hour of HED 5995 each quarter following completion of coursework, until graduation.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>HED 5995</td>
<td>Dissertation Research</td>
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### HED Required Courses

24

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HED 4210</td>
<td>Critical Higher Education</td>
</tr>
<tr>
<td>HED 4211</td>
<td>Current Issues in Higher Ed</td>
</tr>
<tr>
<td>HED 4220</td>
<td>Org &amp; Governance of Higher Ed</td>
</tr>
<tr>
<td>HED 4294</td>
<td>Seminar in Higher Education</td>
</tr>
<tr>
<td>HED 4294</td>
<td>Seminar in Higher Education</td>
</tr>
</tbody>
</table>

### HED Electives

16

### Cognate Courses

12

### Total Credits Required

90

A minimum of 90 credit hours is required beyond the earned master’s degree. No credit hours from the earned master’s degree can be transferred into the PhD.

### Non-coursework Requirements

- Comprehensive Exam
- Oral Defense of Comprehensive Exam
- Dissertation
- Oral Defense of Dissertation

### Doctor of Education in Higher Education

#### Degree Requirements

#### Coursework Requirements

<table>
<thead>
<tr>
<th>Research Requirement</th>
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<tbody>
<tr>
<td>29</td>
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</table>

**Research Requirement**

#### Foundations Courses

<table>
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<tbody>
<tr>
<td>RMS 4910</td>
<td>Introductory Statistics</td>
</tr>
<tr>
<td>RMS 4940</td>
<td>Structural Foundations of Research in Social Sciences</td>
</tr>
<tr>
<td>RMS 4941</td>
<td>Introduction to Qualitative Research</td>
</tr>
</tbody>
</table>

#### Higher Education Research Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HED 4242</td>
<td>Educational Policy Analysis</td>
</tr>
<tr>
<td>Or new HED course: Program Evaluation and Assessment</td>
<td></td>
</tr>
</tbody>
</table>

#### Doctoral Research Project Design

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HED 4216</td>
<td>HED Research Processes</td>
</tr>
</tbody>
</table>

#### Doctoral Research Credits

10

Students must register for at least 1 credit hour of HED 5993 each quarter following completion of coursework, until graduation.

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>HED 5993</td>
<td>Doctoral Research - EdD</td>
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</tbody>
</table>

**HED Required Courses**

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<tr>
<td>HED 4294</td>
<td>Seminar in Higher Education</td>
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<td>HED 4294</td>
<td>Seminar in Higher Education</td>
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</tbody>
</table>

#### Higher Education Electives

12

#### Total Credits Required

65

A minimum of 65 credit hours is required beyond the earned master’s degree. No credit hours from the earned master’s degree can be transferred into the EdD.
Non-coursework Requirements
• Comprehensive Exam
• Oral Defense of Comprehensive Exam
• The Doctoral Research Project
• Oral Defense of Doctoral Research Project

Master of Arts in Higher Education
Degree Requirements
Coursework Requirements
Research Requirement

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>RMS 4900</td>
<td>Education Research and Measurement</td>
</tr>
</tbody>
</table>

HED Required Courses

| HED 4214    | History American Higher Ed |
| HED 4219    | Introduction to Higher Education |
| HED 4220    | Org & Governance of Higher Ed |
| HED 4246    | Issues of Access & Opportunity |
| HED 4247    | Retention, Persistence, and Student Success in Postsecondary Settings |
| HED 4270    | Student Affairs Internship |
| or HED 4295 | Internship in College and University Administration |
| or HED 4296 | Internship in Public Policy |
| or HED 4297 | Internship in College Teaching |

HED Electives (Mix and match across HED course offerings or choose one of these optional emphasis areas: College Student Affairs, Diversity & Higher Learning, Leadership & Organizational Change)

College Student Affairs Emphasis

| HED 4217    | Student Affairs Administration |
| HED 4229    | Student Support in College |
| HED 4260    | Students and College Environments |
| HED 4261    | College Student Development Theory |
| HED XXXX Program Evaluation and Assessment |
| HED 4294    | Seminar in Higher Education (as appropriate) |

Diversity & Higher Learning Emphasis

| HED 4281    | Inclusive Excellence Programming and Development |
| HED 4284    | Inclusive Excellence in Organizations |
| HED 4287    | Critical Race Theory and Education |
| HED 4288    | Gender & Sexual Orientation in Education |
| HED 4289    | Race & Racism in Higher Education |
| HED 4294    | Seminar in Higher Education (as appropriate) |

Leadership & Organizational Change Emphasis

| HED 4212    | Introduction to Public Policy and Higher Education |
| HED 4213    | Leadership and Supervision |
| HED 4221    | Financing Higher Education |
| HED 4222    | Legal Issues in Higher Education |
| HED 4242    | Educational Policy Analysis |
| HED 4294    | Seminar in Higher Education (as appropriate) |

Total Credits Required

50

Non-coursework requirements
• Internship experience
• Successful completion of a capstone portfolio
Courses

HED 3263 Sports and Higher Education (4 Credits)
This course provides an overview of the general history of college and university sports, athletics, intramurals, intramurals, and wellness programs as a broad introduction to this area; additional emphases center on issues related to intercollegiate sports e.g., athletic department positions, student-athlete support systems, ethical considerations, legal issues, politics and policies pertaining to institutional and NCAA norms/regulations, and current and future issues in collegiate athletics. Prerequisite: must be junior- or senior-level student.

HED 3264 Psychosocial Dimensions of Sports and Wellness (4 Credits)
Cross listed with HED 4264.

HED 3991 Independent Study (1-10 Credits)

HED 3992 Directed Study (1-10 Credits)

HED 4210 Critical Higher Education (4 Credits)
This course examines the social and political context of U.S. education and provides an analysis of schooling, cultural politics, and global influences that inform current practices and structures of the higher education system. Central to this course is the development of a critical understanding of topics related to meritocracy, stratification, diversity, and decentralization in higher education. Prerequisite: Ph.D. student in higher education or permission of instructor.

HED 4211 Current Issues in Higher Ed (4 Credits)
A study of contemporary higher education as a specialized field of inquiry and as a professional area in which to work. Explores institutional missions as well as entities such as administration, faculty, curriculum, and student, in relationship to current issues.

HED 4212 Introduction to Public Policy and Higher Education (4 Credits)
This is an introductory course that gives students an overview of federal and state public policy, current issues, research methods, and practical skills required for the policy formation process. This is the introductory seminar to the Public Policy, Leadership and Organizational Change emphasis area for the master’s program.

HED 4213 Leadership and Supervision (3 Credits)
General leadership theory and its implications for higher education; specific focus on leadership skills, such as conflict resolution, problem solving, use of teams and change advocacy.

HED 4214 History American Higher Ed (3 Credits)
Development of North American higher education from colonial times to the present, focusing on important educators and institutions. Primarily for doctoral students.

HED 4215 Curriculum Dev in Higher Ed (3 Credits)
The purpose of this course is to provide students with the knowledge and understanding of curriculum design, development, and change in higher education.

HED 4216 HED Research Processes (1-5 Credits)
Enables students to explore current research and theories associated with their scholarly interests and resources for doing research, and to address problems in conducting original inquiry and investigations in postsecondary education. Attention is directed to the investigation of a research problem of each student’s interest. Prerequisite: Successful completion of 10 credit hours of research courses or permission of instructor.

HED 4217 Student Affairs Administration (4 Credits)
A review of student services, emphasis on programmatic content and relationship to student development; organization of student service programs and national trends. To further describe the historical development of student affairs work including significant persons and activities and to begin the development of students’ own professional identities as a reflective practitioner and to understand the responsibilities for integrating assistantships/internships/work experiences to theory and new knowledge.

HED 4219 Introduction to Higher Education (4 Credits)
This course is designed to provide students an overview of higher education as a field of study and practice. The topics covered attempt to equip students with working knowledge of the structures, functions, challenges, concerns, and opportunities within higher education as a social institution. Grounded in values and principles of inclusive excellence, the course take equity and diversity as departure points from which any and all productive understandings of higher education must engage.

HED 4220 Org & Governance of Higher Ed (4 Credits)
Study of theoretical perspectives and empirical research drawn from the social sciences related to higher education organizations and governance with an emphasis on application of theory and practice.

HED 4221 Financing Higher Education (4 Credits)
Financing public and private institutions of higher learning; sources of income, budgeting procedures, funding and control, use of simulated exercises to illustrate principles. Recommended prerequisites: HED 4210, HED 4211 and HED 4214.

HED 4222 Legal Issues in Higher Education (4 Credits)
Review of a broad range of administrative problems with legal dimensions; process for analyzing case law on issues of access, student rights, employment, collective bargaining, church-state relations, private sector and liability. Students gain practical experience (praxis) in analyzing and applying legal concepts to higher education subjects.
HED 4223 Inst Research & Enroll Mgmt (3 Credits)
Explores the important area of institutional research (IR) in a postsecondary setting. Issues relating to how an IR office functions and typical responsibilities of the professionals who staff these offices will be explored. Enrollment management concepts and themes will be highlighted along with data collection and reporting aspects of the college admissions and retention processes. Recommended prerequisites: HED 4213, HED 4217 and HED 4260 for master's students; HED 4213, HED 4220 for doctoral students.

HED 4226 The Community College (3 Credits)
General issues related to community college, such as history, mission, characteristics, students, curricula, teaching and student services.

HED 4229 Student Support in College (4 Credits)
This class will introduce students to basic interpersonal helping skills required in Higher Education settings, including relationship building, listening, giving feedback, problem-solving, and resolving conflicts. Students will become familiar with crisis intervention models and techniques; signs and symptoms of distress and mental illness; strategies for making appropriate referrals to mental health providers; and considerations about self and other when engaged in helping relationships, particularly those with cultural differences. Central to the course will be discussion of the appropriate role Higher Education professionals have in helping students while recognizing their limitations.

HED 4230 Inclusive Excellence in Capstone (1-6 Credits)
The purpose of this course is to promote the integration of the core curriculum with practitioner related experiences in the masters program. Advanced students have an opportunity to use concepts and theories learned in previously complete coursework to understand and analyze current issues facing student affairs. The course is also designed to assist students by facilitating the transition in to professional positions in higher education.

HED 4232 Research Methods in Higher Education I (1-3 Credits)
Introductory research methods course for higher education professionals.

HED 4233 Research Methods in Higher Education II (1-4 Credits)
Introductory research methods course for higher education professionals, part II.

HED 4242 Educational Policy Analysis (3 Credits)
Educational Policy Analysis offers various methods to research public policy enactments by analysis of specific federal and state policies or judiciary decisions. This course explores the nature of policy analysis within American Higher Education while simultaneously learning about educational policy analysis and conducting an analysis on key postsecondary issues. We review the history and the approaches, methods, and tools required to conduct educational policy analysis. The central focus of the course includes: the important of an initial policy statement; what roles environmental analysis as well as boundaries and constraints considerations play; and how one analyzes policy options, reflections on their implementation strategies, and make recommendations.

HED 4246 Issues of Access & Opportunity (4 Credits)
This course addresses theories and research on a variety of issues related to college preparation, school structures, and inequalities in college access. The course will cover different levels of analyses: theoretical, individual levels (i.e., race, ethnicity, and social class), organizational levels (family, geography, high school context, and outreach), and field levels (i.e., policy, testing, rankings, media, and policy). Special attention will be paid to the sociocultural context influencing issues of college access and opportunity for students.

HED 4247 Retention, Persistence, and Student Success in Postsecondary Settings (4 Credits)
This course introduces students to relevant research, theory, and practice related to college student retention and persistence. Students explore cultural, institutional, and individual factors that may impact college student persistence and critically examine theories attempting to explain why students leave college. In addition, students also closely explore the dynamics of oppression at the individual, institutional, and socio-cultural levels and the resulting impact on student retention. Effective retention practices, programs, and assessment procedures are also identified and examined.

HED 4260 Students and College Environments (4 Credits)
This course will serve as an introduction to college environments and the complexity of campus and culture. The purpose of this course is to familiarize you with today's higher education settings and provide you with strategies to maximize learning and development, for all students. In line with inclusive excellence, attention will be paid to the impact of campus environments on diverse student populations. Theoretical concepts will help explain, describe, and examine the college environments as a system and its impact on students, faculty, and staff.

HED 4261 College Student Development Theory (4 Credits)
An overview of human development theories relevant to college students, of traditional and non-traditional ages. This application will enhance the ability of student affairs professionals as they work to maximize the affective and cognitive development of students within the college setting.

HED 4264 Psychosocial Dimens of Sport (3 Credits)
Psychology and sociology of sports as related to college and university athletics and wellness. Cross listed with HED 3264.

HED 4270 Student Affairs Internship (1-6 Credits)
HED 4281 Inclusive Excellence Programming and Development (4 Credits)
IE in Programming and Development will provide an overview related to the development and implementation of cultural programming and cultural centers over time. This course will pay specific attention to the role of student activism in creating change on college campuses in the form of cultural programming, centers, diversity curriculum, and inclusive excellence initiatives. The course will also address the challenges and competencies associated with inclusive excellent programming and development.
HED 4282 Characteristics of College Students (3 Credits)
Characteristics to consider in working with adult learners, including aptitude, motivation, cognitive development, psycho-social development, intelligence, learning styles, gender, ethnicity and social class; practice in analyzing learning characteristics of a specific individual.

HED 4284 Inclusive Excellence in Organizations (4 Credits)
In recent years, major demographic and economic changes in this country and worldwide have contributed to the diversification of the workplace. As a result, the need for understanding how to enhance cultural diversity in organizations has taken on a greater importance. Accordingly, framed through the concept of Inclusive Excellence, this course focuses on the changing demographics of our society, especially related to race and culture, gender, age, physical ability, sexual orientation, and socio-economic status, emphasizing the implications these factors have for leadership and management in a variety of organizational settings.

HED 4287 Critical Race Theory and Education (3 Credits)
The purpose of this course is to provide students with an in-depth exposure to Critical Race Theory (CRT) as it pertains to education. Critical Race Theory is an analytical framework that provides race-based epistemological, methodological, and pedagogical approaches to the study of everyday inequalities in P-20 education.

HED 4288 Gender & Sexual Orientation in Education (4 Credits)
The purpose of this class is to explore the implications of sexual orientation or gender inequality for P-20 education. Feminist theory and queer serve as the foundational theoretical frameworks for this class. Through these theoretical lenses, the course examines the complex ways gender and sexual orientation are related to identity development, curriculum, academic policies, and school climate.

HED 4289 Race & Racism in Higher Education (4 Credits)
This course explores connections between race, racialization, and racism in American higher education. It draws on historical, political, economic, and cultural explanations of racial inequity in educational outcomes and processes. The course uses institutional and systemic levels of analysis to examine racial equity in higher education.

HED 4290 Inclusive Excellence in Praxis (1-6 Credits)
This course assesses and helps students develop critical self-reflection, leadership, and communication skills. Career plans are developed based on personal, academic, and professional goals. An emphasis is placed on applying theories discussed within the classroom to their respective professional roles on campus. Introductory course for all first-year master's students. This course combines the professional development seminar and practicum.

HED 4291 Doctoral Professional Development Seminar (1-3 Credits)
This course is designed to introduce the first year doctoral students to the field and discipline of Higher Education and to prepare doctoral students for their academic study.

HED 4294 Seminar in Higher Education (1-4 Credits)
Advanced seminar to examine timely topics, issues, and problems. The course description is developed each time the course is offered to describe the topics to be investigated.

HED 4295 Internship in College and University Administration (1-6 Credits)
Supervised experience in administration at college or university level. Prerequisites: EDUC 4210, EDUC 4211, EDUC 4220.

HED 4296 Internship in Public Policy (1-6 Credits)
Supervised experience in postsecondary public policy analysis or research, usually at a state or national compact or agency in the Denver-Boulder area. Recommended prerequisites: HED 4210, HED 4211, HED 4212, HED 4221, HED 4242, HED 4243.

HED 4297 Internship in College Teaching (1-6 Credits)
Supervised experience in teaching at college level. Prerequisites: HED 4210, HED 4211, HED 4280 at the doctoral level; HED 4217, HED 4261, HED 4280 at the master’s level.

HED 4991 MA Independent Study (1-10 Credits)

HED 4992 Directed Study (1-10 Credits)

HED 4995 Research - M.A. Thesis (1-10 Credits)

HED 5991 PhD Independent Study (1-10 Credits)

HED 5992 Directed Study (1-10 Credits)

HED 5993 Doctoral Research - EdD (1-20 Credits)
Doctoral research credits for doctoral research project toward the EdD. Prerequisite: Must be an EdD student in HED; must have completed at least 80% of coursework; cannot complete more than five credit hours of HED 5993 prior to passing the comprehensive exam.

HED 5995 Dissertation Research (1-20 Credits)

Research Methods and Library Information Science
Office: Katherine A. Ruffatto Hall, Room 110
Mail Code: 1999 E. Evans Avenue, Denver, CO 80208
Phone: 303-871-2509
Email: edinfo@du.edu
Doctor of Philosophy in Research Methods and Statistics

The goal of the Research Methods and Statistics (RMS) PhD is to prepare graduate students with the state-of-the-art skills needed to conduct research in education and the social and health sciences. The faculty members equip students with cutting-edge research skills, creative educational vision, social responsibility, and sufficient experience in the application of these skills and knowledge to achieve mastery. The faculty are committed to shaping a safe, sustainable, democratic, and just world and believe that high-quality research is one approach to achieving this goal.

The education and social and health sciences fields have a growing need for professionals with strong skills in research design, statistics, qualitative and mixed methods, and data analysis. The RMS PhD course plan provides the courses and experiences necessary to conduct and supervise effective social science research.

Graduates with RMS PhD degrees hold leadership positions in testing and program evaluation companies, universities, school districts, and state agencies, among others.

Doctor of Philosophy in Research Methods and Statistics with a concentration in institutional research

The RMS concentration in Institutional Research is targeted towards professionals with career goals in institutional research in applied settings including higher education, K-12 schools, non-profits, government settings, and business. Foundational coursework will equip Institutional Research students with strong quantitative, qualitative, and mixed research methods skills. Students will specialize in higher education or library and information science and take institutional research content knowledge courses in management, business intelligence, and public policy.

Master of Arts in Research Methods and Statistics

The goal of the Research Methods and Statistics (RMS) MA is to enhance student development and use of research in education and the social and health sciences with a specific focus on program evaluation. The faculty equip students with cutting-edge research skills, creative educational vision, social responsibility, and sufficient experience in application of your skills and knowledge to achieve mastery. RMS is committed to shaping a safe, sustainable, democratic and just world and believe that high-quality research is one approach to doing this.

The education and social and health sciences fields have a growing need for professionals with strong skills in research design, statistics, qualitative and mixed methods, and data analysis. The RMS MA degree requirements provide the courses and experiences necessary for graduates to conduct effective social science research.

Graduates with RMS MA degrees hold professional positions in program evaluation at non-profit organizations, service agencies, school districts, and state agencies, among others.

Master of Library and Information Science in Library and Information Science

Library and Information Science (LIS) has developed a distinctive program of study to serve the rapidly changing needs of future librarians, archivists and information professionals in the Rocky Mountain region. There are a number of areas of focus including: Archives and Special Collections, Digital Libraries, Early Childhood Librarianship, Academic Libraries, Public Libraries, School Libraries Concentration, Special Libraries, and Web Services Librarianship.

With a dedicated faculty, we get to know our students very well through face-to-face interaction so that we can connect them to the highly regarded professional network in the region (and beyond). Practitioners speak highly of our students and are eager to have DU MLIS students as interns and employees.

Program Accreditation
American Library Association

Master of Library and Information Science in Library and Information Science with a concentration in School Libraries

The DU School Libraries/Teacher Librarian (SL) curriculum is approved by the Colorado Department of Education (CDE). A concentration in School Libraries prepares students to work with children and young adults in K-12 school libraries as well as youth services departments in public libraries. Colorado endorsement as a Teacher-Librarian requires applicants to have a valid teaching credential, one year of classroom teaching and pass the Place Exam (School Librarian endorsement is available for applicants without classroom teaching experience. Recommendation for the added endorsement as a school librarian is made by the DU LIS Program, but endorsement is granted by the State of Colorado. Individual State requirements vary and may include teaching experience and media examinations in addition to a valid teaching credential. Students should consult with the Colorado Department of Education for the most updated endorsement requirements. Dr. Clara Sitter of the LIS faculty is the primary contact for this specialization.
Program Accreditation
American Library Association
Colorado Department of Education and Colorado Commission of Higher Education

Doctor of Philosophy in Research Methods and Statistics
Following are the simple steps to apply for graduate study in Research Methods and Statistics at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: Priority Deadline: December 15, 2015 for Fall 2016 Admit. The program will review well-qualified applicants after the deadline until the remaining space has been filled.
• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. Applicants to the PhD must have an earned master’s degree prior to matriculating into the doctoral program.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.
• Mail official transcripts to:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
• Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.
Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- The Graduate Record Exam (GRE) is required. Additionally, RMS will accept any standardized testing scores (i.e., GMAT, MCAT, MAT, etc.) Scores must be received directly from the appropriate testing agency by the program’s stated deadline. DU’s ETS Institution Code is 4842.

Statement of Professional Goals

- A statement is required and should be submitted via upload through the online application process.

Resume / C.V.

- A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters

- Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) Website. International students are not eligible for federal financial aid.

Application Status

- We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

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  Electronic transcripts should be sent to gradinfo@du.edu.
  For more information call (303) 871-2706

International Applicants

- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Arts in Research Methods and Statistics

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Master of Library Science in Library and Information Science, master of library science in library and information science with a concentration in school library

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Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).

- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program's stated deadline: Priority Deadline: January 16, 2016 for Fall 2016 Admit. The program will review well-qualified applicants after the deadline until the remaining space has been filled.

- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.

- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.

- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.

- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.

- Mail official transcripts to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants
(GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
- Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
- The Graduate Record Examination (GRE) is not required.

Statement of Professional Goals
- A statement is required and should be submitted via upload through the online application process.

Resume / C.V.
- A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters
- Two letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) Website. International students are not eligible for federal financial aid.

Application Status
- We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

Contact Information
- Mail official transcripts and any supplemental admission materials not submitted with the online application to:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

  - Electronic transcripts should be sent to gradinfo@du.edu.
  - For more information call (303) 871-2706

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of Philosophy in Research Methods and Statistics

Degree requirements

Coursework requirements
I. Morgridge College of Education requirements

A. Research

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMS 4930</td>
<td>Empirical Research Methods</td>
</tr>
<tr>
<td>RMS 4941</td>
<td>Introduction to Qualitative Research</td>
</tr>
<tr>
<td>RMS 5995</td>
<td>Independent Research (Minimum 10 credits, must register for at least 1 hr per Fall, Winter &amp; Spring after most coursework is completed until Graduation)</td>
</tr>
</tbody>
</table>
II. Program requirements

A. Measurement

Complete all of the following courses:

- RMS 4921 Psychometric Theory
- RMS 4922 Item Response Theory
- RMS 4932 Meta-Analysis Social Science Research

B. Research Methods

Complete all of the following courses:

- RMS 4942 Qualitative Data Collection and Analysis
- RMS 4960 Program Evaluation Theory
- RMS 4951 Mixed Method Research Design
- RMS 4952 Research Ethics
- RMS 4940 Structural Foundations of Research in Social Sciences

Select at least one of the following:

- RMS 4959 Topics in Research Design
- RMS 4947 Arts-Based Research
- RMS 4946 Advanced Qualitative Research
- RMS 4931 Survey and Design Analysis
- RMS 4945 Community-Based Research

C. Statistics

Complete all of the following courses:

- RMS 4911 or PSYC 4300 Correlation and Regression
- RMS 4912 or PSYC 4330 Analysis of Variance
- RMS 4913 Multivariate Analysis
- RMS 4915 Hierarchical Linear Modeling
- RMS 4914 or PSYC 4350 Structural Equation Modeling
- RMS 4916 Structural Equation Modeling for the Social Sciences
- RMS 4915 Latent Growth Curve Modeling

III. Practicum

Complete the following course:

- RMS 4980 Practicum in Research

IV. Cognate (Minimum 20 credit hours)

Total Credits 90

Optional

A minimum of 90 credit hours is required beyond the earned master’s degree. No credit hours from the earned master’s degree can be transferred into the PhD.

Non-coursework requirements

- Doctoral comprehensive exam
- Dissertation

Doctor of Philosophy in Research Methods and Statistics with a concentration in institutional research

Degree requirements

Coursework requirements

I. Morgridge College of Education requirements

A. Research

Complete all of the following courses:

- RMS 4910 Introductory Statistics
- RMS 4930 Empirical Research Methods
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMS 4941</td>
<td>Introduction to Qualitative Research</td>
</tr>
<tr>
<td>RMS 5995</td>
<td>Independent Research (Minimum 10 credits, must register for at least 1 hr per Fall, Winter &amp; Spring after most coursework is completed until Graduation)</td>
</tr>
</tbody>
</table>

**II. Program requirements**

A. Management

Select at least one of the following:

- MGMT 4280 Business Design
- MGMT 4345 Performance & Rewards System
- MGMT 4620 Organizational Dynamics
- MGMT 4630 Strategic Human Resources Management
- MGMT 4690 Strategic Management
- MGMT 4790 Managing Strategic Alliances

B. Measurement

Complete all of the following courses:

- RMS 4921 Psychometric Theory
- RMS 4922 Item Response Theory
- RMS 4932 Meta-Analysis Social Science Research

C. Research Methods

Complete all of the following courses:

- RMS 4931 Survey and Design Analysis
- RMS 4951 Mixed Method Research Design
- RMS 4952 Research Ethics
- RMS 4960 Program Evaluation Theory
- RMS 4940 Structural Foundations of Research in Social Sciences
- RMS 4942 Qualitative Data Collection and Analysis
- RMS 4945 Community-Based Research
- RMS 4946 Advanced Qualitative Research
- RMS 4947 Arts-Based Research
- RMS 4959 Topics in Research Design

D. Statistics

Complete all of the following courses:

- RMS 4911 Correlation and Regression
- RMS 4912 Analysis of Variance
- RMS 4913 Multivariate Analysis
- RMS 4915 Hierarchical Linear Modeling
- RMS 4914 Structural Equation Modeling
- RMS 4916 Latent Growth Curve Modeling

Choose at least one of the following:

- RMS 4915 Hierarchical Linear Modeling
- RMS 4914 Structural Equation Modeling
- RMS 4935 Structural Equation Modeling for the Social Sciences

**III. Practicum**

Complete the following course:

- RMS 4980 Practicum in Research

**IV. Cognate credits - Specialization Area**

Business Information & Analytics/GIS Courses (choose at least one)

- INFO 4100 Survey of Business Analytics
- INFO 4120 Python for Business Analytics
- INFO 4340 Data Mining and Visualization
- INFO 4360 Complex Data Analytics
- INFO 4240 Data Warehousing
- INFO 4280 Project Management
INFO 4300  Predictive Analytics  4
GEOG 3110  GIS Modeling  4
GEOG 3130  Advanced Geographic Information Systems  4

Public Policy Courses (choose at least one)
PPOL 4100  American Public Policy System  4
PPOL 4200  Microeconomics for Public Pol.  4
PPOL 4300  Quantitative Analysis-Pub Pol  4
PPOL 4400  Analytical & Critical Skills  4
PPOL 4501  Great Issues Forum  2
PPOL 4502  Issues Forum II  2

Specialization Area Courses (Choose one option below; Higher Education <or> Library and Information Science)
Specialization in Higher Education (21 credits minimum)
The following courses are required:

HED 4220  Org & Governance of Higher Ed  4
HED 4212  Introduction to Public Policy and Higher Education  4
HED 4221  Financing Higher Education  4
HED 4214  History American Higher Ed  3
HED 4211  Current Issues in Higher Ed  4
HED 4284  Inclusive Excellence in Organizations  4
HED 4246  Issues of Access & Opportunity  3
HED 4247  Retention, Persistence, and Student Success in Postsecondary Settings  4

Specialization in Library and Information Science (19 credits minimum)
The following courses are required:

LIS 4010  Organization of Information  4
LIS 4820  Digitization  3
LIS 4404  Metadata Architectures  3
LIS 4206  Web Content Management  3
LIS 4362  Government Publications Resources  2
LIS 4700  Topics in LIS (Academic Libraries)  1

Total Credits 90

A minimum of 90 credit hours is required beyond the earned master's degree. No credit hours from the earned master's degree can be transferred into the PhD.

Non-coursework requirements
- Doctoral comprehensive exam
- Dissertation

Master of Arts in Research Methods and Statistics
Degree requirements
Coursework requirements
I. Morgridge College of Education requirement
Complete the following course:

RMS 4921  Psychometric Theory  3
or RMS 4920  Educational Measurement

II. Program requirements
A. Research Design
Complete all of the following courses:

RMS 4930  Empirical Research Methods
RMS 4931  Survey and Design Analysis
RMS 4932  Meta-Analysis Social Science Research
RMS 4941  Introduction to Qualitative Research
RMS 4952  Research Ethics

B. Statistics
Complete both of the following courses:
- RMS 4910  Introductory Statistics
- RMS 4911  Correlation and Regression
  or PSYC 4300  Correlation and Regression

C. Evaluation
Complete the following course:
- RMS 4960  Program Evaluation Theory

Select one of the following:
- CFSP 4363  Child, Family, School Psychology Program Development and Evaluation
- INTS 4333  International Project Analysis
- PPOL 4500  Cost-Benefit Analysis/Pub Pol
- ADMN 4820  School Administration: Program and Evaluation
- CNP 4730  Counseling Psychology Program Development and Evaluation
- RMS 4962  Program Development and Assessment

D. Practicum
Complete the following course:
- RMS 4980  Practicum in Research

E. Cognate requirements
Complete a minimum of 5 credits

III. Thesis Option (5 credits minimum)
- RMS 4995  Independent Research

Total Credits 45

Minimum number of credits required for degree: 45 credits
Non-coursework Requirements
- Practicum
- MA comprehensive exam or Thesis

Master of Library and Information Science in Library and Information Science

Degree Requirements

Coursework Requirements

LIS CORE and REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIS 4000</td>
<td>Foundations of Library, Archival, and Information Science</td>
<td>4</td>
</tr>
<tr>
<td>LIS 4010</td>
<td>Organization of Information</td>
<td>4</td>
</tr>
<tr>
<td>LIS 4015</td>
<td>User and Access Services</td>
<td>4</td>
</tr>
<tr>
<td>LIS 4040</td>
<td>Management of Information Organizations</td>
<td>4</td>
</tr>
<tr>
<td>LIS 4050</td>
<td>Library and Information Technologies</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4900</td>
<td>Education Research and Measurement</td>
<td>4</td>
</tr>
<tr>
<td>LIS 4910</td>
<td>Culminating Internship</td>
<td>4</td>
</tr>
<tr>
<td>or LIS 4901</td>
<td>Capstone Course</td>
<td></td>
</tr>
</tbody>
</table>

Elective requirements
30 Elective credits

Total Credits 58

Non-coursework Requirements
- Portfolio
# Master of Library and Information Science in Library and Information Science with a Concentration in School Libraries

## Degree Requirements

### Coursework Requirements

**LIS Core and Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>LIS 4000</td>
<td>Foundations of Library, Archival, and Information Science</td>
<td>4</td>
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<tr>
<td>LIS 4010</td>
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<td>4</td>
</tr>
<tr>
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<td>User and Access Services</td>
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<tr>
<td>LIS 4040</td>
<td>Management of Information Organizations</td>
<td>4</td>
</tr>
<tr>
<td>LIS 4050</td>
<td>Library and Information Technologies</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4900</td>
<td>Education Research and Measurement</td>
<td>4</td>
</tr>
<tr>
<td>LIS 4911</td>
<td>Elementary School Culminating Internship</td>
<td>4</td>
</tr>
<tr>
<td>&amp; LIS 4912</td>
<td>Secondary School Culminating Internship</td>
<td></td>
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</table>

**Concentration Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIS 4060</td>
<td>Reference</td>
<td>3</td>
</tr>
<tr>
<td>LIS 4070</td>
<td>Cataloging &amp; Classification</td>
<td>3</td>
</tr>
<tr>
<td>LIS 4321</td>
<td>Collection Management</td>
<td>3</td>
</tr>
<tr>
<td>LIS 4510</td>
<td>Children’s Materials and Services</td>
<td>3</td>
</tr>
<tr>
<td>LIS 4520</td>
<td>Young Adult Materials &amp; Services</td>
<td>3</td>
</tr>
<tr>
<td>LIS 4700</td>
<td>Topics in LIS (School Libraries)</td>
<td>2</td>
</tr>
<tr>
<td>LIS 4508</td>
<td>Early Childhood Materials and Services ¹</td>
<td>3</td>
</tr>
<tr>
<td>or LIS 4350</td>
<td>Adult Materials &amp; Services</td>
<td></td>
</tr>
</tbody>
</table>

**Elective Requirements**

10 Elective credits

Total Credits: 58

¹ Or another literacy or literature class as approved by your advisor.

### Non-coursework Requirements

- Portfolio

## Library Information Science Courses

### LIS 4000 Foundations of Library, Archival, and Information Science (4 Credits)

An overview of the theoretical and conceptual foundations of library, archival, and information sciences and an introduction to the information professions, including principles, values, professional organizations, publications, current and future challenges.

### LIS 4010 Organization of Information (4 Credits)

This course introduces basic concepts in the theoretical, practical, and technological aspects of information organization. It provides an overview of the methodologies for organizing and representing information resources in the library, archives, and museum settings.

### LIS 4011 Information Access & Retrieval (3 Credits)

Information retrieval is defined as the process of searching for (and retrieving) relevant information within a document collection. The document collection could be textual (bibliographic records), structured and unstructured data, library databases, web-based information resources, multimedia resources, and numerical data. This course introduces students to important access and retrieval tools and technologies used to retrieve information that are relevant to a user’s information need. In addition to the underlying principles and processes revolving around access and retrieval such as text operations, indexing, query languages, and searching, the course covers relevant topics such as library discovery systems, web-based information retrieval technologies, and enterprise search systems.

### LIS 4015 User and Access Services (4 Credits)

Overview of human information processing and user services in the changing information environment and different communities of practice. This course introduces the concepts of user information needs, seeking, and processing as a foundation for understanding users and designing user-centered information services. The course examines both traditional reference and current/emerging information services in different settings and populations. Course also introduces the concepts of information literacy, user education, and assessment of information services. Recommend prerequisite: LIS 4015.

### LIS 4040 Management of Information Organizations (4 Credits)

An introduction to current theory and practice of management in information organizations through the study of organizations, communications, decision making, planning, leadership, human resources and budgeting. Prerequisite: LIS 4000 or instructor approval.
LIS 4050 Library and Information Technologies (4 Credits)
A foundation course on the applications of information and communications technology in libraries and information agencies. Integrated library systems and the acquisition, evaluation, and implementation of library automation solutions, including electronic resource management systems are explored. The course further introduces database design, Internet technology, web services, cloud computing, computer networks, telecommunications, and computer security. Hardware, software, and other productivity tools and utilities from organizations such as OCLC, Amazon, and Google are discussed.

LIS 4060 Reference (3 Credits)
Information resources include a number of different kinds of reference materials in a wide variety of formats. These include guidebooks, encyclopedias and dictionaries, indexes and abstracts, handbooks, bibliographies, biographical finding tools and biographies, data sets and much more. Many of these resources are available on-line, as well as in print and other digital formats. This course will help students identify and evaluate the most likely resources for information queries in particular settings. It will also provide the opportunity to find answers to real research questions. The course will cover the primary resources for the broad disciplines of business, humanities, sciences, social sciences and government publications in print and electronic formats. Class exercises will reflect the multidisciplinary and multicultural interests and characteristics of library users. Prerequisite: LIS 4015. Recommended prerequisites: LIS 4000 and LIS 4011.

LIS 4070 Cataloging & Classification (3 Credits)

LIS 4110 Teaching and Learning with Technology (3 Credits)
A foundation course about the science of effective teaching and the role of technology and media to enhance learning outcomes. This course engages students with skills and knowledge required to incorporate effective media and technology to support the teaching and learning activity. The course primarily explores a wide-range of appropriate educational media and technology that facilitate preparation, presentation, and delivery of content. Most importantly, tools and educational technologies that promote best practices in both classroom interaction and expanding the learningscape outside the classroom are explored. Theories, principles, and strategies supported by the science of learning to improve the learning outcome are discussed.

LIS 4206 Web Content Management (3 Credits)
This course will include instruction in web page creation, selection, and evaluation of web content as well as web site management. Selection of web page content will be discussed in the context of organizational knowledge management and competitive intelligence needs. Differences in information needs for provision of public information and competitive intelligence on Internet pages versus the organizational information needs of Intranets in knowledge management will be explored. This course also will address human-computer interface design to allow web page designers to create effective web pages according to established principles of design.

LIS 4208 Usability (3 Credits)
This course provides an overview of usability analysis and user experience research and introduces students to practical methods and techniques in conduction usability evaluation. The focus of the course will be on the selection of appropriate evaluation methods, as well as planning, designing, and conduction usability evaluations of information services. In addition, the course will discuss the methods and tools of user-experience research, the theoretical underpinnings of usability, and the role of usability in iterative design and the development of information systems.

LIS 4209 Information Architecture (3 Credits)
The web is a complex information environment consisting of billions of web pages, users, and clicks and interaction every single day. This course introduces students to the fundamentals of web information architecture (IA) - a discipline that aims to understand the information needs and activities of web visitors and create design elements to help users find their way around in the complex information environment with ease. The course will cover various strategies and skills, in which information architects structure, organize, label, navigate, and search for information on large websites. A service learning component is built into this course so that students can transfer their IA knowledge and skills to a real-world project. The course is designed following a project management approach and students will be exposed to different activities from start to finish.

LIS 4320 Outreach (3 Credits)
Outreach as a library service is evolving at a rapid pace. This course will examine the history, current practice, and future promise of outreach across all kind of library organizational settings. Topics addressed in this course will include competencies for outreach librarianship, practices in outreach services; definition and scope; planning, designing and budgeting for services; environmental scanning, key performance indicators, and barriers; developing and maintaining partnerships.

LIS 4321 Collection Management (3 Credits)
Topics addressed in this course include collection development and access policies, selection methods and practices, collection assessment, preservation and conservation, de-selection, treatment of rare material, manuscripts and archives, U.S. government publications, non-book and digital formats management, juvenile, and other special materials.
LIS 4330 Library Instruction (3 Credits)
This course provides an introduction to the principles of library instruction and information literacy including a historical overview of their place within the profession. Emphasis is on instruction within an academic setting, but students will learn important educational theories that can be applied to a variety of settings. ACRL and AASL standards will be examined as well as types of instruction, instructional design, collaboration with faculty, various competencies, assessment, and lifelong learning. The class has a strong emphasis on public speaking, communication skills, and the practical application of educational theory.

LIS 4350 Adult Materials & Services (3 Credits)
This course provides the student with an opportunity to explore readers advisory service from a customers perspective. Students study the readers advisory literature and examine all types of genre fiction. Lecture, readings and class discussion will focus on specific genres and authors within them. Students will also be required to read in all the genres.

LIS 4362 Government Publications Resources (2 Credits)
The U.S. government is the world's most prolific publisher, both for tangible and electronic formats. This class will cover the origin, nature, and scope of federal publications and issues related to management, organization, access, and reference services in a federal depository library. Technical/managerial aspects will cover acquisitions, organization, maintenance, bibliographic control, and technical processing. The reference component will cover congressional, presidential, executive branch, and judicial publications in all formats, together with their finding aids.

LIS 4370 Database Searching (2 Credits)
Nearly all historic, traditional search and retrieval tools such as library catalogs, indexes, microform guides, and archival finding aids have migrated to web-based systems. This course explores the complexities of searching for materials in an online environment. Topics to be covered include database and field structures; controlled vocabularies and indexing schema; search syntaxes, reference linking; data exploring and manipulation; non-textual database searching including numerical, image, and multimedia data; metasearch and web-scale discovery technologies.

LIS 4372 Medical Librarianship and Resources (3 Credits)
Overview of information sources and services in health sciences libraries. Principles and practices of medical librarianship as well as sources and services in consumer health information, evidence-based resources, drug and chemical information, systematic reviews and guidelines are covered. In addition, concepts related to health informatics, including search tools and technologies for gene and protein information are discussed.

LIS 4374 Law Librarianship and Resources (3 Credits)
This course provides students with an opportunity to explore the unique challenges that reference services pose in a legal environment. Lecture, readings, and class discussions as well as practical experience allow students to synthesize course content. Prerequisite: LIS 4060.

LIS 4374 Metadata Architectures (3 Credits)
Provides an overview of the principles and theories of metadata development in the digital environment. Focuses on the design and application of metadata schemas for distinct domains and information communities, issues in metadata interoperability, vocabulary control, quality control and evaluation. Examines international standards, activities and projects. Prerequisites: LIS 4010.

LIS 4508 Early Childhood Materials and Services (3 Credits)
This course prepares librarians to work with infants, toddlers and preschoolers, from birth to age five, and their parents and caregivers, in libraries and pre-school settings. Topics include child development, picture books, materials selection, collection development (print and non-print), programming, story time techniques and promotion. Skills for incorporating early literacy information into early childhood programs and services using "Every Child Ready to Read" methods are introduced and appropriate materials to teach and model the skills are emphasized. Students practice story time techniques and methods for engaging children and adults in pre-literacy skills.

LIS 4510 Children's Materials and Services (3 Credits)
This course is designed to prepare librarians to work with children (ages birth to 12 years) in school and public libraries. Topics covered include children's development, reading interests and needs, materials selection, collection development (including print and non-print materials), discussions of specific genres, reading motivation skills, designing a children’s area, and developing various programming ideas. Students read/view/listen to and evaluate a wide variety of materials for and about this age group, prepare and present booktalks and stories, become familiar with review sources, and design a one-year plan for youth services in a school or public library.

LIS 4511 Storytelling (2 Credits)
This course teaches librarians the skills, techniques, and procedures for developing and implementing a storytelling Program for children, young adults, or adults. The history of storytelling, its place in the school or public library, and in our culture as a whole, will be included. Students will read a wide variety of stories, learn techniques to adapt them for various settings and groups, demonstrate their ability to tell stories and to develop storytelling programs for two different age groups.

LIS 4520 Young Adult Materials & Services (3 Credits)
This course prepares librarians to work with young adults (ages 12-18) in school and public libraries. Topics covered include young adult development, reading interests and needs, materials selection, collection development (including print and non-print materials), and discussions of specific genres, reading motivation skills, designing a YA area, programming, and intellectual freedom issues. Participants will read/view/listen to and evaluate a wide variety of materials for and about this age group, prepare and present booktalks, become familiar with review sources, and design a one-year plan for a YA department in a small school or public library.
LIS 4535 School Libraries (2 Credits)
This course is a study of school libraries and the characteristics that make them different from other types of libraries. There is an emphasis on information literacy and educational technology standards as they apply to school libraries, the collaborative instructional process, and standards-based instruction including summative and formative assessment revision techniques. Collaborative planning and curriculum development through the school library program is addressed, as well as an understanding of networks and instructional delivery systems. Various strategies to improve students’ reading will be addressed, as well as a variety of methods for promoting children’s and teen literature through collaboration with classroom teachers. Administration of the school library is addressed in a review of mission statements, goals and objectives, strategic planning, policies and procedures, and communication with school administration. The discussions will create an awareness of the important of leadership and professionalism through educational and professional organizations, lifelong learning, educational research, and mentoring. Most of the concepts in this class will have been introduced in other classes. This class will specifically tie the concepts to the school library setting.

LIS 4610 Alternative Careers-Librarians (3 Credits)
This course will explore the many different types of jobs and careers open to individuals with library-type skills. It will cover both traditional library jobs, for example, law librarianship, archivist work, corporate librarianship, school librarianship, and records management, as well as non-traditional career choices such as information brokerage, publishing, and information advising.

LIS 4700 Topics in LIS (1-5 Credits)
This flexible library and information science course will provide students with the opportunity to explore issues of current importance in the field. Topics and credit hours will vary and will address subjects such as emerging technologies, new methodologies, specific reader services, standards and practices, and social and economic trends in the profession. Prerequisite courses may be recommended or required as determined by the content of the specified course.

LIS 4701 Reference Topics (1 Credit)
This course provides the student with an opportunity to explore information resources in specific subject materials. Lecture, readings, class discussions, and exercises will address all formats of materials including print, electronic, and web resources.

LIS 4702 Type of Library: Topics (2 Credits)
This course is a study of specific types of libraries, such as public libraries, academic libraries, and special libraries, and the characteristics that make them different from other types of libraries. Specific topics covered will depend on the type of library, but may include collections, management, budgets and funding, as well as professional competencies.

LIS 4800 Intro Archives & Records Mgmt (3 Credits)
This course provides an introduction to the objectives and methods of the archival and records management professions including an overview of terminology, issues, and common practices. The systematic control of records throughout their life cycle from creation through processing, distribution, organization, retrieval and archival disposition will be covered. Prerequisites: LIS 4000 and LIS 4010; or instructor permission.

LIS 4805 Records Management (3 Credits)
This course covers the establishment of information maintenance plans, evaluations and audits of records and information Management Programs, the records and information survey, retention policies and legal requirements, and techniques for integrating automation to records and information management.

LIS 4806 Advanced Archives (3 Credits)
In this course, students will be given the opportunity to put into practice basic archival principles and functions. Students will perform the actions of appraisal, accessioning, arrangement, description, and access solution review for both analog and digital archival collections. Additionally, students will be given the task of providing solutions for new paradigms in archival processing such as creating a web archive, processing email collections, and capturing social media content. The course will be a combination of lecture, demonstration, lab time, discussion, and projects.

LIS 4810 Digital Libraries (3 Credits)
This course provides a theoretical foundation for the study of digital libraries and discusses the technological, organizational, social, and legal issues associated with the development and use of digital libraries. Through this course students develop an understanding of digital library components and explore theoretical and practical approaches to constructing, maintaining, and evaluating digital libraries. Topics examined include digital library definitions, design and architecture of digital libraries. Topics examined include digital library definitions, design and architecture of digital libraries, information access in the digital library environment, digital library users and user services, data repositories, digital curation, digital preservation, digital library evaluation, and digital librarianship.

LIS 4820 Digitization (3 Credits)
The course offers an introduction to issues and trends in planning, developing and managing digitization projects at libraries, archives, and museums. The focus of the course is on the conversion process of analog materials into the digital format, online delivery, and preservation of master files. The course discusses collection development policy for digital projects, copyright, digital imaging technology, digitization standards and best practices for text, images, audio, and video, metadata for cultural heritage collections, delivery platforms, preservation, project management, sustainability, documentation, promotion, and evaluation of digital projects.
LIS 4830 Building Digital Collections (3 Credits)
This course provides a theoretical foundation and practical experience in building interoperable digital collections. It will introduce students to all aspects of building digital collections, including planning, user needs analysis, selecting standards and content management systems, creating digital objects and metadata, designing user interface, preservation of digital objects, and management and evaluation of digital collections. Topics covered include content creation standards and best practices, metadata, interoperability, sustainability, scalability of management systems, and concepts related to designing access tools and delivery systems. Discussion of technology and its application to digital library practices will be a major theme. The course will be a combination of lecture, discussion, and problem solving. It requires participants to conduct independent research and writing. Critical reading of course materials is essential to stimulate active participation in class discussions.

LIS 4850 Digital Preservation (3 Credits)
Students will learn the principles and practices of preserving access to information encoded in digital form. They will learn how to assess digital preservation needs within an institution, write digital preservation policies, and how to collect and present data to make a case for acquiring funds for digital preservation activities. Students will learn the basics of digital information encoding as it applies to the technological aspects of digital preservation, and will learn about current tools and practices used to preserve access to digitally encoded information over time. The course will be a combination of lecture, discussion, and problem solving. It requires participants to conduct independent research and writing. Critical reading of course materials is essential to stimulate active participation in class discussions.

LIS 4901 Capstone Course (4 Credits)
Students in this course will design and complete a project to demonstrate the ability to integrate and synthesize their masters course work and apply their knowledge to a topic. The course meets with an instructor regularly over the nine-week summer quarter. The instructor monitors and guides the students to ensure that they complete the phases of the project in accordance with the proposed timeline and goals. Evaluation will be based on individual performance, with respect to the quality and professionalism of the research, the management of the project, and analytical and writing skills. Prerequisite: Minimum of 45 quarter hours of graduate LIS course work completed, including all core courses, a proposal approved by the academic advisor and faculty permission.

LIS 4902 Internship (1-4 Credits)
This course will offer up to 4 credits for an internship position in libraries and archives. Students are encouraged to gain practical experience.

LIS 4910 Culminating Internship (4 Credits)
This course is designed to supplement the classroom experience by giving students practical experience working in a library or information agency. Various options are available to students depending on their areas of interest and specialization. Opportunities for experience include fields of medicine, law, art, public, and academic libraries. It is the students responsibility to select a practicum site and a field supervisor, who must be approved by LIS faculty. One hundred hours of service over a 10-week quarter are required. The student, faculty, and field supervisor will determine specific requirements for the final paper or report. Students must notify the LIS academic advisor one quarter before enrolling in Culminating Internship. Prerequisites: Completion of a minimum of 38 quarter hours of graduate LIS coursework, including all core courses.

LIS 4911 Elementary School Culminating Internship (2 Credits)
This course is designed to provide elementary school practical experience for teacher-librarians by working a minimum of 80 hours in an elementary school library. Prerequisite: Students must have completed most of the required coursework for the degree before enrolling in the Practicum.

LIS 4912 Secondary School Culminating Internship (2 Credits)
This course is designed to provide secondary school practical experience for teacher-librarians by working a minimum of 80 hours in middle or high school library. Prerequisite: Students must have completed most of the required coursework for the degree before enrolling in the Practicum.

LIS 4920 Service Learning in LIS (1-4 Credits)
This course is designed to supplement the classroom experience by giving students an opportunity to participate in a service learning project. Students will propose an independent study component highlighting the learning aspects of the project. The experience should provide practical work in a library or information agency. Various options are available to students depending on their areas of interest and specialization. Opportunities for experience include many areas related to the information needs of an underserved population. It is the students responsibility to select a site and a field supervisor. The student, faculty coordinator, and field supervisor will work together to establish the goals and objectives of the experience. A minimum of 40 hours of service is required for two quarter hours of credit.

LIS 4991 MA Independent Study (1-10 Credits)
Independent study projects allow students more in-depth investigation of the many facets of library and information science. Students must work with an approved faculty advisor and submit a proposal outlining the objectives, scope, outcomes, and evaluation criteria. The faculty advisor and the department director must approve proposals. Prerequisites: Completion of a minimum of 30 quarter hours of graduate LIS coursework, including all core courses and a minimum GPA of 3.0.

LIS 4992 Directed Study (1-10 Credits)

Research Methods and Stats Courses

RMS 4900 Education Research and Measurement (4 Credits)
This course is intended for Master's degree students in the College of Education. Quantitative research designs, empirical methods of data collection and interpretation, and measurement issues in research are examined.

RMS 4910 Introductory Statistics (5 Credits)
This beginning statistics course examines use and interpretation of statistics in educational and human services research, including descriptive and inferential techniques. Cross listed with SOWK 5930.
RMS 4911 Correlation and Regression (4 Credits)
This course focuses on the study of correlation and multiple regression research designs and their application to educational and social science programs. Cross listed with SOWK 5202. Prerequisite: RMS 4910.

RMS 4912 Analysis of Variance (5 Credits)
Conceptual and applied analyses of one-way through factorial nested analysis of variance designs and multivariate analysis of variance are presented. Prerequisite: RMS 4910.

RMS 4913 Multivariate Analysis (5 Credits)
Conceptual and applied analyses of common multivariate statistical techniques used in research in social sciences are presented as are assumptions and limitations of techniques and interpretation of results. Cross listed with SOWK 5950. Prerequisite: RMS 4911 or RMS 4912.

RMS 4914 Structural Equation Modeling (5 Credits)
This course covers major applications of and issues related to covariance structure modeling, specifically confirmatory factor analysis and latent variable path modeling; types of research applications for which covariance structure modeling analyses are appropriate. Prerequisite: RMS 4911.

RMS 4915 Hierarchical Linear Modeling (4 Credits)
This course introduces models that extend multiple regression to analysis of nested data structures common in education and other social sciences. Application of those methods to various forms of multilevel data, including repeated measure (growth trajectory) data is emphasized. Prerequisite: RMS 4911.

RMS 4916 Latent Growth Curve Modeling (4 Credits)
This course covers advanced issues in longitudinal data analysis using structural equation modeling and hierarchical linear modeling with latent variables. It involves both conceptual development and practical implementation of longitudinal data analysis. This course is intended to be a hands-on approach to working with data and addressing research questions that can be best answered by longitudinal data. Prerequisite: RMS 4914.

RMS 4917 Computer Applications in Social Science Research (3 Credits)
This course focuses on use of statistical software and other appropriate software programs in the analysis of quantitative data. Prerequisite: RMS 4910.

RMS 4919 Topics in Statistics (1-5 Credits)
Topics vary by quarter but may include log-linear analysis, factor analysis, or missing data analysis.

RMS 4920 Educational Measurement (3 Credits)
This course examines the meaning, characteristics, and processes of educational measurement and evaluation. Development and interpretation of both standardized and informal tests are considered.

RMS 4921 Psychometric Theory (3 Credits)
This course examines major psychometric theories (e.g., classical, item response) as related to reliability, generalizability, validity, and item analysis methods. Prerequisite: RMS 4910.

RMS 4922 Item Response Theory (3 Credits)
Theory and methods for the educational and psychological measurement of latent variables using item response theory are covered in this course. Prerequisite: RMS 4921.

RMS 4929 Topics in Psychometrics (1-3 Credits)
Topics vary, but include: large scale testing, computer applications of item response theory, affective measure construction, generalizability theory, additive conjoint measurement, and standing testing. Prerequisite: RMS 4921 or instructor permission.

RMS 4930 Empirical Research Methods (3 Credits)
This course provides in depth study of empirical research methods involved in experimental, quasi-experimental, correlational, and single-subject designs.

RMS 4931 Survey and Design Analysis (3 Credits)
Survey techniques, needs assessment, item construction, sampling, maximizing response rates and data analysis; survey construction and data analysis are required. Prerequisite: RMS 4910.

RMS 4932 Meta-Analysis Social Science Research (3 Credits)
This course examines meta analytic techniques in the social sciences. Included are discussions of review of critical data bases, coverage of all major methods of data collection and analysis, and coverage of how best to present meta analytic findings for publication. Prerequisite: RMS 4910.

RMS 4939 Topics in Quantitative Research Methods (1-5 Credits)
Topics vary, but include minimization as an alternative to randomization, propensity score modeling as an alternative to experimental control, and analysis of data from single-subject designs. Prerequisite: RMS 4930.

RMS 4940 Structural Foundations of Research in Social Sciences (3 Credits)
This introductory course on epistemology and research includes discussion of identification and development of problems for research; introduction to basic quantitative and qualitative methods of conducting research in social science settings, ethnographic, and criticism methods.
RMS 4941 Introduction to Qualitative Research (4 Credits)
This course is designed to provide students with more in-depth understanding of naturalistic, qualitative research methods. It is assumed that students enrolling in this course have already completed an introductory research methods course in either education or another discipline. Purposes and questions posed in their course include: Why should a researcher choose to conduct a qualitative study? How are data collection strategies carried out in a qualitative research design? What are some of the ethical concerns that impact qualitative research?

RMS 4942 Qualitative Data Collection and Analysis (4 Credits)
In this intermediate level qualitative research course students learn about design, purposeful sampling, field work, observational approaches, and interviews, with special attention directed to the skills and competencies needed to gather and analyze high quality data. Prerequisite: RMS 4941 or instructor permission.

RMS 4943 Computer Applications in Qualitative Research (3 Credits)
Review of assumptions of qualitative designs, types of qualitative approaches and current data-analysis techniques; computer software to analyze qualitative data.

RMS 4944 Action Research (3 Credits)
Definition of action research, whether it improves classroom practice, methods of conducting, strengths and weaknesses; use to improve specific aspects of educational practice, to become more reflective practitioners.

RMS 4945 Community-Based Research (4 Credits)
This class introduces the emerging philosophical and methodological issues that arise when university faculty students collaborate on research with community-based organizations. Prerequisites: RMS 4942 and RMS 4946.

RMS 4946 Advanced Qualitative Research (4 Credits)
This course introduces exemplary qualitative studies and consideration of implications for education and the social sciences, and considers the types of questions asked by qualitative researchers and methods they use, particularly observation and interviewing. Students undertake their own qualitative study to consider application of theory, techniques, and practice to their dissertation research. Prerequisite: RMS 4941 and RMS 4942 or permission of instructor.

RMS 4947 Arts-Based Research (3 Credits)
In this course students explore the ground upon which arts-based research is built and become acquainted with salient issues regarding this kind of research. We practice interviewing, observations and a few arts-based practices. Prerequisites: RMS 4942 and RMS 4946 or permission of instructor.

RMS 4949 Topics in Qualitative Research (1-5 Credits)
This seminar builds on the content of other qualitative research courses offered in the RMS program and meets the students where they are on their dissertation journey; thus learning opportunities are tailored to individual needs as far as possible. Assignments focus on the issues pertinent to the design of dissertation proposals and writing, including ethical issues and IRB preparation, theoretical/conceptual framework, literature review, methodology, data collection and analysis strategies, and various forms of representation.

RMS 4951 Mixed Method Research Design (4 Credits)
This course is designed as a fundamental exploration of mixed model and mixed method approaches. Students design mixed model and mixed method research studies with a particular emphasis on multi-site and longitudinal designs that are especially suited to educational issues. Students learn analysis approaches that incorporate previously learned quantitative and qualitative skills, and apply these in practice problem examples. Prerequisites: RMS 4911, RMS 4930 and RMS 4942.

RMS 4952 Research Ethics (1 Credit)
This course introduces ethical theory and a selection of current issues in research ethics.

RMS 4953 Topics in Data Management (1-3 Credits)
This is a preparatory course emphasizing the manipulation and analysis of data in electronic form.

RMS 4954 Grant Writing (3 Credits)
This course provides a focused overview of grant writing for educators. It examines the development of reference tools (paper, electronic, and online), websites, structuring, and writing funding requests, community collaboration and partnerships, project budgeting, management, evaluation, sustainability, and reporting activities.

RMS 4959 Topics in Research Design (1-5 Credits)
Topics vary, but include single subject design issues, minimization as an alternative to randomization, advances in quasi-experimental design. Prerequisite: RMS 4930.

RMS 4960 Program Evaluation Theory (3,4 Credits)
This course reviews theories of program evaluation and current trends in evaluation.

RMS 4961 Program Development & Evaluation (3 Credits)
This course focuses on the practice of program development and evaluation in school, business, or community agency settings. Both qualitative and quantitative methods of program evaluation are discussed. Students have the opportunity to focus on evaluation of a specific program.

RMS 4962 Program Development and Assessment (3 Credits)
This course focuses on how student affairs administrators conduct student outcomes assessment, evaluate program development, and monitor program and division budgets.
RMS 4969 Topics in Program Evaluation (1-5 Credits)
Topics vary, but include advocacy and policy change, assessment in higher education, multi-level evaluation, cost effectiveness analysis, data visualization and reporting, assessment in distance education, and evaluation in the arts and culture. Prerequisite: RMS 4960.

RMS 4980 Practicum in Research (1-5 Credits)
This course provides a supervised experience in design and implementation of an empirical research or evaluation study. Organization of research proposals, completion of human subjects applications, collection, and analysis of data are emphasized. Students are expected to prepare a written report of their project which is suitable for professional presentation or publication.

RMS 4981 Community-Based Research Practicum (1-5 Credits)
Students provide community-based research assistance to a community partner (non-profit, school, community based organization, etc). Student researchers are supervised by DU faculty. This course is an excellent opportunity to match the student's research expertise with the real needs of community partners. Prerequisite: RMS 4945.

RMS 4991 Independent Study (1-10 Credits)
This course allows Masters students in RMS to study a topic area independently in conjunction with a cooperating faculty member.

RMS 4992 Directed Study (1-10 Credits)

RMS 4995 Independent Research (1-10 Credits)

RMS 5991 Independent Study (1-10 Credits)
This course allows Ph.D. students in RMS to study a topic area independently in conjunction with a cooperating faculty member.

RMS 5992 Directed Study (1-10 Credits)

RMS 5995 Independent Research (1-18 Credits)
This course is for Ph.D. students in RMS who are engaged in completing their doctoral dissertation.

Teaching and Learning Sciences
Office: Katherine A. Ruffatto Hall, 110
Mail Code: 1999 E. Evans Avenue, Denver, CO 80208
Phone: 303-871-2509
Email: edinfo@du.edu
Web Site: morgridge.du.edu/programs/

Doctor of Philosophy in Child, Family, and School Psychology
The CFSP PhD degree – School Psychology (PhD-SP) prepares professionals in all aspects of doctoral-level school psychology services. All graduates are eligible for a Colorado Department of Education license in School Psychology and the National Association of School Psychologist’s National Certification (NCSP) after the successful completion of all coursework and passing the Praxis II/National Association of School Psychology licensing exam. PhD-SP students are required to pass comprehensive examinations and to complete a dissertation.

Program Accreditation
This degree is fully approved by the National Association of School Psychologists (NASP).

Doctor of Philosophy in Child, Family, and School Psychology - Pathway for EDS Professionals
The CFSP PhD - Pathway for EdS Professionals is a unique PhD program designed for EdS professionals who wish to deepen their expertise in the dynamic field of education and school psychology. This degree program meets the needs of experienced professionals and recent graduates with an Educational Specialist (EdS) from a National Association of School Psychologists (NASP) approved program interested in enhancing their careers through the development of applied research and leadership skills. It is intended to link professional knowledge and research with the world of practice in a chosen specialty area of study. Students take a flexible array of advanced courses in child and family studies, family and systems service delivery, organizational management, research and program evaluation and policy development that are designed to develop expertise matched to individual interests and proficiency.

Doctor of Philosophy in Curriculum and Instruction
PhD students take a wide range of courses in the areas of curriculum, instruction, foundations, diversity and research. The PhD is particularly well suited for students interested in becoming higher education faculty in schools and colleges of education. Dissertation topics cover a broad assortment of theoretical and practical topics in schools or associated institutions or community groups. Additionally, students are encouraged to consider enrolling in courses in other academic units in the Morgridge College of Education and throughout the University in order to enhance or expand their educational experience. There are specializations in three areas: Curriculum Studies, Gifted Education, and Mathematics Education.
Doctor of Education in Curriculum and Instruction

The EdD in Curriculum and Instruction is designed to prepare educational practitioners as experts of curriculum and instruction, capable of engaging in problems and challenges in a variety of education institutions and contexts particularly at the school or district level. The aim of this program is to produce graduates who are leaders and innovators in education (broadly defined), equipped with cutting-edge applied research skills, creative educational visions based on established academic disciplines, moral imagination, curricular expertise and commitments to issues of equity and social responsibility. There are specializations in three areas: Curriculum Studies, Gifted Education, and Mathematics Education.

Educational Specialist Degree in Child, Family and School Psychology with a Concentration in School Psychology

The CFSP Educational Specialist degree – School Psychology Generalist (EdS-G) prepares professionals in all aspects of School Psychology services to work with children and families from birth to age 21 in school or community settings. All graduates of the EdS program are eligible for a Colorado Department of Education license in School Psychology and the National Association of School Psychologist’s National Certification (NCSP) after the successful completion of all coursework and passing the Praxis II/National Association of School Psychology licensing exam.

Program Accreditation
The EdS. degree is fully approved by the National Association of School Psychologists (NASP).

Educational Specialist degree in Child, Family, and School Psychology with a Concentration in Early Childhood School Psychology

The CFSP Educational Specialist degree – School Psychology with Early Childhood Concentration (EdS-EC) prepares professionals in all aspects of School Psychology services to work with children and families from birth to age 21. This degree requires an additional 12 hours of integrated core and practical coursework, beyond that required for the EdS- Generalist degree. All graduates of the EdS program are eligible for a Colorado Department of Education license in School Psychology and the National Association of School Psychologist’s National Certification (NCSP) after the successful completion of all coursework and passing the Praxis II/National Association of School Psychology licensing exam.

Program Accreditation
The Ed.S. degree is fully approved by the National Association of School Psychologists (NASP).

Masters of Arts in Child, Family, and School Psychology

The CFSP Master’s (MA) degree prepares students interested in working in community agencies or educational settings that emphasize policy as it relates to direct service to young children and families. Licensure as a school psychologist is not available with the MA in CFSP degree. The MA courses are aligned with the CFSP School Psychology Doctoral degree and prepare students for further study.

Master of Arts in Curriculum and Instruction

This degree program is designed with the individual student’s background and career goals in mind. Most students prepare for traditional and non-traditional positions in education that require planning, consulting, research, curriculum development, evaluation and policy-making. Instructional coaching is established in a profession that is increasingly gaining national attention. Many school districts across the US, including several in Colorado, are implementing instructional coaching as a component of transformative school reform.

Master of arts in Curriculum and Instruction with a Concentration in Teacher Education Program-Elementary/Secondary/K-12

The Teacher Education Program concentrations offer an intensive, integrated, professional preparation experience. The program is structured similar to clinical preparation models where course work and field experiences are purposeful, connected, gradual, and cumulative. Program features such as small class sizes, built-in peer support, high academic standards, and a year-long residency in closely supervised field experiences in linguistically and culturally diverse settings promote student success in mastering the competencies of an effective teacher. Apprentice teachers can complete this program in five quarters (52 credits), earning both a teaching licensure and a master’s degree.

Apprentice teachers are required to complete 840 hours of field experience in diverse public school classrooms. Apprentice teachers are required to be at their fieldwork site three days a week during fall and winter quarters and four-five days a week in the spring quarter. A gradual release of responsibility leads to solo teaching throughout the year-long residency.

The mission of the University of Denver Morgridge College of Education (MCE) Teacher Education Program (TEP) concentrations is to provide an extensive, integrated, professional experience that supports apprentice teachers in developing the dispositions, knowledge, and skills of an effective teacher of diverse learners in underserved K-12 schools. Ultimately, effective teachers engage, plan, teach, and lead to promote the growth and development of all learners, and they take an active role in their own professional development.

Dual Undergraduate-Graduate Program in Teacher Education
The Dual Undergraduate-Graduate Degree program in Teacher Education concentration is an approved program in which a University of Denver undergraduate student begins taking classes toward a teaching license and a graduate degree program prior to earning a baccalaureate degree. Both degrees must be earned within five years of matriculation into the undergraduate degree program. Dual degree students in the program take nine hours of graduate course work in their senior year (all nine hours double-count as undergraduate and graduate level course work). The nine hours of MCE course work can be spread across the fall, winter, or spring quarter, or stacked into one or two quarters. Dual degree students should initiate the admissions process in the winter of their junior year.

Program Accreditation
The program is accredited by the Colorado Department of Education (CDE).

Master of Arts in Curriculum and Instruction with a Concentration in Urban Education
The Master of Arts in Curriculum and Instruction with a concentration in Urban Education, Denver Teacher Residency (DTR) is an innovative, hands-on teacher preparation program designed to cultivate and support exceptional teachers in high-needs schools within Denver Public Schools (DPS). DTR leads DPS efforts to recruit, prepare and retain high-quality urban educators to effectively meet the diverse needs of each student, improve academic achievement, and serve as leaders in Denver’s schools, district and community.

The Denver Teacher Residency’s progressive approach to recruitment and training reflects the diverse ethnic, racial, socioeconomic and linguistic needs of DPS’ learning community. DTR residents are paired with mentor teachers in classrooms serving a variety of high needs, including elementary English Language Acquisition (English and Spanish), Special Education, secondary mathematics or secondary science. This hands-on approach to teacher training and certification prepares you to meet the linguistic, communication and special learning needs found in any DPS classroom.

Graduation Requirements: The 52 quarter credit hour program includes a residency requirement in Denver Public Schools in elementary or secondary contexts. Upon successful completion of coursework, you will be eligible to apply for an initial Colorado teaching license (you must meet the Colorado Department of Education – CDE requirements for a Colorado initial teacher license (http://www.cde.state.co.us/cdeprof/Licensure_tch_req.asp) and apply for the license with the CDE).

Approximate Completion Time: 12 months or four quarters (begins in the summer quarter with completion in the following spring quarter). At the end of the program, you will become eligible to apply for an initial Colorado teaching license (students must meet the Colorado Department of Education – CDE requirements for a Colorado initial teacher license (http://www.cde.state.co.us/cdeprof/Licensure_tch_req.asp) and apply for the license with the CDE).

Master of Arts in Early Childhood Special Education
The master’s degree in Early Childhood Special Education (EC SPED) is a four quarter (one to two year) program that focuses on expanding opportunities for specialized work with young children, youth, and families in school and community settings. It also is a pipeline to licensure and non-licensure degrees including a doctoral degree. Students in the M.A. in EC SPED degree program develop the knowledge and practical skills needed to work successfully within the early childhood school and community agencies that serve the birth to eight-years-old age group.

Our goal is to prepare highly competent, collaborative, ethical, and self-reflective Early Childhood Special Education Specialists who will serve young children with special needs and their families in schools, districts, and in community organizations. This program will facilitate your training and development as a scientist-practitioner who can solve problems and share decision-making with others to optimize social-emotional, cognitive, academic, and behavioral outcomes for children from birth to age eight with special needs, and their families.

Certificate in Curriculum and Instruction with a Concentration in the Teacher Education Program - Elementary/Secondary/K-12
The Teacher Education Program concentrations offer an intensive, integrated, professional preparation experience. The program is structured similar to clinical preparation models where course work and field experiences are purposeful, connected, gradual, and cumulative. Program features such as small class sizes, built-in peer support, high academic standards, and a year-long residency in closely supervised field experiences in linguistically and culturally diverse settings promote student success in mastering the competencies of an effective teacher. Upon completion of the certificate program (43 credits, four quarters) the student will be eligible to apply for teacher licensure through the Colorado Department of Education.

Apprentice teachers are required to complete 840 hours of field experience in diverse public school classrooms. Apprentice teachers are required to be at their fieldwork site three days a week during fall and winter quarters and four-five days a week in the spring quarter. A gradual release of responsibility leads to solo teaching throughout the year-long residency.

The mission of the University of Denver Morgridge College of Education (MCE) Teacher Education Program (TEP) concentrations is to provide an extensive, integrated, professional experience that supports apprentice teachers in developing the dispositions, knowledge, and skills of an effective teacher of diverse learners in underserved K-12 schools. Ultimately, effective teachers engage, plan, teach, and lead to promote the growth and development of all learners, and they take an active role in their own professional development.

Program Accreditation
The program is accredited by the Colorado Department of Education (CDE).
Certificate in Early Childhood Special Education

The Early Childhood Special Education Certificate is a 24-credit hour program that is aligned with the Masters of Arts in Early Childhood Special Education. As with the MA ECSE program, the candidates in the ECSE Certificate program are required to complete 600 hours of practicum over three age-levels (infant-toddler, preschool, school-age), pass the PLACE ECSE test or Praxis II, and apply to the state for the Early Childhood Special Education Specialist Endorsement.

Doctor of Philosophy in Child, Family, and School Psychology WITH A CONCENTRATION IN School Psychology

Following are the simple steps to apply for graduate study in Child, Family and School Psychology at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: Priority deadline: December 15, 2015; Final deadline: April 1, 2016 for Fall 2016 (201670). The program will review well-qualified applicants after the deadline until the remaining space has been filled.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. Applicants to the PhD must have an earned master's degree prior to matriculating into the doctoral program.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.

- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.

- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.

- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.

- Paper transcripts should be sent to the following address:
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802

- Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
• Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsformonnativeenglishspeakers)
• The Graduate Record Exam (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. DU’s ETS Institution Code is 4842.

Statement of Professional Goals
• A statement is required should be submitted via upload through the online application process.

Resume / C.V.
• A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters
• Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) Website. International students are not eligible for federal financial aid.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online at PioneerWeb. Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.

• For more information call (303) 871-2706

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Following are the simple steps to apply for the PhD and EDS programs in Child, Family and School Psychology at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).

  • All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: Priority deadline: December 15, 2015; Final deadline: April 1, 2016 for Fall 2016 (201670). The program will review well-qualified applicants after the deadline until the remaining space has been filled.

  • A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. Applicants to the PhD must have an earned master’s degree prior to matriculating into the doctoral program.
Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.

- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.

- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program's stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.

- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.

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Test Scores (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- The Graduate Record Exam (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. DU's ETS Institution Code is 4842.

Statement of Professional Goals

- A statement is required should be submitted via upload through the online application process.

Resume / C.V.

- A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters

- Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Program-Specific Admission Requirements

- When possible, these requirements should be submitted via upload through the online application process.

  - Employer/Supervisor Evaluation
  - In-service or Training Presentation
  - Case Study in NASP Format
Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

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The Graduate Policies and Procedures provides complete details regarding admission requirements.

Master of Arts in Child, Family, and School Psychology; Education specialist degree in child, family, and school psychology with a concentration in school psychology, concentration in early childhood school psychology

Following are the simple steps to apply for graduate study in Child, Family and School Psychology at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies.

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
  • All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: Priority Deadline for MA: January 16, 2016; Priority Deadline for EDS: December 15, 2015; Final Deadline: April 1, 2016 for Fall 2016 admit (201670). The program will review well-qualified applicants after the deadline until the remaining space has been filled.
  • A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.

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- A statement is required should be submitted via upload through the online application process.

Resume / C.V.
- A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume should be submitted via upload through the online application process.

Recommendation Letters
- Two letters of recommendation are required and three are recommended. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

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The Graduate Policies and Procedures provides complete details regarding admission requirements.

**Doctor of Philosophy in Child, Family, and School Psychology with a Concentration in School Psychology**

**Degree Requirements**

**Coursework Requirements**

<table>
<thead>
<tr>
<th>Developmental and Psychological Foundations</th>
<th>15 credits</th>
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<tbody>
<tr>
<td>CFSP 4304 Diversity in School and Community Settings</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4310 Infant Development</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4312 Learning Application and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4311 Child Development</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4641 Adolescent Development</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Research, Measurement, Program Evaluation and Technology</th>
<th>33 credits minimum</th>
</tr>
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<tbody>
<tr>
<td>RMS 4951 Mixed Method Research Design</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4930 Empirical Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4910 Introductory Statistics</td>
<td>5</td>
</tr>
<tr>
<td>Research Courses: Intermediate Level</td>
<td>8 credits</td>
</tr>
<tr>
<td>Choose at least 8 credits from the following courses:</td>
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</tr>
<tr>
<td>RMS 4911 Correlation and Regression</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4912 Analysis of Variance</td>
<td>5</td>
</tr>
<tr>
<td>RMS 4922 Item Response Theory</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4932 Meta-Analysis Social Science Research</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4942 Qualitative Data Collection and Analysis</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4944 Action Research</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4961 Program Development &amp; Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>Research Courses: Advanced level</td>
<td>3 credits</td>
</tr>
<tr>
<td>Choose at least 3 credits from the following courses:</td>
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</tr>
<tr>
<td>RMS 4913 Multivariate Analysis</td>
<td>5</td>
</tr>
<tr>
<td>RMS 4914 Structural Equation Modeling</td>
<td>5</td>
</tr>
<tr>
<td>RMS 4915 Hierarchical Linear Modeling</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4916 Latent Growth Curve Modeling</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4919 Topics in Statistics</td>
<td>1-5</td>
</tr>
<tr>
<td>RMS 4929 Topics in Psychometrics</td>
<td>1-3</td>
</tr>
<tr>
<td>RMS 4939 Topics in Quantitative Research Methods</td>
<td>1-5</td>
</tr>
<tr>
<td>RMS 4945 Community-Based Research</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4946 Advanced Qualitative Research</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4947 Arts-Based Research</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4949 Topics in Qualitative Research</td>
<td>1-5</td>
</tr>
<tr>
<td>RMS 4959 Topics in Research Design</td>
<td>1-5</td>
</tr>
<tr>
<td>RMS 4969 Topics in Program Evaluation</td>
<td>1-5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dissertation</th>
<th>10 credits</th>
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<tbody>
<tr>
<td>CFSP 5995 Dissertation Research</td>
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<table>
<thead>
<tr>
<th>Learning Theory, Educational Foundations, and Special Education Leadership</th>
<th>12 credits</th>
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<tbody>
<tr>
<td>CFSP 4303 Risk, Resiliency &amp; Prevention</td>
<td>3</td>
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<tr>
<td>CFSP 4305 Exceptional Child: Biomedical &amp; Psycho-Social Aspects</td>
<td>3</td>
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</table>
or CFSP 4308  Early Academic Competencies
CFSP 4338  Low-Incidence Disability and Intervention 3
CFSP 4342  Crisis, Intervention and Prevention 3

Legal, Ethical and Professional Foundations 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CFSP 4301</td>
<td>Professional and Ethical Issues in School Psychology</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4302</td>
<td>Legal Issues in Education</td>
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Evaluation and Assessment 18

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>CFSP 4363</td>
<td>Child, Family, School Psychology Program Development and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4322</td>
<td>Psycho-Educational Assessment I</td>
<td>4</td>
</tr>
<tr>
<td>CFSP 4323</td>
<td>Psycho-Educational Assessment II</td>
<td>4</td>
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<tr>
<td>CFSP 4324</td>
<td>Assessment III</td>
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Collaborative Consultation with Families and Schools 19

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td>CFSP 4330</td>
<td>Family-School Partnering and Consultation</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4340</td>
<td>Counseling Children and Adolescent</td>
<td>4</td>
</tr>
<tr>
<td>CFSP 4332</td>
<td>Classroom Management and Consultation</td>
<td>4</td>
</tr>
<tr>
<td>CFSP 4337</td>
<td>School-Age Academic Competencies</td>
<td>4</td>
</tr>
<tr>
<td>CFSP 4343</td>
<td>School Mental Health Counseling II</td>
<td>4</td>
</tr>
</tbody>
</table>

Applied Coursework 17

<table>
<thead>
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<th>Title</th>
<th>Credits</th>
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<tr>
<td>CFSP 4349</td>
<td>Community Practicum</td>
<td>2</td>
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<tr>
<td>CFSP 4353</td>
<td>School Practicum</td>
<td>2</td>
</tr>
<tr>
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<td>2</td>
</tr>
<tr>
<td>CFSP 4353</td>
<td>School Practicum</td>
<td>2</td>
</tr>
<tr>
<td>CFSP 4361</td>
<td>Seminar: CFSP Supervision (take during one quarter)</td>
<td>2</td>
</tr>
<tr>
<td>CFSP 4355</td>
<td>School Psychology Internship (1 yr full-time or 2 yrs half-time; 1500 hours)</td>
<td>3</td>
</tr>
</tbody>
</table>

Cognate Courses 15

Approved Options Minimum of five courses in a defined advanced specialization selected in consultation with advisor 15

Total Credits 135

The 135 minimum credit requirement is from the baccalaureate degree.

Non-coursework Requirements

- Passing of Praxis Exam
- Comprehensive Examination
- Dissertation
- Oral defense of Dissertation


Degree Requirements

Coursework Requirements

Research, Measurement, Program Evaluation 36

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
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</table>
RMS 4941 Introduction to Qualitative Research 4

Research Courses: Intermediate level 8 credits min.

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>RMS 4911</td>
<td>Correlation and Regression</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4912</td>
<td>Analysis of Variance</td>
<td>5</td>
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<td>RMS 4944</td>
<td>Action Research</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4961</td>
<td>Program Development &amp; Evaluation</td>
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</tbody>
</table>

Select 8 credits from the following list of courses:

Research Courses: Advanced level 3 credits min.

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<tbody>
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<td>RMS 4913</td>
<td>Multivariate Analysis</td>
<td>5</td>
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<td>Structural Equation Modeling</td>
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<td>RMS 4951</td>
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<tr>
<td>CFSP 5995</td>
<td>Dissertation Research</td>
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Applied Coursework 2 credits

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<tr>
<td>CFSP 4361</td>
<td>Seminar: CFSP Supervision</td>
<td>2</td>
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<tr>
<td>CFSP 4355</td>
<td>School Psychology Internship (OPTIONAL, not required - 1 yr internship - must be taken for further PhD licensing)</td>
<td>Optional</td>
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</table>

Cognate Courses 14 credits min.

Possible concentrations include: Data-based Decision Making, Assessment and Evaluation Prevention, Intervention, and Consultation, Advanced Developmental Theory Advocacy, Policy and Leadership 14

Total Credits 52

Non-coursework Requirements

- Comprehensive Exam
- Dissertation
- Oral Defense of Dissertation

Doctor of Philosophy in Curriculum and Instruction

Degree Requirements

Coursework requirements
### A. Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CUI 4020</td>
<td>Introduction to Curriculum (Required)</td>
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<td>CUI 4039</td>
<td>Transformational Teaching and Learning</td>
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<td>CUI 4160</td>
<td>Race, Class and Gender in Education</td>
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<td>CUI 4035</td>
<td>Critical Perspectives: Democracy, Power, and Privilege</td>
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<td>Curriculum Theory into Practice</td>
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### B. Foundations

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<td>CUI 4180</td>
<td>History of Education in the United States</td>
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<td>CUI 4130</td>
<td>Philosophy of Education</td>
<td>3</td>
</tr>
<tr>
<td>CUI 4155</td>
<td>Special Topics</td>
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### C. Specialization

See advisor for courses

### D. Electives

See advisor for courses

### E. Research

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>RMS 4941</td>
<td>Introduction to Qualitative Research</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4930</td>
<td>Empirical Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4910</td>
<td>Introductory Statistics</td>
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Intermediate Research

Select from the following courses for a minimum total of 8 credits:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>RMS 4911</td>
<td>Correlation and Regression</td>
<td>4</td>
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<tr>
<td>RMS 4912</td>
<td>Analysis of Variance</td>
<td>5</td>
</tr>
<tr>
<td>RMS 4922</td>
<td>Item Response Theory</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4932</td>
<td>Meta-Analysis Social Science Research</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4942</td>
<td>Qualitative Data Collection and Analysis</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4944</td>
<td>Action Research</td>
<td>3</td>
</tr>
<tr>
<td>RMS 4961</td>
<td>Program Development &amp; Evaluation</td>
<td>3</td>
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</table>

Advanced Research

Select from the following courses for a minimum total of 3 credits:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>RMS 4913</td>
<td>Multivariate Analysis</td>
<td>5</td>
</tr>
<tr>
<td>RMS 4914</td>
<td>Structural Equation Modeling</td>
<td>5</td>
</tr>
<tr>
<td>RMS 4915</td>
<td>Hierarchical Linear Modeling</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4916</td>
<td>Latent Growth Curve Modeling</td>
<td>4</td>
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<tr>
<td>RMS 4919</td>
<td>Topics in Statistics</td>
<td>1-5</td>
</tr>
<tr>
<td>RMS 4929</td>
<td>Topics in Psychometrics</td>
<td>1-3</td>
</tr>
<tr>
<td>RMS 4939</td>
<td>Topics in Quantitative Research Methods</td>
<td>1-5</td>
</tr>
<tr>
<td>RMS 4945</td>
<td>Community-Based Research</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4946</td>
<td>Advanced Qualitative Research</td>
<td>4</td>
</tr>
<tr>
<td>RMS 4947</td>
<td>Arts-Based Research</td>
<td>3</td>
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</table>
RMS 4949  Topics in Qualitative Research  1-5
RMS 4951  Mixed Method Research Design  4
RMS 4959  Topics in Research Design  1-5
RMS 4969  Topics in Program Evaluation  1-5

Dissertation Research  16 credits minimum

CUI 4050  Curriculum & Instr Rsch Sem  3
CUI 5994  Seminar in Dissertation Organization and Research  3
CUI 5995  Dissertation Research  10

Minimum Total Number of Credits Required  90

A minimum of 90 credit hours is required beyond the earned master's degree. No credit hours from the earned master's degree can be transferred into the PhD.

Non-coursework Requirements

- Portfolio
- Doctoral Comprehensive Examination
- Dissertation
- Oral Defense of Dissertation

Doctor of Education in Curriculum and Instruction

Degree Requirements

Coursework requirements

A. Required Courses  12 credits

CUI 4020  Introduction to Curriculum (Required)  3
CUI 4039  Transformational Teaching and Learning  3
CUI 4160  Race, Class and Gender in Education  3
CUI 4035  Critical Perspectives: Democracy, Power, and Privilege  3

B. Foundations  3

Choose from the following courses for 3 credits:

CUI 4180  History of Education in the United States  3
CUI 4130  Philosophy of Education  3
CUI 4155  Special Topics  3

C. Specialization  24 minimum

See advisor for courses

D. Research  24 minimum

Required Research Coursework*  6 credits minimum*

RMS 4940  Structural Foundations of Research in Social Sciences  3
RMS 4930  Empirical Research Methods  3

Research Sequences (Choose only one of the two options):  8-9 credits minimum

OPTION 1 (8 credits):
RMS 4941  Introduction to Qualitative Research  4
RMS 4942  Qualitative Data Collection and Analysis  4
OPTION 2 (8-9 credits):

RMS 4910 Introductory Statistics 5

and one of the following courses:

RMS 4911 Correlation and Regression 4 hours
or RMS 4931 Survey and Design Analysis

Doctoral Research Courses (10 credits) 10

CUI 5980 Research as Problem Analysis 3
CUI 5981 Research as Intervention 3
CUI 5982 Applied Research 4

Minimum Total Number of Credits Required** 65

Please note: the numbers in each category above are either a minimum or range of credit hours required. The 65 minimum credit requirement is only for students with an earned master's degree. No credit hours from the earned Master's degree can be transferred into the EdD.

*As part of Required Research Coursework, a recommended prerequisite is: RMS 4920 Educational Measurement (3 credits)

Non-coursework Requirements

- Online Portfolio
- Doctoral Comprehensive Exam
- Doctoral Research Paper
- Oral Defense of Dissertation

Education Specialist in Child, Family, and School Psychology with a Concentration in School Psychology

Degree Requirements

Coursework Requirements

<table>
<thead>
<tr>
<th>Developmental and Psychological Foundations</th>
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<tbody>
<tr>
<td>CFSP 4304 Diversity in School and Community Settings</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4310 Infant Development</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4311 Child Development</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4641 Adolescent Development</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Learning Theory, Educational Foundations, and Special Education</th>
<th>9 credits</th>
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<tbody>
<tr>
<td>CFSP 4305 Exceptional Child: Biomedical &amp; Psycho-Social Aspects</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4312 Learning Application and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4338 Low-Incidence Disability and Intervention</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Legal, Ethical, and Professional Foundations</th>
<th>6 credits</th>
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<tbody>
<tr>
<td>CFSP 4301 Professional and Ethical Issues in School Psychology</td>
<td>3</td>
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<tr>
<td>CFSP 4302 Legal Issues in Education</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Research, Measurement, and Program Evaluation</th>
<th>8 credits</th>
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</thead>
<tbody>
<tr>
<td>RMS 4910 Introductory Statistics</td>
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<tr>
<td>CFSP 4363 Child, Family, School Psychology Program Development and Evaluation</td>
<td>3</td>
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<thead>
<tr>
<th>Individual Evaluation and Assessment</th>
<th>12 credits</th>
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<tbody>
<tr>
<td>CFSP 4322 Psycho-Educational Assessment I</td>
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<tr>
<td>CFSP 4323 Psycho-Educational Assessment II</td>
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</table>
CFSP 4324 Assessment III 4

**Prevention, Wellness Promotion, Counseling and Crisis Intervention**

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CFSP 4303</td>
<td>Risk, Resiliency &amp; Prevention</td>
<td>3</td>
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<tr>
<td>CFSP 4308</td>
<td>Early Academic Competencies</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4337</td>
<td>School-Age Academic Competencies</td>
<td>4</td>
</tr>
<tr>
<td>CFSP 4340</td>
<td>Counseling Children and Adolescent</td>
<td>4</td>
</tr>
<tr>
<td>CFSP 4342</td>
<td>Crisis, Intervention and Prevention</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4343</td>
<td>School Mental Health Counseling II</td>
<td>4</td>
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**Collaborative Consultation with Families and Schools**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>CFSP 4330</td>
<td>Family-School Partnering and Consultation</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4332</td>
<td>Classroom Management and Consultation</td>
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</table>

**Applied Courses**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
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<td>CFSP 4349</td>
<td>Community Practicum</td>
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<td>CFSP 4353</td>
<td>School Practicum</td>
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**Culminating Field Experience**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CFSP 4355</td>
<td>School Psychology Internship (1200 hours one year full-time OR two years half-time)</td>
<td>3</td>
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</tbody>
</table>

**Final Assessment**

Praxis II/NASP Exam (score of 165 or greater)  PASS

Total Credits 90

Minimum number of credits required for degree: 90

**Non-coursework Requirements**

- Passing score on PRAXIS exam

---

**Education Specialist in Child, Family, and School Psychology with a Concentration in Early Childhood School Psychology**

**Degree Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFSP 4304</td>
<td>Diversity in School and Community Settings</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4310</td>
<td>Infant Development</td>
<td>3</td>
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<tr>
<td>CFSP 4311</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>CNP 4641</td>
<td>Adolescent Development</td>
<td>3</td>
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</table>

**Learning Theory, Educational Foundations, and Special Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CFSP 4305</td>
<td>Exceptional Child: Biomedical &amp; Psycho-Social Aspects</td>
<td>3</td>
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<tr>
<td>CFSP 4312</td>
<td>Learning Application and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CFSP 4338</td>
<td>Low-Incidence Disability and Intervention</td>
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**Legal, Ethical, and Professional Foundations**

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<th>Credits</th>
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<td>Professional and Ethical Issues in School Psychology</td>
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<td>CFSP 4302</td>
<td>Legal Issues in Education</td>
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Research, Measurement, and Program Evaluation

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<td>CFSP 4363</td>
<td>Child, Family, School Psychology Program Development and Evaluation</td>
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**Individual Evaluation and Assessment**

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<th>Credits</th>
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<td>Psycho-Educational Assessment I</td>
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**Prevention, Wellness Promotion, Counseling and Crisis Intervention**

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<tr>
<th>Course Code</th>
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<td>CFSP 4303</td>
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**Collaborative Consultation with Families and Schools**

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<tr>
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**Applied Courses**

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**Culminating Field Experience**

<table>
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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>CFSP 4355</td>
<td>School Psychology Internship (1200 hours one year full-time OR two years half-time)</td>
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</tbody>
</table>

**Final Assessment**

- Praxis II/NASP Exam (score of 165 or greater)
  - PASS

**Concentration in Early Childhood Special Education**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CFSP 4315</td>
<td>Professional and Ethical Issues in Early Childhood Special Education</td>
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<tr>
<td>CFSP 4320</td>
<td>Infant Assessment</td>
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<td>CFSP 4326</td>
<td>Preschool Assessment</td>
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<td>CFSP 4336</td>
<td>Preschool Interventions</td>
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</table>

**Total Credits**

- Minimum number of credits required for degree: 102

**Non-coursework Requirements**

- Passing score on PRAXIS exam

---

**Master of Arts in Child, Family, and School Psychology**

**Degree Requirements**

**Coursework Requirements**

**Developmental and Psychological Foundations**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CFSP 4304</td>
<td>Diversity in School and Community Settings</td>
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</table>
Master of Arts in Curriculum and Instruction

Degree Requirements

Coursework Requirements

A. Required

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CUI 4020</td>
<td>Introduction to Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CUI 4039</td>
<td>Transformational Teaching and Learning</td>
<td>3</td>
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<td>CUI 4160</td>
<td>Race, Class and Gender in Education</td>
<td>3</td>
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<td>CUI 4058</td>
<td>Teacher as Researcher</td>
<td>3</td>
</tr>
<tr>
<td>CUI 4035</td>
<td>Critical Perspectives: Democracy, Power, and Privilege</td>
<td>3</td>
</tr>
<tr>
<td>CUI 4022</td>
<td>Curriculum Theory into Practice</td>
<td>3</td>
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B. Foundations

Select two of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CUI 4180</td>
<td>History of Education in the United States</td>
<td>3</td>
</tr>
<tr>
<td>CUI 4130</td>
<td>Philosophy of Education</td>
<td>3</td>
</tr>
<tr>
<td>CUI 4155</td>
<td>Special Topics</td>
<td>3</td>
</tr>
</tbody>
</table>

C. Specialization

See advisor for courses

D. Research

See advisor for courses
RMS 4930  Empirical Research Methods  3
RMS 4940  Structural Foundations of Research in Social Sciences  3

And choose one of the following courses:
RMS 4900  Education Research and Measurement  4
RMS 4920  Educational Measurement  3
RMS 4910  Introductory Statistics  5

**Minimum Total Number of Credits Required**  45

Minimum number of credits required for degree: 45

**Non-coursework Requirements**

- Comprehensive Paper

**Master of Arts in Curriculum and Instruction with A Concentration in Teacher Education Program-Elementary**

**Degree Requirements**

**Coursework Requirements**

**TEP Field Experience**

<table>
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**TEP Coursework, Curriculum & Assessment**

<table>
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<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CUI 4031</td>
<td>Teaching and Learning</td>
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<tr>
<td>CUI 4540</td>
<td>Curriculum, Instruction and Assessment: Theory and Practice I</td>
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<tr>
<td>CUI 4541</td>
<td>Curriculum, Instruction, and Assessment: Theory and Practice II</td>
<td>3</td>
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<tr>
<td>CUI 4542</td>
<td>Curriculum, Instruction, and Assessment: Theory and Practice III</td>
<td>2</td>
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<tr>
<td>TEP 4010</td>
<td>Education and Psychology with Special Children</td>
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<tr>
<td>CUI 4411</td>
<td>Wkshp: Gifted &amp; Talented Educ</td>
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<td>CUI 4502</td>
<td>Elementary Science and Social Studies Methods for Cultural Linguistic Diversity</td>
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<td>CUI 4503</td>
<td>Elementary Math Methods for Cultural Linguistic Diversity</td>
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<td>Foundations of Education for Linguistically Diverse Learners</td>
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<tr>
<td>TEP 4590</td>
<td>Literacy Instruction I</td>
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<td>Literacy Instruction II</td>
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<tr>
<td>CUI 4506</td>
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**Cognate Requirement**

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>CUI 4508</td>
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<tr>
<td>CUI 4509</td>
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**Elementary Mathematics**

- CUI 4170  Engaging Learners through the Arts  3-5
- CUI 4172  Aesthetic Foundation in Education  3
- CUI 4155  Special Topics (Aesthetics and STEM Education)  1-10

**Gifted Education**

- CUI 4400  Nature and Needs of Gifted Learners  3
- CUI 4401  Psychological Aspects of Giftedness  3
- CUI 4403  Instructional Strategies for Gifted Learners  3

**Special Education**
CUI 4451  Teaching the Exceptional Child  3
CUI 4452  Low Incidence Disabilities and Behavior Intervention  3
CUI 4453  Curriculum Adaptations and Assessments for Children with Disabilities  3

Culturally and Linguistically Diverse
CUI 4531  Supporting English Language Learners Across the Curriculum  3,4
CUI 4536  Linguistic and Cultural Issues in Linking Assessment and Instruction  3-4
CUI 4538  Language, Literacy & Culture  3,4

Total Credits  52

Minimum number of credits required for degree: 52

Non-coursework Requirements

• Comprehensive Paper for M.A. degree
• 840 hours of field experience in diverse public school classrooms

Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program-Secondary

Degree Requirements

Coursework Requirements

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<thead>
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<tbody>
<tr>
<td>TEP 4690  Field Experience (Three quarters)</td>
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<tr>
<td>TEP 4690  Field Experience</td>
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<tr>
<th>TEP Coursework, Curriculum &amp; Assessment</th>
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<td>CUI 4542  Curriculum, Instruction, and Assessment: Theory and Practice III</td>
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<td>or TEP 4630  Science in Secondary School</td>
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<td>or TEP 4640  Math in Secondary School</td>
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<tr>
<td>Elementary Mathematics</td>
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<td>CUI 4507  Mathematics for Elementary School Teachers II</td>
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<td>CUI 4508  Mathematics for Elementary School Teachers III</td>
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<tr>
<td>Aesthetics</td>
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<td>CUI 4170  Engaging Learners through the Arts</td>
<td>3-5</td>
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<tr>
<td>CUI 4172  Aesthetic Foundation in Education</td>
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<td>CUI 4155  Special Topics (Aesthetics and STEM Education)</td>
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### Gifted Education

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<tbody>
<tr>
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<td>Nature and Needs of Gifted Learners</td>
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<td>CUI 4401</td>
<td>Psychological Aspects of Giftedness</td>
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<td>CUI 4403</td>
<td>Instruction Strategies for Gifted Learners</td>
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### Special Education

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<td>CUI 4451</td>
<td>Teaching the Exceptional Child</td>
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<td>CUI 4452</td>
<td>Low Incidence Disabilities and Behavior Intervention</td>
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<td>CUI 4453</td>
<td>Curriculum Adaptations and Assessments for Children with Disabilities</td>
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### Culturally and Linguistically Diverse

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<tr>
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<td>Supporting English Language Learners Across the Curriculum</td>
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<tr>
<td>CUI 4536</td>
<td>Linguistic and Cultural Issues in Linking Assessment and Instruction</td>
<td>3-4</td>
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<tr>
<td>CUI 4538</td>
<td>Language, Literacy &amp; Culture</td>
<td>3,4</td>
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</table>

**Total Credits: 52**

**Minimum number of credits required for degree: 52**

### Non-coursework Requirements

- Comprehensive Paper for M.A. degree
- 840 hours of field experience in diverse public school classrooms

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**Master of Arts in Curriculum and Instruction with a Concentration in Teacher Education Program-K-12 Art-Music-Spanish**

**Degree Requirements**

**Coursework Requirements**

#### TEP Field Experience

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#### TEP Coursework, Curriculum & Assessment

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<td>Foundations of Education for Linguistically Diverse Learners</td>
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<td>CUI 4541</td>
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<tr>
<td>TEP 4781</td>
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<td>Introduction to Secondary Methods</td>
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<td>TEP 4782</td>
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<td>Foreign Language Methods in K-12 Schools</td>
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#### Cognate Requirement

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<tr>
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<td></td>
<td>Elementary Mathematics</td>
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University of Denver | Graduate Bulletin 2016-2017

CUI 4507    Mathematics for Elementary School Teachers II    3
CUI 4508    Mathematics for Elementary School Teachers III    3
CUI 4509    Mathematics for Middle School Teachers    3

Aesthetics
CUI 4170    Engaging Learners through the Arts    3-5
CUI 4172    Aesthetic Foundation in Education    3
CUI 4155    Special Topics (Aesthetics and STEM Education)    1-10

Gifted Education
CUI 4400    Nature and Needs of Gifted Learners    3
CUI 4401    Psychological Aspects of Giftedness    3
CUI 4403    Instructional Strategies for Gifted Learners    3

Special Education
CUI 4451    Teaching the Exceptional Child    3
CUI 4452    Low Incidence Disabilities and Behavior Intervention    3
CUI 4453    Curriculum Adaptations and Assessments for Children with Disabilities    3

Culturally and Linguistically Diverse
CUI 4531    Supporting English Language Learners Across the Curriculum    3,4
CUI 4536    Linguistic and Cultural Issues in Linking Assessment and Instruction    3-4
CUI 4538    Language, Literacy & Culture    3,4

Total Credits    52

Minimum number of credits required for degree: 52

Non-coursework Requirements

- Comprehensive Paper for M.A. degree
- 840 hours of field experience in diverse public school classrooms

Master of Arts in Curriculum and Instruction with a Concentration in Urban Education

Degree Plan: Master of Arts in Curriculum and Instruction with a concentration in Urban Education

Eligible for State Elementary and Special Education Certificate

CUI 4521    Urban Education II: School, Student, Family and Community Influences on Student Learning    3
CUI 4450    Education and Psychology of Exceptional Children    3
CUI 4031    Teaching and Learning    3
CUI 4529    Foundations of Education for Linguistically Diverse Learners    3
CUI 4536    Linguistic and Cultural Issues in Linking Assessment and Instruction    3
CUI 4540    Curriculum, Instruction and Assessment: Theory and Practice I    3
CUI 4457    Behavior Intervention    3
CUI 4500    Elementary Literacy: Theory and Practice I    3
CUI 4504    Elementary Math, Science, and Social Studies Methods Cultural Linguistic Diversity    3
CUI 4530    Second Language Acquisition    3
CUI 4541    Curriculum, Instruction, and Assessment: Theory and Practice II    2
CUI 4501    Elementary Literacy: Theory and Practice II    3
CUI 4532    Culturally Responsive Pedagogy    3
CUI 4455    Assessment of Students with Special Needs    3
CUI 4542    Curriculum, Instruction, and Assessment: Theory and Practice III    2
CUI 4527    Supporting English Language Learners and Students with Special Needs Across Content Areas    3
CUI 4538    Language, Literacy & Culture    3
CUI 4459    Curriculum, Collaboration, and Transitions in K-12 Schools    3

Total Credits    52

Degree Plan: Master of Arts in Curriculum and Instruction with a concentration in Urban Education
Eligible for State Secondary Mathematics Certificate

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<td>CUI 4457</td>
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<td>CUI 4511</td>
<td>Secondary Literacy: Reading and Writing Across Content Areas</td>
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<td>Language, Literacy &amp; Culture</td>
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<td>CUI 4459</td>
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Total Credits: 52

Degree Plan: Master of Arts in Curriculum and Instruction with a concentration in Urban Education

Eligible for State Secondary Science Certificate

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Total Credits: 52

Master of Arts in Early Childhood Special Education

Degree Requirements

Coursework Requirements

The M.A. in Early Childhood Special Education program requires a minimum of 55 quarter hours depending on prior individual experiences and coursework.

Developmental and Psychological Foundations
<table>
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<td>Diversity in School and Community Settings</td>
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<td>CFSP 4305</td>
<td>Exceptional Child: Biomedical &amp; Psycho-Social Aspects</td>
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<td>CFSP 4310</td>
<td>Infant Development</td>
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<td>CFSP 4311</td>
<td>Child Development</td>
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<td>Learning Application and Analysis</td>
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<td>CFSP 4338</td>
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<td><strong>Legal, Ethical and Professional Foundations</strong></td>
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<td>CFSP 4302</td>
<td>Legal Issues in Education</td>
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<td>CFSP 4315</td>
<td>Professional and Ethical Issues in Early Childhood Special Education</td>
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<td><strong>Evaluation and Assessment</strong></td>
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<td>Family-School Partnering and Consultation</td>
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<td>Infant &amp; Family Interventions</td>
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<td>Early Childhood Practicum (600 minimum hours taken over three quarters covering infant, toddler, preschool, and/or kindergarten-3rd grade; 2 credit hours each)</td>
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<td></td>
<td><strong>Praxis II Elementary or ECSE PLACE Exam</strong></td>
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Total Credits: 55

Minimum number of credits required for degree: 55

**Non-coursework Requirements**

- Pass PRAXIS Elementary PLACE Exam.

**Certificate in Curriculum and Instruction with a Concentration in Teacher Education**

**Program-Elementary**

**Program Requirements**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>TEP 4690</td>
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<tr>
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<tr>
<td>TEP 4010</td>
<td>Education and Psychology with Special Children</td>
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<td>Foundations of Education for Linguistically Diverse Learners</td>
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<td>CUI 4503</td>
<td>Elementary Math Methods for Cultural Linguistic Diversity</td>
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Certificate in Curriculum and Instruction with a Concentration in Teacher Education
Program-Secondary

Program Requirements

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Total Credits: 43

Certificate in Curriculum and Instruction with a Concentration in Teacher Education
Program-K-12

Program Requirements

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Total Credits: 43
Certificate in Early Childhood Special Education

Program Requirements

**Developmental and Psychological Foundations**

- CFSP 4305: Exceptional Child: Biomedical & Psycho-Social Aspects (3 credits)
- CFSP 4338: Low-Incidence Disability and Intervention (3 credits)

**Legal, Ethical and Professional Foundations**

- CFSP 4315: Professional and Ethical Issues in Early Childhood Special Education (3 credits)

**Evaluation and Assessment**

- CFSP 4320: Infant Assessment (3 credits)
- CFSP 4326: Preschool Assessment (3 credits)
- CFSP 4308: Early Academic Competencies (3 credits)

**Collaborative Consultation with Families and Schools**

- (Choose one of the following courses)
  - CFSP 4335: Infant & Family Interventions
  - CFSP 4336: Preschool Interventions (3 credits)

**Applied Coursework**

- CFSP 4357: Early Childhood Practicum (600 minimum hours taken over three quarters covering infant, toddler, preschool, and/or kindergarten-3rd grade; 1 credit hour each) (3 credits)

**Praxis II Elementary of ECSE PLACE exam (comprehensive exam)**: PASS

Total Credits: 24

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1. Students have a choice of taking either of these courses to meet Colorado Department of Education competencies depending on their previous coursework. This is subject to faculty approval.

2. The ECSE Practicum has flexibility based on student needs and should be distributed between infant (200 hours), toddler (200 hours), and preschool (200 hours) ages across a number of quarters.

**Child, Family School Psych Courses**

**CFSP 3900 Child Guidance (5 Credits)**

Students in this class explore effective child guidance theories and factors that impact their classroom application with young children from birth to age 8. Empirically-based positive guidance techniques and strategies are reviewed and applied to everyday practice, especially as they relate to establishing prosocial environments, classroom management, and meeting the needs of children and families from diverse backgrounds.

**CFSP 3910 Early Childhood Nutrition (3 Credits)**

Young children have specific nutritional and physical needs. This course covers the nutritional needs of children, such as how to ensure that they get all the nutrients they need to stay healthy. The course explores what consists of safe foods at various stages in childhood, especially when not all foods can be eaten by infants and toddlers. Learn about the best practices in the field of early education regarding what foods to serve young children that promote positive health, hygiene and physical development.

**CFSP 3991 Independent Study (1-10 Credits)**

**CFSP 3992 Directed Study (1-10 Credits)**

**CFSP 4000 Assessment for Non-Psychologists (2 Credits)**

Foundation and methodology of assessment are considered in the context of informing practices of professionals who construct a variety of test formats including assessment of cognitive abilities, achievement testing, vocational assessment, and assessment of personality.
CFSP 4301 Professional and Ethical Issues in School Psychology (3 Credits)
This course examines professional issues pertinent to working with early childhood through adolescent populations in school and community settings. Professional issues and contemporary service models pertinent to the field of early childhood and school psychology are reviewed, including an introduction to ethical issues, federal mandates, professional training, and roles and responsibilities. Students learn and are involved in casework discussion pertinent to the application of best practices in the delivery of assessment, intervention, and consultation services. Special emphasis is given to current mental health and education regulations and reforms. Controversial issues highlighted in the field are covered including differential issues facing early childhood and school psychology professionals in urban and rural settings. Students become acquainted with a variety of ethical issues affecting practice in the public schools; in hospital, agency, and private settings; and in higher education. Attention is focused on ethical standards, reasoning processes, and conduct in applied settings.

CFSP 4302 Legal Issues in Education (3 Credits)
This course is designed to acquaint students with a variety of legal issues affecting practice in the public schools; in hospital, agency, and private settings; and in higher education. Attention is focused on federal and state legislation, special and regular education case law, psychological practice case law, and ethical standards, reasoning processes, and conduct in applied settings. Special consideration is given to the nonequivalence of ethical standards of practice as they relate to legal mandates and court decisions concerning practice in the schools.

CFSP 4303 Risk, Resiliency & Prevention (3 Credits)
This course examines the history and theoretical bases of resiliency research and the characteristics of children at significant risk of delays, disorders, and low-incidence disabilities. Participants obtain practical information regarding the assessment, identification, amelioration, facilitative responses, and intervention in school and community settings for these populations. The course moves beyond a pathology approach that focuses on the deficits of children and families to an empowerment perspective that focuses on strengths. The course is grounded in child development research and educational and family systems Prevention principles, curriculum, and policy agendas are discussed that build on a model of collaboration between and among disciplines in community and school settings.

CFSP 4304 Diversity in School and Community Settings (3 Credits)
This course explores diversity in children and families, and the impact of culture on personal and family development. Emphasis is placed on the intersection of school and community settings' cultures and those of children and families, and how this affects learning and development for individuals and groups of children. Attention is given to students' cultures and cultural experiences, and how these affect the work they do with children and families in school and community settings.

CFSP 4305 Exceptional Child: Biomedical & Psycho-Social Aspects (3 Credits)
This course provides a broad survey of the field of exceptionality and special education. Included are discussions of current issues and controversies in the field, characteristics, classification, diagnosis, and educational interventions for early childhood and school-aged children with high-incidence and low-incidence disabilities who have exceptional educational needs. Biomedical and psychosocial etiologies are reviewed. Implications for child and family interventions and supports also are addressed.

CFSP 4308 Early Academic Competencies (3 Credits)
This course provides an overview of early academic competencies across diverse settings and stakeholders, such as families, teachers/providers, programs, and communities. A comparative analysis of evidence-based early literacy strategies, environments, curriculum, and a review of current evaluation and instructional language and math literacy practices for working with teachers, families, and young children is undertaken. Play-based and other informal methods of assessment and intervention are covered, including the integration of technology and strategies to promote early skill development with language and math with infants, toddlers and preschoolers in natural environments.

CFSP 4310 Infant Development (3 Credits)
This course provides an overview of theoretical, research, and practice issues in the field of child development. Attention is given to sensorimotor, cognitive, language, and social-emotional development. The focus of the course is on typical development of children from early childhood to early adolescence. The course will emphasize the synthesis of past research into current findings and accepted theories and will allow the student to broaden their understanding of the impact of research on current policies and practices.

CFSP 4311 Child Development (3 Credits)
This course provides an overview of the growth and development of the child from conception to twelve years. Attention is given to physical/sensorimotor, cognitive, language, and social-emotional development domains with a focus on typical as well as atypical development. Research and policy are reviewed as it relates to developmentally appropriate practice addressing the whole child and the creation of supportive environmental contexts. Guided observation and individual case work allow for application and integration of developmental theory and practice.

CFSP 4312 Learning Application and Analysis (3 Credits)
This course examines learning theories and applied behavioral principles. Students learn to apply theories to case studies and fieldwork relating to infants, toddlers, preschoolers, and school-age children with and without disabilities. Students work in teams to analyze and solve problems relating to learning and behavior at home and school, and to develop positive behavioral support and effective learning plans.

CFSP 4315 Professional and Ethical Issues in Early Childhood Special Education (3 Credits)
This course provides students with an understanding of the role of an Early Childhood Special Educator Specialist and serves as the foundation for students who are interested in pursuing this as a profession. This includes the profession's ethical and professional practice standards, and understanding of the multiple roles and complex situations across wide age and developmental ranges. This course also covers the historical laws and legal issues associated with the profession. The course also highlights why special educators engage in professional activities and learning communities that benefit individuals with developmental issue and their families, colleagues, and their own professional growth. This course promotes the idea that special educators are lifelong learners and regularly reflect on and adjust their practice.
CFSP 4317 Learning Differences in P-3 (3 Credits)
This course reviews the challenges that arise in early childhood classrooms (preschool-3 grade) related to children who exhibit academic and behavioral differences and delays. Academic and behavioral interventions and differentiation strategies will be addressed. Additionally, the course will cover the approaches for addressing children who require additional academic and behavioral support in the classroom.

CFSP 4320 Infant Assessment (3 Credits)
This course is designed to teach students how to assess infants using a variety of standardized and non-standardized methods. The entire assessment process including screening, evaluating, writing results, and interpreting the results to families and professionals are addressed. Tests are examined with consideration for when and why specific instruments should be used. Students are trained in-depth in the administration and interpretation of a variety of instruments for assessment of cognitive, language, social-emotional and motor development. Prerequisite: CFSP 4310.

CFSP 4322 Psycho-Educational Assessment I (4 Credits)
This course is one of two required courses designed to provide students in School Psychology with expertise in individual intelligence and achievement test administration, scoring, interpretation, and report writing. Each student has an opportunity to administer various cognitive and achievement measures, with particular emphasis on the Wechsler Scales. Contemporary issues pertinent to the assessment of intelligence are covered. Emphasis is placed synthesizing and integrating information from cognitive and achievement assessment with other sources to produce effective educational recommendations. In addition, the role of these tools in the special education qualification process is highlighted. Important issues regarding the use of such tests are discussed, as well as the use of tests in schools and clinical practice. The focus of the class is primarily on the assessment of school-aged children. Lab fee required.

CFSP 4323 Psycho-Educational Assessment II (4 Credits)
This course is the second of two required courses designed to provide students in School Psychology with expertise in individual intelligence and achievement test administration, scoring, interpretation, and report writing. Each student has an opportunity to administer various cognitive and achievement measures, with particular emphasis on the Woodcock Johnson Scales. Nontraditional forms of assessment, as well as adaptive behavior measures, are also covered. Integrating results of assessments with other data to provide effective educational recommendations continues to be an emphasis. The focus of the class is on the assessment of school-aged children. Lab fee required.

CFSP 4324 Assessment III (4 Credits)
This course is designed to provide students with knowledge of the major approaches to assess a school-aged student’s social and emotional status. Instruction includes underlying theories, use and interpretation of interviewing techniques, observation methods, objective behavior ratings, self-report measures, sociometric procedures and selected projectives. Emphasis is placed on the integration and interpretation of multimethod, multisource and multisituation data to improve diagnostic accuracy, and the use of assessment results in developing effective intervention strategies. Students learn to incorporate such assessment information using case studies. In addition, students develop skills in writing case reports and in making effective presentations of social-emotional assessment results. Consideration is given to contemporary issues in the assessment of children’s social emotional functioning. Lab fee required.

CFSP 4326 Preschool Assessment (3 Credits)
This course is designed to teach students how to assess preschoolers using a variety of standardized and non-standardized methods. The entire assessment process including screening, evaluating, writing results, and interpreting the results to families and professionals are addressed. Tests are examined with consideration for when and why specific instruments should be used. Students are trained in-depth in the administration and interpretation of a variety of instruments for assessment of cognitive, language, social-emotional and motor development. Prerequisites: CFSP 4311 and CFSP 4320.

CFSP 4330 Family-School Partnering and Consultation (3 Credits)
This course is designed to familiarize educational, mental health, and early childhood service providers with essential attitudes, approaches, and actions necessary to form successful family-school-community partnerships that can foster development and learning, especially for children with disabilities. Ecological, family systems, and family-centered theory and principles serve as the foundation for working collaboratively with families from diverse cultural and social backgrounds within school and community settings. Students gain skills in family interviewing; consultation to identify family strengths, needs, and resources; collaborative problem-solving; and multi-systemic learning. Evidence-based family involvement, education, and intervention strategies contribute to positive family-school partnering relationships are reviewed within a multi-tiered, school-based service delivery framework.

CFSP 4332 Classroom Management and Consultation (4 Credits)
This course is designed to acquaint students with current directions in classroom management and school-based consultation. Covered are issues related to consultant and consultee characteristics, consultation practices and processes, models and stages of consultation, facilitating desired outcomes in consultation, and evaluation of consultation outcomes. Special emphasis is also given to problems of classroom management and collaboration with parents, teachers and other educational and community personnel. Case analysis and practice are required.

CFSP 4335 Infant & Family Interventions (3 Credits)
This course will describe various models for intervention with infants and toddlers with disabilities, emphasizing intervention within natural environments. Working with children and families in home, childcare, and other community settings will be emphasized and contrasted with intervention in more clinical settings. Students learn how to consult with parents and community professionals in providing coordinated transdisciplinary services when working with children in home and community settings. All areas of development will be addressed. Field experiences with children and families are expected to practice the skills addressed in class. Families will be asked to share their experiences to enable students to gain the “human” side of theory and practice.
CFSP 4336 Preschool Interventions (3 Credits)
This course covers early childhood interventions applicable within community, preschool and home environments. A hierarchy of intervention strategies is addressed including universal, targeted, and intensive approaches. There is a focus on building supportive networks, routine-based intervention strategies, and collaboration to enhance family resources. Students review empirically validated early interventions and curriculum for young children exhibiting both normal and delayed development.

CFSP 4337 School-Age Academic Competencies (4 Credits)
The purpose of this course is to review theories of learning disability and response to intervention approaches that incorporate environmental, curriculum-based, standardized, analytical or diagnostic assessments. Students learn to link assessment data to targeted empirically-valid learning and behavioral; interventions and strategies for students exhibiting difficulties or delays in literacy, written language, or math skills. Students evaluate learning environments, formulate instructional hypotheses, and plan interventions and strategies in regards to phonemic awareness, decoding/phonics, word recognition, reading fluency, listening/reading comprehension, study skills, written expression, mathematical calculation or problem-solving. Guidelines to promote differentiated classroom instruction and for working with students with limited English proficiency are reviewed. Effective family-school partnering and home-school consultation practices are highlighted to further facilitate learning. These goals are accomplished through critical readings and assignments, classroom case discussion, demonstrations, modeling, practice with hypothetical cases, and individualized tutoring with a referred student.

CFSP 4338 Low-Incidence Disability and Intervention (3 Credits)
This course reviews a wide range of neurodevelopmental disorders and low-incidence disabilities including autism, fragile X syndrome, and Fetal Alcohol Syndrome, visual and hearing impairment, along with syndromes associated with chromosomal deletions. Implications for assessment and intervention are outlined including diagnostic criteria, prevalence, and treatment and intervention strategies. Research on identification and treatment including state of the art interventions and assistive technology are addressed. Experts and researchers on specific disabilities, from the community will be used as guest lecturers. Students observe children within community sites and also work with local families affected by low-incidence disabilities.

CFSP 4339 Introduction to Play Therapy (3 Credits)
This course examines the history and theoretical bases of major theories of play to enhance children's social-emotional and adaptive functioning. Child-centered, interpretive, and structured play therapy models are reviewed. Information is covered regarding preparation, selection of materials and toys, playroom characteristics, facilitative responses, and how to adapt play therapy in school, home and clinical settings. The play therapy process is illustrated from the initial referral and contact through termination, including observing and responding during sessions, facilitation and interpretation, therapeutic limit setting, and group play therapy strategies. Case studies, role play, video and script analysis are incorporated as is brief play therapy and applications with special populations. Efficacy, evaluation and future areas for professional development are reviewed. This course is designed as an introductory experience to prepare students for further supervised practica in play therapy.

CFSP 4340 Counseling Children and Adolescent (4 Credits)
School Mental Health Counseling I is designed to provide in-depth knowledge of major theories behind contemporary school-based mental health counseling approaches for children and adolescents. Students will learn developmentally informed and empirically driven individual and group counseling strategies to enhance interpersonal, emotional, and social functioning within a multi-tiered system of support. Guidelines and ethical principles are reviewed to guide school-based practice and to help build collaborative partnerships between school, home, and community settings. These goals are accomplished through self and peer reflection, critical analysis of therapy research, evaluation of case studies, video modeling, and in-vivo practice and feedback. This course and its contents are a prerequisite to prepare students for School Mental Health Counseling II, an advanced class that incorporates supervised counseling experience.

CFSP 4342 Crisis, Intervention and Prevention (3 Credits)
This course provides the knowledge and skills needed to respond effectively and to be a member of a school or community crisis team. Crisis theory, models, conceptualizations and current research are covered with a focus on the components of the crisis response and specific individual and group counseling skills needed to provide crisis intervention and postvention. Essential guidelines and components of a comprehensive community/ school safety and crisis plan, national and local policies and programs and effective prevention strategies are reviewed.

CFSP 4343 School Mental Health Counseling II (4 Credits)
School Mental Health Counseling II is designed as an advanced counseling class that incorporates supervised counseling experiences to improve interpersonal, emotional and social functioning in young children to adolescents. Students learn to design, deliver and evaluate evidence-based prevention and intervention approaches and consultative mental health services. By working alongside a field site supervisor, students engage in case review, analysis, and delivery of counseling services designed to mirror expectations placed on mental health professionals in school and community settings. Self-reflection, transcript analysis, and peer, instructor, and supervisor feedback are employed to develop professional and personal individual and group counseling skills within a multi-tiered system of support.

CFSP 4349 Community Practicum (2 Credits)
Taken during the first year of entry, the Practica is a supervised initial year field experience designed to expose students to a variety of home, community- and school-based settings that serve families with children who have developmental and special needs, and in the CFSP Clinic. Each week for up to four hours, students are expected to attend, observe, and participate in a range of site-specific team meetings and services offered to families and children. For the MA in Educational Psychology degree, students, during the fall or winter quarter, identify, develop and initiate a research project with input from the faculty. The MA project culminates during the fourth quarter (summer) and serves as the final project in lieu of a comprehensive exam.
CFSP 4351 CFSP Clinic (2-3 Credits)
Supervised field experience in the CFSP Clinic working with preschool through high school-aged students and their families. Casework includes assessment, intervention, and consultation on a variety of psychoeducational problems of school-aged children and youth.

CFSP 4353 School Practicum (2 Credits)
This is a 300-500 hour supervised field experience taken after the successful completion of core courses and Practica I experience. Practica is considered a critical professional transition year to help consolidate learning and professional competencies in preparation for a subsequent Internship. Students work throughout the year with Clinic Faculty and a licensed Field Supervisor within the University of Denver psycho-educational clinic and infant, preschool, elementary, middle or high school settings and also attend weekly Practicum seminars or individual supervision sessions with a University Faculty member. Supervision is designed to provide ongoing professional feedback, case analysis, peer consultation, continued professional development pertinent to the successful practice of School Psychology in urban and rural settings.

CFSP 4354 Child, Family and Community Internship (1-6 Credits)
Supervised advanced Child and Family field experience in a community medical, mental health, or educational agency setting.

CFSP 4355 School Psychology Internship (1-6 Credits)
Supervised advanced School Psychology field experience in a public or private school/community setting. Advanced standing in the program and 1200 clock hours of internship experience required.

CFSP 4356 School Psych Field Experience (4,8 Credits)
Part-time, 20-hour-per-week or full-time, 40-hour-per-week supervised advanced School Psychology field experience in a public or private school or community setting. Students register for 4 credit hours for half-time enrollment or for 8 credit hours for full-time enrollment. This course is not graded. Advanced standing in the program and 600 or 1200 hours of internship experience is required. Department approval is required for registration. Must be registered with CFSP 4355.

CFSP 4357 Early Childhood Practicum (1-4 Credits)
This course provides students with a field experience in an Early Childhood environment for students who are interested in pursuing a profession in Early Childhood Special Education. Field Practicum in Early Childhood Special Education is an off-campus, 600-hour minimum supervised experience taken throughout your coursework. Field Practicum is designed to broaden one’s professional skills and is considered a critical transition of substantial growth. Each student is required to successfully complete 3 practica; an infant/toddler, (Birth to 3 years) a preschool (3-5 years) and an early elementary focused (Kindergarten through 3rd grade). Practicum seminar is designed to facilitate case analysis, ongoing self-reflection, and to provide peer consultation and professional feedback relevant to best practice. The field practicum is considered a critical professional transition to help consolidate learning and professional competencies in preparation for employment. All students work with a licensed Field Supervisor. Students will be placed in infant, preschool, elementary school settings. During practicum, students provide direct and indirect services that support children and/or families in a variety of settings. All students attend weekly practicum seminars facilitated by a University Supervisor. Supervision is designed to provide ongoing professional feedback, case analysis, peer consultation, and continued professional development and experiences pertinent to successful practice. This course promotes the idea that special educators are lifelong learners and regularly reflect on and adjust their practice.

CFSP 4361 Seminar: CFSP Supervision (1-2 Credits)
This is an advanced seminar for Ph.D. students in Child, Family and School Psychology focusing on supervision of psychological and educational service provision in school, hospital, and community agency settings.

CFSP 4363 Child, Family, School Psychology Program Development and Evaluation (3 Credits)
This course focuses on theory and practice of program development and evaluation in school and community agency settings. Both qualitative and quantitative methods of program evaluation are discussed. Students have the opportunity to collaborate on a comprehensive evaluation of a specific educational, health, or mental health program.

CFSP 4991 MA Independent Study (1-10 Credits)
This course allows MA or EdS Child, Family, and School Psychology students to study a specific topic area in detail in conjunction with a cooperating faculty member.

CFSP 4992 Directed Study (1-10 Credits)
CFSP 4995 Research - M.A. Thesis (1-10 Credits)
This course is for students whose program requires completion of a masters level thesis.

CFSP 5991 PhD Independent Study (1-10 Credits)
This course allows PhD Child, Family, and School Psychology students to study a specific topic area in detail in conjunction with a cooperating faculty member.

CFSP 5992 Directed Study (1-10 Credits)
CFSP 5995 Dissertation Research (1-20 Credits)
This course is for PhD Child, Family, and School Psychology students engaged in completing their doctoral dissertation.

Curriculum and Instruction Courses
CUI 3055 Human Rights & Education (3 Credits)
Emphasis on human rights, both domestic and international, for the field of education; study of writings and research of leading educators encompassing concepts of human rights; focus on educational issues involving human rights, the Right of the Child, work of UNICEF, and implications of human rights for educational practice. Cross listed with CUI 4055.
CUI 3801 Current Issues in K-12 Education (3 Credits)
This course introduces prospective K-12 educators to the contemporary social, political, pedagogical and curricular context of schooling. Major areas of analysis and discussion will include: gender, social class, cultural competency, linguistically diverse education, funding, sexual orientation, educational policy, and diversity. The course will attempt a critical, reflective, and balanced view of schooling for the purpose of helping students develop the ability to interpret and respond to the challenges associated with teaching in modern schools. Coursework will be paired with a service-learning field experience in an urban educational setting characterized as linguistically and culturally diverse.

CUI 3802 Teacher Identity (3 Credits)
The most effective teachers combine the outer technical aspects of teaching (lesson plans, differentiated instruction, culturally responsive pedagogy, and content knowledge) with the inner non-technical elements (passion, heart, beliefs, and calling). In this course we examine the "inner-life" of the teacher with an emphasis on how understanding the themes of teacher selfhood impact the technical aspects of teaching. Key questions to examine include the following: How do the gifts, talents, and inner capacities of the teacher impact and influence communication and learning in the classroom; why do I teach; what will continue to fuel my passion for teaching; and what vision of the future do I hold for schools? Students should expect to complete 10-20 hours per week of service learning in area education settings.

CUI 3990 Service Learning in Community (1-4 Credits)
This course provides students with the opportunity to serve in the community and to reflect on their service experiences in a classroom setting through structured and meaningful reflection sessions. Students will examine a variety of topics, including the nature and significance of service-learning, motives for service, community action as a means for positive social change, and the relationship between service-learning, social justice, and civic responsibility. Cross-listed with AH 3580, SS 3580.

CUI 3991 Independent Study (1-10 Credits)
CUI 3992 Directed Study (1-10 Credits)
CUI 3995 Urban Education (5 Credits)
Historical, political and sociological influences that shape and socially construct urban schools. Characteristics, opportunities, and needs of students in urban schools and examples of current effective practice.

CUI 3996 Urban Youth Development (5 Credits)
This course examines urban youth development from several perspectives, including the social-psychological, the cognitive/creative, the physical and health-related, and the philosophical. Cross listed with CUI 3996.

CUI 4020 Introduction to Curriculum (3 Credits)
Introduces curriculum theory and curriculum as a field of study; includes study of issues such as standards, cognition, diversity, ecology, and social justice, among others.

CUI 4021 Models of Curriculum (3 Credits)
Reflects on ways various curriculum orientations may resolve modern issues or problems, with students’ independent pursuit of one or two orientations in depth; orientations examined include cognitive pluralism, developmentalism, rational humanism and reconceptualism, among others. Recommended prerequisite: CUI 4020.

CUI 4022 Curriculum Theory into Practice (3 Credits)
Helps students move from theoretical concepts and decisions involved in curriculum development to actual construction of curricula; survey of potential components encompassed in a variety of curricula followed by participation in designing a curriculum as a member of a student team; final facet requires students to develop a curriculum. Prerequisites: CUI 4020 and 4021 or instructor's permission.

CUI 4027 Implementing Curriculum: A Practicum (3 Credits)
Opportunity to experience authentic role of curriculum on site; work at the Denver Zoo, the Denver Museum of Nature and Science, other museums and school sites; to develop and implement curriculum.

CUI 4028 Literacy Instruction and Assessment (3 Credits)
Organized around a developmental continuum for literacy acquisition. Addresses best research-based practices that allow teachers to assess students' abilities and to select appropriate instructional strategies leading to communicative competence for all children.

CUI 4029 Issues in Literacy (3 Credits)
Prepares educators to participate thoughtfully and critically in often-contentious discourse about literacy. Examines the research base that supports sound policy and practice regarding literacy instruction for all children.

CUI 4031 Teaching and Learning (3 Credits)
Takes a disciplinary approach (e.g., sociological, historical, philosophical, and anthropological) to the analysis of teaching and learning environments in response to broad questions such as: What are effective teaching and learning environments? For whom and under what circumstances? How can we create such environments?.

CUI 4032 Analysis of Teaching (3 Credits)
Provides a systematic introduction to the research base that characterizes effective practice and to the array of research methods that can be employed to study teaching and teacher development.

CUI 4033 The Practice of Teaching (3 Credits)
Course explores personal, conceptual, and empirical understandings of “teaching practice.” Topics addressed have included: metaphors for teaching practice, best practices for equity and social justice, professional development practices.
CUI 4034 Curriculum & Cultural Context (3 Credits)
This course will address the influence of cultural, political, sociological, and economic factors on curriculum at the instructional, situational, societal, and ideological levels. Students should be interested and willing to explore these issues through readings and discussion. We will be exploring various perspectives, including our own, which inform the discussion on this critical area of education.

CUI 4035 Critical Perspectives: Democracy, Power, and Privilege (3 Credits)
In this course, students will examine issues related to democracy, power, and privilege in public education. Specifically, students will learn about how anti-democratic groups are working to undermine public education in the U.S. Students will explore White privilege, racism, classism (and other "isms") and the impact they have had and continue to have in public school settings, particularly at schools that serve historically marginalized and oppressed students. Theoretical frameworks such as Critically Relevant Teaching and Critical Race Theory will be introduced in this class as well.

CUI 4038 Urban Youth Development (3 Credits)
This course examines urban youth development from several perspectives, including the social-psychological, the cognitive/creative, the physical and health-related, and the philosophical. We will explore the emerging field of youth development in an urban context, integrate theory and practice, and analyze youth policies and their implications. Cross listed with CUI 3996.

CUI 4039 Transformational Teaching and Learning (3 Credits)
This course takes an exploratory approach to the analysis of transformation teaching and learning. It asks questions such as "What are effective teaching and learning environments?" "For whom and under what circumstances?" "How can we create such environments?" We will explore how patterns of activities in the classroom can be designed to achieve simultaneously all of the major goals of educational reform. The term classroom is not restricted to the physical classroom space but "classroom" in the sense of the organized instructional activities that can extend outside of the school building into the community.

CUI 4041 School and Curricular Reform (3 Credits)
A look into school reform movements, why most fail and only a few succeed.

CUI 4042 Instructional Design & Web Development for Educators (3 Credits)
Introduces presentation software, basic HTML, and web page development software. Focuses on various Learning, Instructional Design, and Learning Style Theories and how they relate to the development of technology supported pedagogy. Students will create individualized instructional web pages for use in practice.

CUI 4043 Development of Technology Enhanced Educational Environments (3 Credits)
Utilizing emerging Learning Theories and complex Instructional Design Theories, students will move into advanced educational web page development including designing with style sheets and layers. Several customized technology mediated lessons or professional projects will be created for use in practice. Various tools, designed to enhance learning environments, will be explored.

CUI 4045 Technology Practicum (2 Credits)
Under the supervision of the professor, students will generate technological applications relevant to their own work settings using ideas and concepts learned in CUI 4040.

CUI 4046 Technology Leadership (3 Credits)
Explores the role of ethics, values, social, legal, and power issues associated with technology in education. Analyzes how technology is transforming learning, equitable distribution of information, and the implications for providing optimal education to diverse learning populations.

CUI 4050 Curriculum & Instr Rsrch Sem (0-3 Credits)
Students write proposals and learn about current relevant research in curriculum. Students learn about the proposal and dissertation process as well as current research in curriculum.

CUI 4051 Seminar in Dissertation (1-5 Credits)
Individualized assistance in developing the dissertation topic, issue, problem; guidance in preparation for proposal orals and application to the Institution Review Board (IRB), direction for dissertation chapter organization, writing and completion. This seminar is targeted for the student who needs support in completing the dissertation.

CUI 4055 Human Rights & Education (3 Credits)
Emphasis on human rights, both domestic and international, for the field of education; study of writings and research of leading educators encompassing concepts of human rights; focus on educational issues involving human rights, the Rights of the Child, work of UNICEF, and implications of human rights for educational practice. Cross listed with CUI 3055.

CUI 4058 Teacher as Researcher (3 Credits)
Emerging philosophical and methodological issues that arise when school practitioners undertake research within their own sites; range of research traditions including quantitative, statistical research and qualitative methodologies; mastering relevant skills and accessing resources for students to be better prepared to conduct their own inquiries and understand and solve problems.
CUI 4070 Clinical Internship (1-9 Credits)

CUI 4100 Sociocultural Foundation of Education (3 Credits)
Examination of the expanded conceptions of diversity to include difference based on ethnicity, biethnicity, and multiethnic identity; social class, differently-abled, age, gender, and sexual orientation; implications of terrorism on America for ethnically diverse populations in our schools and on educational establishments around the world; attention to the interactions of ethnicity with social class and gender identifications in the school setting; implications of the learning of another language as well as the impact of language diversity in our schools; consideration of new conceptual frameworks for multicultural and diversity education for educators for the 21st century.

CUI 4130 Philosophy of Education (3 Credits)
Focuses on 3-4 philosophers and examines the contributions their philosophical ideas have on education. Philosophers studied have included John Dewey, Cornel West, Nel Noddings and Maxine Greene.

CUI 4131 Spirituality in Education (3 Credits)
This course will explore the role of spirituality in education from both the student and educator point of view through an examination of the big questions that are held close to the heart; the ones that guide us toward meaning making in the world. The primary goal of the course is to plumb the depths of spirituality, a deep sense of inner meaning making, that calls us toward a particular profession. The course will focus on the interface between spirituality in education through the lenses of curriculum and instruction.

CUI 4150 Sociology of Education (3 Credits)
Sociology of education emphasizes the importance of the process of socialization on education, the interactions of ethnicity, gender, and social class in education, the formal roles and statuses within the bureaucracy of the school, the informal or "hidden" curriculum, the system of higher education and comparative views of educational systems around the world, and the impact on teaching and schools in an era of terrorism. Objectives of this course: to apply major concepts and theories in sociology to the institution of education; to interpret the applications of sociological theory to the school and the broader educational enterprise; and for personal expansion of philosophy and worldview through humanistic and social science perspectives.

CUI 4153 Practicum: Curriculum and Instruction (1-5 Credits)
Designed to fit the educational needs of the individual student who may choose from a wide variety of practicum (internship) experiences, including teaching, curriculum development, museum internships or research projects in curriculum and instruction.

CUI 4155 Special Topics (1-10 Credits)
Special topics in the field of education.

CUI 4159 Educating Multiethnic Populations (3 Credits)
Emphasizing a worldwide view in considering how education should be delivered to children and youth for life in the 21st century, especially since the World Trade Center Disaster of September, 2001. It is incumbent on those in teaching to find creative policies for working together with those in government and business, strategies that acknowledge our human diversity within and overall context of equality and peacefulness. This begins with raising social justice issues in the classroom in ways that encourage students to openly examine difficult and personally challenging materials, facilitating communication and understanding between members of diverse and unequal social groups.

CUI 4160 Race, Class and Gender in Education (3 Credits)
Ethnicity, Class & Gender in Education applies the concepts and theories of social science disciplines - sociology, social psychology, anthropology, historical perspectives and philosophical orientations - to the inclusive examination of the issues of racism, classism, sexism, and homophobia in education. This course seeks to conceptualize ethnicity, gender and social class as interactive systems, not as separate and independent variables, that impact students, teachers, school systems and the educational enterprise. We examine educational systems and practices that historically have disadvantaged women and peoples of color and discuss strategies and techniques for empowerment of the members of these groups.

CUI 4161 Ethnicity, Gender & Diversity in the Curriculum (3 Credits)
The focus of this course is to examine and explore the complexities of teaching in contemporary educational settings in which the forces of sexism, racism and classism are found. In our society where wide diversity characterizes our student population, it has become an imperative to recognize difference and relate effective teaching to these conditions. Major trends and influences that are impacting the school curriculum are explored.

CUI 4170 Engaging Learners through the Arts (3-5 Credits)
This seven day institute is designed to engage participants in a challenging exploration of the creative process through workshops with professional artists in the disciplines of dance, visual arts, creative writing, music, and theatre, and to provide a greater understanding of the theory and practical applications of school reform.

CUI 4171 The Arts in Education:Stage II (3-5 Credits)
CUI 4172 Aesthetic Foundation in Education (3 Credits)
Educational enterprise from aesthetic viewpoints; examination of a number of aesthetic theories and exploration of implications for curriculum, teaching, and evaluation.

CUI 4180 History of Education in the United States (3 Credits)
Traces historical context and development of K-12 schools in the United States from initial discovery of North and South America by Europeans to the present; understanding through examination of central issues that strongly influenced our current educational systems - evolution of schools, religion, social and political reform, women's issues, nationalism and ethnicity, industrialization of the nation and world.
CUI 4400 Nature and Needs of Gifted Learners (3 Credits)
This course is designed to provide participants with an understanding of 1) conceptual foundations and definitions of giftedness, 2) how intelligence, creativity, and non-intelligence factors are related to giftedness, 3) the nature, development, types, and needs of gifted individuals, 4) principles and issues in the identification of gifted individuals, and 5) the major issues and tensions in the education of gifted and talented individuals. Lectures, discussions, and other class activities and assigned readings and projects will include topics such as the history and nature of the giftedness construct; theories of intelligence and creativity and their relationship to conceptions of giftedness; types of giftedness; the diversity of gifted individuals and their personal and educational needs; the role of identification in the education and development of gifted children and youth; and purposes and perspectives in gifted education.

CUI 4401 Psychological Aspects of Giftedness (3 Credits)
The psychological development of gifted children is examined through a study of current theories, models, research, and case histories. Understanding of psychological development creates a foundation for applications and practices that nurture the psycho-social-emotional development of gifted individuals. Specific topics include the psychological nature and needs of the gifted; perfectionism, stress, and underachievement; special issues for gifted boys and gifted girls; highly gifted; and pertinent theories of psychological development. Emphasis is placed on synthesis of theories and application to specific situations.

CUI 4402 Curriculum for Gifted Learners (3 Credits)
This course is designed to provide participants with an understanding of the conceptual foundations in the design and development of curriculum for gifted and talented students. Includes theories, models and processes for curriculum modification and curriculum design; strategies for adapting educational content, process, product, and learning environment based on the educational characteristics and needs of gifted learners; and curriculum design and development approaches that are effective in the intellectual and personal growth of gifted and talented learners. Content in this course is aligned with appropriate instructional strategies and techniques recommended for use with gifted and talented learners. Lectures, discussions, class activities, assigned reading and projects include topics such as a general overview of curricular principles and perspectives; critical analysis of general curriculum; issues of diversity in curriculum development and modification including cultural congruence; recommended models of curriculum development for gifted and talented learners; and national trends in gifted education.

CUI 4403 Instructional Strategies for Gifted Learners (3 Credits)
This course provides a basic understanding of how to adapt curriculum for gifted learners through various instructional strategies. Strategies studied include: acceleration, enrichment, differentiation, compacting, grouping, independent study, and service learning. By selecting instructional strategies based on assessed learner needs, educators can reach many types of gifted learners in their classrooms including gifted students of poverty and gifted learners of cultural and ethnic diversity. The objectives of this class are that participants: know about and be able to define instructional strategies that meet assessed academic and affective needs of gifted learners and be able to adapt curriculum for gifted learners using learned instructional strategies.

CUI 4404 Twice-Exceptional Students (3 Credits)
The purpose of this course is to acquaint the student with the various areas of exceptionalities typically encountered with gifted students and to provide classroom related techniques to assist the teacher in identifying and working with twice-exceptional children in an effective manner. Environmental, behavioral, motivational, emotional and educational needs are addressed. Legal responsibilities, parent communication and staff development will be emphasized.

CUI 4405 Practicum in Gifted Education (1-3 Credits)
Students wishing to earn credit for the Practicum in Gifted Education must complete an experience in three of the five areas (Teaching, Assessment, Administration, Research, or Policy). Students must submit a Practicum Proposal outlining the intended practicum experiences. This Proposal must be approved by the practicum faculty supervisor when the practicum experiences are begun.

CUI 4407 Current Issues in Gifted Education: Identification (3 Credits)
This course focuses on the screening and selecting of gifted and talented students. It is designed for practicing professionals - teachers, counselors, psychologists, and administrators - who must make decisions about the identification and serving of gifted and talented students. Course uses multiple assessments, both quantitative and qualitative, to identify gifted students within an increasingly diverse population (including culturally- and ethically-diverse, high-potential, linguistically-different students with unique affective needs as well as high-potential economically-disadvantaged students). Students will use data to diagnose educational needs, prescribe appropriate educational strategies and to incorporate appropriate identification strategies for identifying gifted and talented students. Legal responsibilities and parent communication as well as staff development are emphasized. Students are required to develop an identification model based on relevant theory and current practices to be used in their particular setting.

CUI 4408 Creativity: Theory & Practice (3 Credits)
The essence of innovation is creativity, in thought, process and outcome. Classic and current theories provide a foundation for analysis of the concept of creativity. This course is designed to provide participants with an understanding of 1) the conceptual foundations and definitions of creativity; 2) how intelligence, creativity, and non-intellective factors are related to the constructs of giftedness; 3) documented brain research underlying exceptional cognition and/or creativity; 4) principles and issues in the identification and appropriate programming for creative individuals; and 5) the multiple perspectives and manifestations of creativity. Salon discussion groups, lectures, class activities and assigned readings and projects focus on the history and nature of the construct of creativity, theories of creativity, the role of innovation and transformation, assessment and measurement tools, environmental support of the creative process and creativity, and teaching and learning applications.
CUI 4410 Prog Dev/Ldrshp/Comm Gifted Ed (3 Credits)
This course emphasizes the concepts and practices involved in development and management of school- and district-based programs for the special education of gifted and talented children and youth. The course leads to in-depth understanding of program components and systems, program planning and evaluation, program leadership, advocacy in gifted education, and communications. In addition, emphasis is placed on planning and development of staff development in relation to gifted children. This course includes extensive in-class discussion and field applications.

CUI 4411 Wkshp: Gifted & Talented Educ (2-3 Credits)
This course is designed to provide participants with an overview of the education of gifted and talented students. Areas of focus within the course include definitions of gifted and talented students, characteristics, educational and psycho/social needs, common identification methods and concepts and common practices in curriculum and instructional differentiation.

CUI 4417 Independent Study: Gifted Educ (1-3 Credits)

CUI 4450 Education and Psychology of Exceptional Children (3 Credits)
Characteristics of students with moderate needs and state criteria used to determine eligibility for special education population.

CUI 4451 Teaching the Exceptional Child (3 Credits)
This course provides a broad overview of the field of exceptionality and special education. Included are discussions of current issues and controversies in the field, characteristics, classification, diagnosis, and educational interventions for early childhood and school-aged children with high-incidence and low-incidence disabilities who have exceptional education needs. This course also explores the characteristics of students with various disabilities, the history of Special Education, The Individuals with Disabilities Education Act (IDEA) and its current implications, the Response to Intervention Model (RIt) and the Individualized Education Plan (IEP). Prerequisite: CUI 4450.

CUI 4452 Low Incidence Disabilities and Behavior Intervention (3 Credits)
This course reviews a wide range of neurodevelopmental disorders and low-incidence disabilities including fragile X syndrome and Fetal Alcohol Syndrome, along with syndromes associated with chromosomal deletions. Implications for assessment and intervention are outlined including diagnostic criteria, prevalence and treatment. Research on identification and treatment including state of the art interventions and assistive technology are addressed. This class also addresses theories, research, effective practices, and background information needed to implement successful behavior intervention programs for whole classroom management and for students identified with behavioral needs. Prerequisites: TEP 4010 and CUI 4451.

CUI 4453 Curriculum Adaptations and Assessments for Children with Disabilities (3 Credits)
This course applies theories, research, effective practices, and background information for assessment for students with disabilities, monitoring student academic progress, and transition planning for students exiting K-12 schools.

CUI 4455 Assessment of Students with Special Needs (3 Credits)
Theories, research, effective practices and background information needed to develop, implement, analyze, and apply assessment data for mild/ moderate-needs students.

CUI 4457 Behavior Intervention (3 Credits)
Theories, research, effective practices, and background information needed to implement successful behavior intervention programs for mild/ moderate-needs students.

CUI 4459 Curriculum, Collaboration, and Transitions in K-12 Schools (3 Credits)
Knowledge, techniques to develop independent skills for K-12 moderate/mild-needs students and transitions across grade levels.

CUI 4500 Elementary Literacy: Theory and Practice I (1-3 Credits)
This course provides an introduction and overview to the many components that make up a quality balanced literacy program. During the course students will analyze current research and theory in reading and writing instruction. This course will use students’ classroom placements to create a foundational understanding on which to build solid literacy philosophy as well as instructional ideas and strategies.

CUI 4501 Elementary Literacy: Theory and Practice II (1-3 Credits)
This course is an extension of Elementary Literacy I and concentrates on the continued development of theories and practical strategies for teaching literacy in diverse classrooms. This course will supply K-6 teachers with the skills to assess student abilities, select appropriate instructional strategies, and design effective instructional programs that lead to increased listening, speaking, reading and writing achievement of all children.

CUI 4502 Elementary Science and Social Studies Methods for Cultural Linguistic Diversity (3-4 Credits)
This course will enable students to develop a deeper understanding of science and social studies content and curriculum in the elementary classroom. Students will explore a range of instructional materials and develop teaching strategies with the guidance of state content standards and research on effective classroom instruction for culturally and linguistically diverse students. This course will revolve around discussion of key questions in the following eight areas: The Role of Social Studies and Science; Instruction; Standards; Content Knowledge; Curriculum Integration; Technology; Culturally Responsive Pedagogy; Sheltered Instruction.

CUI 4503 Elementary Math Methods for Cultural Linguistic Diversity (3,4 Credits)
This course will prepare pre-service elementary teachers to engage students in mathematical learning activities guided by Colorado State Mathematics Content Standards and research. Pre-service teachers will develop an understanding of how students in the elementary grades construct meaning through active engagement in purposeful activities. In addition, students will develop an understanding of infusing best practice for culturally and linguistically diverse students into the math curriculum in terms of culturally relevant pedagogy and sheltered instruction. This course will revolve around the discussion of key questions in the following seven areas: Content Standards; Instruction; Assessment; Differentiated Instruction; Technology; Culturally Responsive Pedagogy; and Sheltered Instruction.
CUI 4504 Elementary Math, Science, and Social Studies Methods Cultural Linguistic Diversity (3 Credits)
This course prepares students to develop a deeper understanding of math, science, and social studies content and curriculum in the elementary classroom as guided by Colorado Model Content Standards and research on effective sheltered content instruction for culturally and linguistically diverse students, and differentiated instruction for diverse learners.

CUI 4505 Mathematics for Secondary Teachers (2,3 Credits)
In this class, prospective secondary teachers study fundamental mathematical ideas typically taught at the secondary level. Students learn about the five fraction sub-constructs and solve problems in all five areas. In addition, students study ideas that are fundamental to understand algebra. For instance, students learn how to build rules to represent functions. Finally, students learn about inquiry-based approaches to teaching that can use in their secondary classrooms with their students.

CUI 4506 Mathematics for Elementary School Teachers I (2,3 Credits)
In this class, prospective elementary school teachers experience an in-depth look at the representations of rational numbers, including base-ten and decimal numbers, integers, fractions, and arithmetic operations on these sets. Problem solving is emphasized throughout. Students also learn about inquiry-based approaches to teaching that they can use in their classrooms with their students.

CUI 4507 Mathematics for Elementary School Teachers II (3 Credits)
In this class, prospective elementary school teachers study fundamental mathematical ideas typically taught in grades 5-8. Students learn about visualization and its importance in geometry. Students study geometric shapes and solve a variety of problems involving geometric shapes. In addition, students learn some fundamental ideas of measurement and study length, area, volume, dimension, error and precision. Students also solve problems involving area, learn about solid shapes, and solve volume and surface area problems. Finally, students learn about inquiry-based approaches to teaching that they can use in their classrooms with their students. Prerequisite: CUI 4506.

CUI 4508 Mathematics for Elementary School Teachers III (3 Credits)
In this class, prospective elementary school teachers study fundamental mathematical ideas typically taught in grades 5-8. Students learn about visualization and its importance in geometry. Students study geometric shapes and solve a variety of problems involving geometric shapes. In addition, students learn some fundamental ideas of measurement and study length, area, volume, dimension, error and precision. Students also solve problems involving area, learn about solid shapes, and solve volume and surface area problems. Finally, students learn about inquiry-based approaches to teaching that they can use in their classrooms with their students. Prerequisites: CUI 4506.

CUI 4509 Mathematics for Middle School Teachers (3 Credits)

CUI 4510 Adolescent Literacy (3 Credits)
This course provides secondary teacher candidates an understanding of the essential elements of adolescent literacy. Students learn how literacy develops in reading, writing, and oral language and will be able to relate this information to teaching reading and writing in all content areas for both middle school and high school students.

CUI 4511 Secondary Literacy: Reading and Writing Across Content Areas (1-6 Credits)
Students learn how literacy develops in reading, writing, and oral language and will be able to relate this information to teaching reading and writing in all content areas for both middle school and high school students. This course addresses specific strategies for assessing adolescent’s literacy skills/abilities and design appropriate literacy instruction in all content areas.

CUI 4512 High School Mathematics from an Advanced Perspective (3 Credits)
High School mathematics education. Meets Common Core State Standards.

CUI 4520 Urban Education I: Diversity and Social Justice (1 Credit)
This class will address questions about multicultural and social diversity in the classrooms, curricular and pedagogical theories and practices, access and equity, and the politics of education.

CUI 4521 Urban Education II: School, Student, Family and Community Influences on Student Learning (2-4 Credits)
This course will consider how teachers are able to foster meaningful connections between the educational goals of the schools and the personal and cultural experiences of young people. Students will study the child in relation to family, school, and community, as well as the relationships between teacher and pupil. We will emphasize the cultural complexity of an urban society and pay special attention to ways that curriculum, language, and literacy affect school success.

CUI 4522 Urban Education III: Sources of Pressures and Possibilities in High Poverty Schools (2,3 Credits)
This course will focus on the sources of problems in high poverty schools and examine educational reform efforts that attempt to transform high poverty schools and classrooms.

CUI 4527 Supporting English Language Learners and Students with Special Needs Across Content Areas (3 Credits)
This course evaluates similarities and differences in theory, methods, approaches, and techniques in meeting the needs of diverse learners including English Language Learners, special needs, and/or gifted. Differentiated instruction, Sheltered instruction, and Response to Intervention (RTI) are key methodologies in meeting needs of diverse learners.

CUI 4529 Foundations of Education for Linguistically Diverse Learners (3 Credits)
This course will examine the essential knowledge and orientations educators must possess to effectively meet the needs of culturally and linguistically diverse (CLD) learners through the analysis of historical, political, ethical, and legal foundations of language education in the United States. This course will explore the immigrant experience and the experience of CLD learners in schools in order to understand how the psychosocial aspects of the immigrant experience can impact second language learning.
CUI 4530 Second Language Acquisition (1-3 Credits)

CUI 4531 Supporting English Language Learners Across the Curriculum (3,4 Credits)
This course will evaluate methods, approaches, and techniques in language teaching. This course will also explore classroom strategies and practices for content-area instruction through sheltered instruction, and socio-cultural context of second language acquisition in U. S. public schools including how teachers can support bilingualism, multilingualism, biculturalism, and multiculturalism in the mainstream classroom. Furthermore, this course will explore the needs of special education and gifted culturally and linguistically diverse learners.

CUI 4532 Culturally Responsive Pedagogy (3,4 Credits)
This course examines the intricate web of variables that interact in the effort to create culturally responsive pedagogy. It examines the need and establishes a definition for culturally responsive pedagogy; and includes an examination of one’s conception of self and “others;” conception of social relations; and conception of knowledge teaching and learning in a culturally diverse context. Furthermore, it cultivates the practice of culturally responsive teaching as well as explores the reality of implementing cultural responsive pedagogy in an era of standardization. In sum, this course helps practicing teachers acquire the dispositions, cultural knowledge, and competencies to adapt their curriculum and instructional skills for culturally responsive classroom practice.

CUI 4533 Research Issues in the Education of Culturally and Linguistically Diverse Learners (3,4 Credits)
In this course, students will act as teacher-researchers in order to explore issues that impact the achievement of culturally and linguistically diverse learners. This course will allow students to use functional research tools that can inform practice and lead to better teaching and learning in urban schools, and access resources to enable educators to define and address challenges in their teaching. More importantly, classrooms will become sites for educational reform in that, essentially, educators will act as advocates for change.

CUI 4534 Language Teaching Lab (1 Credit)
This course will critically examine elements of best practice for culturally and linguistically diverse learners through formal observations of three exemplary teachers and evaluate their classroom practices, instructional strategies, assessment practices, and communication strategies. This course will apply our conceptual knowledge of first and second language acquisition and our knowledge of the foundations of the English language to critically analyze each classroom context.

CUI 4535 Language in Society and Schools (3,4 Credits)
This course will introduce students to the discipline of sociolinguistics, including ways language and society impact one another, and how this interaction is reflected in schools. The focus of this course will be on current sociolinguistic theory and research on language variation and its social, political, and cultural significance. Topics include bilingualism and multilingualism in society; formal and informal types of language discourse; language and dialect; cross-cultural communication; and ways language both reflects and creates such constructs as power, culture, gender, ethnicity, and social class. In addition, this course will explore language ideology and language policy and planning.

CUI 4536 Linguistic and Cultural Issues in Linking Assessment and Instruction (3-4 Credits)
This course expands the educators’ knowledge of the connection between data-based instruction and assessment. Educators assess student learning by utilizing strategies that provide continuous feedback on the effectiveness of instruction. Educators learn informal and formal assessment practices that promote student learning and achievement. Educators develop knowledge and understanding of initial assessment of culturally and linguistically diverse learners’ skills and abilities in order to provide appropriate placement and instruction. Educators utilize native language tests to promote adequate placement/transition of students. This course also helps educators develop a framework to analyze and develop culturally responsive assessment practices in order to improve student achievement. Finally, this course integrates Response to Intervention (RTI) strategies to improve student assessment.

CUI 4537 Seminar & Practicum in LDE (1-6 Credits)
This course is to provide students with the opportunity to merge theory and practice in real classroom situations. This course is organized around two main components. The seminar consists primarily of discussions on connections between theory and practice. The practicum centers on educators’ own respective teaching contexts. Students in this course are required to "log" 200 hours of direct teaching with linguistically diverse learners. Under the supervision of a practicum advisor, students will be evaluated for evidence of mastery of LDES standards.

CUI 4538 Language, Literacy & Culture (3,4 Credits)
Attaining age-appropriate English literacy skills poses many challenges to culturally and linguistically diverse (CLD) learners. Educators must therefore develop proficiency in effective literacy instruction for CLD learners. Effective literacy instruction includes a repertoire of teaching practices designed to scaffold literacy and language across the content areas, and culturally relevant curriculum as an essential component to support the achievement of CLD learners. This course will focus on helping educators gain the necessary skills, orientations, and competencies to advance the literacy of CLD learners through linguistic and cultural knowledge.

CUI 4540 Curriculum, Instruction and Assessment: Theory and Practice I (1-3 Credits)
This is the first quarter of an academic year-long weekly seminar to foster reflective, research-based classroom practice. Teacher candidates will deepen their understanding of teaching and learning in contemporary schools through a guided teaching apprenticeship with a trained mentor teacher, focused observations of a myriad of classrooms, readings, interviews, discussions, critical writing, and presentations.

CUI 4541 Curriculum, Instruction, and Assessment: Theory and Practice II (1-4 Credits)
This is the second quarter of an academic year-long weekly seminar to foster reflective, research-based classroom practice. Teacher candidates will deepen their understanding of teaching and learning in contemporary schools through a guided teaching apprenticeship with a trained mentor teacher, focused observations of a myriad of classrooms, readings, interviews, discussions, critical writing, and presentations.
CUI 4542 Curriculum, Instruction, and Assessment: Theory and Practice III (1-4 Credits)
This is the third and final quarter of an academic year-long weekly seminar to foster reflective, research-based classroom practice. Teacher candidates will deepen their understanding of teaching and learning in contemporary schools through a guided teaching apprenticeship with a trained mentor teacher, focused observations of a myriad of classrooms, readings, interviews, discussions, critical writing, and presentations.

CUI 4543 Educational Psychology: Learning and Development (1-3 Credits)
This course focuses on theories of learning and development, including behaviorism, cognition in context, and sociocultural perspectives, among others, as well as practical application of those theories. Issues of classroom management and student motivation are explored within the context of these theories.

CUI 4544 Ed Psych: Exceptional Child (1-3 Credits)
The focus of this course is on educating children and adolescents with special needs in the general education classroom. The intent is to enable future educators to better serve the needs of these children in their classrooms. Topics such as the special education process, information on specific disabilities, accommodations and modifications, behavior issues, mental health, and communicating with parents will be addressed.

CUI 4545 Perspectives on American Education I (1-3 Credits)
We expect that students will complete this 2-quarter-long class with an appreciation for and commitment to critical reflection, collegiality, ongoing professional growth, and educational reform. Through readings, reflective writing and activities, role-plays, case discussions, community-based field work, visits to a myriad of schools and classrooms, and guest presentations, we expect students to recognize and wrestle with the complexity that characterizes teaching in American society. Four central and recurring themes for this course include: democratic foundations of public schools, apprenticeship of observation, teaching as vocation, and the moral dimensions of teaching.

CUI 4546 Perspectives on American Education II (2 Credits)
We expect the students will complete this 2-quarter-long class with an appreciation for and commitment to critical reflection, collegiality, ongoing professional growth, and educational reform. Through readings, reflective writing and activities, role-plays, case discussions, community-based field work, visits to a myriad of schools and classrooms, and guest presentations, we expect students to recognize and wrestle with the complexity that characterizes teaching in American society. Four central and recurring themes for this course include: democratic foundations of public schools, apprenticeship of observation, teaching as vocation, and the moral dimensions of teaching.

CUI 4600 History and Philosophy in Mathematics Education (3 Credits)
Introduction to the effective integration of history and philosophy of mathematics into mathematics education.

CUI 4610 Learning and Teaching of Mathematics (3 Credits)
Introduction to foundational research literature on learning and teaching in mathematics education.

CUI 4620 Research on Diversity, Equity, and Social Justice in Mathematics Education (3 Credits)
Introduction to research related to issues of diversity, equity, and social justice in P-16 mathematics curriculum, instruction, and assessment.

CUI 4630 Learning Mathematics: Early Childhood (3 Credits)
Development of theories, materials, and methods used to teach mathematics in preschool to grade two and develop abilities in their use.

CUI 4640 Improving Elementary Math Instruction (3 Credits)
Teacher development of elementary mathematical content, pedagogy, curriculum, attitudes and power, and collaboration.

CUI 4700 Foundations of Education: Cognitive Theory I (3 Credits)
Introduction to cognitive research in education. Includes theories and research regarding the implementation of these theories in specific curricula.

CUI 4710 Foundations of Education: Cognitive Theory II (3 Credits)
Second course in cognitive research in education. Includes theories and research regarding the implementation of these theories in specific curricula. Prerequisite: CUI 4700.

CUI 4720 Discourse in the Mathematics Classroom (3 Credits)
The study of discourse as it relates to mathematics teaching and student learning.

CUI 4730 Mathematics and Instructional Technology (3 Credits)
Introduction to the principles of effective use of technology in mathematics instruction.

CUI 4740 Policy and Mathematics Education (3 Credits)
Introduction to educational politics and how those policies have influenced and continue to influence mathematics education.

CUI 4790 Seminar on Race in Mathematics Education (3 Credits)
Seminar course for advanced doctoral students on issues of race and mathematics education in the US.

CUI 4870 Education in International Settings (3 Credits)
Objectives of this course include: viewing education in the 21st century as cross-cultural and international; examining the role of schooling in shaping national identity and citizenship in nation-states around the globe; and identifying promising practices and exemplary curriculum material for teaching cross-cultural perspectives and world awareness.
CUI 4991 MA Independent Study (1-10 Credits)
CUI 4992 Directed Study (1-10 Credits)
CUI 4995 Research - M.A. Thesis (1-10 Credits)
CUI 5980 Research as Problem Analysis (3 Credits)
This course is the first of three culminating research courses for students in the Ed.D. in Curriculum and Instruction. This course is designed to guide candidates through the doctoral proposal process and introduce the initial stages of data collection and analysis.

CUI 5981 Research as Intervention (3 Credits)
This course is the second of three culminating research courses for students in the Ed.D. in Curriculum and Instruction and is designed to help candidates finish collecting their data and analyze their data. This course will also introduce and develop the evaluation or analysis section of the doctoral paper and the beginning steps of the dissemination of the research project.

CUI 5982 Applied Research (4 Credits)
This course is the final of three culminating research courses for students in the Ed.D. in Curriculum and Instruction and is designed to help candidates disseminate their project, reflect on their project, and defend their project. This course is specifically focused on writing the quasi-practical section of the doctoral paper and the dissemination of the research project to the community partner.

CUI 5991 PhD Independent Study (1-10 Credits)
CUI 5992 Directed Study (1-10 Credits)
CUI 5994 Seminar in Dissertation Organization and Research (1-5 Credits)
Individualized assistance in developing the dissertation topic, issue, problem; guidance in preparation for proposal orals and application to the Institution Review Board (IRB), direction for dissertation chapter organization, writing and completion. This seminar is targeted for the student who needs support in completing the dissertation.

CUI 5995 Dissertation Research (1-10 Credits)

Teacher Ed Prep Courses

TEP 4010 Education and Psychology with Special Children (2-4 Credits)
This course serves as the foundation for understanding children with special needs and the laws and policies that support them. Each teacher needs to be responsive to the needs and experiences children bring to the classroom, including those based on culture, community, ethnicity, economics, linguistics, and innate learning abilities. This course covers the foundations for learning exceptionalities and conditions that affect the rate and extend of student learning, and will provide strategies for adapting instruction for all learners. This course introduces the classroom teacher's role in implementing an IEP and in working with families. Characteristics of students with various disabilities, the history of Special Education, The Individuals with Disabilities Education Act (IDEA) and its current implications, the Response to Intervention Model (RtI) and the Individualized Education Plan (IEP) are also addressed.

TEP 4561 Elementary Curriculum I (4-6 Credits)
Focuses on teaching and learning in the K-6 classroom and prepares teachers to design and implement effective classroom instruction. Frequently covered topics include: standards-based instruction, approaches to assessment, effective teaching strategies, sound lesson/unit planning, interdisciplinary instruction, individualizing instruction, technology, multicultural curriculum. Prerequisite: enrollment in the Teacher Education Program.

TEP 4562 Elementary Curriculum II (4-6 Credits)
Continuation of TEP 4561. Both must be completed for students planning to teach in elementary schools. Prerequisite: enrollment in the Teacher Education Program.

TEP 4581 Elementary Music Methods (3-6 Credits)
Prepares K-12 music teachers to design and implement effective instruction in the elementary school music classroom. Course introduces full array of sound teaching and assessment strategies for all aspects of music. Prerequisite: enrollment in the Teacher Education Program.

TEP 4582 Secondary Music Methods (3-4 Credits)
Prepares K-12 music teachers to design and implement effective instruction in the secondary school music classroom. Course introduces full array of sound teaching and assessment strategies for all aspects of music instruction. Prerequisite: enrollment in the Teacher Education Program.

TEP 4590 Literacy Instruction I (3,4 Credits)
Introduces developmental continuum for literacy. Prepares to assess students’ abilities, to select appropriate instructional strategies and to design effective instructional programs leading to increased listening, speaking, reading and writing competencies for all children. At the elementary level, focuses on balanced approach to literacy instruction. At the secondary level, emphasizes reading and writing in the content areas and assistance of the struggling reader/writer. Prerequisite: enrollment in the Teacher Education Program.

TEP 4591 Literacy Instruction II (3-4 Credits)
Introduces developmental continuum for literacy. Prepares to assess students’ abilities, to select appropriate instructional strategies and to design effective instructional programs leading to increased listening, speaking, reading and writing competencies for all children. At the elementary level, focuses on balanced approach to literacy instruction. At the secondary level, emphasizes reading and writing in the content areas and assistance of the struggling reader/writer. Prerequisite: enrollment in the Teacher Education Program and TEP 4590: Literacy Instruction I.
TEP 4600 Introduction to Secondary Methods (3-6 Credits)
Provides general introduction to principles of effective secondary instruction curriculum design and assessment. Frequently covered topics include: design of classroom environments, comparison of different instructional practices, purposes for and approaches to assessment, comparison of middle and high school philosophies, introduction to instructional unit plan development, and theories of instructional approach and design. Course lays a foundation for more specialized subject-matter methods courses. Prerequisite: enrollment in the Teacher Education Program.

TEP 4610 English in Secondary School (3-5 Credits)
Trends and developments in teaching English Language Arts. Frequently covered topics include: standards-based instruction, technology, subject-matter specific approaches to assessment, instruction and curriculum design. Course builds upon foundation laid in Introduction to Secondary Methods. Prerequisite: enrollment in Teacher Education Program.

TEP 4620 Social Science in Secondary School (3-5 Credits)
Trends and developments in teaching Social Science. Frequently covered topics include: standards-based instruction, technology, subject-matter specific approaches to assessment, instruction and curriculum design. Course builds upon foundation laid in Introduction to Secondary Methods. Prerequisite: enrollment in Teacher Education Program.

TEP 4630 Science in Secondary School (3-5 Credits)
Trends and developments in teaching science. Frequently covered topics include: standards-based instruction, technology, subject-matter specific approaches to assessment, instruction and curriculum design. Course builds upon foundation laid in Introduction to Secondary Methods. Prerequisite: enrollment in Teacher Education Program.

TEP 4640 Math in Secondary School (3-5 Credits)
Trends and developments in teaching math. Frequently covered topics include: standards-based instruction, technology, subject-matter specific approaches to assessment, instruction and curriculum design. Course builds upon foundation laid in Introduction to Secondary Methods. Prerequisite: enrollment in the Teacher Education Program.

TEP 4650 Foreign Language Methods in K-12 Schools (3-5 Credits)
Trends and developments in teaching foreign languages in K-12. Course content includes methods and materials of standards-based instruction, classroom and instructional management, assessment strategies, designing lessons using multiple intelligence and differentiated instruction, using technology in instruction, and integration of other content areas in teaching foreign language. Prerequisite: enrollment in Teacher Education Program.

TEP 4690 Field Experience (1-12 Credits)
Involves field experiences, including full-day teaching for 12 weeks in elementary or secondary school classroom and regularly scheduled seminar discussions with supervisor. Prerequisite: enrollment in the Teacher Education Program.

TEP 4781 Elementary Art Methods (3-6 Credits)
Prepares K-12 art teachers to design and implement effective instruction in elementary school classrooms. Course introduces full array of sound teaching and assessment strategies for all aspects of art. Prerequisite: enrollment in the Teacher Education Program.

TEP 4782 Secondary Art Methods (3-4 Credits)
Prepares K-12 art teachers to design and implement effective instruction in secondary school classrooms. Course introduces full array of sound teaching and assessment strategies for all aspects of art. Prerequisite: enrollment in the Teacher Education Program.

Division of Natural Sciences and Mathematics

The Division of Natural Sciences & Mathematics offers graduate students the chance to collaborate with our faculty scholars to apply new knowledge and research which will change lives as well as challenge long-held ideas. Although not an inclusive list of opportunities, we offer access to resources such as the Meyer-Womble Observatory atop Mt. Evans, innovative geospatial software, a collection of high resolution fluorescence imaging systems as well as an ability to perform electron paramagnetic resonance. From the mystery of the blinking binary star system Epsilon Aurigae to the movement of an individual molecule inside a cell, the Division of Natural Sciences & Mathematics offers the expertise and resources to support your investigative journey.

Biological Sciences

Office: F.W. Olin Hall, Room 102
Mail: 2190 E. Iliff Ave., Denver, CO 80208-9010
Phone: 303-871-3661
Fax: 303-871-3471
Email: margene.brewer@du.edu
Website: http://www.biology.du.edu
Why study biology at the University of Denver?

The department of biological sciences offers graduate programs at the doctoral (PhD) or master's (MS) level. Students earn a degree in biological studies with a concentration in either cell and molecular biology or biology, ecology and evolution. Both program tracks involve a combination of course work, lab or field research and a defended thesis or dissertation. Students begin their research under the direction of a faculty member during the first year. All students are expected to present their work at scientific meetings and publish their work in peer-reviewed scientific journals. Doctoral students also have the opportunity to participate in teaching undergraduate courses.

Research areas

The PhD and MS programs are centered on primary research that coincides with faculty experience and expertise. Students will conduct their research in a university environment using state-of-the-art techniques and facilities. The current research emphases of the department are

• Cell and molecular biology is supported by major research facilities that include real-time PCR instruments, a DNA WAVE HPLC, a Hitachi transmission electron microscope and an Olympus Fluoview 1000 confocal microscope and other advanced imaging systems.
• Biology, ecology and evolution takes advantage of unique field study sites that include an alpine research station on Mt. Evans in the Arapaho National Forest and collaborative research opportunities with the Denver Botanic Gardens.

Career opportunities

A student who completes the MS degree is in a strong position to pursue a range of postgraduate opportunities, including a career in biotech, academic or government lab or agency, or continued studies in a professional or PhD program. The doctoral degree carries the credential for a professional career in research or academics.

Master of science in biological sciences with a concentration in Cellular & Molecular biology or in ecology & evolution; doctor of philosophy in biological sciences with a concentration in cellular & molecular biology or in ecology & evolution

Following are the simple steps to apply for graduate study in Biological Sciences at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program's stated deadline: January 1. The programs admit for fall quarter only. The biology department accepts applications after this date on a rolling basis until all positions are filled.
• A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

• Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
• Students with an undergraduate major in chemistry, physics or mathematics and minimal preparation in biological sciences also will be considered but may be required to take undergraduate courses when the prerequisites are lacking. Course prerequisites include: one year of general chemistry, one year of calculus (recommended), one year of physics, two years of biology and one year of organic chemistry.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

• Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
• The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
• Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program's stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
• The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
• Mail official transcripts to:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (IBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores

- Application to the MS and PhD programs require the Graduate Record Examination (GRE) general test. The subject test is not required. Scores must be received directly from the appropriate testing agency by the program's stated deadline. The institution code for the University of Denver is 4842.

Personal Statement

- A personal statement of at least 300 words is required. The statement should include information concerning your career goals, life, education, practical experience, special interests and specific purpose for applying to the University of Denver. The statement should be submitted via upload through the online application process.

Recommendation Letters

- Three letters of recommendation are required from different faculty members or other professional contacts that are familiar with your potential to complete a research-based graduate degree. These letters should be solicited and uploaded by recommenders through the online application system. Letters must be received by the program's stated deadline.

Program-Specific Admission Requirements

- You are required to identify the program to which you are applying (Cell & Molecular Biology or Ecology & Evolution). Applicants can also identify if they have directly contacted a faculty member(s) whose research is of particular interest to the applicant. In most cases, acceptance into the program is contingent upon support by a member of the faculty.

Financial Support

- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid International students are not eligible for federal financial aid.

- Students may apply for graduate teaching assistantships through the department or for graduate research assistantships by contacting individual faculty in the department. Please visit the Biology website (http://www.du.edu/nsm/departments/biologicalsciences) for further information on our faculty research interests.

Application Status

- We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

Contact Information

- Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

- Electronic transcripts should be sent to gradinfo@du.edu.

- For more information call (303) 871-2706.
International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Professional Science Master in Biological Sciences
Following are the simple steps to apply for the Professional Science Master in Biological Sciences at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: March 1. The program admits for fall quarter only. Applications may be submitted after the deadline, but scholarships may no longer be available.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- Students with an undergraduate major in chemistry, physics or mathematics and minimal preparation in biological sciences also will be considered but may be required to take undergraduate courses when the prerequisites are lacking. Course prerequisites include: one year of chemistry, one year of calculus (recommended), one year of physics, and two years of biology.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
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• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores
• Application to the PSM program requires the Graduate Record Examination (GRE) general test or the MCAT. The GRE subject test is not required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

Personal Statement
• A personal statement of at least 300 words is required. The personal statement of interest and qualifications should address your career goals as they relate to the PSM specialization in Biomedical Sciences (maximum 2 pages). The statement should be submitted via upload through the online application process.

Recommendation Letters
• Three letters of recommendation are required from different faculty members or other professional contacts that are familiar with your potential to complete a rigorous graduate program. These letters should be solicited and uploaded by recommenders through the online application system. Letters must be received by the program’s stated deadline.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

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The Graduate Policies and Procedures (http://bulletin.du.edu/graduate/gradpolicy) provides complete details regarding admission requirements.

Graduate studies in the department of biological sciences provide graduate students with a set of structured core classes that establish a strong foundation of basic knowledge in cell and molecular biology or ecology and evolution and that allow the knowledge to be built upon in subsequent specialized courses and independent research. Research areas are usually linked to the interest of the supervising faculty member. The department’s current research strengths center around the two areas: cell and molecular biology (biophysics, neuroscience, neuroendocrinology, cell signaling and physiology, developmental biology, aging, molecular forensics and molecular evolution) and ecology and evolution (biogeochemistry, conservation biology, restoration ecology, molecular evolution). To complete research commitments, MS students generally work with a major professor of choice in the laboratory and/or field for about two years, while PhD students generally work for five years.

DOCTOR OF PHILOSOPHY IN BIOLOGICAL SCIENCES WITH A CONCENTRATION IN BIOLOGY, ECOLOGY AND EVOLUTION

Degree Requirements
The major requirements for completion of the PhD degree are 90 quarter hours of graduate course work and research credit, completion of all candidacy exams, and successful defense of the PhD dissertation. Graduate Students must maintain a minimum GPA of 3.0 and make adequate progress on research as assessed by their adviser and dissertation committee.
Coursework Requirements
The course work includes the following graduate core curriculum:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIOL 4220</td>
<td>Grad Sem: Ecology &amp; Evolution</td>
</tr>
<tr>
<td>BIOL 4091</td>
<td>Ecology and Evolution Research Methods</td>
</tr>
<tr>
<td>BIOL 4090</td>
<td>Biostatistics</td>
</tr>
<tr>
<td>or BIOL 4085</td>
<td>Accelerated Biostatistics</td>
</tr>
<tr>
<td>BIOL 4390</td>
<td>Foundations in Literature: Ecology</td>
</tr>
<tr>
<td>&amp; BIOL 4331</td>
<td>and Foundations in Literature: Evolution</td>
</tr>
<tr>
<td>&amp; BIOL 4332</td>
<td>and Foundations in Literature: Conservation Biology</td>
</tr>
<tr>
<td>BIOL 4231</td>
<td>Responsible Conduct in Rsrch</td>
</tr>
<tr>
<td>BIOL 5991</td>
<td>Independent Study (*)</td>
</tr>
<tr>
<td>or BIOL 5995</td>
<td>Independent Research PhD</td>
</tr>
</tbody>
</table>

* Courses that the dissertation committee judges to complement the student's major field also may be used.

Total Credits 90

Non-coursework requirements
Additional requirements are attendance at departmental seminars, passing performance in the qualifying examination and the research proposal examination, presentation of one departmental seminar per year, completion of a research dissertation of publishable quality, and successful oral defense of the dissertation. PhD students are required to pass both a qualifying exam and research proposal exam to advance to candidacy.

Up to 10 quarter hours of graduate credit (or a blanket transfer of 45 quarter hours from a previous master’s program) may be accepted as transfer credit with approval of the departmental graduate committee and the Office of Graduate Studies.

Doctor of Philosophy in Biological Sciences with a Concentration in Cell and Molecular Biology

Degree Requirements
The major requirements for completion of the PhD degree are 90 quarter hours of graduate course work and research credit, completion of all candidacy exams, and successful defense of the PhD dissertation. Graduate Students must maintain a minimum GPA of 3.0 and make adequate progress on research as assessed by their adviser and dissertation committee.

Coursework Requirements
The course work includes the 20-credit graduate core curriculum:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4211</td>
<td>Advanced Cell Biology</td>
</tr>
<tr>
<td>BIOL 4212</td>
<td>Advanced Molecular Biology</td>
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<td>BIOL 4213</td>
<td>Advanced Cell Signaling</td>
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<tr>
<td>BIOL 4310</td>
<td>Foundations in Literature: Cell and Molecular Biology (3 terms required)</td>
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<tr>
<td>BIOL 4150</td>
<td>Special Topics in Adv Biology</td>
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<td>BIOL 4090</td>
<td>Biostatistics</td>
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<td>or BIOL 4085</td>
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<tr>
<td>BIOL 4231</td>
<td>Responsible Conduct in Rsrch</td>
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<tr>
<td>BIOL 5991</td>
<td>Independent Study (*)</td>
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<tr>
<td>or BIOL 5995</td>
<td>Independent Research PhD</td>
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* Courses the dissertation committee judges to complement the student’s major field also may be used.

Total Credits 90

Non-coursework requirements
Additional requirements are attendance at departmental seminars, passing performance in the qualifying examination and the research proposal examination, presentation of one departmental seminar per year, completion of a research dissertation of publishable quality, and successful oral defense of the dissertation. PhD students are required to pass both a qualifying exam and research proposal exam to advance to candidacy.

Up to 10 quarter hours of graduate credit (or a blanket transfer of 45 quarter hours from a previous master’s program) may be accepted as transfer credit with approval of the departmental graduate committee and the Office of Graduate Studies.
MASTER OF SCIENCE IN BIOLOGICAL SCIENCES WITH A CONCENTRATION IN BIOLOGY, ECOLOGY AND EVOLUTION

Degree Requirements
The major requirements for completion of the MS degree are 45 quarter hours of course work and research credit, and successful defense of the MS thesis. Graduate Students must maintain a minimum GPA of 3.0 and make adequate progress on research as assessed by the major adviser and thesis committee.

Coursework Requirements
The course work includes the following graduate core curriculum:

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<tr>
<th>Course Code</th>
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<tr>
<td>BIOL 4220</td>
<td>Grad Sem: Ecology &amp; Evolution</td>
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<tr>
<td>BIOL 4091</td>
<td>Ecology and Evolution Research Methods</td>
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<td>BIOL 4090</td>
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<td>Independent Research</td>
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* Courses the thesis committee judges to complement the student's major field also may be used.

Total Credits 45

Non-coursework Requirements
Additional requirements are attendance at all departmental seminars, a thesis based on a research project approved by the thesis committee, and a successful oral defense of the thesis.

MASTER OF SCIENCE IN BIOLOGICAL SCIENCES WITH A CONCENTRATION IN CELL AND MOLECULAR BIOLOGY

Degree Requirements
The major requirements for completion of the MS degree are 45 quarter hours of course work and research credit, and successful defense of the MS thesis. Graduate Students must maintain a minimum GPA of 3.0 and make adequate progress on research as assessed by the major adviser and thesis committee.

Coursework Requirements
The course work includes the 16-credit graduate core curriculum:

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<tr>
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<td></td>
<td>Independent Research</td>
</tr>
</tbody>
</table>

* Courses the thesis committee judges to complement the student's major field also may be used.

Total Credits 45

Non-coursework requirements
Additional requirements are attendance at all departmental seminars, a thesis based on a research project approved by the thesis committee and a successful oral defense of the thesis.
Courses

BIOL 3010 Evolution and Speciation (4 Credits)
Theories and supporting evidence explaining evolution from origin of universe to complex interrelationships of species. Prerequisites: BIOL 1010, BIOL 1011 and BIOL 2510.

BIOL 3020 Aquatic Ecology (4 Credits)
An introduction to the ecology of fresh-water and marine organisms including aquatic adaptations, community organization, food chains, nutrient cycling and man's impact on aquatic ecosystems. Prerequisite: BIOL 2010 or instructor's permission.

BIOL 3030 Alpine Ecology (4 Credits)
Ecology of alpine and subalpine regions of Colorado; organization and distribution of communities and populations, succession, energy flow, nutrient cycling, population adaptations in life-history physiology, behavior and morphology. Prerequisite: BIOL 2010.

BIOL 3035 Invasive Species Ecology (4 Credits)
This course investigates those plants and animal species that have dramatically expanded their ranges and cause ecological harm. Topics covered include the mechanisms of ecological impacts across the globe, how invasive species are used to test basic ecological theory, the application of this research for managing real species, and related issues such as the debate within the scientific community about the term "invasive." We use a case-study approach, and students have the opportunity to go into the field as a class to observe the real invasions and learn sampling methods.

BIOL 3044 Coral Reef Ecology (3 Credits)
Ecology of coral reefs; organization and distribution of reefs; review of reef organisms and their interactions with each other and their physical environment; threats to coral reef reef conservation. Prerequisite: BIOL 2010 or BIOL 2050.

BIOL 3045 Coral Reef Ecology Lab (1 Credit)
Ecology of coral reefs laboratory to supplement lecture material; travel to the Caribbean over spring break to observe coral reefs firsthand; introduction to research methods. SCUBA certification and permission of instructor required. A travel and dive fee is associated with this course.

BIOL 3055 Ecology of the Rockies (4 Credits)
A week in residence at the Mt. Evans Field Station prior to the start of fall quarter includes field projects dealing with ecology and environmental issues. On campus classes involve data analysis and interpretation and formal scientific communication. Themes include terrestrial and aquatic ecosystems, taxonomic groups ranging from conifer stands to aquatic insects and mountain goats. Lab fee associated with this course. Prerequisite: BIOL 2010 or permission of instructor.

BIOL 3060 Tropical Ecology (3 Credits)
Biological composition of tropical ecosystems; biodiversity, biogeochemistry; causes and biological consequences of tropical deforestation; ecologically based approaches toward sustainable tropical forest use. Includes laboratory. Prerequisite: BIOL 2010.

BIOL 3070 Ecological Field Methods (4 Credits)
Series of field exercises for students to learn principles and procedures of field methodology, data analysis and technical writing in ecology; problems drawn from population, community and ecosystem ecology. Lab fee associated with this course. Prerequisite: BIOL 2010.

BIOL 3090 Microbial Ecology (4 Credits)
Interactions among microorganisms and their environment. Impact of ecological principles on microbial diseases, pollutant degradation, nutrient cycles and global change. Prerequisites: BIOL 1010, BIOL 1011.

BIOL 3100 Histology: Medical Microanatomy (4 Credits)
Microscopic organization of tissues and organs; correlation of organization of organs with functions and pathologies; emphasis on mammalian systems. Includes laboratory. Lab fee associated with this course. Prerequisite: BIOL 2120.

BIOL 3110 Special Topics: Biology (1-5 Credits)
Topics of special interest to teaching/research faculty of department presented as needed to complement and expand existing curriculum. May be repeated for credit.

BIOL 3120 General Microbiology (4 Credits)
Fundamental principles of microorganisms in the world and in disease; role of bacteria in biological phenomena. Includes laboratory. Lab fee associated with this course. Prerequisite: BIOL 2120.

BIOL 3130 Molecular Evolution (4 Credits)
Evolution of macromolecules and reconstruction of evolutionary history of genes and organisms. Prerequisite: BIOL 2510.

BIOL 3135 Topics in Cell Motility (4 Credits)
Fibrous elements of the cytoskeleton and associated proteins and their role in cellular motility is examined in detail. The physical forces involved in cellular motile function is applied in understanding cellular motile behavior. Prerequisite: BIOL 2120.

BIOL 3150 Intracellular Dynamics (4 Credits)
Focuses on spatial and temporal control of intracellular processes with an emphasis on neuronal and endocrine cells. Topics include vesicular traffic, protein targeting, dynamics and spatial organization of signaling complexes. Emphasis on modern techniques of cell and molecular biology with examples from primary literature. Prerequisite: BIOL 2120.
BIOL 3160 Biophysics: Ion Channels & Disease (4 Credits)
Examines ion channel structure and function and the ways in which this information provides insight into human disease. The focus is on the use of biophysical techniques in combination with molecular and genetic analysis of channel genes. General Physics recommended. Prerequisite: BIOL 2120.

BIOL 3200 Invertebrate Evolution (4 Credits)
Introduction to remarkable diversity of invertebrate life, both in terms of numbers of species, novel body plan and physiological adaptations. Includes laboratory. Prerequisites: BIOL 1010, BIOL 1011.

BIOL 3230 Nutrition (3 Credits)
Investigation of metabolism, all nutrients and various applications of nutrition to sports and healthy living. Prerequisite: BIOL 3250.

BIOL 3250 Human Physiology (5 Credits)
Functional relationships of human organ systems with coordinated laboratory activities and experiments that demonstrate and test physiological principles. Lab fee associated with this course. Prerequisites: BIOL 1010, BIOL 1011.

BIOL 3260 Nutrition (3 Credits)
From physiological and biochemical perspectives, this course explores the relationships of energy metabolism, nutrients, vitamins and minerals to human health. Prerequisite: BIOL 3250.

BIOL 3300 Biodiversity-Flowering Plants (4 Credits)
Basic techniques and principles of systematics with application to the origin, evolution, radiation, classification and biodiversity of flowering plants (angiosperms). Lab fee associated with this course. Prerequisites: BIOL 1010, BIOL 1011 or GEOG 1201, GEOG 1202, GEOG 1203 or instructor’s permission.

BIOL 3400 Ornithology (4 Credits)
Biology of birds with emphasis on ecology and behavior; field and laboratory work to stress bird identification and ecological relationships of birds. Lab fee associated with this course. Prerequisites: BIOL 1010, BIOL 1011.

BIOL 3410 Animal Behavior (4 Credits)
This class examines animal behavior from an evolutionary and ecological perspective. The course provides the background needed to understand behavioral evolution, including a focus on the inheritance of behavior, natural selection, sexual selection, and kin selection. This class studies the evolution of a variety of behaviors, including communication and displays, mate choice, parental care, cooperation, mating systems, social behavior, habitat selection, foraging, and anti-predator behavior. The emphasis is on theoretical principles, design of experiments, and interpretation of data. Prerequisites: BIOL 1010 and BIOL 1011.

BIOL 3560 Molecular Biology Laboratory (4 Credits)
Laboratory based course that covers techniques in gene excision, cloning and reinserstion and gene sequencing. Lab fee associated with this course. Prerequisite: BIOL 2510.

BIOL 3570 Proteins in Biological Systems (3 Credits)
Proteins considered in their biological setting; protein synthesis and degradation; survey of protein functions in vivo; evolution of proteins; introduction to protein biotechnology. Prerequisites: BIOL 2120, CHEM 2451, CHEM 2452 and CHEM 2453.

BIOL 3610 Developmental Biology (4 Credits)
Processes and mechanisms of development, exemplified by higher animal embryogenesis, with consideration of microbial model systems. Prerequisite: BIOL 2510.

BIOL 3620 Vertebrate Embryology (4 Credits)
Development processes in placental mammals; analysis of vertebrate cyto-differentiation and morphogenesis. Laboratory on embryonic anatomy of amphibians, birds and mammals. Prerequisites: BIOL 1010, BIOL 1011 and BIOL 2120.

BIOL 3630 Cell Biology of Development (4 Credits)
Every organism has a stereotypical shape, but how does this shape arise? This course examines the cellular and molecular mechanisms that direct the forming of body and tissue shape. Prerequisite: BIOL 2120.

BIOL 3640 Introductory Neurobiolgy (4 Credits)
Organization and function of vertebrate central nervous system; nature of action potential, biochemistry of neurotransmitters, neuropeptides, functional anatomy of nervous system, phylogeny of nervous system. Prerequisite: BIOL 2120.

BIOL 3641 Systems Neuroscience (4 Credits)
Structure and function of the brain and spinal cord, emphasis on functional systems including sensory perception, motor control and consciousness. Prerequisite: BIOL 3640.

BIOL 3642 Neuropharmacology (4 Credits)
How psychoactive drugs exert their effects on the nervous system; drugs of abuse and drugs used in the treatment of psychotic and neurodegenerative disorders. Prerequisite: BIOL 2120.

BIOL 3643 Developmental Neurobiology (4 Credits)
This course investigates the mechanisms involved in the maturation of neurons, and signals that direct neurons to their proper position in the central nervous system. Prerequisite: BIOL 3640.
BIOL 3644 Neuromuscular Pathophysiology (4 Credits)
Cellular and molecular basis for normal nerve and muscle functions and the alteration of these functions by toxins, trauma and diseases of the brain, nerves and muscles; how specific insults produce clinical symptoms and pathology. Prerequisite: BIOL 2120. Recommended Prerequisite: BIOL 3640 or BIOL 3250.

BIOL 3646 Seminar: Cognitive Neuroscience (2 Credits)
This seminar is the capstone course for the neuroscience portion of the cognitive neuroscience program. Seminar topics include but are not limited to neurological disorders, model systems in neuroscience and sensory systems.

BIOL 3650 Endocrinology (4 Credits)
Mechanisms of hormone action, evolution of vertebrate endocrine systems, analysis of function integration of hormonal responses in maintenance of homeostasis. Prerequisite: BIOL 2120.

BIOL 3655 Molecular Neuroendocrinology (4 Credits)
Advanced laboratory course that uses anatomical/immunological, biochemical and molecular approaches to analyze neuroendocrine pathways in the hypothalamus/pituitary system. Lab fee associated with this course. Prerequisites: BIOL 3650 and instructor's permission.

BIOL 3660 Advanced Techniques in Cell Biology (4 Credits)
Advanced laboratory course that covers current techniques used in cell biology research. Lab fee associated with this course. Prerequisite: BIOL 2120.

BIOL 3670 Malignant and Benign Tissues and Their Malignant and Benign Tissues and Their Biology (4 Credits)
This course will introduce students to the fundamentals of cell biology with an emphasis on understanding of how the field is applied in the context of medical diagnostics, personalized/precision medicine and other commercial applications. Students will be introduced to published research reports and provided with opportunities to critically examine the application of cell biology to central questions in such areas as oncology, inherited diseases and genetically engineered organisms. Prerequisite: BIOL 2510.

BIOL 3671 Advanced Topics in Evolution (1-4 Credits)
Topics vary; may include molecular evolution, plant evolution and animal evolution. Prerequisite: instructor's permission.

BIOL 3672 Advanced Topics in Conservation Biology (1-4 Credits)
Topics vary; may include molecular evolution, plant evolution and animal evolution. Prerequisite: instructor's permission.

BIOL 3673 Advanced Topics in Cell Biology (1-4 Credits)
Topics vary; may include supramolecular structure, microscopy, membranes and techniques. May be repeated for credit. Taught from original literature. Prerequisites: varies with course and instructor; instructor's permission usually required.

BIOL 3674 Advanced Topics in Cell Biology (1-4 Credits)
Topics vary; may include supramolecular structure, microscopy, membranes and techniques. May be repeated for credit. Taught from original literature. Prerequisites: varies with course and instructor; instructor's permission usually required.

BIOL 3675 Advanced Topics in Molecular Biology (1-4 Credits)
Topics vary, but may include biochemistry, supramolecular structure and function, molecular genetics, membrane biology. May be taken more than once for credit. Taught from original literature. Prerequisite: varies with course and instructor; instructor's permission usually required.

BIOL 3676 Topics in Evolution (1-4 Credits)
Topics vary, but may include molecular evolution, plant evolution and animal evolution. Prerequisite: instructor's permission.

BIOL 3677 Advanced Topics in Conservation Biology (1-4 Credits)
Medical Genetics is the 24th member of the American Board of Medical Specialties. This course will introduce students to the fundamentals of medical genetics with an emphasis on understanding of how the field is applied in the context of medical diagnostics, personalized/precision medicine and other commercial applications. Students will be introduced to published research reports and provided with opportunities to critically examine the application of molecular biology to central questions in such areas as oncology, inherited diseases and genetically engineered organisms. Prerequisite: BIOL 2510.

BIOL 3678 Viruses & Infectious Human Diseases (4 Credits)
From sexually transmitted viruses to bacterial pneumonia, infectious pathogens are the number one threat to human health. This course will introduce students to prions, viruses and bacterial pathogens with an emphasis on those commonly encountered in clinical medical practice. Through the use of technical/scientific research journals students will be encouraged to investigate the etiology, pathogenesis and treatment of human infectious disease with an emphasis on the clinical, molecular diagnostic and therapeutic aspects of the disease. Prerequisite: BIOL 2510. Recommended prerequisite: BIOL 3800.
BIOL 3950 Undergraduate Research (1-10 Credits)
Participation in faculty research programs by agreement between student and faculty member. Maximum of 5 quarter hours of BIOL 3950 and/or BIOL 3991 may be applied to the 45-quarter-hour requirement for a major in biological sciences.

BIOL 3991 Independent Study (1-10 Credits)
Topic in biology studied under faculty supervision. Student's responsibility to identify faculty supervisor before registering for class. Maximum of 5 quarter hours of BIOL 3991 and/or BIOL 3950 may be applied toward the 45-quarter-hour requirement for a major in biological sciences.

BIOL 3992 Directed Study (1-10 Credits)
BIOL 3995 Independent Research (1-10 Credits)
BIOL 4010 Cellular Motile Function (2 Credits)
Current literature in area of cell motility; role of cytoskeletal elements as motile agents.

BIOL 4020 Microbial Genetic Model Syst (2 Credits)
BIOL 4030 Current Concepts in Evolution (2 Credits)
New ideas and theories in field of evolutionary biology.

BIOL 4040 Current Concepts-Animal Phys (2 Credits)
Selected topics in animal physiology.

BIOL 4050 Topics in Plant Biology (2 Credits)
Varying topics; areas of plant-animal interactions, co-evolution, plant ecology, plant biochemistry/physiology.

BIOL 4060 Gene Expression-Development (2 Credits)
Varying aspects of gene control in developing systems, a different aspect each time course is offered.

BIOL 4070 Hormone-Receptor Interaction (2 Credits)
Series of lectures; understanding molecular, cellular basis of hormone action; experimental analysis of binding of hormones with their receptors; structure-function relationships of hormone-receptor interactions; nature and action of mediators generated by hormone-receptor interaction.

BIOL 4080 Biological Membranes (2 Credits)

BIOL 4085 Accelerated Biostatistics (2 Credits)
This is an accelerated online statistics course for graduate students in Biology. Basic probability and hypothesis testing is the foundation of teaching applied statistics, including simple statistics (t-tests, F-tests, and chi square) and more advanced procedures (regression, correlation, analysis of variance). In addition, students learn more complex tools (multiple regression, multi-classification ANOVA, Student-Newman-Keuls tests), including non-parametric Tests (Mann-Whitney U, Sign test, Wilcoxon Rank Sum).

BIOL 4090 Biostatistics (4 Credits)
Statistic on biological research; emphasis on procedures, applications of regression, correlation, analysis of variance, and nonparametric tests. Include instruction on computer aided (Mac and PC) statistical analysis and presentation of results. Cross listed with BIOL 2090.

BIOL 4091 Ecology and Evolution Research Methods (1 Credit)
This course builds upon the concepts in BIOL 4090, Biostatistics, by covering in more detail and specificity issues involved in designing one's experiment to adequately test the hypotheses or describe the data of interest. Students bring and discuss their specific research projects as case studies to maximize the utility of the course.

BIOL 4100 Microbial Structure & Function (2 Credits)
BIOL 4105 Essentials of Immunology (2 Credits)
BIOL 4110 Essentials of Immunology (2 Credits)
BIOL 4120 Human Chromosomes and Mutagenesis (2 Credits)

BIOL 4130 Microevolution (2 Credits)
Microevolution, the change of gene frequencies within populations; examination of forces that cause it, evaluation of its contribution to process of speciation.

BIOL 4140 Protein Biosynthesis (2 Credits)
Processes of protein synthesis in cells; emphasis on posttranslational modifications that occur to secretory proteins prior to secretion.

BIOL 4150 Special Topics in Adv Biology (1-4 Credits)
Topics of special interests to teaching and research faculty presented as needed to complement and expand existing curriculum. May be taken more than once for credit.

BIOL 4155 Leadership in Science (1 Credit)
This course addresses the basic leadership skills necessary to succeed in the dynamic professional environment of the biomedical sciences. Topics covered include leadership strategies and professional negotiation, conflict resolution, and team-building. Students will determine leadership strengths and weaknesses and use case studies to strengthen their leadership practices.

BIOL 4190 Biometry (3 Credits)
BIOL 4210 Grad Sem: Cell Biology (2 Credits)
A series of student presentations focusing on varied topics involving cell biology. May be taken more than once for credit.
BIOL 4211 Advanced Cell Biology (3 Credits)
Students study the subcellular structure and organization of the cell. Organelle structure and function are examined in detail as well as biogenesis and degradation (turnover) of these subcellular structures. Cytoskeletal dynamics are also a major focus. Specific topics covered include cell division, macromolecular synthesis, membrane transport, cell-matrix and cell-cell communication, cell migration, cell differentiation, and mechanisms of cell death. The course follows a lecture format in conjunction with selected journal article presentations and discussions by the students. Cross listed with BIOP 4150.

BIOL 4212 Advanced Molecular Biology (3 Credits)
This course focuses on a detailed analysis of regulated gene expression. The topics include lectures and readings of relevant literature in areas covering gene regulation at multiple steps, including transcription, RNA processing, and translation. In particular, the logic of experimental design and data analysis are emphasized.

BIOL 4213 Advanced Cell Signaling (3 Credits)
Students in this course investigate a large array of cellular signal transduction cascades. Specific signaling pathways to be covered include growth factor receptors, cytokine receptors, steroid receptors, integrin-extracellular matrix, heterotrimeric G-protein coupled receptors, monomeric G-proteins, transcription factors, lipids, cytoskeleton, cell cycle, and apoptosis. Each of these topics is examined in the context of normal cell physiology as well as their roles in specific disease processes. The course follows a lecture format in conjunction with selected journal article presentations and discussions by the students.

BIOL 4220 Grad Sem: Ecology & Evolution (2 Credits)
A series of student presentations focusing on varied topics involving ecology and evolution. May be taken more than once for credit.

BIOL 4230 Grad Sem: Molecular Biology (2 Credits)
A series of student presentations focusing on varied topics involving ecology and evolution. May be taken more than once for credit.

BIOL 4231 Responsible Conduct in Rsrch (1 Credit)
This course covers several topics regarding guidelines for ethical practices in research. Topics include: data ownership, conflict of interest and commitments, human subjects, animal welfare, research misconduct, authorship, mentoring, peer review, and collaboration. The course includes an online training component and meets one hour each week to discuss these topics.

BIOL 4300 Fall Graduate Reviews in Biol (1 Credit)
Students participate in a required review session that precedes selected departmental seminar presentations by faculty and outside speakers, and participate in a discussion session with the seminar speaker.

BIOL 4301 Wntr Graduate Reviews in Biol (1 Credit)
Students participate in a required review session that precedes selected departmental seminar presentations by faculty and outside speakers, and participate in a discussion session with the seminar speaker.

BIOL 4302 Sprg Graduate Reviews in Biol (1 Credit)
Students participate in a required review session that precedes selected departmental seminar presentations by faculty and outside speakers, and participate in a discussion session with the seminar speaker.

BIOL 4303 Reviews in Biology (1 Credit)
The experience is built around the departmental seminar series offered every quarter.

BIOL 4310 Foundations in Literature: Cell and Molecular Biology (2 Credits)
Students participate in a weekly discuss group that focuses on recent papers from the primary literature in Cell and Molecular Biology.

BIOL 4311 Wntr Selected Top: Reg Bio (2 Credits)
Students participate in a weekly discussion group that focus on recent papers from the primary literature in regulatory biology.

BIOL 4312 Sprg Selected Top: Reg Bio (2 Credits)
Students participate in a weekly discussion group that focus on recent papers from the primary literature in regulatory biology.

BIOL 4322 Selected Tpcs: Molecular Biol (2 Credits)
The syllabus for the Selected Topics series varies each quarter. Each quarter a faculty member sets the theme for the quarter and identify a set of review articles to introduce the topic. The instructor leads the first session and provide important background material on the topic. Students select a paper from the primary literature to present to the class on the topic designated for the quarter.

BIOL 4330 Foundations in Literature: Ecology (2 Credits)
Students participate in a weekly discuss group that focuses on recent papers from the primary literature in Ecology.

BIOL 4331 Foundations in Literature: Evolution (2 Credits)
Students participate in a weekly discussion group that focuses on recent papers from the primary literature in Evolution.

BIOL 4332 Foundations in Literature: Conservation Biology (2 Credits)
Students participate in a weekly discussion group that focuses on recent papers from the primary literature in Conservation Biology.

BIOL 4440 Current Concepts-Animal Phys (2 Credits)

BIOL 4610 Developmental Biology (4 Credits)
The processes and mechanisms of development, exemplified by higher animal embryogenesis, with consideration of simpler model systems. Laboratory sessions use live materials; course finishes with individual projects. Prerequisite: BIOL 2510 or equivalent.
BIOL 4700 Human Molecular Biology (4 Credits)
Molecular basis of heredity and genetic control, using in-vitro systems and microbial and eukaryotic models; molecular basis of heredity and genetic regulation considering in-vitro systems as well as prokaryotic and eukaryotic models. Restricted to MBA Bioenterprise students.

BIOL 4710 Endocrinology: Chemical Communication Systems (4 Credits)
Mechanisms of hormone action, evolution of vertebrate endocrine systems, analysis of function integration of hormonal responses in maintenance of homeostasis. Restricted to MBA Bioenterprise students.

BIOL 4720 Neuropharmacology (4 Credits)
How psychoactive drugs exert their effects on the nervous system; drugs of abuse and drugs used in the treatment of psychotic and neurodegenerative disorders. Restricted to MBA Bioenterprise students.

BIOL 4730 Molecular Lab Techniques (4 Credits)
Techniques in gene excision, cloning and reinsertion; gene sequencing. Restricted to MBA Bioenterprise students.

BIOL 4731 Cell and Molecular Techniques (4 Credits)
Analysis of neuroendocrine systems using a multidisciplinary approach. Anatomical/immunological, biochemical and molecular approaches used to analyze neuroendocrine pathways in the hypothalamus/pituitary system. Restricted to MBA Bioenterprise students.

BIOL 4740 Microbiology (4 Credits)
Fundamental principles; role of bacteriology in biological phenomena. Includes laboratory. Restricted to MBA Bioenterprise students.

BIOL 4750 Immunology (4 Credits)
Organs, cells and molecules that underlie mammalian immune response; relationship of immune system to disease. Restricted to MBA Bioenterprise students.

BIOL 4760 Advanced Cell Biology (4 Credits)
Focuses on spatial and temporal control of intracellular processes with an emphasis on neuronal and endocrine cells. Topics include vesicular traffic, protein targeting, dynamics and spatial organization of signaling complexes. Emphasis on modern techniques of cell and molecular biology with examples from primary literature. Restricted to MBA Bioenterprise students.

BIOL 4850 Laboratory Skills for Forensic Serological Analysis (5 Credits)
This course is designed to provide students with two major educational skills. First, is a thorough understanding of the fundamental science behind the identification and serological analysis of biological evidence in a forensic context. Second, is a rigorously developed set of practical hands-on proficiencies with the major commercial assay systems used by forensic laboratories for the identification of blood, saliva, semen, and other biological material with potential probative value to a criminal investigation.

BIOL 4860 Laboratory Skills for Forensic Genetic Analysis (4 Credits)
This course is designed to provide students with two major educational skills. First, is a thorough understanding of the fundamental science behind the molecular genetic analysis of biological evidence in a forensic context. Second, is a rigorously developed set of practical hands-on proficiencies with the major commercial assay systems and software used by forensic laboratories for the determination and analysis of DNA profiles.

BIOL 4870 Medical Ethics (4 Credits)
This course presents knowledge and discussion of ethical issues that arise from advances in the biomedical sciences and medicine. Several specific ethical issues and policies related to methodologies and procedures, emerging medical technologies, treatment decisions, doctor-patient relationship, informed consent, medical experimentation/clinical research, and health care reform.

BIOL 4880 Capstone in Biomedical Sciences (4 Credits)
This is the capstone course for students enrolled in the Professional Science Master's program. In this course, students integrate advanced knowledge in science and math along with courses taken outside traditional science and math courses as their electives. This course incorporates lectures, guest speakers, and class discussions focusing on current issues or concerns in the chosen concentration. PSM students only. Requires instructor approval.

BIOL 4991 Independent Study (1-17 Credits)
BIOL 4992 Directed Study (1-10 Credits)
BIOL 4995 Independent Research (1-8 Credits)
BIOL 5991 Independent Study (1-17 Credits)
BIOL 5995 Independent Research PhD (1-8 Credits)

**Chemistry and Biochemistry**

Office: F.W. Olin Hall, Room 202
Mail Code: 2190 E. Iliff Ave., Denver, CO 80208
Phone: 303-871-2436
Email: cheminfo@du.edu
Web Site: http://www.chemistry.du.edu
Why study chemistry at the University of Denver?
Consider the advantages:

- Excellent, research-active faculty
- Small classes, personal attention
- First-rate teaching facilities
- Modern, state-of-the-art equipment

At the University of Denver, we offer the training and amenities to energize your graduate experience and help you develop into a professional scientist.

The Department of Chemistry and Biochemistry at the University of Denver offers programs leading to MA, MS or PhD degree in chemistry.

Our faculty members actively involve students in research programs supported with more than $1.5 million in annual funding from federal agencies, state governments and private industries. In our programs, you will enjoy the benefits of a friendly, personalized learning environment that offers nationally competitive and extremely productive research opportunities.

The Department of Chemistry and Biochemistry has much to offer a graduate student: close and frequent student-faculty interaction; an integrated program of courses; and excellent equipment and facilities including 500 MHz NMR, single-crystal X-ray diffraction, multiple EPR spectrometers, ICP-mass spectrometer, photon counting lifetime fluorescence, nanosecond laser flash photolysis, aerosol particle monitoring spectrometer, and fluorescence microscopy.

Faculty research interests encompass biophysical, organic, analytical and environmental chemistry and biochemistry. The department’s relatively small size allows a broader, more interdisciplinary approach than in large departments. Our instructional format merges traditional disciplines into interdisciplinary courses that more closely reflect current trends in chemistry.

Master of Science in Chemistry, Doctor of philosophy in chemistry
Following are the simple steps to apply for graduate study in Chemistry and Biochemistry at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
- Applications for graduate study in Chemistry and Biochemistry at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: March 1. The programs admit for fall quarter only. After the March 1 deadline, applications may be considered on a rolling basis for fall admission until positions are filled.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree in chemistry, biochemistry or a related field from a regionally accredited institution prior to beginning graduate coursework at DU.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Mail official transcripts to

University of Denver
Office of Graduate Studies
Mary Reed Building, Room 5
2199 S. University Blvd.
Denver, CO 80208-4802
• Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency

• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores

• The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

Personal Statement

• A personal statement of at least 300 words is required. The statement should include information concerning your life, education, practical experience, special interests and specific purpose for applying to the University of Denver. Describe your goals for attending graduate school. What areas of chemistry or biochemistry are you most interested in? What do you hope to do after you complete your graduate studies? Why do you enjoy chemistry or biochemistry? Describe any research or teaching experience you have had. Have you been involved in an undergraduate research project during the academic year or in the summer? Have you had a summer job or internship in a commercial lab? Have you had experience in teaching as a grader, a lab teaching assistant or a lab preparatory assistant? Share anything in your personal statement that you believe will help evaluate your application. The statement should be submitted via upload through the online application process.

Resume / C.V.

• A resume or C.V. is required. This should include work experience, research, and/or volunteer work. This should be submitted via upload through the online application process.

Recommendation Letters

• Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support

• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid Website (http://www.du.edu/financialaid/graduate). International students are not eligible for federal financial aid.

• Chemistry and biochemistry students are provided financial support as teaching assistants or research assistants. Assistantship positions provide a full tuition waiver and a 12-month stipend of $23,333 for new master’s students and $26,600 for doctoral students for the 2016-2017 academic year. Non-native English speakers must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section to receive a graduate teaching assistantship.

Application Status

• We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

Contact Information

• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

• Electronic transcripts should be sent to gradinfo@du.edu.
International Applicants

For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of Philosophy in Chemistry

The PhD is the highest degree awarded and is intended for students seeking a career in scientific research. The ultimate aim of this degree is to train a scientist who can independently pursue a research project. To facilitate the educational process, each student has an advisory committee that functions to both advise the student and monitor the student’s progress.

Degree Requirements

Coursework Requirements

Required Courses

<table>
<thead>
<tr>
<th>Chemical systems (three-quarter sequence)</th>
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<tr>
<td>CHEM 3110 Chemical Systems I</td>
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<td>CHEM 3130 Chemical Systems III</td>
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<table>
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<table>
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<th>Analytical</th>
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<tbody>
<tr>
<td>CHEM 3220 Advanced Analytical Chemistry</td>
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</tbody>
</table>

Seminar

CHEM 4900 Chemistry Seminar                          | 1 |

Independent research (repeats allowed)

CHEM 4995 Independent Research                       | 1-10 |

Additional Coursework

Advanced topics                                       | 55-64 |

CHEM 4XXX or others if pre-approved by the graduate committee

Total Credits                                         | 90 |

Minimum credits required for degree: 90

A total of 90 quarter hours (of which a minimum of 75 hours must be earned at the University of Denver). Because a PhD in chemistry is primarily a degree in which competence in research is learned and demonstrated, a large percentage of these hours are earned as credit for research (CHEM 4995 Independent Research). A minimum of 70 graduate level quarter hours must be in CHEM courses; a maximum of 20 quarter hours may be outside of CHEM courses, but must remain within natural sciences (e.g., courses with BIOL, MATH, GEOG and/or PHYS prefixes). The formal or classroom course requirements are the same as those for the MS degree.

The graduate core curriculum must be completed with a GPA of 3.0 or better.

Non-coursework Requirements

- Qualifying Examinations

  All students in the PhD program are required to take a qualifying examination at the end of the spring quarter in their first academic year. This examination covers the material presented in the core curriculum, with each course contributing 100 points. To qualify for continuance in the program, the student must score at least 500 (out of 800 points). The faculty will meet to discuss exam results and decide whether the candidate will continue in the PhD program.

- Cumulative Examinations
The PhD candidate must complete the cumulative examination requirement by the seventh quarter in residence. These examinations are prepared from topics appearing in the current literature and fundamental materials found in review articles.

- **Proposition Oral Examination**

  By the end of the eighth quarter in residence, the student should give an oral presentation of an original research proposal in an area of his/her choice. This proposal will usually focus on the student’s chosen sub-discipline and should not be too closely related to any ongoing research in the department. After the public presentation, the student will defend the proposal before a committee of five faculty members (the advisory committee and two additional members).

- **Dissertation**

  A dissertation of publishable quality based on the student’s original research must be completed. A summary of the dissertation is presented in a public seminar and later defended in a private oral examination. The dissertation examination committee will consist of the three members of the student’s advisory committee, one additional member of the chemistry faculty to be selected by the advisory committee and an outside chair.

- **Seminars**

  All students in the PhD program are expected to present a departmental “non-thesis” seminar (CHEM 4900 Chemistry Seminar). This seminar should be presented fairly early in the degree program. In addition, the student must present public seminars as part of the proposition oral exam and final thesis defense.

### Doctor of Philosophy in Molecular and Cellular Biophysics

Molecular and Cellular Biophysics is an interdepartmental PhD degree program at the University of Denver.

See the molecular and cellular biophysics bulletin (p. 665) for more specific details.

### MASTER OF ARTS IN CHEMISTRY

The MA degree is intended primarily to meet the needs of students, such as those working full time in local industry or secondary education, who are seeking an advance degree with only a small research component. The primary difference between the MA degree and the MS degree is that a research thesis is required for the MS degree. The research required for the MS degree is often not feasible for students who work full time or is not of interest to those preparing for a career, for example, in secondary education. To facilitate the educational process, each student has an advisory committee that functions to both advise the student and monitor the student’s progress.

#### Degree Requirements

**Coursework Requirements**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM 3110</td>
<td>Chemical Systems I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3120</td>
<td>Chemical Systems II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3130</td>
<td>Chemical Systems III</td>
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<table>
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<tbody>
<tr>
<td>CHEM 3310</td>
<td>Structure and Energetics I</td>
<td>3</td>
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<tr>
<td>CHEM 3320</td>
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**Biochemistry (two-quarter sequence)**

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<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>CHEM 4900</td>
<td>Chemistry Seminar</td>
<td>1</td>
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**Independent study or independent research (repeats allowed)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM 4991</td>
<td>Independent Study</td>
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<tr>
<td>CHEM 4995</td>
<td>Independent Research</td>
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**Additional Coursework**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>One advanced topic course or additional research credits</td>
<td>14</td>
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</tbody>
</table>
CHEM 4XXX or others if pre-approved by the graduate committee

Total Credits 45

Minimum credits required for degree: 45 (of which a minimum of 35 credit hours must be earned at the University of Denver)
The graduate core curriculum must be completed with a GPA of 3.0 or better. If it is appropriate, and approved by the graduate committee, other graduate courses may be substituted for part of the graduate core curriculum.

Independent Study and/or Research
A minimum of six credit hours of independent study and/or independent research approved by the student’s advisory committee must be completed.

Courses in Other Departments
A minimum of 35 credit hours must be taken in courses offered by the Department of Chemistry and Biochemistry. As many as 10 credit hours may be taken in science-related 3000- to 4000- graduate level courses approved by the student’s advisory committee.

Seminars
All students in the MA degree program must present a technical seminar (CHEM 4900 Chemistry Seminar).

MASTER OF SCIENCE IN CHEMISTRY
The MS degree is intended for students who wish an advanced degree in chemistry primarily for the purpose of better preparation to conduct research work in chemistry or biochemistry. To facilitate the educational process, each student has an advisory committee that functions to both advise the student and monitor the student’s progress. In general, students serve as teaching assistants during their first year. For subsequent years, they are supported as either teaching assistants or research assistants, depending on the circumstances. Tuition charges are waived for all graduate teaching and research assistants.

Degree Requirements
Coursework Requirements
Required Courses

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<td>or CHEM 3831 Advanced Protein Biochemistry</td>
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<td></td>
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<tr>
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<th>Course</th>
<th>Credits</th>
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<tbody>
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<td>CHEM 3220 Advanced Analytical Chemistry</td>
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<table>
<thead>
<tr>
<th>Seminar</th>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 4900 Chemistry Seminar</td>
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<tr>
<th>Independent research (repeats allowed)</th>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM 4995 Independent Research</td>
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<table>
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<tr>
<th>Additional Coursework</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Advanced topics or additional research</td>
<td>10-19</td>
</tr>
<tr>
<td>CHEM 4XXX or others if pre-approved by the graduate committee</td>
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</tbody>
</table>

Total Credits 45

Minimum credits required for degree: 45 (of which a minimum of 35 credit hours must be earned at the University of Denver)
The graduate core curriculum must be completed with a GPA of 3.0 or better.

Seminars
All students in the MS program must present one departmental “non-thesis” seminar (CHEM 4900 Chemistry Seminar), in addition to the thesis seminar.
Non-coursework Requirements
Thesis- A thesis of publishable quality must be completed. A summary of the thesis is presented in an oral defense. The thesis defense committee will consist of a minimum of two faculty members from the Department of Chemistry and Biochemistry and an outside chair.

Courses

**CHEM 3110 Chemical Systems I (3 Credits)**
Advanced discussion of modern concepts of organic chemistry; bonding, stereochemistry, reaction mechanisms. Prerequisites: CHEM 2453 and equivalent of one year of physical chemistry.

**CHEM 3120 Chemical Systems II (3 Credits)**
Interpretation of trends in the chemistry of the elements in terms of orbital interactions. Most examples will be taken from the third row transition metals and the boron and carbon groups. Prerequisites: CHEM 2131, CHEM 3310 and CHEM 3110.

**CHEM 3130 Chemical Systems III (3 Credits)**
Advanced-level physical biochemistry course intended for advanced-level undergraduates and graduate students. Focuses on kinetic, thermodynamic and dynamic aspects of biopolymers; delineates the relationship of these properties to the mechanism and function of biological macromolecules. Prerequisites: CHEM 3811, CHEM 3812, CHEM 3813, CHEM 3610 or the equivalent.

**CHEM 3220 Advanced Analytical Chemistry (3 Credits)**
Principles of chemical instrumentation applied to analytical measurements; principles, instrumentation and applications of spectrometric and chromatographic measurements. Prerequisites: CHEM 3210 and CHEM 3621, or the equivalent.

**CHEM 3310 Structure and Energetics I (3 Credits)**
Fundamentals of quantum chemistry, and introduction to symmetry and molecular structure of small and large systems. Prerequisite: one year of physical chemistry.

**CHEM 3320 Structure and Energetics II (3 Credits)**
Computational methods in chemistry. Prerequisites: CHEM 3310, one year of physical chemistry.

**CHEM 3410 Atmospheric Chemistry (3 Credits)**
The concepts of equilibrium thermodynamics, kinetics, and photochemistry will be applied to understanding atmospheric processes. Covers urban air pollution in detail with focus on primary pollutants. Also covers stratospheric chemistry with focus on ozone chemistry and the chemistry of climate change. Prerequisites: CHEM 2270 and CHEM 2453.

**CHEM 3411 Aquatic Chemistry (3 Credits)**
The circulation of the oceans and their chemical make-up. 'Classical water pollution problems' like biological oxygen demand and turbidity are discussed. Also presented: aquifer structure and flow, ground water chemistry, pollutant partitioning between stationary and mobile phases, heterogeneous surface chemistry, and the detection of trace contaminants. Prerequisites: CHEM 2270 and CHEM 2453.

**CHEM 3412 Environmental Chemistry & Toxicology (3 Credits)**
A survey of environmental toxicology concepts: animal testing, dose-response data, epidemiology, risk assessment. The course includes ecotoxicology, focusing on the alteration of biological and chemical systems beyond the simple response of an individual to an environmental chemical. Prerequisites: CHEM 2270 and CHEM 2453.

**CHEM 3610 Physical Chemistry I (3 Credits)**
Fundamentals of thermodynamics, including phase and reaction equilibria, properties of solutions, and electrochemistry needed for advanced study in life sciences and for Physical Chemistry II and III. May be taken for graduate credit by nonchemistry majors. Prerequisites: CHEM 2453, calculus and physics.

**CHEM 3620 Physical Chemistry II (3 Credits)**
Fundamentals of quantum chemistry, including theories of atomic and molecular structure and spectroscopy. May be taken for graduate credit by nonchemistry majors. Prerequisite: CHEM 3610.

**CHEM 3621 Physical Chemistry III (3 Credits)**
Fundamentals of kinetic theory and statistical mechanics. May be taken for graduate credit by nonchemistry majors. Prerequisite: CHEM 3620.

**CHEM 3703 Topics in Organic Chemistry (3 Credits)**
May include organic photochemistry, organic synthesis, organic electrochemistry or natural products. May be repeated for credit. Prerequisites: CHEM 2453 or equivalent and others depending on topic.

**CHEM 3705 Topics in Biochemistry (3,4 Credits)**
May include physical techniques for exploring biological structure, biological catalysis, and selected fields within biochemistry taught from original literature. May be repeated for credit. Prerequisites: CHEM 3811, CHEM 3812, CHEM 3813.

**CHEM 3811 Biochemistry-Proteins (3 Credits)**
Protein structure and function, starting with the building blocks and forces that drive the formation of protein structure and the basic concepts of protein structure, and continuing with enzyme catalysis, kinetics, and regulation. Prerequisites: CHEM 2453 or instructor permission.

**CHEM 3812 Biochemistry-Membranes/Metabolism (3 Credits)**
Membranes and membrane mediated cellular processes, energy and signal transduction, and metabolic/biosynthetic pathways. Prerequisite: CHEM 3811.
CHEM 3813 Biochemistry-Nucleic Acids (3 Credits)
Molecular processes underlying heredity, gene expression and gene regulation in prokaryotes and eukaryotes. Prerequisite: CHEM 2453.

CHEM 3831 Advanced Protein Biochemistry (3 Credits)
This course provides fundamental insights into the chemistry and physics of proteins. It investigates how amino acids form proteins with highly complex three-dimensional structures and how these structures mediate function. We examine key research articles and their contribution to our current understanding of proteins. Topics range from protein folding to enzyme kinetics and emphasize basic principles. Prerequisites: CHEM 2453 and instructor permission.

CHEM 3991 Independent Study (1-10 Credits)
May be repeated for credit.

CHEM 3992 Directed Study (1-10 Credits)

CHEM 3995 Research in Chemistry (1-10 Credits)
Research project conducted under guidance of a faculty member. Credit hours and projects arranged on an individual basis. May be repeated for credit.

CHEM 4400 Adv. Topics: Organic Chemistry (3 Credits)
Physical organic chemistry; reaction mechanisms, structure reactivity relationships, kinetics, photochemistry, molecular orbital theory, etc.; current literature. May be taken for credit more than once.

CHEM 4900 Chemistry Seminar (1 Credit)
A weekly presentations of research in progress and of current literature by outside speakers, faculty and graduate students.

CHEM 4991 Independent Study (1-10 Credits)

CHEM 4992 Directed Study (1-10 Credits)

CHEM 4995 Independent Research (1-10 Credits)

CHEM 5991 Independent Study (1-10 Credits)

CHEM 5995 Independent Research (1-10 Credits)

Geography and the Environment
Office: Boettcher Center West, Room 120
Mail: 2050 E. Iliff Avenue, Denver, CO 80208
Phone: 303-871-2513
Website: http://www.du.edu/geography

Why study geography at the University of Denver?
Consider these advantages:

• Engaged and research-active faculty
• Small classes and personal attention
• State-of-the-art geospatial technology laboratories
• Strong and exciting field orientation
• Excellent location for applied research in physical and human geography

Situated at the foot of the Rocky Mountains in the dynamic city of Denver, the University of Denver is an ideal laboratory for physical and human geographers, as well as those studying human-environment interaction and geographic information science.

Since it was founded in 1945, the University of Denver’s department of geography has offered excellent opportunities for graduate students in teaching, research, academia, government and the private sector.

We have state-of-the-art facilities and resources:

• Fully networked labs with frequent upgrades in hardware, specialized equipment and software
• Four Geographic Information Systems (GIS) labs which include most industry standard GIS software (All ESRI products, ERDAS Imagine, E-cognition, ENVI, Web Mapping and Geo-visualization products)
• USDA-approved soil and sediment lab, a weather and climate lab and the Hoyt Mineral Collection
• Multimedia teaching classrooms
• National and international field trips
• The Mount Evans field station (elevation 10,600 feet), is just 45 minutes from campus Come visit our facilities, meet our faculty and students and see the advantages for yourself.
The Department of Geography and the Environment at the University of Denver offers programs leading to the MA in Geography, MS in Geographic Information Science (GISc) (on-campus and online programs) and PhD in Geography. Areas of teaching and research include biogeography, climatology, computer-assisted cartography, cultural geography, development, economic geography, environmental geography, geographic information science, geovisualization, geomorphology, global change, hydrology, land use/land cover analysis, Latin America, natural resources, paleoenvironmental change, political ecology, Quaternary studies, remote sensing, soils, spatial analysis, sustainability, transportation, and urban geography and planning. With ten tenure-line faculty and five full-time lecturers, our faculty is very active in research, publishing numerous journal articles and presenting many conference papers every year. Our faculty members also are known for their excellence as instructors, with several faculty having earned major teaching awards.

**Master of Arts in Geography, Master of Science in Geographic Information Science, Doctor of Philosophy in Geography**

Following are the simple steps to apply for graduate study in Geography/Geographic Information Science at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

**Apply Online / Application Deadlines**
- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: For the PhD, MA and MS GISC programs, applications are accepted for fall quarter admission only. The deadline is January 15, for the fall quarter. All online materials must be submitted, and all supplemental materials must be postmarked, by the program’s stated deadline for financial aid consideration. Applications may be considered after the deadline on a space-available basis.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

**Course and Degree Prerequisites and Requirements**
- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree and, if applicable, a master’s degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- An appropriate undergraduate degree in geography or related discipline is normally required with a minimum GPA of 3.0. A master’s degree in geography or cognate discipline with a minimum GPA of 3.5 in graduate courses is normally required for admission to the doctoral program. If bachelor’s and master’s degrees are not in geography, the following prerequisites are required: introductory physical geography, introductory human geography, computer cartography, and geographic statistics.

**Transcripts** (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. DU students and alumni do not need to provide DU transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Paper transcripts should be sent to the following address:

  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

- Electronic transcripts should be sent to gradinfo@du.edu.

**Language Proficiency** (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the Geography graduate programs is 88 (iBT) or 570 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by Geography is 6.5. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores
• The Graduate Record Examination (GRE) is required of all applicants, with a combined score of at least 300 on the verbal and quantitative sections of the exam. Scores must be received directly from the appropriate testing agency by the program's stated deadline. The institution code for the University of Denver is 4842.

Personal Statement
• A personal statement of at least 300 words is required. The statement should be submitted via upload through the online application process. The personal statement should include information concerning your life, education, practical experience, special interests and specific purpose for applying to the University of Denver.

Recommendation Letters
• Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
• The department provides limited funding including merit-based aid, such as graduate scholarships and teaching assistantships, and need-based grant aid. Applicants who submit a FAFSA will be automatically considered for department funding opportunities.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online (https://gradadmissions.du.edu/apply). Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:

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    Electronic transcripts should be sent to gradinfo@du.edu.
    • For more information call (303) 871-2706.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

*The Graduate Policies and Procedures provides complete details regarding admission requirements.*

**Master of Science in Geographic Information Science (online program)**

Following are the simple steps to apply for online graduate study in Geographic Information Science at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
• Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
• All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline. For the MS in GISC online program, applications are accepted on a year-round basis. The Department will review applicants whose files are complete by March 20, for summer quarter admission; May 15, for fall quarter admission; September 20, for winter quarter admission; and, December 20, for spring quarter admission. Applications may be considered after the deadline on a space-available basis.
A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- An appropriate undergraduate degree in geography or related discipline is normally required with a minimum GPA of 3.0. A master's degree in geography or cognate discipline with a minimum GPA of 3.5 in graduate courses is normally required for admission to the doctoral program. If bachelor’s and master's degrees are not in geography, the following prerequisites are required: introductory physical geography, introductory human geography, computer cartography, and geographic statistics.
- Students entering the online MS in GISc degree program should have already completed an introductory GIS course at another academic institution, in the department of geography, or in the University College GIS certificate program. The introductory course GIS 3100 in the GIS certificate program fulfills this requirement. Work experience may be used to waive this prerequisite. Students must provide ample evidence on professional resume and be prepared to complete a basic GISc competency exam.

Transcripts

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
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Test Scores

- The Graduate Record Examination (GRE) is required of all applicants, with a combined score of at least 300 on the verbal and quantitative sections of the exam. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.
- For the MS GISc online program only: applicants who have completed at least 12 hours in the University’s GIS certificate program, with a GPA of 3.5 or better, could waive the GRE requirement or the undergraduate GPA requirement, but not both. Students who have completed the certificate program can automatically waive the GRE requirement.
Personal Statement
• A personal statement of at least 300 words is required. The statement should be submitted via upload through the online application process. The personal statement should include information concerning your life, education, practical experience, special interests and specific purpose for applying to the University of Denver.

Recommendation Letters
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Master of Science in Geographic Information Science

Degree requirements
Coursework requirements
Core coursework requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 3000</td>
<td>Advanced Geographic Statistics</td>
</tr>
<tr>
<td>GEOG 3010</td>
<td>Geographic Information Analysis</td>
</tr>
<tr>
<td>GEOG 3140</td>
<td>GIS Database Design</td>
</tr>
<tr>
<td>GEOG 3150</td>
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</tr>
<tr>
<td>GEOG 3200</td>
<td>Remote Sensing</td>
</tr>
<tr>
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<td>Geographic Research Methodology</td>
</tr>
<tr>
<td>GEOG 4900</td>
<td>Graduate Colloquium in Geog</td>
</tr>
<tr>
<td>GEOG 4993</td>
<td>Capstone or Project</td>
</tr>
</tbody>
</table>

Electives

A minimum of 8 quarter hours of electives must be taken in geography from any of the GEOG courses at 3000 level or above. It is strongly recommended that students take GEOG 4000 Fundamental Geographic Perspectives as one of their elective courses.

Total Credits

Note: At least 24 quarter hours must be completed in courses taken within the Department of Geography & the Environment at the University of Denver. No more than 24 credits will be accepted in transfer from the GIS certificate program.
Minimum number of credits required for degree: 48 credits
Non-coursework requirements:
  • Capstone project
  • Capstone project presentation

Capstone Project

Students will be required to produce a final project of professional quality demonstrating their ability to apply geographic information science to their chosen area of specialization. The project is done for, and with, a company, agency, nongovernmental organization or faculty member who is referred to as the client. The project must be used by the client and may be predominantly technical in nature or may include a research component. The project must demonstrate a mastery of one or more of the several geospatial technologies. It must require the student to engage in all facets of a project, from design to implementation. At the completion of the project, students will present their work to their peers.

Master of Science in Geographic Information Science Online Degree Option

This option is designed for people wishing to complete the degree via an online format.

Degree requirements
Coursework requirements
Core coursework requirements
Complete all of the following courses:

<table>
<thead>
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<th>Title</th>
</tr>
</thead>
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</tr>
<tr>
<td>GEOG 3150</td>
<td>GIS Project Management</td>
</tr>
<tr>
<td>GEOG 3200</td>
<td>Remote Sensing (Remote Sensing is elective in GIS certificate program)</td>
</tr>
</tbody>
</table>
| or GIS 4700 | Remote Sensing |}

Geography/GIS Elective Courses
Complete a minimum of five elective courses from any University College GIS certificate program course (EXCEPT GIS 4101 and GIS 4110) and not already used to meet a required course, or choose from the courses below.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 3040</td>
<td>GPS for Resource Mapping</td>
</tr>
<tr>
<td>GEOG 3410</td>
<td>Urban Applications in GIS</td>
</tr>
<tr>
<td>GEOG 3860</td>
<td>GIS Applications and Natural Resources</td>
</tr>
<tr>
<td>GEOG 3130</td>
<td>Advanced Geographic Information Systems</td>
</tr>
</tbody>
</table>

Acceptable University College GIS certificate electives can be found at the University College GIS certificate program website: http://universitycollege.du.edu/gis/degree/certificate/geographic-information-systems-online/degreeid/31#courses

Capstone courses
Complete both of the following courses:

<table>
<thead>
<tr>
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<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 4020</td>
<td>Geographic Research Methodology</td>
</tr>
<tr>
<td>GEOG 4993</td>
<td>Capstone or Project</td>
</tr>
</tbody>
</table>

Total Credits
48

Note: At least 24 credits counted towards the degree must be taken within the Department of Geography & the Environment at the University of Denver. No more than 24 credits will be accepted in transfer from the GIS certificate program. GIS 4101 Introduction to GIS, and GIS 4110 Geographic Statistics are not transferable to the online MS-GISc degree program.

Minimum number of credits required for degree: 48 credits
Non-coursework requirements:
  • Capstone project

Master of Arts in Geography

Requirements for students with prior degrees in geography:

For the MA degree, 45 quarter hours of course work and a thesis are required. Students can specialize in subfields within physical geography, human geography or human-environment interaction (please see the Department of Geography and the Environment Graduate Student Handbook for detailed information).

Degree requirements
Coursework requirements
Core coursework requirements:
GEOG 3000  Advanced Geographic Statistics  4
GEOG 4000  Fundamental Geographic Perspectives  4
GEOG 4020  Geographic Research Methodology  4
GEOG 4900  Graduate Colloquium in Geog  0

Additional transfer, departmental, and other university courses  0-33

Total Credits  45

Note: Students must take a minimum of 33 credits in GEOG courses

Minimum number of credits required for degree: 45 credits

Non-coursework requirements:
- Research proposal presentation
- Thesis
- Final Oral Defense

Research Proposal Presentation
Each student is required to prepare and present a thesis proposal and have it formally approved by the student’s faculty committee.

Thesis Requirement
Original research of a geographic topic is required, the scope of which is determined by the thesis committee. The thesis should be of publishable quality.

Final Oral Defense
Upon completion of required course work, proposal approval and the thesis, each student will undergo a final oral defense. This defense is usually about two hours in length. The defense will address both course work and the thesis research. The final oral defense is to be conducted at least two weeks before the end of the quarter in which the degree is to be awarded. The oral defense committee is comprised of at least three members: an advisor and two other committee members. The advisor must be a full-time tenure-line faculty member in the Department of Geography & the Environment with a research record and interest appropriate to the student’s proposed research area of specialization. All members of the committee must be full-time appointed faculty at DU and have research records appropriate to the student’s area of specialization. DU faculty from appropriately-related units who hold the terminal degree in their field may serve on the committee as long as the candidate’s graduate unit has the majority representation. There is also a non-voting Oral Defense Committee Chair who must be a tenure-line faculty member from another department at the University of Denver serving as the university representative for the final oral defense.

Doctor of Philosophy in Geography

Degree Requirements

Coursework Requirements

A minimum of 117 quarter hours of credit is required for the doctoral degree, up to 45 hours of which may be transferred from an earned master’s degree from a regionally accredited university.

Core coursework requirements  12
Complete the following courses or work with your advisor if the equivalent of the following courses were taken as part of your MA or MS program.

GEOG 3000  Advanced Geographic Statistics
GEOG 4000  Fundamental Geographic Perspectives
GEOG 4020  Geographic Research Methodology
GEOG 4900  Graduate Colloquium in Geog

Geography courses  32
Complete at least 32 additional credits in geography courses (at least 3000 or higher level) directed toward the dissertation research

Cognate courses  12
Complete at least 12 additional credits in cognate coursework in a related field

Additional coursework  0-16
Complete 2 graduate seminar courses and 2 research tools to reach the number of minimum credits required for the degree

Transfer Credit  0-45
A maximum of 45 credits may be accepted as transferred in from a MA or MS program, including credits substituting core coursework requirements

Total Credits  117

Minimum number of credits required for the degree: 117 credits
Non-coursework requirements:

- Two Research Tools Requirement
- PhD Research Proposal Presentation
- Comprehensive Examination
- Dissertation
- Oral Defense

Two Research Tools Requirement

The options to meet the tool requirement include languages, geographic information systems, computer cartography, remote sensing and geographic statistics.

PhD Research Proposal Presentation

Each student is required to prepare and present a dissertation proposal and have it formally approved by the student’s faculty committee. This should be completed by the end of the second year for a full-time PhD student.

Comprehensive Exam

This exam, which includes both written and oral parts, is designed to evaluate the student’s work at the University of Denver.

This exam is usually scheduled after all substantive course work has been completed and the dissertation proposal has been approved. It must be taken at least three quarters prior to expected graduation. Students should consult with their adviser and committee members to achieve a greater understanding of what will be on the exam. The written portion of the exam can be taken in one of two formats: a written examination conducted in the department usually taken over two days, lasting four hours each day, or a take-home examination in which the student has five days to complete the exam. An oral examination is held two weeks after the written exam has been completed. A candidate who fails one or all parts of the comprehensive exam may petition the department for re-examination. Re-examination, if granted by the department, may not be scheduled until the succeeding quarter and cannot be retaken more than once.

Dissertation and Oral Defense

Upon completion of course work, approved proposal, comprehensive exam and the dissertation, each student will undergo a final oral defense. An oral defense may not be scheduled until at least the second quarter following the quarter in which the comprehensive exam was successfully completed (the summer may count as a quarter, though no examinations should be scheduled during the summer). The final oral defense is to be conducted at least two weeks before the end of the quarter in which the degree is to be awarded. This defense is usually about two hours in length, and is composed of a 20–25 minute presentation by the student followed by questions from the committee. The examining committee is comprised of at least four members: an advisor and three other committee members. The advisor must be a full-time tenure-line faculty member in the Department of Geography & the Environment with a research record and interest appropriate to the student’s proposed research area of specialization. All members of the committee must be full-time appointed faculty at DU and have research records appropriate to the student’s area of specialization. Faculty from appropriately-related units who hold the terminal degree in their field may serve on the committee as long as the candidate’s graduate unit has the majority representation and a two-thirds majority of the committee hold the earned doctorate. There is also a non-voting Oral Defense Committee Chair who must be a tenured faculty member from another department at the University of Denver serving as the university representative for the final oral defense.

For doctoral programs, research areas are limited to the fields of biogeography, climatology, cultural geography, economic geography, geographic information science, geomorphology, global change, human environment interaction, Latin America, paleoenvironmental change, Quaternary studies, transportation geography and urban geography in accordance with current faculty expertise.

Geography Courses

GEOG 3000 Advanced Geographic Statistics (4 Credits)

The second in a sequence of two courses that address general statistical applications particular to geography, environmental science and other disciplines dealing with a spatial dimension in the data they work with. The focus of this second course is on the more advanced multivariate statistical techniques. The course has a strong applied orientation as particular attention is given to which technique is the most appropriate to use for a given type of problem and how to interpret and apply the resulting statistics. Extensive use is made of computer statistics packages. Homework exercises involving such statistical techniques as multiple correlation and regression analysis, principle components analysis, discriminate analysis and canonical correlation. Prerequisite: GEOG 2000.

GEOG 3010 Geographic Information Analysis (4 Credits)

Reviews many basic statistical methods and applies them to various spatial datasets. In addition, several spatial statistical methods are applied to spatial datasets. This course is an in-depth study of the interface between GIS, spatial data, and statistical analysis. Preferred prerequisite: GEOG 2000. Prerequisite: GEOG 2100.
GEOG 3030 Advanced Field Methods (4 Credits)
Various field methods used by researchers in physical geography; techniques include field mapping, laboratory analyses, geologic field methods. Prerequisite: GEOG 1201 or equivalent.

GEOG 3040 GPS for Resource Mapping (4 Credits)
This course is an introduction to GPS (Global Positioning Systems) concepts, techniques, and applications as they relate to GIS data collection. Lectures focus on satellite surveying, GPS technology, error sources, program planning, data collection design, and Quality Control and Quality Assurance issues for data collection programs. Hands-on lab exercises include navigation, mission planning for a GPS survey, designing a field data collection plan and associated data dictionary, field data collection, differential correction, and data integration into a GIS and map production.

GEOG 3100 Geospatial Data (4 Credits)
This graduate-level course is designed to provide graduate students from a broad range of disciplines with the skills to carry out applied research tasks and projects requiring the integration of geographic information system technologies and geospatial data. Students are introduced to a collection of techniques and data sources with a focus on acquiring and integrating data. Legal, ethical, and institutional problems related to data acquisition for geospatial information systems are also discussed. Cross listed with GEOG 2100.

GEOG 3110 GIS Modeling (4 Credits)
This course focuses on the concepts and procedures used in discovering and applying relationships within and among maps. It extends the mapping and geo-query capabilities of GIS to map analysis and construction of spatial models. The course establishes a comprehensive framework that addresses a wide range of applications from natural resources to retail marketing. Topics include the nature of spatial data introduction to spatial statistics and surface modeling in the first five weeks followed by spatial analysis operations and modeling techniques in the second five weeks. The lectures, discussions and independent exercises provide a foundation for creative application of GIS technology in spatial reasoning and decision making.

GEOG 3120 Advanced Geographic Information Systems (4 Credits)
This advanced course explores the more technical aspects of GIS functions and data structures. Students have hands-on access to both raster (grid-cell) and vector-based software packages in the form of lab exercises that culminate in a small student-designed GIS project. Prerequisite: GEOG 2100.

GEOG 3130 Advanced Geographic Information Systems (4 Credits)
This advanced course explores the more technical aspects of GIS functions and data structures. Students have hands-on access to both raster (grid-cell) and vector-based software packages in the form of lab exercises that culminate in a small student-designed GIS project. Prerequisite: GEOG 2100.

GEOG 3140 GIS Database Design (4 Credits)
Designing databases to provide a foundation for GIS functions and applications, including investigating techniques used for designing databases in non-spatial environments and learning the applicability to GIS problems. Building on concepts and techniques introduced in the first half to extend traditional techniques and methodologies to model the requirements of spatial problems. Students learn to translate the conceptual spatial model into a physical implementation specific to GIS products. Prerequisite: GEOG 2100 or GEOG 3100.

GEOG 3150 GIS Project Management (4 Credits)
This course provides graduate students seeking a career in GIS, or anyone managing a GIS project, with the knowledge, skill and abilities to take a GIS project or program past the design and implementation phase and into day-to-day operation. Students evaluate and analyze the role of GIS in an organization's overall information system strategy and communicate the importance of geography in an information system. Data sharing in the organization is examined to determine the benefits and costs of distributing data creation and maintenance activities throughout an organization. Finally, the role of GIS professionals and the skill sets required to manage GIS effectively are examined. Students review case studies of successful and not-so-successful GIS projects in North America. GIS management issues are addressed by a series of case studies focusing on various management aspects. Students are also expected to visit operational GIS programs in the metropolitan area and interview GIS managers. Students prepare case study evaluations for review in the classroom. Required for all MSGIS students because of the critical importance of GIS project management.

GEOG 3200 Remote Sensing (4 Credits)
This course acquaints students with the basic techniques of the collection, processing and interpretation of information about the character of the earth's surface from remote locations. Students become familiar with the use of the visible, infrared, thermal and microwave portions of the electromagnetic spectrum as a means of determining land cover and/or land use. Both manual and computer-assisted techniques are discussed and include hands-on applications.

GEOG 3230 Advanced Remote Sensing (4 Credits)
This course will build on the basic remote sensing concepts presented in GEOG 3200. Students will explore more in-depth concepts relevant to satellite and airborne remote sensing, including radiative transfer and information extraction. In addition, students will be introduced to two cutting-edge sources of data about the Earth's surface: hyperspectral and lidar (Light Detection and Ranging) sensors. Students will study specific applications of advanced digital image processing techniques for environmental monitoring, natural resource management, and land-use planning. Finally, students will integrate remote sensing and other spatial datasets in the context of Geographic Information System (GIS) analysis. Prerequisite: GEOG 3200.

GEOG 3300 Cultural Geography (4 Credits)
Themes and methods of cultural geography including cultural area, landscape, history and ecology.

GEOG 3310 Culture/Nature/Economics-Human Ecology (4 Credits)
Cultural adaptation, livelihood strategies and environmental modification among subsistence and peasant societies: responses of such groups to technological change and economic integration.
GEOG 3330 Political Geography (4 Credits)

GEOG 3340 Geographies of Migration (4 Credits)
This course explores contemporary movement of people across international borders and the social, cultural, political, economic, and environmental repercussions of such movements. The class looks at the global flow of people across national boundaries and the ways in which these dispersed peoples build and maintain social networks across national borders. While doing so, we address the role of globalization in international migration processes. What motivates people to move long distances, often across several international borders and at considerable financial and psychological cost? How do migrants change—and how in turn do they bring change, social as well as economic, to new destinations as well as places left behind? This course examines politics and patterns of migration, transnational migration, and immigration to the United States.

GEOG 3350 Qualitative Methods in Geography (4 Credits)
This course focuses upon qualitative methods in the production of geographic knowledge. Qualitative methods are widely employed by geographers to understand patterns and underlying processes of human and human-environment issues in society. The course is designed to expose participants to the theories, purpose, scope, and procedures of qualitative research. Specific topics include: epistemological theories (ways of knowing); ethics and power in research; research design; data collection techniques in interviews, participant observation and landscape interpretation, discourse and archive analysis, and case studies; data analysis; and writing and disseminating qualitative findings.

GEOG 3400 Urban Landscapes (4 Credits)
Urbanization as a process; national urban systems; internal spatial structure of cities; role of transportation in urban development; location of residential, commercial and industrial activities; agglomeration economies; residential congregation and segregation; environmental justice; urban growth and growth coalitions; decentralization and urban sprawl; edge cities; impacts on the urban environment; world cities; globalization.

GEOG 3410 Urban Applications in GIS (4 Credits)
This course uses the tools of geographic information systems (GIS) to explore concepts of traditional urban geography, including defining cities/metropolis, internal urban structures, urban systems, industrial location, social and residential patterns, urban form, environmental problems, and urban planning. The course allows students to practice fundamental skills in GIS (e.g., working with attribute tables, spatial analysis, spatial queries) and cartography (map design, color theory, display of information). Depending on the quarter, students pursue individual projects of interest or client-based projects. Prerequisite: GEOG 2100 or GEOG 3100 or equivalent.

GEOG 3420 Urban and Regional Planning (4 Credits)
Historical evolution of planning theory and practices; comprehensive planning process; legal, political, economic, social, environmental aspects of urban planning; urban design; urban renewal and community development; transportation planning; economic development planning; growth management; environmental and energy planning; planning for metropolitan regions; national planning.

GEOG 3425 Urban Sustainability (4 Credits)
The 21st century is being called the ‘century of the city.’ Now more than ever, humans across the globe call the city their home. Many of the world’s most pressing crises are manifest in cities, including: greenhouse gas emissions, land degradation, high mass production and consumption, widespread poverty and hunger, and expanding socio-economic disparities. As ‘sustainability’ becomes part of mainstream discourse, this course explores what sustainability means for urban contexts around the globe. Arguably, the city has the potential to be the most efficient, equitable, and environmental form of modern human settlement. Covering all dimensions of sustainability from a social science perspective, this course focuses on theoretical groundings, practices of urban sustainability, and new research agendas. Major topics include cities and nature; planning and land use; urban form; community and neighborhoods; transportation systems and accessibility; livelihood and urban economies; and social justice and the city.

GEOG 3440 Urban Transportation Planning (4 Credits)
A specialized course in the urban planning sequence focusing on issues, practices and policies of urban transportation planning. Recommended for anyone interested in timely transportation topics, such as the feasibility and impacts of light rail transit, the planning and implementation of highway projects, and the role of freight and passenger transportation companies in transportation planning.

GEOG 3445 Sustainability and Transportation (4 Credits)
Sustainable transportation aims at promoting better and healthier ways of meeting individual and community needs while reducing the social and environmental impacts of current mobility practices. Given the importance of transport for economic growth, the uncertainties surrounding the availability and price of future sources of energy for transport use, as well as the social and environmental externalities of currently-utilized transport modes, it is imperative that more sustainable ways of providing transportation be developed and utilized.

GEOG 3450 Transportation and Mobilities (4 Credits)
The geographical study of transport has grown considerably and become more diverse, encompassing new areas of inquiry generated from economic, urban, environmental, political, social, and cultural geography, as well as from transport geography itself. The most notable expansion has been in the area of ‘mobilities’ research, which is focused on the social aspects of mobility, including both the large-scale movements of people, objects, capital, and information across the world, as well as the more local processes of daily transportation, movement through public space and the travel of material things within everyday life.
GEOG 3460 Air Transportation & Tourism (4 Credits)
This course delves into the world of commercial air passenger transportation, studying the foundations of the industry, its role in the travel and tourism, and strategies for the future. Foundational topics include the history and geography of air transportation, air travel and tourism, the geography of tourism, airline corporate cultures, the role of government, aviation law, regulation, deregulation, and globalization. Study of the principal elements of airline economics, finance, planning, management, operations, pricing, promotion, cost containment, marketing, and policy provide the opportunity for consideration of strategic options within the contemporary airline industry. Further discussion focuses on the planning and management of airport and airway system infrastructure, the issue of sustainable air transportation, and the role of the airline industry within the context of intermodalism.

GEOG 3470 GIS & Environmental Health Geography (4 Credits)
This course is designed to acquaint students with the spatial distributions of populations and their relationships to environmental pollution sources and health outcomes. It utilizes real-life scenarios using population data from the U.S. census, EPA pollution data and various types of vital statistics data. The goal is to implement novel geographic techniques such as spatial analytical techniques and atmospheric modeling of pollutants to assess possible health risks and outcomes. This class requires basic GIS knowledge.

GEOG 3500 Reconstructing Quaternary Environments (4 Credits)
Nature, magnitude, sequence and causes of Pleistocene and Holocene climatic changes; effects of climatic change on plant/animal distributions and human populations; paleoclimatic research methods. Laboratory and field trips. Prerequisites: GEOG core, ENVI 3000.

GEOG 3510 Biogeography (4 Credits)
Biogeography focuses on present and past distributions of plants and animals. In this course we consider a number of themes central to biogeography, including plate tectonics and biogeography, the effects of climate change on plant and animal distributions, biogeographic realms, island biogeography, biodiversity, human impacts on plants and animals, and the origins of agriculture.

GEOG 3520 Geography of Soils (4 Credits)
Spatial variation in soil characteristics; soil processes, soil morphology, their application in soil studies. Prerequisite: GEOG 1203 or equivalent or instructor's permission. Recommended prerequisite: general chemistry.

GEOG 3550 Topics in Physical Geography (1-5 Credits)
Investigations into various aspects of physical environment.

GEOG 3560 Fluvial Geomorphology (4 Credits)
Examines how water and sediment interact at Earth's surface to create a variety of landforms ranging from small rills to continental-scale river systems. Introduces fundamental fluvial processes or channel hydraulics and sediment transport. Examines common fluvial landforms including alluvial streams, bedrock streams, floodplains and alluvial fans. Combines traditional lectures and in-class discussions with numerous field excursions to rivers in the Rocky Mountains and Great Plains. Prerequisite: GEOG 1203, GEOG 1218, or GEOG 1266.

GEOG 3600 Meteorology (4 Credits)
The basic theory and skills of weather forecasting. Topics include thorough coverage of atmospheric dynamics and thermodynamics, the evolution of various weather types, the mechanics of storm systems (cyclones, severe storms, hurricanes), creation and interpretation of weather maps, and forecasting techniques.

GEOG 3610 Climatology (4 Credits)
Climatology is the study of the processes that result in spatial and temporal variation of weather. This course introduces the student to the processes responsible for the transfer of matter and energy between the Earth's surface and the atmosphere and the average weather conditions that result. In addition, topics of global concern, such as greenhouse effect, El Nino, urban heat islands and acid rain, are discussed. Laboratory exercises provide an opportunity to investigate climate variation and climatic change through the use of a variety of computer simulations.

GEOG 3620 Applied Climatology (4 Credits)
Climatic impact on environmental systems and human behavior; techniques to investigate climatic characteristics of environmental extremes (floods, blizzards), urban climatology and socioeconomic impacts of climate. Prerequisite: GEOG 1201. Recommended Prerequisite: GEOG 3600 or GEOG 3610.

GEOG 3630 Dendroclimatology (2-4 Credits)
Systematic variations in tree ring width and/or density can be used to reconstruct changes in precipitation or temperature well before humans were around to record the variability. This class utilizes hands on methods to introduce the fundamental principles of dendroclimatology. Through readings and lectures, students will learn how tree ring growth can be correlated to climate change. Students will then undertake several research projects to reconstruct past climate variability in the Denver metro area using tree rings. Prerequisite: permission of instructor.

GEOG 3640 Climate Change and Society (4 Credits)
The science of anthropogenic climate change will be presented with an emphasis on critical evaluation of the evidence of climate change and future scenarios and migration strategies. Students will be introduced to the latest climate change research, including the Intergovernmental Panel on Climate Change report, and the most recent literature from the field. The societal and cultural implications of climate change will also be discussed. Prerequisites: GEOG 1201, GEOG 1216, or GEOG 1264.

GEOG 3700 Environment & Development (4 Credits)
Course examines interrelated nature of environmental and development issues in the Third World; addresses the place of environment in development theory and practice and the political ecology of Third World environmental problems and sustainable development approaches.
GEOG 3701 Topics in Geographic Information Science (1-4 Credits)
Topics vary by instructor.

GEOG 3710 Environmental Change in the Eastern Mediterranean (2 Credits)
We tend to associate environmental problems with modern societies and high technology. However, humans have had impacts on the environment, and have had to cope with challenges brought by the environment, throughout their history. Western cultures are intimately linked to the eastern Mediterranean, where some of the earliest centralized governments arose, agriculture developed, and humans first began living in permanent settlements, so the region has a long history of human-environment interaction. This class focuses on historical, archaeological, and paleoenvironmental records from the region to investigate the impacts of human activities, including deforestation, intensive agriculture, and urban development, on the environment, and the ways in which societies in the region responded to natural environmental perturbations, including drought, earthquakes, and volcanic eruptions.

GEOG 3720 Mountain Environments and Sustainability (4 Credits)
Mountain Environments and Sustainability explores the unique physical and cultural aspects of high relief and/or high altitude environments. Covering one quarter of the Earth's land surface, mountains directly or indirectly impact the lives of millions of people. We examine the significance of mountains to climate, water resources, and human activities, and discuss the sustainability of these environments and communities in light of rapid changes in many mountain regions resulting from anthropogenic factors and global change. GEOG 1201, 1202, and 1203 or instructor approval.

GEOG 3730 International Environmental Policy (4 Credits)
This course acquaints students with the global perspective on current problems of environmental protection and resource use. Population growth, food production, industrialization, technology and cultural change are considered, with heavy emphasis on the social dynamics of environmental problems. A variety of political views are studied, and an attempt is made to develop a perspective useful to students in personal and political decisions.

GEOG 3740 Environmental Justice in the City (4 Credits)
This course is designed to acquaint students with environmental justice in the urban environment. This class focuses on the City of Denver as a laboratory to explore the disproportionate impacts of social justice issues, particularly urban pollution, healthy food sources, gentrification, light rail, and employment opportunities, on neighborhoods and communities. A variety of views are studied, and an attempt is made to develop a perspective useful to students to explain urban social justice conditions.

GEOG 3750 Topics in Human-Environment Interactions (1-4 Credits)
This course investigates various aspects of the relationships between human societies and the natural environment.

GEOG 3755 Geography of Health (4 Credits)
The geography of health is a thriving area of study that considers the impact of natural, built, and social environments on human health. This course introduces students to three geographical contributions to health studies. First, it emphasizes the importance of ecological approaches to health, which consider interactions between humans and their environments, including topics such as how climate change might influence disease distributions, and how the built environment can influence patterns of physical activity. A second focus is social theory, exploring how aspects such as race, socioeconomic status, and identity play a critical role in influencing human health. A third section of the course considers how spatial methods (cartography, GIS, and spacial statistics) can help answer health-related questions.

GEOG 3760 Health & Environment, England (4 Credits)
This field course meets in England, visiting several sites in the Midlands. It focuses on ecological approaches to health, which emphasize the relationship between humans and their environment as a critical influence on the health status of populations. This environmental influence may come from the natural, built, or social environment. The course will use a case study approach to emphasize i) the importance of the natural, built, and social environment to human health, and ii) how the relationship between humans and their environments and its sustainability has changed over time. We will explore eight different time periods, asking in each case how people's relationships with their natural, built, and social environments have influenced health at the population scale, and how these influences can inform sustainable health and environment in the future.

GEOG 3800 Geography of Colorado (4 Credits)
This course focuses on the physical and human geography of Colorado, a state that includes the western Great Plains, the southern Rocky Mountains, and the eastern Colorado Plateau. Colorado's varied natural landscapes provide equally varied settings for human settlement and resource use. Recommended Prerequisites: GEOG 1201, GEOG 1202, and GEOG 1203.

GEOG 3830 Natural Resource Analysis & Planning (4 Credits)
Natural resources provide the basis for all human agricultural and industrial activities. This course discusses our resource distribution, conservation, management and sustainable use.

GEOG 3840 Water Resource Analysis (4 Credits)
The focus of this course is on complex policy, economic and local, national and international, and political issues surrounding resource use in the western U.S. Issues include exploitation of nonrenewable and renewable energy and mineral resources; and flexible responses to changing public policy.
GEOG 3860 GIS Applications and Natural Resources (4 Credits)
In this course we will use a case study approach to examine domestic and international natural resources such as oil, coal, timber, minerals, and recycled materials. We will use a case study approach to look at resource distribution, and the environmental impacts of extraction, production, and disposal, as well as the legal and economic context. We will use GIS data and analysis to enhance our understanding of these case studies, and students will do a project and paper using GIS data and image analysis at a local, regional or global scale. Prerequisite: Introduction to GIS or Introduction to GIS Modeling.

GEOG 3870 Water Resources & Sustainability (4 Credits)
In this course, we look at water as both a local and global resource and examine what sustainability means for human and ecological realms. After an overview of the physical processes that drive the hydrologic cycle, surface and groundwater hydrology, we examine how we humans have harnessed water for our use and how we both alter and treat its quality. We examine the legal aspects of water allocation in the U.S. and the groups and agencies that are most involved in managing and overseeing water issues. Finally, we examine the most pressing water "issues" related to wildlife, development, scarcity and conflict. We look forward to imagining the power of both the individual and the collective in meeting our future, global water needs.

GEOG 3880 Cleantech and Sustainability (4 Credits)
Cleantech has only recently become part of our vernacular and it refers to the technology that enables us to produce energy in a manner that has little or no environmental impact (solar, geothermal, wind, responsible biofuels). Clean technology will not only offer us a chance to rehabilitate the climate, but should make us more aware of how fundamental our approach to everyday life needs a more sustainable consciousness. As part of the debate, we will examine some of the problems facing civilization, why we are not sustainable, who the major players are, and how a more sustainable existence is not just our moral obligation, but it is also good economics and sound foreign policy that will accelerate poverty alleviation.

GEOG 3890 Ecological Economics (4 Credits)
Ecological Economics is an emerging transdisciplinary endeavor that reintegrates the natural and social sciences toward the goal of developing a united understanding of natural and human-dominated ecosystems and designing a sustainable and desirable future for humans on a materially finite planet. In this course we start with a basic overview and summary of the neo-classical economic perspective with a particular focus on the recognized market failures of public goods, common property, and externalities. We begin with a reconceptualization of economic theory by imposing scientific constraints (e.g. conservation of mass and energy, the laws of thermodynamics, evolutionary theory, etc.). Using the ideas developed in this reconceptualization of economic theory we explore the implications for international trade and myriad public policies associated with the ethical, environmental, and economic aspects of sustainability.

GEOG 3910 Geomorphology (4 Credits)
An advanced course that examines how Earth's landforms are created by a range of physical processes. Most landforms can be viewed as a result of some combination of erosion, transport and deposition of rock, soil and sediment. The most common agents causing these geomorphic processes are water, wind, ice and waves. This course examines the processes responsible for eroding, transporting and depositing earth materials and compares these processes with the resulting landforms. Prerequisites: GEOG 1202 or GEOG 1217 or instructor's permission.

GEOG 3920 Remote Sensing Seminar (4 Credits)
Special topics in advanced remote sensing.

GEOG 3930 Cultural Geography Seminar (4 Credits)
Topics, methods and current research in cultural geography.

GEOG 3940 Urban Geography Seminar (4 Credits)
International comparison of economic and social, positive and negative aspects of urban systems.

GEOG 3950 Physical Geography Seminar (2-4 Credits)

GEOG 3955 Pollen Analysis Seminar (3 Credits)
Pollen grains preserved in sediment provide long-term records of vegetation conditions. Changing proportions of pollen types may reflect climatic fluctuation or human impacts. We review important recent research in pollen analysis (palynology), pollen sampling, laboratory techniques and pollen identification. Students are responsible for counting a number of samples and contributing data for a pollen diagram.

GEOG 3990 Undergraduate Research Seminar (1 Credit)
This course is designed to prepare students who will participate in faculty-supervised summer research projects. Students are introduced to research design, use of the scientific method, research expectations and reporting of results. Preparation of formal research proposal with adviser.

GEOG 3991 Independent Study (1-5 Credits)

GEOG 3992 Directed Study (1-10 Credits)

GEOG 3995 Independent Research (1-5 Credits)

GEOG 4000 Fundamental Geographic Perspectives (4 Credits)
A foundation course for persons in the community, without a degree in geography, who want to pursue an education in or make use of computer-based geographic technology but who need a foundation in geographic concepts and perspectives.
GEOG 4020 Geographic Research Methodology (4 Credits)
This class prepares students to undertake creative geographic research leading to the generation of new knowledge. Students produce a NSF proposal by the end of the class. In class, students focus on methods rather than philosophy. This does not mean students go through a laundry list of the many methods employed by geographers (they can do this on their own). Students, however, focus on the methods that are appropriate for their research questions and, at the same time, maintain a healthy awareness and respect for methods employed by geographers in other fields. The class does not focus on the philosophy of the discipline or a particular field. However, these concerns should be apparent in your proposals. Indeed, various philosophical frameworks guide research questions and how students choose to answer those questions.

GEOG 4030 Advanced Field Research (1-5 Credits)

GEOG 4040 Research Topic Identification (0-5 Credits)

GEOG 4100 Application/Design/Production I (4 Credits)
First of a two quarter sequence designed to be a culminating educational experience. Primarily lab-based with some lecture material, the various application requirements and guidance on how to go about accomplishing Application Design and Production tasks is provided. Prerequisites: GEOG 2000, GEOG 2100, GEOG 3100 or equivalent.

GEOG 4105 Application/Design/Production II (4 Credits)
This course places emphasis on programming and producing technical reports and/or papers that will be published in the Geography Department's on-line applications library. Prerequisite: GEOG 4100.

GEOG 4110 Geospatial Data (4 Credits)
This graduate-level course is designed to provide graduate students from a broad range of disciplines with the skills to carry out applied research tasks and projects requiring the integration of geographic information system technologies and geospatial data. Students are introduced to a collection of techniques and data sources with a focus on acquiring and integrating data. Legal, ethical, and institutional problems related to data acquisition for geospatial information systems are also discussed.

GEOG 4400 Urban Landscapes (4 Credits)
Urbanization as a process; national urban systems; internal spatial structure of cities; role of transportation in urban development; location of residential, commercial and industrial activities; agglomeration economies; residential congregation and segregation; environmental justice; urban growth and growth coalitions; decentralization and urban sprawl; edge cities; impacts on the urban environment; world cities; globalization.

GEOG 4410 Economic Geography (4 Credits)
The study of the location and spatial organization of economic activities at the local, national, and global scales. Concerned with the spatial configuration of firms, networks, industries, and regions within the emerging global economy. Cross listed with INTS 4410.

GEOG 4460 Air Transportation & Tourism (4 Credits)
This course will be cross listed with GEOG 3460 Air Transportation & Tourism.

GEOG 4584 Geographic Information Systems for Humanitarian Assistance (4 Credits)
This class prepares students for future employment and enables them to bring more wisdom and expertise to the practice of their professions. Geographic Information Systems (GIS) technology is critical to support decision making throughout the process of response, assistance, and development — key stages in any humanitarian action. Much of the information practitioner’s encounter is spatial in nature and GIS provides a toolbox from which to better understand and utilize this type of information. This class introduces students to GIS technology functionality and information management, and examines GIS’ usefulness in humanitarian response. Today, GIS is an essential technology for emergent managers which support decision making on various levels during preparedness, mitigation, response and recovery. One of the main reasons for that is that much of the information is spatial by nature. Additionally, geospatial and geospatial-temporal analysis of data allows us to quickly access and display relevant information through the creation of maps and reports. This course introduces students to the theoretical principles of geographic information systems and examines its potential for humanitarian assistance through case studies and hands-on training with GIS software. Prerequisite: INTS 4056.

GEOG 4701 Topics in Geography (4 Credits)
Topics vary by instructor.

GEOG 4810 Geography of Latin America (4 Credits)
In this course, we examine how past and present cultural preferences and political economies effect changes in Latin American landscapes. Cross listed with GEOG 2810.

GEOG 4900 Graduate Colloquium in Geog (0 Credits)
Solid foundation in history and philosophy of the discipline of geography; basis for further exploration of major research specialization.

GEOG 4930 Nicaragua: Development Dilemmas (4 Credits)
This class takes students to post-revolutionary Nicaragua to examine the consequences of recent land grabs by foreigners and transnational companies. Students learn to operate in a country with minimal "western" infrastructure. They learn to examine developing landscapes (that is, resorts and tourism infrastructure) with new eyes and from the perspective of locals who have been left out of the development loop. By the end of the class, students begin to understand the "development game", begin to question the role of tourism in developing economies, begin to know how to interact with other cultures, and finally learn to question the landscapes we "see" and begin to peel back the layers to understand the social and physical evolution of the landscape before their eyes. This class takes an experiential approach and requires students to participate in a service learning experience. Service learning is defined as a course-based, credit bearing educational experience in which faculty, students, and community members participate in an organized service activity that addresses a self-identified community need. We work with several community-based and non-governmental organizations to ensure a good fit between community needs and student expertise.
GEOG 4950 Advanced Field Research (1-17 Credits)
GEOG 4991 Independent Study (1-5 Credits)
GEOG 4992 Directed Study (1-10 Credits)
GEOG 4993 Capstone or Project (1-4 Credits)
Includes technical design and development for MA geotechnical track project and MS-GIS capstone project.
GEOG 4994 Report (1-5 Credits)
GEOG 4995 Independent Research (1-5 Credits)
Includes field research for doctoral dissertation.
GEOG 4999 Geographic Internship (0-5 Credits)
Supervised internship in a government office at local, state or federal level or within private sector. Prerequisite: Permission of instructor.
GEOG 5991 Independent Study (1-5 Credits)
GEOG 5992 Directed Study (1-5 Credits)
GEOG 5995 Independent Research (1-10 Credits)

Geology Courses

GEOL 3010 Process Geomorphology (4 Credits)
The land surface of Earth is continuously altered by geomorphic processes. This class focuses upon the nature of these processes, the work that they perform and the resulting landforms. In addition, the student becomes familiar with various methods of geomorphic analysis through the laboratory component of the class. Cross listed with GEOG 3910. Prerequisite: GEOL 1010, GEOG 1202 or permission of instructor.

GEOL 3100 Environmental Geology (4 Credits)
Environmental geology examines geologic hazards, both natural and those attributable to human impacts on the environment from urban and regional development. Specific topics may include disposal of municipal solid waste and radioactive waste; flood, earthquake, volcanic hazards; groundwater pollution and withdrawal; mass-wasting phenomena; and energy-related issues. Prerequisite: GEOL 1010, GEOG 1203 or instructor's permission.

GEOL 3200 Sedimentology/Stratigraphy (4 Credits)
This course reviews the origin, geologic history, and depositional environments of sediments and sedimentary rocks. Course work concentrates on the identification of sedimentary rocks and depositional environments by first-hand observations of rocks in the Denver area. Prerequisite: GEOL 1010, GEOG 1203 or instructor's permission.

GEOL 3300 Petroleum Geology (4 Credits)
This class examines the geological occurrences of petroleum including the origin, migration, and accumulation of oil and natural gas. This class differs from traditional petroleum geology classes by offering an examination of the economics and politics underlying the oil and gas industry, and by considering alternatives to traditional hydrocarbon resources. Prerequisite: GEOL 1010, GEOG 1203 or instructor's permission.

GEOL 3520 Erosion Process & Measurement (4 Credits)
Soil erosion is arguably the most serious environmental problem worldwide. This course focuses upon the significance of this problem, the factors affecting erosion rates, the nature of the processes themselves, methods of measurement, estimation of erosion rates and erosion control practices. Prerequisites: GEOG 1203, GEOG 1218, or GEOG 1266.

GEOL 3540 Hydrology (4 Credits)
This course provides an overview of the hydrologic cycle with emphasis placed on the study of applied hydrology. Discussions include the fundamental characteristics of precipitation, runoff processes, calculation of flood hazards, aquifers (porosity and permeability), the geologic settings of groundwater, the basic physics of groundwater flow, and water supply and use. Prerequisite: GEOL 1010, GEOG 1203 or instructor's permission. Recommended prerequisite: one introductory statistics course.

GEOL 3900 Geomorphology Seminar (1-5 Credits)
Hill slopes comprise the vast majority of the Earth’s land surface. It is upon these surfaces that nearly all of the human population must exist and, hopefully, flourish. Hill slopes assume various forms, and their shape influences their utility for various human endeavors. Numerous geomorphic processes operate upon hill slopes to determine their form, and human activities strongly influence the frequency and magnitude of these geomorphic processes. Consequently, hill slopes are an interface between the Earth and the human population. Prerequisite: GEOL 3010 or permission of instructor.

GEOL 3991 Independent Study (1-5 Credits)

Mathematics

Office: Aspen Hall 717
Mailing Address: University of Denver, Department of Mathematics, 2280 South Vine Street, Denver, Colorado 80208
Phone: 303-871-2911
Fax: 303-871-3173
Email: math-info@math.du.edu (math-info@math.du.edu)
The Department of Mathematics at the University of Denver offers MA, MS and PhD degrees in mathematics. Our graduate programs enroll about 30 students and provide a personalized, congenial and rewarding educational atmosphere where you will interact with faculty from the start. We have an extraordinarily active faculty of accomplished teachers and researchers with expertise in algebraic logic, computational geometry, dynamical systems, functional analysis, nonassociative mathematics, ordered structures, probabilistic combinatorics, quantum structures, and set theory.

The MS and MA degrees prepare students for careers in which mathematics plays a central role. The PhD is a research degree that prepares students to advance the frontiers of knowledge within a specific area of mathematics.

Our graduates are highly sought, not only for their knowledge of mathematics, but also for their ability to solve problems, to think abstractly, to see the big picture, and to articulate their ideas with clarity and precision. Our graduates have been successful in a remarkably diverse collection of careers, including industry, business, education and academia.

Master of arts in mathematics, master of science in mathematics, doctor of philosophy in mathematics

Following are the simple steps to apply for graduate study in Mathematics at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: February 15, for students interested in competing for graduate teaching assistantships (GTAs) or financial awards for the fall quarter. After the February 15 priority deadline, applications to Mathematics may be considered on a rolling basis and funding opportunities may be limited. Applications are considered for fall, winter or spring quarters.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU. Degree candidates must have a BS or BA in mathematics or a related field.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed, including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Mail official transcripts to
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

- Electronic transcripts should be sent to gradinfo@du.edu.

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.
• Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores
• The Graduate Record Examination (GRE) is required. Scores must be received directly from the appropriate testing agency. Students interested in graduate teaching assistantships (GTAs) or financial awards for the fall quarter must make sure that scores are received by the priority deadline, February 15. The institution code for the University of Denver is 4842.

Personal Statement
• A personal statement of at least 300 words is required. The statement should include information concerning your life, education, practical experience, special interests and specific purpose in applying to the University of Denver’s Department of Mathematics. The statement should be submitted via upload through the online application process.

Recommendation Letters
• Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Students interested in competing for graduate teaching assistantships (GTAs) or financial awards for the fall quarter must make sure that all letters of recommendation are received by the priority deadline, February 15.

Financial Support
• To be considered for federal financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline, February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
• Graduate teaching assistantships provide a full tuition waiver, health benefits, and a stipend of $20,000 (PhD students, 2013-14), $17,300 (MS students, 2013-14) for the nine-month year. The assistantships are renewable. These positions are merit-based and are awarded on a competitive basis.
• Dean’s graduate student scholarships provide half-time tuition waiver to graduate students who are not funded by graduate teaching assistantships. The scholarship is renewable for an additional year (masters students) or two additional years (doctoral students). These positions are merit-based and are awarded on a competitive basis.

Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online. Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802
  • Electronic transcripts should be sent to gradinfo@du.edu.
  • For more information call (303) 871-2706.

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policy Manual provides complete details regarding admission requirements.

Master of Arts in Mathematics

Degree Requirements

Coursework Requirements
Every student’s course of study must be approved in consultation with a designated departmental advisor.

Approved MATH 4XXX courses (minimum 12 credits)
Approved cognate area (up to 15 credits)

Additional graduate-level MATH courses

Total Credits

Minimum credits required for degree: 45

This degree requires completion of 45 credits of graduate-level MATH courses, including at least 12 credits of approved MATH courses at the 4000 level. Students are required to pass at least one of the sequences MATH 3161, MATH 4165, MATH 4110 or MATH 3170, MATH 4166, MATH 4176.

Up to 15 credits may be in an approved cognate area. At most 10 credits from another university may count toward the degree, and such credits must be approved in writing by an advisor from the Mathematics faculty.

Non-coursework Requirements

- Students are required to give an oral presentation in mathematics. This will typically occur after the completion of at least 24 credits of coursework, and should be scheduled after approval from a Mathematics faculty advisor.

No thesis is required.

Master of Science in Mathematics

Degree Requirements

Coursework Requirements

Every student’s course of study must be approved in consultation with a designated departmental advisor.

Approved MATH 4XXX courses (minimum 12 credits)

Approved cognate area (up to 15 credits)

Additional graduate-level MATH courses

Total Credits

Minimum credits required for degree: 45

This degree requires completion of 45 credits of graduate-level MATH courses, including at least 12 credits of approved MATH courses at the 4000 level. Students are required to pass both of the sequences MATH 3161, MATH 4165, MATH 4110 and MATH 3170, MATH 4166, MATH 4176.

Up to 15 credits may be in an approved cognate area. At most 10 credits from another university may count toward the degree, and such credits must be approved in writing by an advisor from the Mathematics faculty.

Non-coursework Requirements

- Tool requirement- Demonstrated competency in a tool is required and may be chosen from among the following: proficiency in the use of a modern computing typesetting system; approved outside courses; laboratory experience; or reading competency in French, German or Russian.

- Students are required to give an oral presentation in mathematics. This will typically occur after the completion of at least 24 credits of coursework, and should be scheduled after approval from a Mathematics faculty advisor.

No thesis is required.

Doctor of Philosophy in Mathematics

Degree Requirements

Course Requirements

Students are required to pass both of the sequences MATH 3161, MATH 4165, MATH 4110 and MATH 3170, MATH 4166, MATH 4176 in their first year. Based on performance in preliminary examinations or other considerations, students may be allowed to replace some courses in a sequence by other offerings.

Every student’s course of study must be approved in consultation with a designated departmental advisor.

MATH 4XXX courses (minimum of 36 credits)

Additional Coursework (Chosen in consultation with the student’s academic advisor.)

Up to 35 credits may be taken in other relevant disciplines, as approved by the mathematics department graduate committee.
Minimum credits required for degree: 135

Non-coursework Requirements

- Preliminary Examinations

Every student admitted to the PhD program is expected to pass a written preliminary examination in analysis and a written preliminary examination in algebra. Both preliminary examinations are designed to test whether students in the PhD program have the adequate undergraduate preparation to continue in the program with a reasonable chance of success.

Both examinations are offered twice per year: during the week immediately preceding the first week of the fall quarter, and during the first week of the winter quarter. A student must pass both exams by no later than the end of the winter quarter of his/her second year in the program unless the graduate committee grants an extension of this deadline for exceptional and documented reasons.

- Tool Requirement

It is strongly recommended that students satisfy their tool requirement by demonstrating the ability to use a modern computer typesetting system. Other options include: reading competency in two languages selected from French, German and Russian; a series of outside courses in another discipline; a significant laboratory experience involving mathematics.

- Dissertation

The dissertation must make a significant contribution to the research literature in mathematics.

After the dissertation has been completed, the student must defend it in a final examination, as specified by the Office of Graduate Studies.

Courses

MATH 3000 The Real World Seminar (1 Credit)
Lectures by alumni and others on surviving culture shock when leaving the University and entering the job world. Open to all students regardless of major. Cross listed with COMP 3000.

MATH 3010 History of Mathematics (4 Credits)
This course surveys major mathematical developments beginning with ancient Egyptians and Greeks and tracing the development through Hindu-Indian mathematics, Arabic mathematics, and European mathematics up to the 18th century. Prerequisite: MATH 1953 or MATH 1963.

MATH 3040 Lattices and Order (4 Credits)
Ordered sets, lattices as relational and as algebraic structures, ideals and filters, complete lattices, distributive and modular lattices, Boolean algebras, duality for finite distributive lattices. Prerequisite: MATH 2200.

MATH 3050 Set Theory (4 Credits)
Zermelo-Fraenkel axioms, axiom of choice, Zorn's Lemma, ordinals, cardinals, cardinal arithmetic. Prerequisite: MATH 2200.

MATH 3060 Mathematical Logic (4 Credits)
Classical propositional calculus (deductive systems and truth-table semantics), first-order logic (axiomatization and completeness), elements of recursion theory, introduction to nonclassical logics. Prerequisite: MATH 2200.

MATH 3090 Mathematical Probability (4 Credits)
Limit theorems for independent random variables, multivariate distributions, generating functions. Prerequisites: MATH 2080 and MATH 3080.

MATH 3151 Advanced Linear Algebra (4 Credits)
Vector spaces, linear mappings, matrices, inner product spaces, eigenvalues and eigenvectors. Prerequisite: MATH 2060 and MATH 2200.

MATH 3161 Introduction to Real Analysis (4 Credits)
A theoretical introduction to the structure of real numbers, to convergence of sequences and series, and to the topology of the real line, including limits and continuity. Prerequisites: MATH 2080 and MATH 2200.

MATH 3162 Introduction to Real Analysis II (4 Credits)
A rigorous introduction to the analysis of functions of a real variable, including differentiation, Riemann integration, and the notions of pointwise and uniform convergence for sequences of functions. Prerequisite: MATH 3161.

MATH 3166 Group Theory (4 Credits)
Groups and homomorphisms, isomorphism theorems, symmetric groups and G-sets, the Sylow theorems, normal series, fundamental theorem of finitely generated abelian groups. Cross listed with MATH 4166. Prerequisite: MATH 3170.

MATH 3170 Introduction to Abstract Algebra (4 Credits)
Examples of groups, permutations, subgroups, cosets, Lagrange theorem, normal subgroups, factor groups, homomorphisms, isomorphisms, rings, integral domains, quaternions, rings of polynomials, Euclid algorithm, ideals, factor rings, maximal ideals, principal ideals, fields, construction of finite fields. Prerequisite: MATH 2060 and MATH 2200.
MATH 3260 Metric Spaces (4 Credits)
Metric spaces and continuous functions; completeness and compactness; examples including norm spaces; pointwise and uniform convergence; Baire Category Theorem. Cross listed with MATH 4260. Prerequisite: MATH 3161 or equivalent.

MATH 3311 Linear Programming (4 Credits)
Linear optimization models, simplex algorithm, sensitivity analysis and duality, network models, dynamic programming, applications to physical, social and management sciences. Prerequisite: MATH 2060.

MATH 3312 Markov Chains (4 Credits)
Discrete-time and continuous Markov Chains, ergodic theorems, random processes, elementary queueing theory, applications. Prerequisite: MATH 2060 and MATH 3080.

MATH 3400 Introduction to Geometry (4 Credits)
Specific geometrical systems including finite, Euclidean, non-Euclidean and projective geometries. Prerequisite: MATH 2200.

MATH 3451 Chaos, Dynamics & Fractals (4 Credits)
Introduction to one-dimensional dynamical systems, fractals; fixed and periodic points; sources and sinks; period doubling and tangent node bifurcations; chaotic dynamical systems; Sarkovskii’s Theorem. Prerequisite: MATH 3161.

MATH 3550 Introduction to Theory of Numbers (4 Credits)
Concepts of nonanalytic number theory and its history; prime numbers, divisibility, continued fractions, modular arithmetic, Diophantine equations and unsolved conjectures. Prerequisites: MATH 2200.

MATH 3651 Ordinary Differential Equations (4 Credits)
Modeling of phenomena by ordinary differential equations; techniques of analysis and solution of such equations; oscillation theory and boundary value problems, power series methods, special functions, Laplace transforms and difference equations. Prerequisites: MATH 2060 and MATH 2070.

MATH 3661 Partial Differential Equations (4 Credits)
First and second order linear equations, Fourier series, the wave equation, the Cauchy problem, the heat equation, maximum principles, Laplace’s equation, Green’s functions. Prerequisites: MATH 2070 and MATH 2080.

MATH 3701 Combinatorics (4 Credits)
The principle of inclusion and exclusion, elementary counting techniques, systems of distinct representatives, partitions, recursion and generating functions, Latin squares, designs and projective planes. Prerequisite: MATH 2200.

MATH 3705 Topics in Mathematics (4 Credits)
Varying selected advanced topics in mathematics, depending on student demand and instructor interest.

MATH 3710 Graph Theory (4 Credits)
Paths, cycles, trees, Euler tours and Hamilton cycles, bipartite graphs, matchings, basic connectivity theorems, planar graphs, Kuratowski's theorem, chromatic number, n-color theorems, introduction to Ramsey theory. Prerequisite: MATH 2200.

MATH 3720 Coding Theory (4 Credits)
Goals of coding theory and information theory, instantaneous and Huffman codes, Shannon theorems, block and linear codes, generating and parity-check matrices, Hamming codes, perfect codes, binary Golay code, Reed-Muller codes, cyclic codes, BCH codes, Reed-Solomon codes, ideas of convolutional and turbo codes. Prerequisite: MATH 3170.

MATH 3851 Functions Complex Variable (4 Credits)
Complex numbers, analytic functions, complex integration, series expansions, residue theory, conformal maps, advanced topics and applications. Prerequisites: MATH 2060 and MATH 2080 and MATH 2200.

MATH 3991 Independent Study (1-10 Credits)
Cannot be arranged for any course that appears in regular course schedule for that particular year.

MATH 3992 Directed Study (1-10 Credits)

MATH 4050 Combinatorial Set Theory (4 Credits)
Beginning with a quick review of ZFC, the standard axioms of set theory, the course covers advanced ordinal and cardinal arithmetic and infinitary combinatorics, including Ramsey theory. Additional axioms such as the Continuum Hypothesis, Martin’s Axiom, and combinatorial principles such as Diamond and their consequences for mathematics are studied. Prerequisite: MATH 3050.

MATH 4060 Descriptive Set Theory (4 Credits)
Descriptive Set Theory is one of the main branches of modern set theory. Set theory provides techniques for the precise study of real analysis. This course covers trees as tools for analyzing sets of real numbers, Polish spaces, the Borel hierarchy, Baire-measurability, extensions of continuous functions, separation theorems, and more. Prerequisite: MATH 3050.

MATH 4070 Proof Theory (4 Credits)
Hilbert-style systems, Natural deduction, (simply typed) lambda calculus, combinatory logic, the Curry-Howard correspondence, normalization, cartesian closed categories, Sequent calculi, cut elimination and applications, structural rules; logical systems: classical, intuitionistic, relevance, linear, algebraic semantics. Recommended prerequisite: MATH 2200.
MATH 4080 Algebraic Logic (4 Credits)
Elements of universal algebra, lattice theory and first-order logic; elements of abstract algebraic logic (deductive systems, algebraization, deduction filters, deduction theorems, matrix semantics); sequent calculi for substructural logics, residuated lattices, structure theory for congruences and deductive filters; subvariety lattices (atomic varieties, axiomatizations of joins, translations); algebraic cut elimination; (un)decidability and finite model property. Prerequisites: MATH 3170 and either MATH 3040 or MATH 3060.

MATH 4110 Topology (4 Credits)
Point set topology including topological spaces, connectedness, compactness and separate axioms; preparation for advanced courses in analysis. Cross listed with MATH 3110.

MATH 4120 Algebraic Topology (4 Credits)
Fundamental groups, simplicial homology, Euler characteristic classification of surfaces, manifolds. Prerequisites: MATH 3170 and MATH 3110/4110.

MATH 4162 Rings and Modules (4 Credits)
Ideals, left and right R-modules, simple modules, totally decomposable modules, Wedderburn-Artin theorems, Artinian and Noetherian rings and modules, Hopkins theorem, Hilbert basis theorem, free modules, projective and injective modules, Kaplanski theorem. Prerequisites: MATH 3176 or MATH 4176.

MATH 4163 Universal Algebra (4 Credits)
Universal algebras, congruences, lattices, distributive lattices, modular lattices, Boolean algebras, subdirectly irreducible algebras, Mal'cev theorems, varieties, Birkhoff theorem. Prerequisites: MATH 3170 and either MATH 3040 or MATH 3060.

MATH 4164 Galois Theory (4 Credits)
The fundamental theorem of algebra, field extensions, ruler and compass constructions, normal and separable extensions, field automorphisms, Galois correspondence, solvability and simplicity, calculating Galois groups. Prerequisite: MATH 3176/MATH 4176 and MATH 3166/MATH 4166.

MATH 4165 Introduction to Real Analysis II (4 Credits)
A rigorous introduction to the analysis of functions of a real variable, including differentiation, Riemann integration, and the notions of pointwise and uniform convergence for sequences of functions. Prerequisites: MATH 3161.

MATH 4166 Group Theory (4 Credits)
Groups and homomorphisms, isomorphism theorems, symmetric groups and G-sets, the Sylow theorems, normal series, fundamental theorem of finitely generated abelian groups. Cross listed with MATH 3166. Prerequisite: MATH 3170.

MATH 4168 Lie Groups and Lie Algebras (4 Credits)
Lie groups and Lie algebras, fundamental theorems of Lie, general structure theory; compact, nilpotent, solvable, semisimple Lie groups; classification of semisimple Lie algebras; representation theory of compact and semisimple Lie algebras and Lie groups. Additional topics as time permits: universal enveloping algebras, symmetric spaces. Prerequisites: MATH 3161 and MATH 3170.

MATH 4176 Rings and Fields (4 Credits)
Rings, domains, fields; ideals, quotient rings, polynomials; PIDs, UFDs, Euclidean domains; maximal and prime ideals, chain conditions; extensions of fields, splitting fields, algebraic and transcendental extensions; brief introduction to Galois theory. Cross listed with MATH 3176. Prerequisite: MATH 3170 or equivalent.

MATH 4181 Loop Theory (4 Credits)
Quasigroups, loops, latin squares, 3-nets, isotopy, multiplication groups, inner mapping groups, nuclei, commutant, center, associator subloop, inverse properties, power-associative loops, Bruck loops, Bol loops, Moufang loops, octonions. Prerequisites: MATH 3166 or MATH 4166.

MATH 4260 Metric Spaces (4 Credits)
Metric spaces and continuous functions; completeness and compactness; examples including norm spaces; pointwise and uniform convergence; Baire Category Theorem. Cross listed with MATH 3260. Prerequisite: MATH 3161 or equivalent.

MATH 4270 Hilbert Spaces (4 Credits)
Schwarz and triangle inequalities, Reisz lemma, subspaces and orthogonal projections, orthonormal bases, spectrum of bounded linear operators, compact, self-adjoint, normal and unitary operators, spectral theorem and, if time permits, unbounded operators. Also, if time permits, applications to partial differential equations, physics and engineering. Prerequisites: MATH 3260 or MATH 4260 or MATH 3110 or MATH 4110.

MATH 4280 Measure Theory and Applications (4 Credits)
Definition of Measure spaces; Lebesgue measure; limit theorems; Raydon-Nikodym Theorem; introduction to L_p spaces. Prerequisite: MATH 3260/4260 or MATH 3110/4110.

MATH 4290 Dynamical Systems (4 Credits)
Topological and measure theoretic dynamical systems; properties and invariants of systems; symbolic dynamics; Ergodic Theorems; applications. Prerequisites: MATH 3110/4110 or MATH 3260/4260.

MATH 4300 Graduate Seminar (1-4 Credits)
Students research a topic of their choosing with the aid of a faculty member, and then prepare and present a formal lecture on the subject. Prerequisite: graduate standing or consent of the instructor.

MATH 4400 Differential Geometry (4 Credits)
Planar and spatial curves, global properties of curves, surfaces in three dimensions, the first fundamental form, curvature of surfaces, Gaussian curvatures, geodesics, Theorema Egregium, hyperbolic geometry. Prerequisites: MATH 3170 and either MATH 3110/4110 or MATH 3260/4260.
MATH 4501 Functional Analysis (4 Credits)
Advanced topics in structure of linear spaces; Banach spaces; Hahn-Banach Theorem and Duality; Uniform Boundedness Theorem; Open Mapping and Closed Graph Theorems; Stone-Weierstrass Theorem; Topics in Hilbert Spaces. Prerequisite: MATH 4280.

MATH 4700 Special Topics in Mathematics (1-4 Credits)

MATH 4701 Combinatorial Algorithms (4 Credits)
Basic enumeration techniques; representations of combinatorial objects; algorithms for searching, sorting, generating combinatorial objects, graph algorithms. Prerequisites: MATH 3701 or MATH 3710.

MATH 4705 Special Topics Applied Math (1-5 Credits)
Varying selected advanced topics in mathematics, depending on student demand. Possible alternatives include variations, partial differential equations, algebraic topology, differential manifolds, special functions.

MATH 4991 Independent Study (1-10 Credits)
Cannot be arranged for any course that appears in course schedule for that particular year.

MATH 4992 Directed Study (1-10 Credits)

MATH 4995 Independent Research (1-10 Credits)
Research leading to a dissertation.

Natural Sciences General
Office: Natural Sciences and Mathematics (http://www.du.edu/nsm)
Mail Code: 2050 E. Iliff Avenue, Room 228, Denver, CO 80208
Phone: 303-871-4866

Professional science Master in biological sciences
The Professional Science Master's (PSM) with a concentration in Biomedical Sciences offers rigorous academic training and professional practical skills to prepare students for challenging careers in the biomedical sciences and allied health sciences. The program strives to provide strong scientific knowledge and promote global-awareness, ethics, communication and other important professional skills through acquiring knowledge within and across disciplines at DU. Students will gain an awareness and knowledge of the many current issues and concerns facing the fields of allied health and biomedical sciences industries.

Molecular and Cellular Biophysics
The Molecular and Cellular Biophysics PhD (MCB) program provides opportunities for doctoral studies in the interdisciplinary field of biophysics. Participation of faculty from the Departments of Biological Sciences, Chemistry & Biochemistry, and Physics & Astronomy enhances the strength and breadth of our program by incorporating cross-disciplinary and collaborative approaches to research. The MCB PhD program is centered on research activities that coincide with faculty experience and expertise. Areas of research in the MCB program include cellular physiology, developmental dynamics, protein folding and aggregation, protein network analysis, signal transduction cascades, synthetic biology, systems biology and the development of novel imaging techniques. Projects at the interface of traditional disciplines of physics, biology and chemistry as well as methods of mathematical analysis and computer modeling are particularly encouraged.

The MCB PhD program offers both a core foundation in biophysical theory and practice yet provides flexibility and individualized attention such that students with diverse scientific backgrounds will have the opportunity to be trained in molecular and cellular biophysics. During their first year in the program, students conduct lab rotations, take a year-long course sequence that covers foundations of molecular and cellular biophysics and take additional graduate courses to supplement their undergraduate training. At the end of their first year, students will join the lab in which they will conduct their thesis research.

Students with strong quantitative undergraduate backgrounds (e.g., undergraduate degrees in physics, chemistry, mathematics, computer science/ engineering) who desire to apply these skills to various biological problems, as well as students with a background in cell or molecular biology with a solid foundation in mathematics and physics are particularly encouraged to apply. Financial aid is usually offered in the form of Graduate Teaching or Graduate Research Assistantships, which cover tuition costs and provide a stipend for living expenses.
professional science master in biological sciences

Following are the simple steps to apply for graduate study in Molecular and Cellular Biophysics at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).

- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s stated deadline: March 1. The program admits for fall quarter only. Applications may be submitted after the deadline, but scholarships may no longer be available.

- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree and, if applicable, a master’s degree from a regionally accredited institution prior to beginning graduate coursework at DU.

- Students with an undergraduate major in chemistry, physics or mathematics and minimal preparation in biological sciences also will be considered but may be required to take undergraduate courses when the prerequisites are lacking. Course prerequisites include: one year of chemistry, one year of calculus (recommended), one year of physics, and two years of biology.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.

- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.

- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.

- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe. Electronic transcripts should be sent to gradinfo@du.edu.

- Mail official transcripts to:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

- Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

- Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores

- Application to the PSM program requires the Graduate Record Examination (GRE) general test or the MCAT. The GRE subject test is not required. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.
Personal Statement
- A personal statement of at least 300 words is required. The personal statement of interest and qualifications should address your career goals as they relate to the PSM specialization in Biomedical Sciences (maximum 2 pages). The statement should be submitted via upload through the online application process.

Recommendation Letters
- Three letters of recommendation are required from different faculty members or other professional contacts that are familiar with your potential to complete a rigorous graduate program. These letters should be solicited and uploaded by recommenders through the online application system. Letters must be received by the program's stated deadline.

Financial Support
- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

Application Status
- We encourage you to be actively engaged in the admission process. You can check your application status online. Applicants will receive login information post application submission.

Contact Information
- Mail official transcripts and any supplemental admission materials not submitted with the online application to:
  University of Denver
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  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

  Electronic transcripts should be sent to gradinfo@du.edu.
  For more information call (303) 871-2706.

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program's application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

doctor of philosophy in molecular and cellular biophysics

Following are the simple steps to apply for graduate study in Molecular and Cellular Biophysics at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

Apply Online / Application Deadlines
- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program's stated deadline: January 31. The program admits for the fall quarter only. The program may consider applications after this date on a rolling basis until all positions are filled.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

Course and Degree Prerequisites and Requirements
- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree and, if applicable, a master's degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- Students with strong quantitative undergraduate backgrounds (e.g., undergraduate degrees in physics, chemistry, mathematics, computer science/engineering) who desire to apply these skills to various biological problems, as well as students with a background in cell or molecular biology with a solid foundation in mathematics and physics, are encouraged to apply. A minimum of one year of calculus and one year of college physics (preferably calculus-based), regardless of undergraduate major, are required.

Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)
- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
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Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)
• Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.

• Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

• Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores
• The Graduate Record Examination (GRE) is required and a subject test is recommended. Competitive subject GRE scores will strengthen a candidate's application. Applicants can report subject GRE scores in any of the following disciplines: Physics, Chemistry, Biology, Biochemistry, Cell and Molecular Biology. Scores must be received directly from the appropriate testing agency by the program’s stated deadline. The institution code for the University of Denver is 4842.

Personal Statement
• A personal statement of at least 300 words is required. The statement should include information concerning your education, practical (research) experience, special interests and specific purpose for applying to the interdisciplinary program in molecular and cellular biophysics at the University of Denver. The statement should be submitted via upload through the online application process.

Resume / C.V.
• A resume or C.V. is required. This should include work experience, research, and/or volunteer work. The resume or C.V. should be submitted via upload through the online application process.

Recommendation Letters
• Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Financial Support
• To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.

• Students are supported by graduate teaching assistantships through the program for the first year, and on graduate research or teaching assistantships, arranged by their faculty thesis advisor, in their subsequent years. Either mechanism typically includes a tuition waiver, stipend and health insurance.
Application Status
• We encourage you to be actively engaged in the admission process. You can check your application status online. Applicants will receive login information post application submission.

Contact Information
• Mail official transcripts and any supplemental admission materials not submitted with the online application to:
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802
  • Electronic transcripts should be sent to gradinfo@du.edu.
  • For more information call (303) 871-2706

International Applicants
• For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

DOCTOR OF PHILOSOPHY IN MOLECULAR AND CELLULAR BIOPHYSICS

Graduate studies in the program are highly individualized; programs should fit each student’s unique needs and interests. Students are required to perform original, publishable research and to present a thesis based on research to the faculty of the molecular and cellular biophysics program.

A student qualifies for the PhD degree after demonstrating growth as an independent investigator—identifying a significant research question; proposing a hypothesis or model to answer the question; testing the hypothesis with appropriate experiments; and writing a dissertation acceptable to the department.

The structure of the PhD program in Molecular and Cellular Biophysics is as follows:

• required core courses and elective courses during the first year
• required lab rotations during the first year
• required seminar/special topics courses during the second year
• qualifying exams first year and second year
• thesis research second year to completion

Degree Requirements
Coursework Requirements
Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOP 4100</td>
<td>Foundations in Biophysics</td>
<td>3</td>
</tr>
<tr>
<td>BIOP 4150</td>
<td>Cellular Biophysics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3130</td>
<td>Chemical Systems III</td>
<td>3</td>
</tr>
<tr>
<td>BIOP 4995</td>
<td>Independent Research</td>
<td>1-9</td>
</tr>
</tbody>
</table>

Second Year
3 quarters of BIOP 4210 are required

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOP 4210</td>
<td>Current Topics in Biophysics</td>
<td>2</td>
</tr>
<tr>
<td>BIOP 4210</td>
<td>Current Topics in Biophysics</td>
<td>2</td>
</tr>
<tr>
<td>BIOP 4210</td>
<td>Current Topics in Biophysics</td>
<td>2</td>
</tr>
</tbody>
</table>

Electives

During the first two years electives can be chosen from existing 3000- or 4000-level courses in the Division and must be chosen with consultation and the approval of the Steering committee. This use of electives is critical given the interdisciplinary nature of this PhD program and scientific discipline and the fact that incoming students will come from a range of disciplines in the physical sciences and life sciences.

The remainder of the credit hours required for the degree may include:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOP 4992</td>
<td>Directed Study</td>
</tr>
<tr>
<td>BIOP 4995</td>
<td>Independent Research</td>
</tr>
</tbody>
</table>
Minimum credits required for the degree: 90 (must be approved by the program Steering committee)

Non-coursework Requirements
- passing performance in the qualifying examinations
- completion of a research dissertation of publishable quality
- successful oral defense of the dissertation

Additional requirements:
- successful completion of research rotations during the first year
- maintaining a minimum GPA of 3.0
- passing performance in the qualifying examinations
- attendance at departmental seminars and the presentation of one seminar per year
- completion of a research dissertation of publishable quality
- successful oral defense of the dissertation

A complete description of the program's official requirements and details of qualifying examinations are available on the Natural Sciences & Mathematics (http://www.du.edu/nsm/departments/molecularandcellular) website.

**Professional Science Master in Biological Sciences**

**Degree Requirements**

**Coursework Requirements**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4085</td>
<td>Accelerated Biostatistics</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 4155</td>
<td>Leadership in Science</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 4211</td>
<td>Advanced Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4212</td>
<td>Advanced Molecular Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4231</td>
<td>Responsible Conduct in Rsrch</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 4310</td>
<td>Foundations in Literature: Cell and Molecular Biology</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 4870</td>
<td>Medical Ethics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4880</td>
<td>Capstone in Biomedical Sciences</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4991</td>
<td>Independent Study</td>
<td>1-17</td>
</tr>
</tbody>
</table>

**Elective Courses**

Electives can be chosen from the approved list of existing elective courses in consultation with the Program Director. Additional upper level (3000- or 4000-level) elective courses will be considered with approval of the Program Director.

**Natural Sciences**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3025</td>
<td>Science and the Law</td>
<td>2,4</td>
</tr>
<tr>
<td>BIOL 3100</td>
<td>Histology: Medical Microanatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3120</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3145</td>
<td>Cellular and Molecular Biology of Cancer</td>
<td>2-4</td>
</tr>
<tr>
<td>BIOL 3160</td>
<td>Biophysics: Ion Channels &amp; Disease</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3230</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3250</td>
<td>Human Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 3610</td>
<td>Developmental Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3630</td>
<td>Cell Biology of Development</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3640</td>
<td>Introductory Neurobiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3641</td>
<td>Systems Neuroscience</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3642</td>
<td>Neuropharmacology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3644</td>
<td>Neuromuscular Pathophysiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3670</td>
<td>Molecular Immunology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3704</td>
<td>Advanced Topics in Cell Biology</td>
<td>1-4</td>
</tr>
<tr>
<td>BIOL 3800</td>
<td>Human Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
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<td>---------</td>
</tr>
<tr>
<td>BIOL 3910</td>
<td>Viruses &amp; Infectious Human Diseases</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3920</td>
<td>Forensic Pathology</td>
<td>2-4</td>
</tr>
<tr>
<td>BIOL 4213</td>
<td>Advanced Cell Signaling</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3130</td>
<td>Chemical Systems III</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3812</td>
<td>Biochemistry-Membranes/Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3811</td>
<td>Biochemistry-Proteins</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3813</td>
<td>Biochemistry-Nucleic Acids</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3820</td>
<td>Biochemistry Lab</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3470</td>
<td>GIS &amp; Environmental Health Geography</td>
<td>4</td>
</tr>
<tr>
<td>INTS 4056</td>
<td>Information Management in Humanitarian Crises</td>
<td>5</td>
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<tr>
<td>INTS 4367</td>
<td>Global Health Affairs</td>
<td>5</td>
</tr>
<tr>
<td>INTS 4483</td>
<td>Practical Applications in Global Health</td>
<td>5</td>
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<tr>
<td>INTS 4362</td>
<td>Gender and Health</td>
<td>5</td>
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<tr>
<td>INTS 4366</td>
<td>Reproductive Health</td>
<td>5</td>
</tr>
<tr>
<td>INTS 4368</td>
<td>HIV &amp; AIDS in International Affairs</td>
<td>5</td>
</tr>
<tr>
<td>INTS 4423</td>
<td>Introduction to Epidemiology</td>
<td>5</td>
</tr>
<tr>
<td>INTS 4435</td>
<td>Health and Development</td>
<td>5</td>
</tr>
<tr>
<td>INTS 4465</td>
<td>Population and Society</td>
<td>5</td>
</tr>
<tr>
<td>INTS 4492</td>
<td>Health and Humanitarian Aid</td>
<td>5</td>
</tr>
<tr>
<td>INTS 4516</td>
<td>Major Diseases in Global Health (From Pathophysiology to Action)</td>
<td>5</td>
</tr>
<tr>
<td>INTS 4576</td>
<td>Seminar: Community-Based Research Methods</td>
<td>5</td>
</tr>
<tr>
<td>COMN 4020</td>
<td>Communication Studies: Relational</td>
<td>4</td>
</tr>
<tr>
<td>COMN 4110</td>
<td>Theories in Interpersonal Communication</td>
<td>4</td>
</tr>
<tr>
<td>COMN 4701</td>
<td>Topics in Communication</td>
<td>1-4</td>
</tr>
<tr>
<td>PSYC 4002</td>
<td>Prosem in Memory and Cognition</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4011</td>
<td>Proseminar in Emotion</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4021</td>
<td>Prosem in Social Psychology</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4031</td>
<td>Developmental Proseminar: Cognition &amp; Perception</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4085</td>
<td>Stress &amp; Health</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4254</td>
<td>Intro to Neural Network Models</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4255</td>
<td>Imaging the Mind</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4256</td>
<td>Seminar:Cognitive Neuroscience</td>
<td>5</td>
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<tr>
<td>PSYC 4258</td>
<td>Social Neuroscience</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4262</td>
<td>Affective Neuroscience</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 4033</td>
<td>Devel Proseminar: Biological</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4511</td>
<td>Prosem in Psychopathology</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4525</td>
<td>Prosem in Develop Neuropsych</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 4526</td>
<td>Prosem in Cog Neuroscience</td>
<td>5</td>
</tr>
<tr>
<td>ENBI 4500</td>
<td>Biofluids</td>
<td>4</td>
</tr>
<tr>
<td>ENBI 4510</td>
<td>Biomechanics</td>
<td>4</td>
</tr>
<tr>
<td>ENBI 4520</td>
<td>Introduction to Cardiovascular Engineering</td>
<td>4</td>
</tr>
<tr>
<td>ENBI 4800</td>
<td>Adv Topics (Bioengineering)</td>
<td>1-5</td>
</tr>
</tbody>
</table>

**Business**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTG 4610</td>
<td>Financial Accounting and Reporting</td>
<td>4</td>
</tr>
<tr>
<td>FIN 4630</td>
<td>Managerial Finance</td>
<td>4</td>
</tr>
<tr>
<td>INFO 4100</td>
<td>Survey of Business Analytics</td>
<td>4</td>
</tr>
<tr>
<td>INFO 4280</td>
<td>Project Management</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4620</td>
<td>Organizational Dynamics</td>
<td>4</td>
</tr>
<tr>
<td>MGMT 4630</td>
<td>Strategic Human Resources Management</td>
<td>4</td>
</tr>
</tbody>
</table>
Minimum credits required for degree: 45

Non-coursework Requirements:
- Capstone project: The capstone project includes a written and public oral presentation of the project. The program requires a capstone project which involves interactions with allied health and biomedical professions from outside of the DU community. The capstone experience will be culminated in a formal scholarly work (both written and orally presented) that reflects a student's individual interest and the integration of science with strong professional skills.

Additional requirements:
- maintain a minimum GPA of 3.0
- successful completion of capstone project
- completion of capstone paper
- successful oral defense of capstone project

Courses

BIOP 4100 Foundations in Biophysics (3 Credits)
Focus of the course is on application of basic physics principles to the study of cells and macromolecules. Topics include diffusion, random processes, thermodynamics, reaction equilibria and kinetics, computer modeling. Must be admitted to the MCB PhD program or related graduate program with instructor approval. Cross listed with PHYS 4100.

BIOP 4150 Cellular Biophysics (3 Credits)
Biophysical approaches to understanding cell function. We emphasize the various experimental approaches that biophysicists use to study basic cellular processes, including a variety of fluorescence images, optical and electrophysiological techniques. Cross listed with BIOL 4211.

BIOP 4210 Current Topics in Biophysics (2 Credits)
This is a seminar course that focuses on current primary literature in the fields of molecular and cellular biophysics. This is the first of a three course, year-long sequence.

BIOP 4992 Directed Study (1-10 Credits)

BIOP 4993 Lab Rotation (2-9 Credits)
Lab rotation in Molecular and Cellular Biophysics before students pass the first phase of their qualifying exam.

BIOP 4995 Independent Research (1-9 Credits)
Independent research in Molecular and Cellular Biophysics before students pass the first phase of their qualifying exam.

BIOP 5991 Independent Study (1-10 Credits)

BIOP 5995 Independent Research (2-9 Credits)

BIOP 6991 Independent Study (1-10 Credits)

BIOP 6992 Directed Study (1-S Credits)

BIOP 6995 Independent Research (1-10 Credits)

Physics and Astronomy

Office: 2112 East Wesley Avenue, Room 211
Phone: 303-871-2238
Website: Physics and Astronomy (http://www.du.edu/nsm/departments/physicsandastronomy)

The Department of Physics and Astronomy at the University of Denver combines a tradition of individualized instruction with a contemporary research focus. The department underwent a strong expansion with eight tenure-track and two teaching professor positions filled in the last nine years. Our diverse and dynamic faculty of 11 includes three women and come from seven different countries. We provide an attentive, hands-on research and learning community for undergraduate and graduate students up through the PhD level. The department also offers a low student-to-faculty ratio in all advanced and graduate physics and astronomy courses and stresses individualized attention to each student. The program is recognized by the
The department has major research thrusts in stellar astronomy/astrophysics, biophysics, and condensed matter physics. Our faculty members are internationally recognized and accomplished researchers. The department is a part of the University of Denver’s interdisciplinary Molecular and Cellular Biophysics program (http://www.du.edu/nsm/departments/biophysics). Major state-of-the-art instrumentation is available both in the department and through collaborations with nearby national institutes in the region (NIST, NREL, and NCAR), where several of our faculty hold associate appointments. Also, the Division of Natural Sciences and Mathematics maintains our own Linux cluster for in-house high-performance computational needs.

**master of science in physics, doctor of philosophy in physics**

Following are the steps to apply for graduate study in Physics and Astronomy at the University of Denver. If you have any questions about the process, please contact the Office of Graduate Studies (http://www.du.edu/learn/graduates).

### Apply Online / Application Deadlines

- Applications for graduate study at the University of Denver must be submitted online. Apply online (https://gradadmissions.du.edu/apply).
- All online materials must be received, and all supplemental materials including transcripts must be on file in the Office of Graduate Studies, by the program’s priority deadline: February 1, to receive full consideration for fall quarter admission. Applications completed after that date will be considered on a rolling basis. The program admits for the fall quarter only.
- A $65 non-refundable application fee is required for an application to be processed. Application fee waivers are available for McNair Scholars.

### Course and Degree Prerequisites and Requirements

- Applicants must earn and submit proof of earning the equivalent of a baccalaureate degree from a regionally accredited institution prior to beginning graduate coursework at DU.
- An undergraduate physics and mathematics background equivalent to a bachelor’s degree in physics is required.

### Transcripts (http://bulletin.du.edu/graduate/admissions/admissionprocessandstandardsforallapplicants/#text)

- Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school.
- The applicant is responsible for obtaining all transcripts. Applicants who have earned a degree outside the U.S. must submit transcripts accompanied by certified English translations, if not normally issued in English. DU students and alumni do not need to provide DU transcripts.
- Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission. This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early. Applicants educated outside the U.S. are encouraged to contact the Office of Graduate Studies for assistance regarding transcript-related materials.
- The University of Denver will consider electronic transcripts official from a domestic institution provided by the following approved agencies: Army/American Council on Education Registry Transcript System (AARTS); Docufide/Parchment; National Student Clearinghouse; Naviance; Royall and Company; and, Scrip-Safe.
- Mail official transcripts to:
  
  University of Denver
  Office of Graduate Studies
  Mary Reed Building, Room 5
  2199 S. University Blvd.
  Denver, CO 80208-4802

- Electronic transcripts should be sent to gradinfo@du.edu.

### Language Proficiency (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers)

- Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date. The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842. The minimum IELTS score accepted by the University is 6.0. Graduate Teaching Assistants (GTAs) must demonstrate fluency in spoken English by scoring a 26 on the TOEFL speaking section or 8.0 on the IELTS speaking section. Please see the Graduate Policy Manual for complete English language proficiency requirements.
- Applicants may be exempt from English proficiency test requirements if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS requirement but not from other standardized graduate entrance examinations. There are no exemptions for graduate teaching assistants.

APS among US PhD-granting departments for our high percentage (50%) of female graduates: placing second nationally at the undergraduate level and third at the graduate level (APS data for the period 2011-2013).
Students whose native language is not English and who are required to submit TOEFL/IELTS (http://bulletin.du.edu/graduate/admissions/additionalstandardsfornonnativeenglishspeakers) scores will be assessed by the University of Denver English Language Center (ELC) prior to matriculation.

Test Scores
- The Graduate Record Examination (GRE) is required. Admission preference will be given to those submitting strong scores on the GRE advanced physics subject test. Scores must be received directly from the appropriate testing agency by the program's stated deadline. The institution code for the University of Denver is 4842.

Personal Statement
- Your application should include a short statement in your own words, describing why you are interested in attending graduate school and why you chose our department. In your essay, specify your particular physics area of interest and discuss your future career plans.

Recommendation Letters
- Three letters of recommendation are required. Letters should be solicited and uploaded by recommenders through the online application system. Requests for letters should be sent to recommenders well in advance so the letters are on file by the application deadline.

Examinations
- A comprehensive examination is given to assess whether students have attained the standards set by the department to continue their pursuit of the degrees sought. All students are required to pass the comprehensive examination at an appropriate level (MS or PhD), in order to advance their candidacy status. All students pursuing a PhD are required to pass an oral dissertation research proposal in order to be promoted to PhD candidacy.

Financial Support
- To be considered for financial support, domestic applicants should apply early and submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline; February 15. Information about financial aid can be found on the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website. International students are not eligible for federal financial aid.
- The Department of Physics and Astronomy offers graduate teaching assistantships, graduate research assistantships, and graduate studies doctoral fellowships, none of which requires the Free Application for Federal Student Aid (FAFSA).

Application Status
- We encourage you to be actively engaged in the admission process. You can check your application status online. Applicants will receive login information post application submission.

Contact Information
- Mail official transcripts and any supplemental admission materials not submitted with the online application to:
  
  University of Denver  
  Office of Graduate Studies  
  Mary Reed Building, Room 5  
  2199 S. University Blvd.  
  Denver, CO 80208-4802  
  
  Electronic transcripts should be sent to gradinfo@du.edu.  
  For more information call (303) 871-2706.

International Applicants
- For complete international applicant information, please visit the Office of Graduate Studies International Student Application Information (http://www.du.edu/learn/graduates/internationalapplicants.html). International applicants are strongly encouraged to have their applications complete, with all materials on file in the admission office, at least eight weeks prior to the program’s application deadline.

The Graduate Policies and Procedures provides complete details regarding admission requirements.

Doctor of Philosophy in Physics
A minimum of three years of full-time study beyond the baccalaureate degree, with at least 90 quarter hours of approved graduate credit; Comprehensive Examination; acceptable Dissertation and Oral Defense. There is no departmental foreign language requirement. Enrollment as a graduate student at the University of Denver for at least six quarters, including at least two consecutive quarters of full-time attendance, is required to meet residency standards.
Degree Requirements
Coursework Requirements
Both 4000- and 3000-graduate level courses may be applied toward the degree, with the approval of the Graduate Committee or the Dissertation Committee.

Graduate Core Courses

Physics & Astronomy Graduate Core Courses are the following 9 courses (23-27 qtr hrs) that all students are expected to take during the first two years in the program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 4511</td>
<td>Advanced Dynamics I</td>
<td>4</td>
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<tr>
<td>PHYS 4611</td>
<td>Adv Electricity &amp; Magnetism I</td>
<td>3</td>
</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>PHYS 4111</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4112</td>
<td>Quantum Mechanics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4811</td>
<td>Statistical Mechanics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 4001</td>
<td>Introduction to Research I</td>
<td>1,2</td>
</tr>
<tr>
<td>PHYS 4002</td>
<td>Introduction to Research II</td>
<td>1,3</td>
</tr>
<tr>
<td>PHYS 4003</td>
<td>Introduction to Research III</td>
<td>1,2</td>
</tr>
</tbody>
</table>

Additional Coursework

Minimum credits required for the degree: 67-63

Minimum credits required for degree: 90 of which a minimum of 60 must be in Physics and Astronomy including the Graduate Core Courses, which constitute 23-27 quarter hours.

Non-Course Requirements

• Regular attendance at the Physics and Astronomy colloquia;
• Annual presentation at the Physics and Astronomy colloquia;
• Comprehensive Examination;
• Advancement to Preliminary Candidacy at the Ph.D. level;
• Formation of the Dissertation Committee;
• Passing Oral Dissertation Research Proposal;
• Advancement to Candidacy at the Ph.D. level;
• Dissertation;
• Dissertation Defense. Three departmental faculty members and an Outside Chair are required for the Oral Defense.

Other Degree Requirements

• Good academic standing: a GPA of 3.0 or higher;
• No grades lower than C- are accepted toward the degree;
• No more than one-fourth of the hours accepted toward the degree may be of C+, C, or C- grade;

MASTER OF SCIENCE IN PHYSICS

The Department of Physics and Astronomy offers a Master of Science (M.S.) in Physics that prepares the student for a wide variety of jobs in industry, government and educational institutions. Our graduates have obtained industrial or governmental laboratory research positions, entered pre-college or community college teaching, joined planetarium or museum staffs, and become technical representatives of various organizations. With complementary courses in education, M.S. graduates are well qualified to teach at the secondary level. The M.S. in Physics is also a popular course of study and professional improvement for people already working in industry. For those currently employed, research projects can usually be matched to the employer’s programs, and often someone from the industry can serve as co-advisor so that the continuing education benefits both the student and the employer.

Degree Requirements
Coursework Requirements
Both 4000- and 3000-graduate level courses may be applied toward the degree, with the approval of the Graduate Committee or the Master’s Committee.

Graduate Core Courses

Physics & Astronomy Graduate Core Courses are the following 9 courses (23-27 qtr hrs) that all students are expected to take during the first two years in the program:

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<td>3</td>
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</table>
Minimum credits required for degree: 45 including the Graduate Core Courses, which constitute 23-27 quarter hours

Non-coursework Requirements

Option I (Research Thesis)

- Comprehensive Examination;
- Advancement to Candidacy at the M.S. level;
- Formation of the Masters Committee;
- Thesis;
- Thesis Defense. Two departmental faculty members and an Outside Chair are required for the Oral Thesis Defense.

Option II (No thesis)

- Comprehensive Examination;
- Advancement to Candidacy at the M.S. level;
- Oral Final Examination covering course work. Two departmental faculty members are required for the Oral Examination.

Other Degree Requirements

- Good academic standing: a GPA of 3.0 or higher;
- No grades lower than C- are accepted toward the degree;
- No more than one-fourth of the hours accepted toward the degree may be of C+, C, or C- grade;
- Regular attendance at the Physics and Astronomy colloquia.

Courses

PHYS 3111 Quantum Physics I (4 Credits)
First of a two-quarter sequence. The Schrödinger equation: interpretation of wave functions; the uncertainty principle; stationary states; the free particle and wave packets; the harmonic oscillator; square well potentials. Hilbert space: observables, commutator algebra, eigenfunctions of a Hermitian operator; the hydrogen atom and hydrogenic atoms. Prerequisites: PHYS 2252, PHYS 2260, PHYS 2556, PHYS 3612 and MATH 2070.

PHYS 3112 Quantum Physics II (4 Credits)
Second of a two-quarter sequence. Angular momentum and spin; identical particles; the Pauli exclusion principle; atoms and solids: band theory; perturbation theory; the fine structure of hydrogen; the Zeeman effect; hyperfine splitting; the variational principle; the WKB approximation; tunneling; time dependent perturbation theory; emission and absorption of radiation. Scattering: partial wave analysis; the Born approximation. Prerequisite: PHYS 3111.

PHYS 3251 Astrophysics: Radiative Processes (4 Credits)
Because light is the primary means by which astronomers learn about the Universe, understanding the production and subsequent behavior of light is key to interpreting astronomical observations. This course introduces students to the physics of astrophysical radiation and its interaction with matter as it travels from its source to our detectors. Topics may include radiative transfer, emission and absorption processes, Compton processes, synchrotron radiation, thermodynamic equilibrium, radiative and collisional excitation, and spectroscopy of atoms and molecules. The course is aimed at advanced undergraduates, as well as graduate students focusing on astrophysics research. Prerequisites: PHYS 2252 and consent of instructor.

PHYS 3252 Astrophysics: Observations (4 Credits)
Astronomy is fundamentally an observational science and as such it is important for practitioners to understand how their data are collected and analyzed. This course is therefore a comprehensive review of current observational techniques and instruments, aimed at advanced undergraduates, as well as graduate students focusing on astrophysics research. This class introduces students to the capabilities and limitations of different types of instruments while exploring the sources and types of noise and providing statistical tools necessary for interpreting observational data. Prerequisites: PHYS 2252 and consent of instructor.

PHYS 3270 Workshop: Practical Astronomy (1-5 Credits)
Capstone coursework featuring studies in experimental, computational, and/or theoretical work in astronomy and astrophysics.
PHYS 3311 Advanced Laboratory I (1 Credit)
First of a three-quarter sequence. Advanced experimental techniques in physics. Meets with PHYS 2311. Prerequisite: instructor's permission.

PHYS 3312 Advanced Laboratory II (1 Credit)
Second of a three-quarter sequence. Advanced experimental techniques in physics. Meets with PHYS 2312. Prerequisite: instructor's permission.

PHYS 3313 Advanced Laboratory III (1 Credit)
Third of a three-quarter sequence. Advanced experimental techniques in physics. Meets with PHYS 2313. Prerequisite: instructor's permission.

PHYS 3510 Analytical Mechanics I (4 Credits)
Lagrangian and Hamiltonian mechanics. Prerequisites: PHYS 1113, PHYS 1213, or PHYS 1214 and MATH 2070 and consent of instructor.

PHYS 3611 Electromagnetism I (4 Credits)
First of a two-quarter sequence. Vector algebra; differential vector calculus (gradient, divergence and curl); integral vector calculus (gradient, divergence and Stokes’ Theorems); line, surface and volume integrals; Electrostatics: the electric field, electric potential, work and energy in electrostatics; method of images, boundary value problems and solutions to Laplace’s equation in Cartesian, spherical and cylindrical coordinates; multipole expansion of the electric potential; electric fields in matter: polarization; the electric displacement vector; boundary conditions, linear dielectrics. Magnetostatics: magnetic fields and forces. Prerequisites: PHYS 1113, PHYS 1213, or PHYS 1214 and MATH 2070.

PHYS 3612 Electromagnetism II (4 Credits)
Second of a two-quarter sequence. Magnetic vector potential; magnetic fields in matter: magnetization; fields of magnetized objects; linear and nonlinear magnetic materials; electromotive force, Ohm’s law; electromagnetic induction; Faraday’s law; Maxwell’s equations; the displacement current; boundary conditions; the Poynting theorem; momentum and energy density of the fields; the Maxwell stress tensor; the wave equation and electromagnetic waves in vacuum and matter; absorption and dispersion; wave guides; the potential formulation and gauge transformations; retarded potentials; dipole radiation. Prerequisite: PHYS 3611.

PHYS 3700 Advanced Topics: General (3 Credits)
Offered irregularly, depending on demand. May be taken more than once for credit. Prerequisite: instructor's permission.

PHYS 3711 Optics I (4 Credits)
First of a two-quarter sequence. Gaussian optics and ray tracing; matrix methods and application to optical design; elementary theory of aberrations; light as electromagnetic wave, diffraction and interference; interferometers and their applications. Elementary theory of coherence; selected topics. May include laboratory work as appropriate. Prerequisites: PHYS 1113, PHYS 1213 or PHYS 1214, and MATH 2070.

PHYS 3841 Thermal Physics I (4 Credits)
First of a two-quarter sequence. Laws of thermodynamics; thermal properties of gases and condensed matter; kinetic theory of gases, classical and quantum statistics. Prerequisites: PHYS 1113, PHYS 1213 or PHYS 1214 and MATH 2070.

PHYS 3991 Independent Study (1-8 Credits)

PHYS 3992 Directed Study (1-10 Credits)

PHYS 3995 Independent Research (1-10 Credits)

PHYS 4001 Introduction to Research I (1,2 Credit)
This course is the first of the 3-course sequence designed to provide the opportunity of learning fundamental skills to conduct independent research in any physical science discipline. In this course, students review essential material in mathematical physics, learn basic programming techniques and improve upon their skills in literature search and scientific writing, especially proposal writing. Special in-class seminars in collaboration with the Penrose Library and Writing and Research Center are scheduled. Student are introduced to research conducted by Physics and Astronomy faculty so that they can choose a faculty member with whom to take on a Winter Research Project during the winter interterm and winter quarter as part of Introduction to Research II. Students must prepare and submit a research proposal before the end of the fall quarter.

PHYS 4002 Introduction to Research II (1-3 Credits)
This is the second of the 3-course sequence to provide the opportunity of learning fundamental skills to conduct independent research in any physical science discipline. In this course, students conduct an independent research or study project that they have outlined in the research proposal they submitted as part of Introduction to Research I under supervision of a faculty advisor of their choosing. At the same time, students have time to review issues that we face as researchers. Prerequisites: PHYS 4001 and consent of a faculty research advisor.

PHYS 4003 Introduction to Research III (1,2 Credit)
This is the third of the 3-course sequence to provide students with the opportunity of learning fundamental skills to conduct independent research in any physical science disciplines. In this course, students complete their Winter research project conducted as part of Introduction to Research II and present the results in writing as a term paper and in oral presentation as part of the Departmental Colloquia. Special in-class sessions in collaboration with the Writing and Research Center are included. Prerequisite: PHYS 4002.

PHYS 4100 Foundations of Biophysics (3 Credits)
Focus of the course is on application of basic physics principles to the study of cells and macromolecules. Topics include diffusion, random processes, thermodynamics, reaction equilibriums and kinetics, computer modeling. Must be admitted to the MCB PhD program or related graduate program with instructor approval. Cross listed with BIOP 4100.
PHYS 4111 Quantum Mechanics I (3 Credits)
PHYS 4112 Quantum Mechanics II (3 Credits)
PHYS 4251 Intro to Astrophysics I (3 Credits)
PHYS 4252 Intro to Astrophysics II (3 Credits)
PHYS 4253 Intro to Astrophysics III (3 Credits)

PHYS 4411 Advanced Condensed Matter I (3 Credits)
Materials structure; structure analysis; elastic properties; defects; plastic mechanical properties; thermal properties and phonons; free electron gas; energy bands and Fermi surfaces; crystalline and amorphous semiconductors; quasiparticles and excitations; electrical properties and ferroelectrics; magnetic properties and ferromagnetics; classical and high-Tc superconductors; other advanced materials. Co-requisite: PHYS 4111.

PHYS 4412 Advanced Condensed Matter II (3 Credits)
Materials structure; structure analysis; elastic properties; defects; plastic mechanical properties; thermal properties and phonons; free electron gas; energy bands and Fermi surfaces; crystalline and amorphous semiconductors; quasiparticles and excitations; electrical properties and ferroelectrics; magnetic properties and ferromagnetics; classical and high-Tc superconductors; other advanced materials. Co-requisite: PHYS 4112.

PHYS 4413 Advanced Condensed Matter III (3 Credits)
Materials structure; structure analysis; elastic properties; defects; plastic mechanical properties; thermal properties and phonons; free electron gas; energy bands and Fermi surfaces; crystalline and amorphous semiconductors; quasiparticles and excitations; electrical properties and ferroelectrics; magnetic properties and ferromagnetics; classical and high-Tc superconductors; other advanced materials. Co-requisite: PHYS 4113.

PHYS 4511 Advanced Dynamics I (4 Credits)

PHYS 4611 Adv Electricity & Magnetism I (3 Credits)
PHYS 4612 Adv Electricity & Magnetism II (3 Credits)
PHYS 4750 Seminar in Physics (1 Credit)
PHYS 4811 Statistical Mechanics I (4 Credits)
Fundamentals of thermodynamics, microcanonical and canonical ensemble, quantum formulation noninteracting particle systems.

PHYS 4910 Special Topics Physics (1-5 Credits)
PHYS 4991 Independent Study (M.S.) (1-10 Credits)
PHYS 4992 Directed Study (M.S.) (1-10 Credits)
PHYS 4995 Independent Research (M.S.) (1-10 Credits)
PHYS 6991 Independent Study (Ph.D.) (1-10 Credits)
PHYS 6995 Independent Research (Ph.D.) (1-10 Credits)

Sturm College of Law

At the University of Denver Sturm College of Law, we balance rigorous academics with the demands of the outside world and help you focus on things that matter to you: your career, your future, your life in law. Our nationally ranked specialty programs provide opportunities to pursue your interest in areas such as Corporate and Commercial Law, International Legal Studies, Environmental and Natural Resources Law, Workplace Law and Constitutional Rights and Remedies. Because we recognize that a legal education grounded in practical skills training is the key to a successful legal career, we created the Experiential Advantage Curriculum which allows you to spend an entire year in real or simulated practice settings. By the time you graduate, you will have a year's worth of legal practice experience – via clinics, externships, and in-depth course simulations, including our new Semester in Practice Externship – and be poised to distinguish yourself in a competitive job market. Your time at Denver Law will be well spent – reaching within yourself while reaching out to the world.

Law
College of Law

At the University of Denver Sturm College of Law, we balance rigorous academics with the demands of the outside world and help you focus on things that matter to you: your career, your future, your life in law. Our nationally ranked specialty programs provide opportunities to pursue your interest in areas such as Corporate and Commercial Law, International Legal Studies, Environmental and Natural Resources Law, Workplace Law and Constitutional Rights and Remedies. Because we recognize that a legal education grounded in practical skills training is the key to a successful legal
career, we created the Experiential Advantage Curriculum which allows you to spend an entire year in real or simulated practice settings. By the time you graduate, you will have a year's worth of legal practice experience – via clinics, externships, and in-depth course simulations, including our new Semester in Practice Externship – and be poised to distinguish yourself in a competitive job market. Your time at Denver Law will be well spent – reaching within yourself while reaching out to the world.

College of Law Graduate Legal Studies

Office: Ricketson Law Building Suite 390
Mail Code: 2255 East Evans Avenue, Denver, CO 80208
Phone: 303-871-6249
Email: gradlegalstudies@law.du.edu
Web Site: http://www.law.du.edu/gls

Denver Law offers a number of advanced degrees (LLM and Master’s) that can supplement a student’s law degree with specialized knowledge, introduce foreign lawyers and those educated in other disciplines to the U.S. legal system, or train students in the unique rigors of tax or legal administration. It is the goal of each academic program to bridge the objectives of its students to the curriculum and the University of Denver's mission to make a meaningful impact, both locally and globally.

Juris Doctor

To be admitted to the University of Denver Sturm College of Law, you must hold a bachelor of arts or a bachelor of science degree from an accredited college or university. No undergraduate field of study is favored, based on evidence that a strong student in any major can develop the skills of writing, analysis, and persuasion necessary for success in law school.

First-Year JD Application Requirements

• Completed online application (https://os.lsac.org/release/startup.aspx?appl=4842A1). The application will include your:
  • Resume – should list employment experience, educational background and extracurricular and community activities. It should also include any honors and awards you have received. Please include dates for all items on your resume.
  • Personal statement – Keeping in mind the fact that your LSAT score and undergraduate GPA are only a part of what the Admissions Committee will consider, you should take this opportunity to explain to the committee why you should be selected for admission to Denver Law. Topics that the committee may consider helpful in evaluating your qualifications may include:
    • Significant personal experiences beyond what may be reflected in your transcripts and on your resume.
    • Characteristics and experiences that you will bring the Sturm College of Law and the legal profession that distinguish you from other applicants.
    • Long-range career plans and goals that you intend to pursue with your law degree.
    • The intellectual contribution you will make to the classroom.
  • a non-refundable application fee.

• Completed Credential Assembly Service Report from LSAC. This requires the following items:
  • Valid Law School Admissions Test (LSAT) score
  • All transcripts from any post-secondary schooling completed.
  • Two letters of recommendation from professors or employers evaluating your analytical skills, writing ability, and/or personal integrity.

Additional Requirements for International Students

• LSAC Credential Assembly Service (CAS)
  • If you have completed any post-secondary work outside the US (including its territories) or Canada, these transcripts must be submitted to the LSAC to be translated and evaluated. A foreign credential evaluation will be completed by the American Association of Collegiate Registrars and Admissions Officers and included with your CAS report.
    • We will not accept any other translation or evaluation services for the admissions process.
    • If you have questions, contact LSAC at LSACINFO@LSAC.org or

• TOEFL/IELTS
  • A TOEFL or IELTS score is required, unless you have completed a post-secondary degree at an institution whose language of instruction and testing is English. The whole program of study must have been completed in English.
    • Request that your test scores be sent from the testing organization to LSAC
      • LSAC TOEFL Code: 0058

• The University of Denver requires the following minimum scores:
  • TOEFL Paper-based test: 587
Master of Science in Legal Administration with a Concentration in Court Administration, International Court Administration, or Law Firm Administration

Applications for the MSLA degree are accepted and reviewed on a rolling basis for a start date in January, May, or August. Prospective students with completed applications are notified within 4-6 weeks.

Complete the Application Here (https://gradadmissions.du.edu/apply)

To complete the application, please submit the following through DU Graduate Application:

- **Essay:** Please upload an essay within the application explaining “Why You Wish to Pursue a Career in Legal Administration”
- **Resume:** Please upload a copy of your resume in the space provided within the application
- **Two Letters of Recommendation:** Two letters of recommendation are required. Recommenders will receive an invitation and upload their recommendations electronically once their contact information is entered into the application.
- **Official transcripts:** Please send all final and/or “in-progress” transcripts to Graduate Legal Studies (address listed). If you have questions, please email gradlegalstudies@law.du.edu.
- **Test Scores:** Test scores are not required. If you elect to submit scores, please have official LSAT, GMAT, or GRE scores mailed to Graduate Legal Studies (address listed).
- **Official TOEFL or IELTS score report:** Required for International applicants. TOEFL and IELTS proficiency requirements for English language standards for International candidates are: 100 internet-based/600 paper-based TOEFL, or 6.5 IELTS.
- **Processing Fee:** There is a $65 nonrefundable processing fee associated with an application.

Please send official transcripts and official test score reports to:

Graduate Legal Studies
University of Denver Sturm College of Law
2255 E. Evans Avenue, Suite 390
Denver, Colorado 80208-1826 USA

Applications are accepted on rolling basis. All required materials must be received by the following deadlines:

- **Fall semester**
  - June 15th for International Applicants
  - July 27th for US Citizens/Residents
- **Spring semester**
  - November 7th for International Applicants
  - December 12th for US Citizens/Residents
- **Summer semester:** Contact Graduate Legal Studies for deadlines

Certificate in Legal Administration with a Concentration in Court Administration, International Court Administration, Law Firm Administration or Small Practice Management

To complete the application (https://gradadmissions.du.edu/apply), please submit the following:

- **Essay:** Please upload an essay within the application explaining “Why You Wish to Pursue a Career in Legal Administration”
- **Resume:** Please upload a copy of your resume in the space provided within the application
- **Two Letters of Recommendation:** Two letters of recommendation are required. Recommenders will receive an invitation and upload their recommendations electronically once their contact information is entered into the application.
- **Official transcripts:** Please send all final and/or “in-progress” transcripts to Graduate Legal Studies (address listed) from any undergraduate or graduate institutions attended (including post-secondary non-degree coursework). You may upload unofficial copies of transcripts and proof of degree to your online application.
- **International applicants must submit an official TOEFL or IELTS score report.** MSLA program proficiency requirements for English language standards for International candidates are: 100 internet-based/600 paper-based TOEFL, or 6.5 IELTS.
• **Processing Fee**: There is a $65 nonrefundable processing fee associated with an application.

Please send official transcripts and official test score reports to:

Graduate Legal Studies  
University of Denver Sturm College of Law  
2255 E. Evans Avenue, Suite 390  
Denver, Colorado 80208-1826 USA

Applications are accepted on rolling basis. All required materials must be received by the following deadlines:

- Fall semester start  
  - June 15th for International Applicants  
  - July 27th for US Citizens/Residents

- Spring semester  
  - November 7th for International Applicants  
  - December 12th for US Citizens/Residents

- Summer semester: contact Graduate Legal Studies department for deadlines

**ADVANCED STANDING Master of Science in Legal Administration with a Concentration in Court Administration, International Court Administration, or Law Firm Administration**

To complete the application (https://gradadmissions.du.edu/apply), please submit the following:

- **Essay**: Please upload an essay within the application explaining “Why You Wish to Pursue a Career in Legal Administration”

- **Resume**: Please upload a copy of your resume in the space provided within the application

- **Two Letters of Recommendation**: Two letters of recommendation are required. Recommenders will receive an invitation and upload their recommendations electronically once their contact information is entered into the application.

- **Official transcripts**: Please send all final and/or “in-progress” transcripts to Graduate Legal Studies (address listed) from any undergraduate or graduate institutions attended (including post-secondary non-degree coursework). You may upload unofficial copies of transcripts and proof of degree to your online application. Please note: A J.D. degree (or equivalent primary law degree from a foreign institution) is required for admission to the Advanced Standing MSLA Program

- International applicants must submit an official TOEFL or IELTS score report directly to the Graduate Legal Studies department from ETS or other testing authority (institution code 4842-03). MSLA program proficiency requirements for English language standards for International candidates are: 100 internet-based/600 paper-based TOEFL, or 6.5 IELTS.

- **Processing Fee**: There is a $65 nonrefundable processing fee associated with an application.

Please send official transcripts and official test score reports to:

Graduate Legal Studies  
University of Denver Sturm College of Law  
2255 E. Evans Avenue, Suite 390  
Denver, Colorado 80208-1826 USA

Applications are accepted on rolling basis. All required materials must be received by the following deadlines:

- Fall semester start  
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  - July 27th for US Citizens/Residents

- Spring semester  
  - November 7th for International Applicants  
  - December 12th for US Citizens/Residents

- Summer semester: contact Graduate Legal Studies department for deadlines

**Master of Laws (LLM) in International Business Transactions**

A candidate for the LLM must have earned a Juris Doctorate (JD) or equivalent degree from a law school that is a member of the Association of American Law Schools or is approved by the American Bar Association, or in the case of a foreign candidate, must have completed a law degree with high academic standards from a recognized foreign university.
The IBT LLM will conduct a holistic review of applicants, and will consider, among other things: JD or JD-equivalent GPA, TOEFL/IELTS (if applicable), work experience, academic records, letters of recommendation and personal statement of interest.

In order to be considered for admission, applicant must submit:

- **Completed application** (through LSAC LLM (http://www.lsac.org/llm) or DU Graduate Admissions (https://gradadmissions.du.edu/apply) application);
- $65 non-refundable application fee
- **Final and/or “in-progress” official transcripts with Proof of Diploma/Certificate** for all post-secondary coursework, including proof of JD or JD-equivalent degree; international transcripts not issued in English must be accompanied by a certified English translation; applicants may upload unofficial transcripts for application review if using DU Graduate Application
- **Personal statement/essay** of interest and purpose (which, among other things, should address future goals and use of the degree);
- **Resume or CV**
- At least two letters of recommendation
- International applicants must submit an official TOEFL or IELTS score report directly to the Graduate Legal Studies department from ETS or other testing authority (institution code 4842-03). IBT LLM proficiency requirements for English language standards for International candidates are: 85 internet-based/567 paper-based TOEFL, or 6.5 IELTS; English Conditional Admission option http://www.du.edu/learn/graduates/internationalapplicants.html
- Interview/writing samples may be requested
- Tuition Deposit: If accepted into the program, a $300 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Applications are accepted on rolling basis. All required materials must be received by the following deadlines:

- Fall semester start
  - June 15th for International Applicants
  - July 27th for US Citizens/Residents
- Spring semester
  - November 7th for International Applicants
  - December 12th for US Citizens/Residents
- Summer semester: contact Graduate Legal Studies department for pre-approval and deadlines

**Master of Laws (LLM) in Environmental and Natural Resources Law & Policy**

A candidate for the LLM must have earned a Juris Doctorate (JD) or equivalent degree from a law school that is a member of the Association of American Law Schools or is approved by the American Bar Association, or in the case of a foreign candidate, must have completed a law degree with high academic standards from a recognized foreign university.

The ENRLP LLM will conduct a holistic review of applicants, and will consider, among other things: JD or JD-equivalent GPA, TOEFL/IELTS (if applicable), work experience, academic records, letters of recommendation and personal statement of interest.

In order to be considered for admission, applicant must submit:

- **Completed application** (through LSAC LLM (http://www.lsac.org/llm) or DU Graduate Admissions application (https://gradadmissions.du.edu/apply));
- $65 non-refundable application fee
- **Final and/or “in-progress” official transcripts with Proof of Diploma/Certificate** for all post-secondary coursework, including proof of JD or JD-equivalent degree; international transcripts not issued in English must be accompanied by a certified English translation; applicants may upload unofficial transcripts for application review if using DU Graduate Application
- **Personal statement/essay** of interest and purpose (which, among other things, should address future goals and use of the degree);
- **Resume or CV**
- At least two letters of recommendation
- International applicants must submit an official TOEFL or IELTS score report directly to the Graduate Legal Studies department from ETS or other testing authority (institution code 4842-03). ENRLP LLM proficiency requirements for English language standards for International candidates are: 80 internet-based/550 paper-based TOEFL, or 6.0 IELTS; English Conditional Admission option http://www.du.edu/learn/graduates/internationalapplicants.html
- Interview/writing samples may be requested
- Tuition Deposit: If accepted into the program, a $300 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.
Applications are accepted on rolling basis. All required materials must be received by the following deadlines:

- Fall semester start
  - June 15th for International Applicants
  - July 27th for US Citizens/Residents
- Spring semester
  - November 7th for International Applicants
  - December 12th for US Citizens/Residents
- Summer semester: contact Graduate Legal Studies department for pre-approval and deadlines

Master of Legal Studies in Environmental and Natural Resources Law & Policy;
Certificate of Studies in Natural Resources Law

A candidate for the Master’s or Certificate of Studies must have earned a Bachelor’s degree or equivalent degree from an accredited institution (those holding a primary law degree are eligible for the Certificate option only).

The ENRLP program will conduct a holistic review of applicants, and will consider, among other things: GPA, TOEFL/IELTS (if applicable), work experience, academic records, letters of recommendation and personal statement of interest.

In order to be considered for admission, applicant must submit:

- **Completed application** (DU Graduate Admissions application (https://gradadmissions.du.edu/apply));
- $65 non-refundable application fee
- **Final and/or “in-progress” official transcripts with Proof of Diploma/Certificate** for all post-secondary coursework; international transcripts not issued in English must be accompanied by a **certified English translation**; applicants may upload unofficial transcripts for application review
- **Personal statement/essay** of interest and purpose (which, among other things, should address future goals and use of the degree);
- **Resume or CV**
- At least **two letters of recommendation**
- International applicants must submit an **official TOEFL or IELTS** score report directly to the Graduate Legal Studies department from ETS or other testing authority (institution code 4842-03). ENRLP LLM proficiency requirements for English language standards for International candidates are: 80 internet-based/550 paper-based TOEFL, or 6.0 IELTS; English Conditional Admission option [http://www.du.edu/learn/graduates/internationalapplicants.html](http://www.du.edu/learn/graduates/internationalapplicants.html)
- Interview/writing samples may be requested
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  - November 7th for International Applicants
  - December 12th for US Citizens/Residents
- Summer semester: contact Graduate Legal Studies department for pre-approval and deadlines

Master of Legal Studies (General)

A candidate for the Master’s must have earned a Bachelor’s degree or equivalent degree from an accredited institution.

The Master of Legal Studies program will conduct a holistic review of applicants, and will consider, among other things: GPA, TOEFL/IELTS (if applicable), work experience, academic records, letters of recommendation and personal statement of interest.

In order to be considered for admission, applicant must submit:

- **Completed application** (DU Graduate Admissions application (https://gradadmissions.du.edu/apply));
- $65 non-refundable application fee
- **Final and/or “in-progress” official transcripts with Proof of Diploma/Certificate** for all post-secondary coursework; international transcripts not issued in English must be accompanied by a **certified English translation**; applicants may upload unofficial transcripts for application review-only
- **Personal statement/essay** of interest and purpose (which, among other things, should address future goals and use of the degree);
- **Resume or CV**
• At least two letters of recommendation
• International applicants must submit an official TOEFL or IELTS score report directly to the Graduate Legal Studies department from ETS or other testing authority (institution code 4842-03). MLS proficiency requirements for English language standards for international candidates are: 85 internet-based/567 paper-based TOEFL, or 6.5 IELTS; English Conditional Admission option http://www.du.edu/learn/graduates/internationalapplicants.html
• Interview/writing samples may be requested
• Tuition Deposit: If accepted into the program, a $300 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Applications are accepted on rolling basis. All required materials must be received by the following deadlines:

• Fall semester start
  – June 15th for International Applicants
  – July 27th for US Citizens/Residents
• Spring semester
  – November 7th for International Applicants
  – December 12th for US Citizens/Residents
• Summer semester: contact Graduate Legal Studies department for pre-approval and deadlines

Master of Laws (LLM) in American Law Practice
A candidate for the LLM must have earned a law degree (U.S. JD equivalent) with high academic standards from a recognized foreign university. The degree is aimed at foreign-trained attorneys.

The ALP LLM will conduct a holistic review of applicants, and will consider, among other things: JD or JD-equivalent GPA, TOEFL/IELTS (if applicable), work experience, academic records, letters of recommendation and personal statement of interest.

In order to be considered for admission, applicant must submit:

• Completed application (through LSAC LLM (http://www.lsac.org/llm) or DU Graduate Admissions (https://gradadmissions.du.edu/apply) application);
• $65 non-refundable application fee
• Final and/or “in-progress” official transcripts with Proof of Diploma/Certificate for all post-secondary coursework, including proof of JD or JD-equivalent degree; international transcripts not issued in English must be accompanied by a certified English translation; applicants may upload unofficial transcripts for application review if using DU Graduate Application
• Personal statement/essay of interest and purpose (which, among other things, should address future goals and use of the degree);
• Resume or CV
• At least two letters of recommendation
• International applicants must submit an official TOEFL or IELTS score report directly to the Graduate Legal Studies department from ETS or other testing authority (institution code 4842-03). ALP LLM proficiency requirements for English language standards for international candidates are: 85 internet-based/567 paper-based TOEFL, or 6.5 IELTS; English Conditional Admission option http://www.du.edu/learn/graduates/internationalapplicants.html
• Interview/writing samples may be requested
• Tuition Deposit: If accepted into the program, a $300 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Applications are accepted on rolling basis. All required materials must be received by the following deadlines:

• Fall semester start
  – June 15th for International Applicants
  – July 27th for US Citizens/Residents
• Spring semester
  – November 7th for International Applicants
  – December 12th for US Citizens/Residents
• Summer semester: contact Graduate Legal Studies department for pre-approval and deadline

Certificate in Corporate and Commercial Law
A candidate for the Certificate must have earned a Juris Doctorate (JD) or equivalent degree from a law school that is a member of the Association of American Law Schools or is approved by the American Bar Association, or in the case of a foreign candidate, must have completed a law degree with high academic standards from a recognized foreign university.
The CCL program will conduct a holistic review of applicants, and will consider, among other things: JD or JD-equivalent GPA, TOEFL/IELTS (if applicable), work experience, academic records, letters of recommendation and personal statement of interest.

In order to be considered for admission, applicant must submit:

- **Completed application** (through DU Graduate Admissions (https://gradadmissions.du.edu/apply) application);
- $65 non-refundable application fee
- **Final and/or “in-progress” official transcripts with Proof of Diploma/Certificate** for all post-secondary coursework, including proof of JD or JD-equivalent degree; international transcripts not issued in English must be accompanied by a **certified English translation**; applicants may upload unofficial transcripts for application review
- **Resume or CV**
- International applicants must submit an **official TOEFL or IELTS score report** directly to the Graduate Legal Studies department from ETS or other testing authority (institution code 4842-03). CCL Certificate proficiency requirements for English language standards for International candidates are: 80 internet-based/550 paper-based TOEFL, or 6.0 IELTS;
- Interview/writing samples may be requested
- Tuition Deposit: If accepted into the program, a $300 deposit is due to reserve your seat. This deposit is non-refundable and is credited toward your first tuition payment.

Applications are accepted on rolling basis. All required materials must be received by the following deadlines:

- **Fall semester start**
  - June 15th for International Applicants
  - July 27th for US Citizens/Residents
- **Spring semester**
  - November 7th for International Applicants
  - December 12th for US Citizens/Residents
- **Summer semester:** contact Graduate Legal Studies department for pre-approval and deadlines

### Juris Doctor

#### Degree Requirements

The Sturm College of Law awards the degree of Juris Doctor to those students who successfully fulfill the following requirements:

- Completion of ninety [90] semester credit hours with passing grades. Only a grade of F constitutes a failing grade for purposes of this requirement. Students receive no credit hours toward graduation for courses in which they earn a grade of F.
- Maintenance of the **required cumulative grade point average:** For students who enter the Sturm College of Law in the 2007 Fall, or any subsequent, semester: a cumulative GPA of 2.3 or higher
- **Successful completion of all required courses** (as defined in the chart that follows this section). A student who receives a grade of F in a required course must retake the course and earn a passing grade. Both grades remain on the student’s transcript and affect the student’s cumulative GPA.
- **Completion of the Upper Level Legal Writing requirement**
- **Completion of the Public Service requirement**
- **Completion of the Professional Skills Requirement.** [All students entering the College of Law in Fall 2013 through Spring 2015 must successfully complete a curricular offering of two or more semester credit hours. A list of qualifying courses will be made available.]
- **Completion of Experiential Coursework Requirement.** [All students entering the College of Law in Summer 2015 or thereafter must successfully complete a curricular offering of six or more semester credit hours. A list of qualifying courses will be made available each semester prior to registration.]
- **Resolution of all financial obligations to the University of Denver**
- Completion of all credit hours within a specified time period following initial matriculation at law school. The American Bar Association requires law students to complete their legal educations within seven years. Full-time day-division students at the Sturm College of Law normally meet all JD requirements by the end of their third year. Part-time evening-division students at the Sturm College of Law normally complete all JD requirements by the end of their fourth year.

#### Good Standing

All students who enter the Sturm College of Law in the 2007 Fall, or any subsequent, semester must maintain a cumulative grade point average of at least a 2.3 to remain in good standing.

Students may check their Degree Audit on MyWeb. Students have the responsibility to check MyWeb carefully and to contact the Registrar’s Office if students note any discrepancy between their understanding and their Degree Audit. Students have the sole responsibility to ensure that they have completed all graduation requirements.
Coursework Requirements

Required Courses:

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>LAWS 4385</td>
<td>Lawyering Process I</td>
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<td>LAWS 4120</td>
<td>Civil Procedure</td>
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<td>LAWS 4175</td>
<td>Contracts</td>
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<td>LAWS 4195</td>
<td>Criminal Law</td>
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<td>LAWS 4490</td>
<td>Property</td>
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<td>LAWS 4610</td>
<td>Torts</td>
<td>4</td>
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<td>LAWS 4386</td>
<td>Lawyering Process II</td>
<td>3</td>
</tr>
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<td>LAWS 4164</td>
<td>Constitutional Law</td>
<td>4</td>
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<td>LAWS 4425</td>
<td>Legal Profession</td>
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<tr>
<td>LAWS 4235</td>
<td>Evidence</td>
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<td>LAWS 4025</td>
<td>Administrative Law</td>
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Electives

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<tbody>
<tr>
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Total Credits 90

Public Service Requirement

All law students must satisfy the Public Service Requirement (PSR) in order to graduate. To satisfy the requirement, each student must perform a minimum of 50 hours of supervised, uncompensated, legal public service work. You must complete 22 academic credit hours prior to satisfying the requirement.

You can satisfy the requirement in one of the following ways:

1. Registering for, and passing, an externship for credit at a government agency, judicial chambers, nonprofit organization, or private firm (as long as the 50 hours is pro bono at the firm) via the Legal Externship Office (http://www.law.du.edu/index.php/legal-externship-program).
2. Registering for, and receiving a grade of C or better, in a clinic via the Student Law Office (http://www.law.du.edu/index.php/law-school-clinical-program).
3. Registering for, and receiving a grade of C or better, in an eligible course. Eligible courses currently include: Federal Appellate Advocacy, Homeless Advocacy Seminar, International Criminal Law Practicum, Live Client Lab, Low-Income Taxpayer Clinic Mediation Practicum, Poverty and Low Wage Work in America, Public Interest Lawyering Lab, Probate Practicum, Street Law, Trial Practice III: Instructor’s Practicum, Trial Practice III: Mentor’s Practicum, Wills Lab, and the Workplace Rights Project Lab.
4. Volunteering, and engaging in 50 hours of supervised, uncompensated legal work, at a government agency, judicial chambers, nonprofit organization, or private firm, as long as the work at the firm is pro bono. This is known as a Volunteer Legal Experience.

**In order to satisfy the requirement via option #4, a Volunteer Legal Experience, you must abide by all rules and regulations for the Public Service Requirement indicated on our website (https://www.law.du.edu/index.php/public-service-requirement). You must complete an online student certification and evaluation form about your volunteer experience. Your supervisor, who must be licensed to practice law for at least three years, must complete an online supervisor certification and evaluation form which asks for the number of hours worked (must be at least 50), the timeframe in which the work was completed, and an evaluation of the student’s work. When both of these forms are completed and submitted online, and it is confirmed that the work satisfies the requirement, at the conclusion of the relevant semester, your Academic Progress Report will reflect that you satisfied the PSR. Students engaging in this option are strongly encouraged to check in with the Public Interest Office prior to do the work to confirm it is eligible.

Please note: You are not required to complete the steps outlined above if you are satisfying the public service requirement via options #1, 2, or 3 above. For these options, your Academic Progress Report will reflect that you satisfied the PSR via a PUBL designation at the conclusion of the relevant semester.

Students are strongly encouraged to complete this requirement before their last semester of law school.

For more information about the PSR, visit this page (http://www.law.du.edu/index.php/public-service-requirement) and/or contact the Director of Public Interest at publicinterest@law.du.edu.

Upper Level Legal Writing Requirement

All law students must satisfy the Upper Level Legal Writing requirement prior to graduation. The requirement provides students additional instruction and practice in research, organization and expression.

To satisfy the requirement, each student must:

- Complete a written product of at least ten (10) pages on an appropriate legal subject determined by a professor and the student.
• Secure the professor’s written comments as to the substance and style of the student’s written project
• Prepare a second draft of the written project in response to the professor’s comments to the professor’s satisfaction.

Students may satisfy the Upper Level Legal Writing requirement in the following ways:

1. **Advanced Legal Writing Course**
   A student can enroll in and successfully complete the upper level legal writing course entitled “Advanced Legal Writing.”

2. **Designated Seminar Classes or Clinics**
   A student can enroll in and successfully complete a seminar that satisfies the Upper Level Legal Writing requirement. The student also can enroll in and successfully complete a clinical course that satisfies the Upper Level Legal Writing requirement. Clinics and seminars do not necessarily satisfy the Upper Level Legal Writing requirement. Students must clarify with individual professors whether the seminar or clinic will satisfy the Upper Level Legal Writing requirement. A student who elects to fulfill the Upper Level Legal Writing requirement under this option must make certain that the Registrar’s Office receives certification from the professor that the student successfully fulfilled the Upper Level Legal Writing requirement. Only after the Registrar’s Office has received official certification has the student completed this graduation requirement.

3. **Directed Research Projects**
   The student may enroll in and successfully complete a 2-3 credit hour Directed Research Project with a full-time faculty member. If the student successfully completes a Directed Research project that fulfills the Upper Level Legal Writing requirement, the professor must certify to the Registrar that the student has completed the Upper Level Legal Writing requirement. A student who elects to fulfill the Upper Level Legal Writing requirement under this option must make certain that the Registrar’s Office receives certification from the professor that the student successfully fulfilled the Upper Level Legal Writing requirement. Only after the Registrar’s Office has received official certification has the student completed this graduation requirement.

4. **Certification by Professor**
   Any full-time or adjunct professor can offer a student the opportunity to complete the Upper Level Legal Writing requirement within the course taught by the professor or independently of the course taught by the professor. Upon successful completion of the Upper Level Legal Writing requirement, the professor must certify to the Registrar that the student has completed the requirement. A student who elects to fulfill the Upper Level Legal Writing requirement under this option must make certain that the Registrar’s Office receives certification from the professor that the student successfully fulfilled the Upper Level Legal Writing requirement. Only after the Registrar’s Office has received official certification has the student completed this graduation requirement.

**Professional Skills Requirement**

1. All law students entering the College of Law in the Fall 2013 or Fall 2014 Term must successfully complete a curricular offering of two or more semester credits hours that provides substantial instruction in professional skills generally regarded as necessary for effective and responsible participation in the legal profession beyond legal research, writing, and analysis.

2. Professional skills include pre-trial practice, trial advocacy, appellate advocacy, alternate dispute resolution processes, client communication, counseling, negotiation, legal document drafting, fact investigation, interaction with regulators (such as drafting of regulatory ruling requests), interviewing, law practice management, legal problem solving, recognizing and resolving ethical dilemmas, and similar skills.

3. To fulfill this requirement, a curricular offering must provide at least one credit (700 classroom minutes) of instruction in the performance of professional skills beyond legal research, writing, and analysis, and must engage each student in multiple (more than one) hands-on skills performances that are evaluated by the instructor.

4. The College of Law Registrar shall maintain a list of courses that satisfy the professional skills requirement on the College of Law webpage. The College of Law Modern Learning Committee and Curriculum Committee shall be responsible for approving courses that satisfy the professional skills requirement, and for periodically updating that list. Each course description for each class that satisfies the professional skills requirement shall indicate that it does so.

A student may not use the same curricular offering to satisfy both the upper level writing requirement and the professional skills requirement.

**Experiential Coursework Requirement**

1. All law students entering the College of Law in the Fall 2015 Term or thereafter must successfully complete a curricular offering of six or more semester credits hours of experiential coursework.

2. Experiential courses include simulations, clinics, and field placements. To satisfy this requirement, the course must be primarily experiential in nature and must (a) integrate doctrine, theory, skills, and legal ethics, and engage students in the performance of professional skills, which include knowledge and understanding of the law, legal analysis and research, problem-solving, written and oral advocacy, and the exercise of proper professional and ethical responsibilities to clients and the legal system; (b) develop the concepts underlying the professional skills being taught; (c) provide multiple opportunities for performance; and (d) provide opportunities for self-evaluation.

3. The College of Law Registrar shall maintain a list of courses that satisfy the experiential skills requirement on the College of Law webpage. The College of Law Modern Learning Committee and Curriculum Committee shall be responsible for approving courses that satisfy the experiential requirement, and for periodically updating that list. Each course description for each class that satisfies the experiential requirement shall indicate that it does so.

4. A student may not use the same curricular offering to satisfy both the upper level writing requirement and the experiential requirement.
Master of Laws (LLM) in American Law Practice

Degree Requirements

All students must complete a minimum of 24 credits in the program curriculum.

Coursework Requirements

This customizable LLM degree introduces foreign-trained attorneys to the US Legal framework and allows for area specializations with a particular emphasis on College of Law’s Experiential Advantage Curriculum. Course requirements vary based on individual student’s objectives. Sample concentrations are listed below:

Course requirements vary by area concentrations.

Corporate/Commercial Law Track:

LAWS 4175 Contracts 4
LAWS 4190 Corporations 4

Strongly Recommended: LAWS 4651 Advanced Legal Writing

Litigation Track:

LAWS 4120 Civil Procedure 4
LAWS 4235 Evidence 4

Environmental and Natural Resources Law Track:

LAWS 4490 Property 4
LAWS 4220 Environmental Law 3

The remaining credits are comprised of COL elective offerings. Additional specializations/course plans are available by program approval. 16-17

**All international students must complete LAWS 4064 Introduction to the American Legal System for 3 semester credits (certain exceptions may apply).

Total Credits 24

A full-time student is expected to earn the degree in one academic year (or over two consecutive semesters); a part-time student can earn the degree in 2 years. Program time limit is 3 years from the time of matriculation. Fall and Spring semester matriculation is available (Summer start by department permission only).

Students must maintain an overall GPA of 2.7 to remain in good standing.

Master of Laws in Clinical Legal Education

Degree Requirements

All students must complete a minimum of 48 credits in the program curriculum.

Master of Laws (LLM) in Environmental and Natural Resources Law & Policy

Degree Requirements

All students must complete a minimum of 24 credits in the program curriculum.

Coursework Requirements

Core Coursework Requirements

LAWS 4137 Comparative Environmental Law 3
LAWS 4064 Introduction to the American Legal System (*Required for all international students) 3

Elective Requirements

For the remaining elective course requirement students may customize their course of study, depending upon individual professional goals. 21

The College of Law offers over forty courses in advanced degree programs, divided equally between international and domestic issues.

LAWS 4009 Community Expectations in Sustainable Development of Natural Resources
LAWS 4014 Emerging International Standards for Sustainable Development of Natural Resources
LAWS 4131 Commercial Law Survey
LAWS 4133 Corporate Social Responsibility
LAWS 4347 International Environmental Law in Latin America
LAWS 4462 Negotiating Natural Resources Agreements
LAWS 4506 Energy & Project Finance Law
LAWS 4527 School of Mines Exchange
<table>
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<tr>
<td>LAWS 4589</td>
<td>LLM and Master's Internship</td>
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<td>LAWS 4802</td>
<td>Environmental Law Clinic Seminar</td>
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<tr>
<td>LAWS 4889</td>
<td>Water Law Review</td>
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<tr>
<td>LAWS 4999</td>
<td>Directed Research</td>
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<td>LAWS 5025</td>
<td>Externship</td>
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<td>LAWS 5031</td>
<td>Legal Externship Seminar</td>
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<tr>
<td>LAWS 4060</td>
<td>Alternative Dispute Resolution</td>
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<td>LAWS 4019</td>
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<td>LAWS 4135</td>
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<td>LAWS 4160</td>
<td>Conflict of Laws</td>
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<td>LAWS 4179</td>
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<tr>
<td>LAWS 4383</td>
<td>Doing Business-Latin America</td>
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<td>LAWS 4210</td>
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<td>LAWS 4219</td>
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<td>LAWS 4206</td>
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<td>LAWS 4037</td>
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<td>LAWS 4232</td>
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<td>LAWS 4251</td>
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<td>LAWS 4259</td>
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<td>LAWS 4380</td>
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<td>LAWS 4265</td>
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<td>LAWS 4342</td>
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<td>LAWS 4288</td>
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</table>

Total Credits 27

A full-time student is expected to earn the degree in one academic year (or over two consecutive semesters); a part-time student can earn the degree in 2 years. Program time limit is 3 years from the time of matriculation. Fall and Spring semester matriculation is available (Summer start by department permission only).

Students must maintain an overall GPA of 2.7 to remain in Good Standing.

Dual JD/ ENRLP LLM degree available to those pursuing a JD at the Sturm College of Law.

**Master of Laws in International Business Transactions (Roche IBT LLM)**

**Degree Requirements**

All students must complete a minimum of 24 credits in the program curriculum.

**Coursework Requirements**

**Core Coursework Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4315</td>
<td>International Business Transactions: Survey Course</td>
</tr>
</tbody>
</table>

3

**All international students must complete LAWS 4064 Introduction to the American Legal System for 3 semester credits (certain exceptions may apply).**

**Drafting/Negotiation Requirement**

Select one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LAWS 4700</td>
<td>Special Topics</td>
</tr>
<tr>
<td>LAWS 4012</td>
<td>Protecting Intellectual Property in International Business Transactions</td>
</tr>
<tr>
<td>LAWS 4178</td>
<td>Contracts Drafting</td>
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<tr>
<td>LAWS 4181</td>
<td>Corporate Drafting Seminar</td>
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<tr>
<td>LAWS 4462</td>
<td>Negotiating Natural Resources Agreements</td>
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</tbody>
</table>

**Elective Requirements**

18 elective credits from the following: 18
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LAWS 4341</td>
<td>International Commercial Arbitration</td>
</tr>
<tr>
<td>LAWS 4131</td>
<td>Commercial Law Survey</td>
</tr>
<tr>
<td>LAWS 4190</td>
<td>Corporations</td>
</tr>
<tr>
<td>LAWS 4347</td>
<td>International Environmental Law in Latin America</td>
</tr>
<tr>
<td>LAWS 4425</td>
<td>Legal Profession</td>
</tr>
<tr>
<td>LAWS 4465</td>
<td>Oil and Gas Law</td>
</tr>
<tr>
<td>LAWS 4506</td>
<td>Energy &amp; Project Finance Law</td>
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<tr>
<td>LAWS 4552</td>
<td>Securities Law Seminar</td>
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<tr>
<td>LAWS 4589</td>
<td>LLM and Master's Internship</td>
</tr>
<tr>
<td>LAWS 4999</td>
<td>Directed Research</td>
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<td>LAWS 5025</td>
<td>Externship</td>
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<tr>
<td>LAWS 5031</td>
<td>Legal Externship Seminar</td>
</tr>
<tr>
<td>LAWS 4010</td>
<td>International Dispute Resolution</td>
</tr>
<tr>
<td>LAWS 4139</td>
<td>Commercial Law for Foreign Investors in Guatemala</td>
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<tr>
<td>LAWS 5029</td>
<td>Semester in Practice</td>
</tr>
<tr>
<td>LAWS 4320</td>
<td>International Law</td>
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<tr>
<td>LAWS 4351</td>
<td>International Mergers and Acquisitions</td>
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<tr>
<td>LAWS 4707</td>
<td>Special Topics</td>
</tr>
<tr>
<td>LAWS 4379</td>
<td>International Trade Law</td>
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<tr>
<td>LAWS 4318</td>
<td>International Business Transactions: Federal Regulation</td>
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<td>LAWS 4006</td>
<td>Accounting for Lawyers</td>
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<td>LAWS 4035</td>
<td>Advanced Legal Research</td>
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<td>LAWS 4048</td>
<td>Agency Partnership &amp; LLC</td>
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<td>LAWS 4060</td>
<td>Alternative Dispute Resolution</td>
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<td>LAWS 4070</td>
<td>Antitrust and Unfair Competition</td>
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<td>LAWS 4090</td>
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<tr>
<td>LAWS 4100</td>
<td>Basic Tax</td>
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<tr>
<td>LAWS 4105</td>
<td>Business &amp; Commercial Law Sem</td>
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<td>LAWS 4185</td>
<td>Business Entities</td>
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<td>LAWS 4441</td>
<td>Business Mergers &amp; Acquisition</td>
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<td>LAWS 4110</td>
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<td>LAWS 4143</td>
<td>Commercial Paper</td>
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<tr>
<td>LAWS 4129</td>
<td>Comparative Corporate Law Seminar</td>
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<tr>
<td>LAWS 4137</td>
<td>Comparative Environmental Law</td>
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<td>LAWS 4135</td>
<td>Comparative Law</td>
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<tr>
<td>LAWS 4160</td>
<td>Conflict of Laws</td>
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<tr>
<td>LAWS 4214</td>
<td>Copyright Law</td>
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<tr>
<td>LAWS 4133</td>
<td>Corporate Social Responsibility</td>
</tr>
<tr>
<td>LAWS 4709</td>
<td>Special Topics</td>
</tr>
<tr>
<td>LAWS 4186</td>
<td>Corporate Taxation I</td>
</tr>
<tr>
<td>LAWS 4383</td>
<td>Doing Business-Latin America</td>
</tr>
<tr>
<td>LAWS 4703</td>
<td>Special Topics</td>
</tr>
<tr>
<td>LAWS 4205</td>
<td>Employment Law Survey</td>
</tr>
<tr>
<td>LAWS 4037</td>
<td>European Union Environmental Law and Policy</td>
</tr>
<tr>
<td>LAWS 4232</td>
<td>European Union Law</td>
</tr>
<tr>
<td>LAWS 4265</td>
<td>Government Contracts Seminar</td>
</tr>
<tr>
<td>LAWS 4342</td>
<td>International and Comparative Mining Law</td>
</tr>
<tr>
<td>LAWS 4265</td>
<td>Government Contracts Seminar</td>
</tr>
<tr>
<td>LAWS 4342</td>
<td>International and Comparative Mining Law</td>
</tr>
<tr>
<td>LAWS 4343</td>
<td>International and Comparative Petroleum Law</td>
</tr>
<tr>
<td>LAWS 4706</td>
<td>Special Topics</td>
</tr>
<tr>
<td>LAWS 4315</td>
<td>International Business Transactions: Survey Course</td>
</tr>
</tbody>
</table>
A full-time student is expected to earn the degree in one academic year (or over two consecutive semesters); a part-time student can earn the degree in 2 years. Program time limit is 3 years from the time of matriculation. Fall or Spring semester matriculation is permitted. Summer semester start may be considered with departmental approval.

Students must maintain an overall GPA of 2.7 to remain in good standing.

Dual JD/IBT LLM degree available to those pursuing a JD at the Sturm College of Law.

**Master of Legal Studies (General)**

**Degree Requirements**

All students must complete a minimum of 30 credits in the program curriculum.

**Coursework Requirements**

**Core Coursework Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4700</td>
<td>Special Topics (Introduction to Law, Research, Writing and Analysis)</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must select two of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>LAWS 4025</td>
<td>Administrative Law</td>
</tr>
<tr>
<td>LAWS 4120</td>
<td>Civil Procedure</td>
</tr>
<tr>
<td>LAWS 4164</td>
<td>Constitutional Law</td>
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<tr>
<td>LAWS 4175</td>
<td>Contracts</td>
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<tr>
<td>LAWS 4195</td>
<td>Criminal Law</td>
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<tr>
<td>LAWS 4425</td>
<td>Legal Profession</td>
</tr>
<tr>
<td>LAWS 4490</td>
<td>Property</td>
</tr>
<tr>
<td>LAWS 4610</td>
<td>Torts</td>
</tr>
</tbody>
</table>

**Elective Requirements**

For the remaining elective course requirements, students may customize their course of study, depending upon individual professional goals. Area concentrations include: finance and trade law and policy, intellectual property, health law, international law, family law and workplace law.

*Students must complete one Capstone course, which can be chosen from one of the elective or required courses in student’s last term or final two terms if a part-time student (Capstone is not a separate course). Students must complete a written product of at least ten (10) pages on an appropriate legal subject and with significant legal research component, approved by the MLS Program Director.*
Total Credits

30

A full-time student is expected to earn the degree in one academic year (or over two consecutive semesters); a part-time student can earn the degree in 2 years. Program time limit is 3 years from the time of matriculation. Fall, Spring or Summer semester matriculation is permitted.

Students must maintain an overall GPA of 2.7 to remain in good standing.

Dual Master of Legal Studies-Master of Social Work program is available.

Master of Legal Studies in Environmental and Natural Resources Law & Policy

Degree Requirements

All students must complete a minimum of 24 credits in the program curriculum.

Coursework Requirements

Core Coursework Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4137</td>
<td>Comparative Environmental Law</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4700</td>
<td>Special Topics (Introduction to Law, Research, Writing and Analysis (certain exceptions may apply))</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements (at least 18 credits of pre-approved course)

For the remaining elective course requirements, students may customize their course of study, depending upon individual professional goals.

The College of Law offers over forty courses in advanced degree programs, divided equally between international and domestic issues.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>LAWS 4009</td>
<td>Community Expectations in Sustainable Development of Natural Resources</td>
</tr>
<tr>
<td>LAWS 4014</td>
<td>Emerging International Standards for Sustainable Development of Natural Resources</td>
</tr>
<tr>
<td>LAWS 4015</td>
<td>Intermediate Legal Analysis</td>
</tr>
<tr>
<td>LAWS 4131</td>
<td>Commercial Law Survey</td>
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<tr>
<td>LAWS 4132</td>
<td>Colorado Legal Research</td>
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<tr>
<td>LAWS 4347</td>
<td>International Environmental Law in Latin America</td>
</tr>
<tr>
<td>LAWS 4425</td>
<td>Legal Profession</td>
</tr>
<tr>
<td>LAWS 4462</td>
<td>Negotiating Natural Resources Agreements</td>
</tr>
<tr>
<td>LAWS 4490</td>
<td>Property</td>
</tr>
<tr>
<td>LAWS 4506</td>
<td>Energy &amp; Project Finance Law</td>
</tr>
<tr>
<td>LAWS 4527</td>
<td>School of Mines Exchange</td>
</tr>
<tr>
<td>LAWS 4589</td>
<td>LLM and Master's Internship</td>
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<tr>
<td>LAWS 4999</td>
<td>Directed Research</td>
</tr>
<tr>
<td>LAWS 5025</td>
<td>Externship</td>
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<tr>
<td>LAWS 5031</td>
<td>Legal Externship Seminar</td>
</tr>
<tr>
<td>LAWS 4025</td>
<td>Administrative Law</td>
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<tr>
<td>LAWS 4060</td>
<td>Alternative Dispute Resolution</td>
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<td>LAWS 4019</td>
<td>Animal Rights</td>
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<td>LAWS 4700</td>
<td>Special Topics</td>
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<tr>
<td>LAWS 4702</td>
<td>Special Topics</td>
</tr>
<tr>
<td>LAWS 4706</td>
<td>Special Topics</td>
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<tr>
<td>LAWS 4705</td>
<td>Special Topics</td>
</tr>
<tr>
<td>LAWS 4135</td>
<td>Comparative Law</td>
</tr>
<tr>
<td>LAWS 4160</td>
<td>Conflict of Laws</td>
</tr>
<tr>
<td>LAWS 4179</td>
<td>Construction Law Seminar</td>
</tr>
<tr>
<td>LAWS 4383</td>
<td>Doing Business-Latin America</td>
</tr>
<tr>
<td>LAWS 4452</td>
<td>Economics of Natural Resource and the Environment: Policy, Markets, and Economic Measurement</td>
</tr>
<tr>
<td>LAWS 4703</td>
<td>Special Topics</td>
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<tr>
<td>LAWS 4210</td>
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<td>Special Topics</td>
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<tr>
<td>LAWS 4709</td>
<td>Special Topics</td>
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<tr>
<td>LAWS 4219</td>
<td>Environmental Ethics &amp; Justice</td>
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<tr>
<td>LAWS 4220</td>
<td>Environmental Law</td>
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<td>LAWS 4206</td>
<td>Environmental Law Clinic</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<td>-----------------------------------------------------------</td>
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<tr>
<td>LAWS 4037</td>
<td>European Union Environmental Law and Policy</td>
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<tr>
<td>LAWS 4709</td>
<td>Special Topics</td>
</tr>
<tr>
<td>LAWS 4232</td>
<td>European Union Law</td>
</tr>
<tr>
<td>LAWS 4300</td>
<td>Federal Indian Law</td>
</tr>
<tr>
<td>LAWS 4251</td>
<td>Federal Wildlife Law</td>
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<tr>
<td>LAWS 4259</td>
<td>Global Climate Change Law and Policy</td>
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<tr>
<td>LAWS 4380</td>
<td>Hazardous Waste and Toxic Substances</td>
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<tr>
<td>LAWS 4290</td>
<td>Human Rights Law</td>
</tr>
<tr>
<td>LAWS 4265</td>
<td>Government Contracts Seminar</td>
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<tr>
<td>LAWS 4342</td>
<td>International and Comparative Mining Law</td>
</tr>
<tr>
<td>LAWS 4343</td>
<td>International and Comparative Petroleum Law</td>
</tr>
<tr>
<td>LAWS 4706</td>
<td>Special Topics</td>
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<td>LAWS 4315</td>
<td>International Business Transactions: Survey Course</td>
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<td>LAWS 4317</td>
<td>International Environmental Law</td>
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<tr>
<td>LAWS 4288</td>
<td>International and Human Rights: Indigenous Peoples</td>
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<td>LAWS 4315</td>
<td>International Business Transactions: Survey Course</td>
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<td>LAWS 4318</td>
<td>International Business Transactions: Federal Regulation</td>
</tr>
<tr>
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<td>Special Topics</td>
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<tr>
<td>LAWS 4317</td>
<td>International Environmental Law</td>
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<tr>
<td>LAWS 4319</td>
<td>International Human Rights</td>
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<td>International Law</td>
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<td>LAWS 4379</td>
<td>International Trade Law</td>
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<td>International Water Law</td>
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<td>LAWS 4358</td>
<td>Land Conservation Transactions</td>
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<tr>
<td>LAWS 4362</td>
<td>Latin American Law</td>
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<tr>
<td>LAWS 4365</td>
<td>Law and Economics</td>
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<td>Special Topics</td>
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<td>LAWS 4706</td>
<td>Special Topics</td>
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<td>LAWS 4445</td>
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<td>LAWS 4464</td>
<td>Natural Resources Distinguished Practitioner Seminar</td>
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<td>LAWS 4465</td>
<td>Oil and Gas Law</td>
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<td>LAWS 4460</td>
<td>Negotiation and Mediation</td>
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<td>Special Topics</td>
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<td>LAWS 4495</td>
<td>Public Land &amp; Resources Law</td>
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<td>LAWS 4500</td>
<td>Public Utility Regulation</td>
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<td>LAWS 4095</td>
<td>Real Estate</td>
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<td>LAWS 4508</td>
<td>Renewable Energy for the 21st Century: Law, Policy &amp; Markets</td>
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<td>LAWS 4631</td>
<td>Space and Technology Law</td>
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<td>Special Topics</td>
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<td>Subsustainable Dev &amp; Trade</td>
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<td>Special Topics</td>
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<tr>
<td>LAWS 4605</td>
<td>Taxation of Natural Resource</td>
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</table>
LAWS 4670  Water Law

Total Credits

A full-time student is expected to earn the degree in one academic year (or over two consecutive semesters); a part-time student can earn the degree in 2 years. Program time limit is 3 years from the time of matriculation. Fall or Spring semester matriculation is permitted. Summer semester start may be considered with departmental approval.

Students must maintain an overall GPA of 2.7 to remain in good standing.

**Master of Science in Legal Administration with a Concentration in Court Administration**

**Degree Requirements**

All students must complete at least 30 credits in the program curriculum.

**Coursework Requirements**

**A. MSLA Core Courses-Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4151</td>
<td>Applied Leadership and Management Theory</td>
</tr>
<tr>
<td>MSLA 4410</td>
<td>Accounting and Financial Management in Legal Business</td>
</tr>
<tr>
<td>MSLA 4380</td>
<td>Communication, Writing, and Research in Legal Business</td>
</tr>
<tr>
<td>MSLA 5010</td>
<td>Capstone: Externship/Project</td>
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</tbody>
</table>

**B. MSLA Specialized Courses-Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MSLA 4200</td>
<td>The Business of Courts</td>
</tr>
<tr>
<td>MSLA 4121</td>
<td>Human Res &amp; Performance Mgmt</td>
</tr>
<tr>
<td>MSLA 4300</td>
<td>Introduction to the United States Judicial System</td>
</tr>
<tr>
<td>MSLA 4180</td>
<td>Court Case Flow and Load Management</td>
</tr>
</tbody>
</table>

**C. Elective Courses (at least 7 from all concentrations)**

Minimum Number of Credits Required for Degree 30

Students must maintain an overall GPA of 2.7 to remain in good standing.

*Any MSLA course (from any one of the three concentrations) can be used as an elective.

** All MSLA students are responsible for completing the required courses for the respective concentration. All students are encouraged to meet with the Director each term to ensure course requirements are met.

Dual JD/MSLA degree option is available.

**Advanced Standing Master of Science in Legal Administration with a Concentration in Court Administration**

**Degree Requirements**

A minimum of 27 credits is required.

**Coursework Requirements**

**A. MSLA Introductory Level-Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>MSLA 4410</td>
<td>Accounting and Financial Management in Legal Business</td>
</tr>
<tr>
<td>MSLA 4415</td>
<td>Statistics for the Legal Administrator</td>
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**B. MSLA Core Courses-Required**

<table>
<thead>
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<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4121</td>
<td>Human Res &amp; Performance Mgmt</td>
</tr>
<tr>
<td>MSLA 4151</td>
<td>Applied Leadership and Management Theory</td>
</tr>
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</table>

**C. MSLA Specialized Courses-Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MSLA 4950</td>
<td>Strategic Planning in Courts</td>
</tr>
<tr>
<td>MSLA 4100</td>
<td>Court Fiscal Management (Prerequisite: MSLA 4410)</td>
</tr>
<tr>
<td>MSLA 4180</td>
<td>Court Case Flow and Load Management</td>
</tr>
<tr>
<td>MSLA 4200</td>
<td>The Business of Courts</td>
</tr>
</tbody>
</table>

**D. Elective Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4215</td>
<td>Court Space, Facilities and Security</td>
</tr>
</tbody>
</table>
A minimum of 27 credits is required.

Students must maintain an overall GPA of 2.7 to remain in good standing.

*Any MSLA course (from any one of the three concentrations) can be used as an elective.

** All MSLA students are responsible for completing the required courses for the respective concentration. All students are encouraged to meet with the Director each term to ensure course requirements are met.

**Master of Science in Legal Administration with a Concentration in International Court Administration**

**Degree Requirements**

All students must complete at least 30 credits in the program curriculum.

**Coursework Requirements**

**A. MSLA Core Courses-Required**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4410</td>
<td>Accounting and Financial Management in Legal Business</td>
</tr>
<tr>
<td>MSLA 4380</td>
<td>Communication, Writing, and Research in Legal Business</td>
</tr>
<tr>
<td>MSLA 4151</td>
<td>Applied Leadership and Management Theory</td>
</tr>
<tr>
<td>MSLA 5010</td>
<td>Capstone: Externship/Project</td>
</tr>
</tbody>
</table>

**B. MSLA Specialized Courses-Required**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4200</td>
<td>The Business of Courts</td>
</tr>
<tr>
<td>MSLA 4300</td>
<td>Introduction to the United States Judicial System</td>
</tr>
<tr>
<td>MSLA 4180</td>
<td>Court Case Flow and Load Management</td>
</tr>
<tr>
<td>MSLA 4320</td>
<td>Fundamentals of Comparative Law</td>
</tr>
<tr>
<td>MSLA 4310</td>
<td>World Judicial Systems</td>
</tr>
</tbody>
</table>

**C. Elective Courses at least 4 credits from all concentrations**

**Minimum Number of Credits Required for Degree**

Students must maintain an overall GPA of 2.7 to remain in good standing.

*Any MSLA course (from any one of the three concentrations) can be used as an elective.

** All MSLA students are responsible for completing the required courses for the respective concentration. All students are encouraged to meet with the Director each term to ensure course requirements are met.
Advanced Standing Master of Science in Legal Administration with a Concentration in International Court Administration

Degree Requirements
A minimum of 27 credits is required.

Coursework Requirements

A. MSLA Introductory Level-Required  
- MSLA 4410 Accounting and Financial Management in Legal Business  
- MSLA 4415 Statistics for the Legal Administrator

B. MSLA Core Courses-Required  
- MSLA 4121 Human Res & Performance Mgmt  
- MSLA 4151 Applied Leadership and Management Theory

C. MSLA Specialized Courses-Required  
- MSLA 4950 Strategic Planning in Courts  
- MSLA 4320 Fundamentals of Comparative Law  
- MSLA 4100 Court Fiscal Management  
- MSLA 4180 Court Case Flow and Load Management  
- MSLA 4310 World Judicial Systems

D. Elective Courses  
- MSLA 4215 Court Space, Facilities and Security  
- MSLA 4090 Court Information Technology  
- MSLA 4301 Judicial Performance and Evaluation  
- MSLA 4384 Court Comm & Media Relations  
- MSLA 4330 Specialty Courts  
- MSLA 4320 Fundamentals of Comparative Law  
- MSLA 4954 Project Management  
- MSLA 4310 World Judicial Systems  
- MSLA 4385 Law Firm Communications and Technology  
- MSLA 4386 Law Firm Client Services and Satisfaction  
- MSLA 4205 Lawyer Recruitment, Development, and Advancement in Law Firms  
- MSLA 4181 Inclusiveness in the Legal Profession - The Next Generation of Diversity Efforts  
- LAWS 4007 Business Development: Marketing and Client Service  
- LAWS 4420 Legal Practice Seminar – Law as a Business  
- MSLA 4901 Law Firm Financial Management  
- MSLA 4999 Directed Research MSLA  
- LAWS 4703 Special Topics (Law Firm Space and Facilities)

Minimum Number of Credits Required for Degree  
27

Students must maintain an overall GPA of 2.7 to remain in good standing.

*Any MSLA course (from any one of the three concentrations) can be used as an elective.

** All MSLA students are responsible for completing the required courses for the respective concentration. All students are encouraged to meet with the Director each term to ensure course requirements are met.

Master of Science in Legal Administration with a Concentration in Law Firm Administration

Degree Requirements
All students must complete at least 30 credits in the program curriculum.

Coursework Requirements

A. MSLA Core Courses-Required  
- MSLA 4410 Accounting and Financial Management in Legal Business
Advanced Standing Master of Science in Legal Administration with a Concentration in Law Firm Administration

Degree Requirements

At least 27 credits in the program curriculum.

Coursework Requirements

A. MSLA Introductory Level-Required

<table>
<thead>
<tr>
<th>MSLA 4410</th>
<th>Accounting and Financial Management in Legal Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4415</td>
<td>Statistics for the Legal Administrator</td>
</tr>
</tbody>
</table>

B. MSLA Core Courses-Required

<table>
<thead>
<tr>
<th>MSLA 4121</th>
<th>Human Res &amp; Performance Mgmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4151</td>
<td>Applied Leadership and Management Theory</td>
</tr>
</tbody>
</table>

C. MSLA Specialized Courses-Required

<table>
<thead>
<tr>
<th>LAWS 4420</th>
<th>Legal Practice Seminar – Law as a Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4901</td>
<td>Law Firm Financial Management</td>
</tr>
<tr>
<td>LAWS 4007</td>
<td>Business Development: Marketing and Client Service</td>
</tr>
<tr>
<td>MSLA 4201</td>
<td>Law Firm Administration</td>
</tr>
</tbody>
</table>

D. Elective Courses

<table>
<thead>
<tr>
<th>MSLA 4215</th>
<th>Court Space, Facilities and Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4090</td>
<td>Court Information Technology</td>
</tr>
<tr>
<td>MSLA 4301</td>
<td>Judicial Performance and Evaluation</td>
</tr>
<tr>
<td>MSLA 4384</td>
<td>Court Comm &amp; Media Relations</td>
</tr>
<tr>
<td>MSLA 4330</td>
<td>Specialty Courts</td>
</tr>
<tr>
<td>MSLA 4320</td>
<td>Fundamentals of Comparative Law</td>
</tr>
<tr>
<td>MSLA 4954</td>
<td>Project Management</td>
</tr>
<tr>
<td>MSLA 4310</td>
<td>World Judicial Systems</td>
</tr>
<tr>
<td>MSLA 4385</td>
<td>Law Firm Communications and Technology</td>
</tr>
<tr>
<td>MSLA 4386</td>
<td>Law Firm Client Services and Satisfaction</td>
</tr>
<tr>
<td>MSLA 4205</td>
<td>Lawyer Recruitment, Development, and Advancement in Law Firms</td>
</tr>
<tr>
<td>MSLA 4181</td>
<td>Inclusiveness in the Legal Profession - The Next Generation of Diversity Efforts</td>
</tr>
<tr>
<td>LAWS 4007</td>
<td>Business Development: Marketing and Client Service</td>
</tr>
<tr>
<td>LAWS 4420</td>
<td>Legal Practice Seminar – Law as a Business</td>
</tr>
<tr>
<td>MSLA 4901</td>
<td>Law Firm Financial Management</td>
</tr>
<tr>
<td>MSLA 4999</td>
<td>Directed Research MSLA</td>
</tr>
<tr>
<td>LAWS 4703</td>
<td>Special Topics (Law Firm Space and Facilities)</td>
</tr>
</tbody>
</table>
Minimum Number of Credits Required for Degree
27

Students must maintain an overall GPA of 2.7 to remain in good standing.

*Any MSLA course (from any one of the three concentrations) can be used as an elective.

** All MSLA students are responsible for completing the required courses for the respective concentration. All students are encouraged to meet with the Director each term to ensure course requirements are met.

Certificate in Corporate and Commercial Law for Practicing Attorneys

Certificate Requirements

Coursework Requirements
A minimum of 16 credits is required. The course work can be completed in one semester or over multiple semesters.

1.) Students must take two of the following classes: (These courses, however, may be waived and other more specialized classes substituted upon approval of the Director of the Program.)
   • Corporations
   • Commercial Law
   • Agency, Partnership and LLCs
   • Accounting for Lawyers
   • Securities
   • Bankruptcy

2. Students are required to take one drafting class approved by the Program. Currently, the Program offers corporate drafting and contract drafting, business negotiation and drafting, and negotiating business transactions. Other classes that involve a significant amount of drafting will qualify.

3. Students are required to take one critical thinking class (see list of select critical thinking courses below). Critical thinking classes are taught as seminars and involve practical exercises and/or problem solving.

4. Finally, students are required, unless a suitable course substitute is approved by the Program Faculty Director, to engage in directed research for one to four credit hours with the ultimate goal of producing a paper of publishable quality. The expectation is that some or all of the papers would be published by the Denver University Law Review.

Certificate in Legal Administration with a Concentration in Court Administration

Certificate Requirements

Coursework Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4950</td>
<td>Strategic Planning in Courts</td>
<td>2</td>
</tr>
<tr>
<td>MSLA 4100</td>
<td>Court Fiscal Management (Prerequisite: M4410)</td>
<td>3</td>
</tr>
<tr>
<td>MSLA 4180</td>
<td>Court Case Flow and Load Management</td>
<td>2</td>
</tr>
<tr>
<td>MSLA 4200</td>
<td>The Business of Courts</td>
<td>3</td>
</tr>
<tr>
<td>Other Courses</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

A minimum of 18 credits is required.

Students must maintain an overall GPA of 2.7 to remain in good standing.

*** All certificate students are responsible for completing the necessary courses for the certificate. All students are required to meet with the Director each term to ensure certificate requirements are met.

Certificate in Legal Administration with a Concentration in International Court Administration

Certificate Requirements

Coursework Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSLA 4950</td>
<td>Strategic Planning in Courts</td>
<td>2</td>
</tr>
<tr>
<td>MSLA 4320</td>
<td>Fundamentals of Comparative Law</td>
<td>3</td>
</tr>
<tr>
<td>MSLA 4180</td>
<td>Court Case Flow and Load Management</td>
<td>2</td>
</tr>
<tr>
<td>MSLA 4100</td>
<td>Court Fiscal Management (Prerequisite: M4410)</td>
<td>3</td>
</tr>
<tr>
<td>MSLA 4310</td>
<td>World Judicial Systems</td>
<td>3</td>
</tr>
</tbody>
</table>
A minimum of 18 credits is required.

Students must maintain an overall GPA of 2.7 to remain in good standing.

*** All certificate students are responsible for completing the necessary courses for the certificate. All students are required to meet with the Director each term to ensure certificate requirements are met.

### Certificate in Legal Administration with a Concentration in Law Firm Administration

**Certificate Requirements**

**Coursework Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4420</td>
<td>Legal Practice Seminar – Law as a Business</td>
<td>3</td>
</tr>
<tr>
<td>MSLA 4901</td>
<td>Law Firm Financial Management (Prerequisite: M4410)</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4007</td>
<td>Business Development: Marketing and Client Service</td>
<td>3</td>
</tr>
<tr>
<td>MSLA 4201</td>
<td>Law Firm Administration</td>
<td>3</td>
</tr>
<tr>
<td>Other Courses</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

**Total Credits**

19

A minimum of 19 credits is required.

Students must maintain an overall GPA of 2.7 to remain in good standing.

*** All certificate students are responsible for completing the necessary courses for the certificate. All students are required to meet with the Director each term to ensure certificate requirements are met.

### Certificate in Legal Administration with a Concentration in Small Practice Management

**Certificate Requirements**

A minimum of 16 credits is required.

**Coursework Requirements**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4421</td>
<td>Introduction to Small Practice Management</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4002</td>
<td>Accounting for the Small Legal Practice</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4089</td>
<td>Business Development: Marketing &amp; Client Services</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4420</td>
<td>Legal Practice Seminar – Law as a Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective courses**

Elective coursework must total 4 credit hours. Students may choose from either the courses listed below, or other JD or MSLA courses if approved by the Program Director or Associate Dean for Academic Affairs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4425</td>
<td>Legal Profession</td>
<td></td>
</tr>
<tr>
<td>MSLA 4151</td>
<td>Applied Leadership and Management Theory</td>
<td></td>
</tr>
<tr>
<td>MSLA 4181</td>
<td>Inclusiveness in the Legal Profession - The Next Generation of Diversity Efforts</td>
<td></td>
</tr>
<tr>
<td>MSLA 4121</td>
<td>Human Res &amp; Performance Mgmt</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**

16

Students must maintain an overall GPA of 2.7 to remain in good standing.

### Certificate in Law with a Concentration in Constitutional Rights and Remedies

**Certificate Requirements**

**Coursework Requirements**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4164</td>
<td>Constitutional Law</td>
<td>4</td>
</tr>
<tr>
<td>LAWS 4025</td>
<td>Administrative Law</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4250</td>
<td>Federal Courts</td>
<td>3</td>
</tr>
</tbody>
</table>
Complete one of the following two courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4200</td>
<td>Criminal Procedure</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4166</td>
<td>Constitutional Law II: Individual Rights</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following three courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4168</td>
<td>Constitutional Litigation Seminar</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4520</td>
<td>Remedies</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4700</td>
<td>Special Topics (Habeas Corpus)</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete at least one experiential learning opportunity from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4809</td>
<td>Civil Rights Clinic</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4800</td>
<td>Criminal Defense Clinic</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 5025</td>
<td>Externship</td>
<td>1-10</td>
</tr>
<tr>
<td>LAWS 4702</td>
<td>Special Topics (Constitutional Rights &amp; Remedies Capstone)</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum Number of Credits Required

15

A minimum of 15 credits is required.

Certificate in Law with a Concentration in Corporate & Commercial Law

Certificate Requirements

Coursework Requirements

Complete the following three (3) courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4190</td>
<td>Corporations</td>
<td>4</td>
</tr>
<tr>
<td>LAWS 4131</td>
<td>Commercial Law Survey</td>
<td>4</td>
</tr>
<tr>
<td>LAWS 4006</td>
<td>Accounting for Lawyers</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one (1) of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4090</td>
<td>Bankruptcy</td>
<td>4</td>
</tr>
<tr>
<td>LAWS 4528</td>
<td>Securities Law</td>
<td>3</td>
</tr>
<tr>
<td>LAWS 4635</td>
<td>Trial Practice I: Basic Courtroom Skills (preferred section for program students)</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following options:

Option 1 – (1) Complete a Critical Thinking Seminar; (2) Meet the Upper Level Writing Requirement in an approved Corporate and Commercial Law Program course; and (3) Complete an approved Externship emphasizing Corporate or Commercial Law.

Option 2 - Community Economic Development Clinic (L4703) (year long, 6 per semester)

Complete one (1) additional Business Law Course from a list provided by the Corporate and Commercial Law Program Faculty Director.

Minimum Number of Credits Required

26

A minimum of 26 credits is required.

Certificate in Law with a Concentration in Environmental and Natural Resource Law

Certificate Requirements

Coursework Requirements

Required Course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4025</td>
<td>Administrative Law</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must complete a minimum of 15 credits in the ENRL curriculum including one of the following two courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4220</td>
<td>Environmental Law</td>
<td></td>
</tr>
<tr>
<td>LAWS 4450</td>
<td>Natural Resource Law</td>
<td></td>
</tr>
</tbody>
</table>

Complete for credit one of the following live-client experiences or simulations in the ENRL program:

- An ENRL-related experience through the Student Law Office
- An ENRL-related full semester externship through the legal externship program
- A simulated experience course such as the Natural Resources Distinguished Practitioner Seminar

Complete a research paper satisfying the upper-level writing requirement on an ENRL topic, either through a course or directed research.

Minimum Number of Credits Required

26

A minimum of 26 credits is required.
Minimum Number of Credits Required

A minimum of 18 credits is required.

Certificate in Law with a Concentration in Intellectual Property Law

Certificate Requirements

Coursework Requirements

Complete two core courses from the list provided by the Intellectual Property Faculty Director.

Complete two advanced courses from the list provided by the Intellectual Property Faculty Director.

Complete an experiential learning opportunity, through:

i. A capstone course

ii. An externship approved by the one of the full time Intellectual Property Law Faculty and coordinated through the Denver Law externship office, or

iii. Another experiential learning opportunity as approved by the Intellectual Property Law Faculty Director.

Minimum Number of Credits Required

A minimum of 15 credits is required.

Certificate in Law with a Concentration in International Law

Certificate Requirements

Required Course:

Coursework Requirements

Required Course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4320</td>
<td>International Law</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must complete a minimum of two courses from the list of core International and Comparative Law courses provided by the ILSP Director.

The remainder of credits required for the certificate must be satisfied by taking electives chosen from either the list of core courses or the list of Elective International, Comparative, and Foreign Law Courses provided by the ILSP director.

Upper-Level Writing Requirement.

Minimum Number of Credits Required

A minimum of 15 credits is required.

Certificate in Law with a Concentration in International Law and Human Rights

Certificate Requirements

Coursework Requirements

Completing the certificate requires 35 quarter hours (for Korbel students) or 24 semester hours of credit (for Sturm students). By its nature, the certificate also requires taking courses both on the quarter system (at Korbel) and on the semester system (at Sturm). These are the same courses, just taken for different numbers of credit because of the differences between the quarter and semester systems for Korbel and Sturm, respectively.

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 4320</td>
<td>International Law</td>
<td>3</td>
</tr>
<tr>
<td>INTS 4940</td>
<td>Introduction to Human Rights</td>
<td>5</td>
</tr>
<tr>
<td>LAWS 4319</td>
<td>International Human Rights</td>
<td>3</td>
</tr>
<tr>
<td>or LAWS 4290</td>
<td>Human Rights Law</td>
<td></td>
</tr>
<tr>
<td>or INTS 4936</td>
<td>International Law and Human Rights</td>
<td></td>
</tr>
</tbody>
</table>

Electives

Each student must complete 4 or 5 courses. A minimum of 2 from Korbel and 2 from Sturm must be completed.

Korbel: Complete a minimum of two of the following list of courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTS 4630</td>
<td>Civilian Protection in Armed Conflicts</td>
<td>10</td>
</tr>
<tr>
<td>INTS 4920</td>
<td>Conflict Resolution</td>
<td></td>
</tr>
<tr>
<td>INTS 4363</td>
<td>Discrimination, Minorities, and Rights of Indigenous People</td>
<td></td>
</tr>
<tr>
<td>INTS 4987</td>
<td>Forced Labor and Human Trafficking</td>
<td></td>
</tr>
<tr>
<td>INTS 4364</td>
<td>Global Poverty and Human Rights</td>
<td></td>
</tr>
<tr>
<td>INTS 4379</td>
<td>Gender and Development</td>
<td></td>
</tr>
<tr>
<td>INTS 4650</td>
<td>Globalization and Economic Crime</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>INTS 4734</td>
<td>Homeland Sec &amp; Civil Soc</td>
<td></td>
</tr>
<tr>
<td>INTS 4875</td>
<td>Human Rights and Foreign Policy</td>
<td></td>
</tr>
<tr>
<td>INTS 4941</td>
<td>Human Rights and International Organizations</td>
<td></td>
</tr>
<tr>
<td>INTS 4935</td>
<td>International Humanitarian Law of Armed Conflict</td>
<td></td>
</tr>
<tr>
<td>INTS 4624</td>
<td>Private Actors and Conflict</td>
<td></td>
</tr>
<tr>
<td>INTS 4710</td>
<td>Topics in International Studies (Human Rights and the Middle East)</td>
<td></td>
</tr>
<tr>
<td>INTS 4928</td>
<td>Torture</td>
<td></td>
</tr>
<tr>
<td>INTS 4210</td>
<td>Multinational Corporations</td>
<td></td>
</tr>
<tr>
<td>INTS 4625</td>
<td>East African Development and Human Rights</td>
<td></td>
</tr>
</tbody>
</table>

Sturm: Complete a minimum of two of the following list of courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LAWS 4133</td>
<td>Corporate Social Responsibility</td>
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<tr>
<td>LAWS 4135</td>
<td>Comparative Law</td>
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<tr>
<td>LAWS 4137</td>
<td>Comparative Environmental Law</td>
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<tr>
<td>LAWS 4168</td>
<td>Constitutional Litigation Seminar</td>
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</tbody>
</table>

Minimum number of credits required

- 35 quarter hours for Korbel students
- 24 semester hours for Sturm students

### Certificate in Law with a Concentration in Workplace Law

**Certificate Requirements**

**Coursework Requirements**

Complete two of the following three courses:

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>LAWS 4205</td>
<td>Employment Law Survey</td>
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<tr>
<td>LAWS 4227</td>
<td>Employment Discrimination Law</td>
</tr>
<tr>
<td>LAWS 4355</td>
<td>Labor Law</td>
</tr>
</tbody>
</table>

Complete a capstone experience in the Workplace Law curriculum. Capstone options include:

- a. An employment/labor related clinical experience through the SLO.
- b. A workplace-related externship approved by the Program Director.
- c. Completion of a research paper satisfying the College of Law's upper-level writing requirement through a Workplace Law class or through directed research with a Workplace Law faculty member.
- d. Publishing a note on a workplace law topic in the Denver University Law Review under the supervision of a Workplace Law faculty member.
- e. In the event that the SCOL obtains or establishes a workplace law publication, serving as a student editor for the review or journal.
- f. Completion of a designated experiential advantage course in the Workplace Law curriculum.

**Minimum Number of Credits Required**

A minimum of 12 credits is required.

### Certificate OF STUDIES in Natural Resources Law

**Certificate Requirements**

All students must complete a minimum of 16 credits in the program curriculum.

**16 credits of Environmental Law discipline courses**

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>LAWS 4009</td>
<td>Community Expectations in Sustainable Development of Natural Resources</td>
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<tr>
<td>LAWS 4014</td>
<td>Emerging International Standards for Sustainable Development of Natural Resources</td>
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<tr>
<td>LAWS 4025</td>
<td>Administrative Law</td>
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<tr>
<td>LAWS 4037</td>
<td>European Union Environment Law and Policy</td>
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<tr>
<td>LAWS 4064</td>
<td>Introduction to the American Legal System</td>
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<tr>
<td>LAWS 4137</td>
<td>Comparative Environmental Law</td>
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<tr>
<td>LAWS 4210</td>
<td>Energy Law</td>
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<tr>
<td>LAWS 4219</td>
<td>Environmental Ethics &amp; Justice</td>
</tr>
<tr>
<td>LAWS 4220</td>
<td>Environmental Law</td>
</tr>
<tr>
<td>LAWS 4232</td>
<td>European Union Law</td>
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</tbody>
</table>
LAWS 4251 Federal Wildlife Law
LAWS 4259 Global Climate Change Law and Policy
LAWS 4288 International and Human Rights: Indigenous Peoples
LAWS 4300 Federal Indian Law
LAWS 4315 International Business Transactions: Survey Course
LAWS 4317 International Environmental Law
LAWS 4318 International Business Transactions: Federal Regulation
LAWS 4319 International Human Rights
LAWS 4320 International Law
LAWS 4342 International and Comparative Mining Law
LAWS 4343 International and Comparative Petroleum Law
LAWS 4347 International Environmental Law in Latin America
LAWS 4358 Land Conservation Transactions
LAWS 4360 Land Use Planning
LAWS 4362 Latin American Law
LAWS 4365 Law and Economics
LAWS 4379 International Trade Law
LAWS 4380 Hazardous Waste and Toxic Substances
LAWS 4445 Mining Law
LAWS 4450 Natural Resource Law
LAWS 4452 Economics of Natural Resource and the Environment: Policy, Markets, and Economic Measurement
LAWS 4460 Negotiation and Mediation
LAWS 4462 Negotiating Natural Resources Agreements
LAWS 4464 Natural Resources Distinguished Practitioner Seminar
LAWS 4465 Oil and Gas Law
LAWS 4495 Public Land & Resources Law
LAWS 4506 Energy & Project Finance Law
LAWS 4508 Renewable Energy for the 21st Century: Law, Policy & Markets
LAWS 4509 Renewable Energy: Project Development and Regulation
LAWS 4511 Renewable Energy Law
LAWS 4527 School of Mines Exchange
LAWS 4550 State & Local Government
LAWS 4556 Sustainable Dev & Trade
LAWS 4605 Taxation of Natural Resource
LAWS 4670 Water Law
LAWS 4672 International Water Law

Total Credits 16

Students may customize their course of study, depending upon individual professional goals. The College of Law offers over forty courses in advanced degree programs, divided equally between international and domestic issues. Variety of specializations available including Energy Law and Policy, Oil and Gas Law and Policy, Sustainability, Renewable Energy Law and Policy, Environmental Law and Policy.

Students must meet with the Graduate Legal Studies department to ensure that certificate requirements are met.

Students must maintain an overall GPA of 2.7 to remain in good standing.

Law Courses

LAWS 4002 Accounting for the Small Legal Practice (3 Credits)

This course will provide an introduction to basic accounting fundamentals, provide key concepts that apply to attorneys and solo practitioners, and explore situations where accounting plays a role in the practice of law. Topics include: understanding the balance sheet, income statement, statement accounting; partnership vs. LLC; income tax accounting; money management and cash flow in a law practice; retainers; trust accounts; income measurement; auditing; and billing/fees/timekeeping.
LAWS 4003 Appellate Advocacy (3 Credits)
This course focuses on developing skills necessary for effective appellate advocacy. It includes discussion of the critical differences between trial and appellate practice and techniques for presenting a persuasive case on appeal. Students will write appellate briefs and present oral argument to a panel of judges. Students will also observe oral arguments presented in Colorado appellate courts.

LAWS 4006 Accounting for Lawyers (3 Credits)
This class introduces students to accounting principles and practices to prepare them for the manner in which transactional and other lawyers will be presented with accounting, auditing, and financial matters that must be understood to enable them to provide effective legal representation to clients. The course includes an introduction to basic concepts of bookkeeping and financial accounting, reading and understanding traditional financial statements, financial statement analysis and the use of financial ratios, and legal issues involving accountancy. The class will also examine the role and responsibilities of the independent auditor and the concept of full and fair disclosure of financial information as required by generally accepted accounting principles.

LAWS 4007 Business Development: Marketing and Client Service (3 Credits)
This course provides students with the tools to effectively market a solo practice and connect with the client. Topics include: client relationship management; social media; building a brand; networking fundamentals; website development; managing client expectations; effective communications; and, referrals.

LAWS 4008 Privacy Law (3 Credits)
This Privacy Law seminar examines the development of privacy rights as a key consideration in the business and governmental policy debates within the U.S. and E.U. These debates range from the appropriate role of government collection retention and usage of personal identifiable information (PII) as well as regulating the private sectors’ usage of PII. The E.U. has taken the lead in establishing an all-encompassing privacy policy for both the public and private sectors, whereas the U.S. has established a sectorial approach to establishing privacy law and regulations. Lawyers will continue to play a significant role in shaping governmental privacy policy, drafting statutes and regulations, as well as business drafting and negotiating technology contracts.

LAWS 4009 Community Expectations in Sustainable Development of Natural Resources (3 Credits)
The spread of democracy, the rapid development of open information regimes, and the Internet means that it is increasingly important what local communities want, and how they view natural resource production. Sustainable development is a set of concepts that attempts to harmonize a number of seemingly competing goals. These include providing better conditions of life and more opportunities for people, especially the poor. They also include bringing production and consumption within limits that an ecosystem can tolerate in the long run. The new legal challenges need to be understood on a variety of levels: 1) the emerging set of international standards and requirements governing foreign direct investment; 2) changing national priorities in mineral legislation and the laws governing the extraction and use of mineral products; and 3) meeting community expectations for sustainable development.

LAWS 4010 International Dispute Resolution (3 Credits)
This class addresses critical topics for the attorney representing clients in international business transactions, including the role of the international lawyer, performing international research and locating international and foreign law resources, jurisdiction, provisional relief, choice of law, proof of foreign law, choice of forum or arbitration, service of process, obtaining the evidence, act of state, sovereign immunity, law of the seas, and enforcement of judgments. The class will consider relevant treaties and U.S. law, including the Hague Convention on Choice of Courts Agreement, the Uniform Foreign Country Money-Judgments Recognition Act, and potential litigation under such laws as the U.S. Foreign Corrupt Practices Act. The course addresses topics relevant to both litigation and arbitration.

LAWS 4011 Labor and Employment Writing Seminar (3 Credits)
The goal of this class is for students to research and write a scholarly law review article of publishable quality. Students will select topics relating to current issues in labor and employment law and will write publishable articles based on independent research. Students will present their papers to the class toward the end of the semester. The top two papers will be selected for entry in the Jackson, Lewis National Labor and Employment Writing Competition.

LAWS 4012 Protecting Intellectual Property in International Business Transactions (3 Credits)
The first portion of this seminar will cover topics such as general international conventions and treaties designed to protect intellectual property; conventions and treaties are designed specifically for patents, trademarks and copyrights. Students will determine what protections to try to seek for a variety of intellectual property examples and, in pairs, if possible, negotiate and draft a licensing agreement and a manufacturing agreement. Students will then choose a topic from a selection of hypothetical problems, such as filing for patent protection in various jurisdictions, service of process on a foreign corporation, enforcing an arbitral award, resolving conflicts of laws, pre-litigation options. Each student will prepare a presentation for the class on the topic. The students will use the class feedback their research for the presentation to complete a paper on their topic. The drafting and paper will take the place of the final exam.

LAWS 4013 Trial Practice II: Depositions (3 Credits)
A deposition is the most important pre-trial discovery tool for the litigator. A successful deposition requires technical skills and extensive preparation. Most cases are won or lost based upon deposition testimony. The objectives of this class are to understand the applicable rules of civil procedure and the rules of evidence, the fundamentals of taking and defending depositions, utilizing depositions in discovery, settlement and trial, preparing witness for depositions, and applying proven strategies and techniques for successful depositions. The class will be taught using actual cases, deposition transcripts and video depositions.
LAWS 4014 Emerging International Standards for Sustainable Development of Natural Resources (3 Credits)
This course will focus on emerging international standards, legal, and "law-like" instruments designed to form the "rules of the road" in the dealings among private investors, host country governments, local communities, and other actors involved with sustainably developing natural resources. We will look at the track record of development: to what extent have natural resource projects helped make the world's poor better off? And what is meant by "better off?" What is a "fair deal" between a corporation from, for example, Europe or North America and a developing country government in Africa? How are disputes resolved?

LAWS 4015 Intermediate Legal Analysis (3 Credits)
Intermediate Legal Analysis provides second year students with instruction in analytical skills in a particular substantive area taught in the first year curriculum, utilizing multiple short-writing assignments with no more than 30 students per section. The course is a skills-based course, designed to develop analytical strategies necessary for success in law school, including rule synthesis and application, statutory interpretation, case analysis and briefing, fact evaluation, discernment of legal principles and theories, and effectiveness in written communication. The course will provide multiple opportunities for practice and feedback with exercises designed to help students learn, understand, and recall course materials with a particular emphasis in developing writing approaches and strengths for solving hypothetical legal problems. This course satisfies the Upper Level Writing requirement (ULW).

LAWS 4018 Criminal Law (Advanced) (3 Credits)
This course examines actual criminal cases from around the world and the application of the law at the time and place of the crime. The students will then compare this to the law today in the same jurisdiction and the Model Penal Code as applied to the same facts. This course also reviews current Colorado Law as it relates to liability and punishment based on the same fact pattern. The course will encourage analysis of what the law is and should be, and the aftermath of each case will lead to discussion about what actually happened to the defendant and why.

LAWS 4019 Animal Rights (3 Credits)
Students who have participated in the Civil Litigation Clinic for one semester are eligible to enroll in the Advanced Civil Litigation Clinic. The purpose of the advanced clinic is to provide students who have developed fundamental trial skills in the areas of landlord-tenant, domestic violence, and workplace law to further develop those skills and to work on cases and matters with greater independence for an additional semester without repeating the seminar component of the clinic.

LAWS 4022 Criminal Clinic (Advanced) (3 Credits)

LAWS 4023 Civil Litigation Clinic (Adv.) (1-10 Credits)

LAWS 4025 Administrative Law (3 Credits)
This class provides an introduction to the administrative process of government. Topics include Constitutional issues of separation of powers; delegation of legislative and judicial power; legislative and judicial authority in government agencies; agency exercise of policy-making functions; and controls imposed on agencies by administrative procedure legislation, Constitutional principles, and judicial review of agency action.

LAWS 4026 Criminal Procedure (Adv.) (3 Credits)
From the commencement of formal proceedings to collateral attacks on convictions, this course guides students through the laws regulating criminal prosecutions. The course topics typically include pleas; trial rights; discovery; bail procedures; sentencing; double jeopardy; the death penalty; and habeas corpus. The focus of the course is on the federal constitutional rights and the federal rules of procedure that are applicable to each stage of a criminal proceeding. Prerequisite: LAWS 4200.

LAWS 4027 Trial Practice II: Voir Dire (3 Credits)
This course covers the practical process of jury selection including the court rules and statutes that apply as well as Constitutional issues including fair cross-section and discriminatory challenges. An exploration of the demographic, legal, and case-specific issues that can be addressed in jury selection. The course couples traditional lectures with emphasis on student exercises. The course culminates in a final voir dire where the student is given a case problem and required to incorporate persuasive introductions, law questions, case-specific questions, and conclusions. Student participation throughout the class is required as both the inquiring attorney and as a juror.

LAWS 4028 Civil Procedure (Advanced) (3 Credits)
Topics for this course include post-trial procedure, injunctions, and other advanced civil procedure matters.

LAWS 4030 Family Law (Adv.) (3 Credits)
Advanced Family Law is a practicum oriented class. This class has some lecture components, but there will be significant practicum aspects for students interested in learning about the practice of family law. Students will gain a general knowledge of family law, and more specifically the substantive and procedural aspects of dispute resolution oriented domestic relations practice. The subjects covered are divorce, custody and child support jurisdiction (intrastate and interstate); domestic case procedure, meeting with and managing your client; working with opposing counsel; temporary status conferences and agreements, Domestic Violence, discovery and use of experts, unbundled legal services, access to justice issues, and the permanent orders (final orders in the divorce); and attorney's fees. Prerequisite: LAWS 4240.

LAWS 4031 Mediation (3 Credits)
Students who have completed the basic Alternative Dispute Resolution course may enroll in this program that focuses on clients with more complex cases in both the civil and criminal arenas. Clients will be selected based on both public interest aspect and the propriety of the case as a learning vehicle for planning, pleading, negotiation, discovery, research and trial work. Prerequisite: LAWS 4060.
LAWS 4032 Legal Analysis Strategies (3 Credits)
This course provides last semester graduating students with instruction, guidance and feedback to develop foundational skills necessary to achieve success on both the bar exam and in the legal profession as skilled legal analysts. Substantively, the course will focus on core bar exam subjects (constitutional law, contracts, property, evidence, torts and criminal law/procedure) using practical problems in all three examination formats of the bar exam - essays, performance tests, and multiple-choice questions. Initially, the course provides a diagnostic evaluation of analytical and communicative strengths using a performance test and multiple-choice questions. Subsequent classes require submission of written practice exams with follow-up class presentations by students of analytical strategies used to solve hypothetical problems posed in essay questions, performance tests and multiple-choice questions. The course includes a final exam given during the final exam period designed to simulate bar exam protocols.

LAWS 4035 Advanced Legal Research (3 Credits)
Students select an area of practice in which to explore all major legal research resources, formats, and costs, and refine their ability to formulate cost-effective research strategies. They will identify an issue of interest and formulate a Legal Research Plan for analysis on the issue; draft a Library Purchasing Plan for the practice area; write and revise a legal analysis on the issue; draft a client letter on the legal analysis; consider potential ethical issues for the practice area and write a short paper on these concern; give an oral presentation; and write a final reflection. This course does satisfy the Upper Level Writing requirement (ULW).

LAWS 4037 European Union Environmental Law and Policy (3 Credits)
The European Union (EU) has become a leading player in the context of European environmental legislation and policy making. Of particular interest has been the underpinning of the EU’s single market, and environmental protection, the importance of which is clearly set out in the European Community Treaty. Matters dealing with climate change, genetically modified organisms, and recycling are now dealt with on a regular basis at EU level.

LAWS 4042 Trial Practice (Advanced) (3 Credits)
This class is an advanced study of trial practice issues and skills. Prerequisite: LAWS 4635.

LAWS 4048 Agency Partnership & LLC (3 Credits)
This is a survey of legal doctrines and legislation that governs the Limited Liability Corporation (LLC). The course material also explores employment and agency relationships and partnerships.

LAWS 4050 Topics in Constitutional Law (3 Credits)
This course provides upper level exposure to constitutional issues not covered in the basic required Constitutional Law course. Topics vary from semester to semester and may include the following: Sexuality, Individual Rights, Causation, Poverty and First Amendment.

LAWS 4060 Alternative Dispute Resolution (3 Credits)
The course examines the full range of contemporize dispute resolution processes: negotiation, mediation, arbitration and formal litigation. Conceptual and functional similarities and distinctions between these processes are explored. Additionally the processes; impacts upon disputants, role of the lawyer, the legal system and social order are reviewed.

LAWS 4064 Introduction to the American Legal System (3 Credits)
This course is designed for international LLM students who have not previously had exposure to either the US legal system or other common law systems. It focuses on the American legal system, include the three branches of government, federalism, the hierarchy of courts, and the anatomy of a law suit. Students will get a rigorous writing experience, drafting at least on legal document, such as a memorandum or a brief. In doing so, students will learn about legal research, analysis, writing, and Bluebooking. Students may also be asked to deliver oral argument.

LAWS 4065 American Legal History (3 Credits)
This course concerns itself with the interaction between the legal system and social change in what is now the United States. Chronologically, the course materials run from the colonial period to the New Deal, although the nineteenth century will receive particular emphasis. A principal focus is the interrelationship of law, social life, economy, and ideology.

LAWS 4070 Antitrust and Unfair Competition (3 Credits)
The expansion of our economy over time has required the federal government and the courts to rethink their respective roles in regulating business conduct in the United Stares. The laws regulating business conduct are as dynamic as the notion of competition itself. This course teaches the history and fundamentals of antitrust and unfair competition laws in the United States. This course discusses the competitive problems which arise from monopolization, price and supply agreements, tying arrangements, exclusive dealings, cartel activity and mergers. The course also examines the interplay between federal, state and private enforcement of these laws.

LAWS 4080 Real Estate, Title and Finance (3 Credits)
This is an introduction to real estate transactions as they are encountered in the practice of law. We have shortened the course to a two-hour format to make it more accessible. Our emphasis will be on the representation of a client or an institution in the title and finance aspects of the real estate deal, which are central to every transaction. We will spend less time on contract formation and the role of brokers.

LAWS 4085 Trail Practice III: Trial Practicum (3 Credits)
Trail Practice III - The Trial Practicum (TP) is based upon the same educational platform as Trail Practice III - The National Trial Team (NTT). They are the same course, with the only difference being the TP students do not travel to compete against other schools, rather TP students compete in intra-school tournaments. TTP was created in response to the students who desire to benefit from the intensive study and simulated pre-trial and trial experience received by students on the National Trial Team course, and be “practice ready” upon licensure. This year-long, nine credit (three per semester), course is by invitation-only, and is demanding and intensive.
LAWS 4089 Business Development: Marketing & Client Services (3 Credits)
This course provides students with the tools to effectively market a solo practice and connect with the client. Topics include: client relationship management; social media; building a brand; networking fundamentals; website development; managing client expectations; effective communications; and referrals.

LAWS 4090 Bankruptcy (4 Credits)
This course introduces the federal bankruptcy system and Bankruptcy Code, including both the law of consumer bankruptcy and the law of corporate reorganizations. Topics include the rights of creditors in bankruptcy law and state law, the scope of the automatic stay, the treatment of executory contracts, the sale of assets in bankruptcy, the avoiding powers, bankruptcy planning, the restructuring of corporations in Chapter 11, and the procedure for confirming plans of reorganization.

LAWS 4095 Real Estate (3 Credits)
This course serves as an introduction to contractual, priority of right, and title assurance issues involved in transferring real estate. This is a highly recommended survey course for all law students regardless of specialization because much of the course material is heavily examined on the Multi-state, Colorado and other state Bar Exams. This class also serves as a gateway course for real estate specialists.

LAWS 4096 Patent Law (3 Credits)
This course review the major patent law doctrines. Topics include patentability requirements under 35 U.S.C. 101, 102, 103, and 112, claim construction, various infringement doctrines, affirmative defenses and remedies.

LAWS 4100 Basic Tax (4 Credits)
This course provides students with a general understanding of tax law. Materials cover topics from personal and business deductions, to property basis and depreciation.

LAWS 4105 Business & Commercial Law Sem (1-3 Credits)
Topical seminars scheduled periodically to afford students the opportunity for focused study of business and commercial law matters such as: consumer credit; mergers and acquisitions; corporate practice; bankruptcy; antitrust; quantitative evidence; representation of minority–and women–owned business firms. Prerequisite: LAWS 4190.

LAWS 4110 Business Planning (3 Credits)
The course introduces students to the transactional lawyering considerations involved in forming and representing an emerging growth business. The course examines the life cycle of a start-up company, including selecting the appropriate entity form, structuring the economic interests and managerial control among various owners, considering the lawyer's duties to the entity in dealing with its founders and management, and documenting various approaches to raising capital. Using a simulated deal format, students will draft, review and analyze documents typically used in organizing and financing a start-up business.

LAWS 4112 Trademark Law (Advanced) (2 Credits)
This course focuses on complex practical and legal issues confronted by today's trademark practitioners, ranging from brand protection strategies to litigating equitable relief claims for trademark infringement. The course also covers how trademark principles are being applied to the internet and e-Commerce. The course focuses on U.S. trademark law, but includes exposure to the aspects of international trademark law that are most frequently encountered by U.S. trademark practitioners. The course calls for students to participate in hands-on exercises, such as developing a new brand and arguing a preliminary injunction motion. The course requires a basic familiarity with trademark law, but the specific Trademark Law class is not a prerequisite. Prerequisite: LAWS 4310 or equivalent.

LAWS 4115 Trademark Law (3Credits)
This course covers common law doctrines. Topics include the acquisition and preservation of trademark rights, false advertising claims, infringement doctrines, defenses, and remedies, with attention to internet issues and recent developments in the law. Recommended prerequisite: LAWS 4310.

LAWS 4117 Taxation of Property Transactions (3 Credits)
This course includes basis of property; capital expenditures and current expense comparison; depreciable status; amortization of intangible property; depreciation methods; property casualties and losses; profit or loss computation and characterization for taxable property dispositions; limitations on passive losses; lessor and lessee reporting; tax-deferred dispositions. Cross listed with TAX 4110.

LAWS 4120 Civil Procedure (4 Credits)
This required introductory course examines how Constitutional statutory and judicial rules frame the determination of court controversies. They also explore the doctrines, remedies, and other principles pertinent to judicial dispute resolution.

LAWS 4129 Comparative Corporate Law Seminar (2 Credits)
Comparative Corporate Law examines the system for forming and managing businesses in the United States and overseas. We examine the impact of culture and other factors on legal regimes and examine whether a uniform international system is developing. This course satisfies the Upper Level Writing requirement (ULW).

LAWS 4131 Commercial Law Survey (4 Credits)
This course provides an introduction to the concepts and methods of commercial law. As a survey course, it explores the major Articles of the Uniform Commercial Code, namely, Article 2 (Sales), Article 9 (Secured Transactions), Article 3 (Payment Systems), as well as Article 5 (Letters of Credit) and Article 7 (Documents of Title). In addition, the intersection of Article 9 and Bankruptcy Law will be discussed in some depth. The completion of this course gives students a firm footing for any advanced course in commercial law. Students taking only one course in commercial law receive broad exposure to the basics of commercial law.
LAWS 4132 Colorado Legal Research (2 Credits)
This course introduces students to legal materials generated by executive/administrative, legislative, and judicial branches of Colorado government. Students develop research strategies for answering legal questions using primary and secondary resources and learn to relate the various sources of authority to the structure of Colorado government. Students are required to bring laptop computers to class.

LAWS 4133 Corporate Social Responsibility (3 Credits)
Corporate Social Responsibility represents the integration of a various environmental, social, ethical, and even political considerations into basic business strategies to produce a positive impact on society while still earning profits. With increasing frequency, consumers and investors reward companies that embrace CSR by purchasing their products and stock. This seminar in Corporate Social Responsibility explores a variety of pressing legal issues involving corporate governance, sustainable development, shareholder activism, executive compensation, the role of religion in the boardroom, international regulation, and CSR certification, among other topics. Through the readings and discussions, students examine the American approach to CSR in light of international regulatory efforts and models of socially responsible business practices in various countries around the world. Students gain a greater sense of the special role lawyers play in burgeoning CSR movement by examining some sophisticated examples of corporate strategy, planning, and litigation on CSR matters. This course satisfies the Upper Level Writing requirement (ULW).

LAWS 4135 Comparative Law (3 Credits)
Comparative Law is the study of the foundation of legal traditions and systems which exist in the world today. The major topics covered in this course are legal history and culture; legal structures; legal actors; and procedure and sources of law. The interactive course begins with an overview followed with coverage of each of the topics in relation to the United States legal system. We then cover the same topics in relationship to the common law tradition and the civil law tradition.

LAWS 4137 Comparative Environmental Law (3 Credits)
Comparative Environmental Law is an introduction to the growing network of international law (multilateral and bilateral treaties, customary law, adjudications, etc.) that govern environmental law. The course focuses on international legal issues including global climate change; trans boundary pollution; resource depletion; toxic waste export; biodiversity and wildlife/plant extinction; deforestation; desertification; ocean pollution; sustainable development; etc. (The internal domestic environmental laws of individual countries receive some attention as does trade law, but these are covered with more detail in Comparative Law and International Business Transactions, respectively.).

LAWS 4139 Commercial Law for Foreign Investors in Guatemala (2 Credits)
This class uses the Dominican republic-Central America-United States Free Trade Agreement (CAFTA-DR) and the North American Free Trade Agreement (NAFTA) to examine the legal framework regulating foreign investment in Central America and Mexico. With Guatemala’s ratification of CAFTA-DR, Guatemala opened its doors not only to trade but also to foreign investment, including from U.S. companies looking to do business in Guatemala. While the CAFTA-DR includes norms that govern the relationship between foreign investors and Member States, the domestic laws of each Member State continue to provide the central regulatory structure that governs relations among the parties, including in the areas of commerce, intellectual property, labor and the environment. This is an introductory course that examines the principle commercial norms that would apply to foreign investors in Guatemala, with a special emphasis on the law of contracts. The course examines the comparable norms applicable under NAFTA and introduces the topic of how CAFTA’s ratification has promoted rule of law reforms in Guatemala in the areas of commerce, intellectual property, labor and the environment. This course is taught in Spanish.

LAWS 4143 Commercial Paper (2,3 Credits)
This course introduces students to Article 3 of the Uniform Commercial Code, Negotiable Instruments. After studying this part of the UCC at the beginning of the semester, students will engage in a simulated, complex business transaction for the remainder of the course. The simulation involves problem solving, extensive document drafting, client counseling and professionalism, among other topics. The simulation involves transactions in a business/banking context, but is not an overview of banking law.

LAWS 4144 Comparative Free Speech and Access to Information in the Americas (2 Credits)
This course looks at the history and text of the guarantees of free speech in the constitutions of the United States and Latin American countries, including Guatemala; at judicial decisions interpreting them; and at the actual scope of those guarantees of free speech in practice, with emphasis on the function of free speech in facilitating democracy. The course also looks at the impact of globalization on free speech guarantees, including the impact of international treaties, the activities of NGOs, and speech on the Internet. The course compares the systems for providing citizens access to government information in the U.S. and Latin America, particularly Guatemala, and looks closely at areas where interest in disclosure and secrecy conflict.

LAWS 4145 Computer and Internet Law (3 Credits)
Computers and Internet Law is designed to consider the areas in which computer technology and the legal environment intersect. This includes legal protection of computer software; contracting for computer services; computer data banks and privacy; the check-less society; and the relationships between Federal Communications Commission policies and computers.

LAWS 4160 Conflict of Laws (3 Credits)
Conflict of Laws is an analysis of legal problems arising in cases when at least one of the operative facts cuts across state or national boundaries. Topics covered include problems of interstate jurisdiction over parties and subject matter; the application of principles of full faith and credit and comity on the recognition and enforcement of interstate and multinational judgments; the comparison of various theories of law choice in the context of the Constitutional threshold constraints of the due process and full faith and credit clauses.
LAWS 4164 Constitutional Law (4 Credits)
This required introductory course examines the role of the United States Supreme Court and, in particular, the Court's power in exercising judicial review in cases interpreting the U.S. Constitution. The course focuses primarily on two topics. First is the doctrine of Separation of Powers: examining the structure and interrelationship of the three branches of the federal government, Congress, the Executive Branch, and the federal judiciary. Second is the doctrine of Federalism: the relationship and power distribution between the federal government and state governments. In addition, all sections devote part of the course to an introduction to at least one aspect of the large field of individual constitutional rights. The specific rights covered vary by instructor. Among the possible topics are: the Equal Protection Clause and Due Process Clause of the Fourteenth Amendment, the First Amendment, and/or the Fifth Amendment's Takings Clause. Students who wish to gain a deeper understanding of these topics are strongly encouraged to take Constitutional Law II.

LAWS 4166 Constitutional Law II: Individual Rights (3 Credits)
Topics vary from semester to semester and may include the following: Sexuality, Individual Rights, Causation, Poverty and First Amendment. This course provides upper level students exposure to constitutional issues not covered in the basic required Constitutional Law course.

LAWS 4168 Constitutional Litigation Seminar (3 Credits)
This course examines individual and class action litigation brought against government officials for the violation of constitutional rights under 42 U.S.C. section 1983, the primary federal civil rights statute, and other civil rights statutes. The historic interplay between substantive Constitutional law and traditional doctrines of tort liability has developed into an entire body of law under section 1983 that any civil rights or government lawyer must regularly confront. The seminar focuses on the most critical substantive issues in pursuing Constitutional litigation. This includes the history and purposes of section 1983; the elements of constitutional torts; rules governing liability of government officials and municipal liability; immunity doctrines; remedies; jurisdictional and procedural barriers to section 1983 litigation; and recovery of attorney's fees. The class also discusses the availability and viability of alternative remedial mechanisms to section 1983. Prerequisites: LAWS 4165 and LAWS 4166.

LAWS 4169 Constitutional Law Writing Seminar (3 Credits)
This course satisfies the Upper Level Writing requirement (ULW). Permission by instructor only.

LAWS 4175 Contracts (4 Credits)
Consideration of the restatement of contracts and the relevant provisions of the Uniform Commercial Code. Legal protection accorded contracts: remedies and measure of recovery; damages; specific performance; restitution. Elements of agreement: preliminary negotiations; agreements unenforceable for indefiniteness; mutual assent. Consideration and the seal; bases of contractual liability; consideration; reliance and estoppel; mutuality. Problems of offer and acceptance; termination of offeree's power of acceptance; contracts concluded by correspondence; unilateral contacts--notice, knowledge, revocation of offer; contracts implied from conduct. Special problems of consideration. Third-party beneficiaries. Assignment. Effects of changes or unforeseen circumstances. Conditions in contracts--problems of craftsmanship: express and implied conditions; conditions precedent, subsequent and concurrent; severability of contract provisions. Procedures after default. The Statue of Frauds.

LAWS 4177 Contracts Drafting (3 Credits)
This course addresses the perspectives and skills that a lawyer must develop in order to assist clients with transactional work and aligning business objectives and contracts. In addition to delving deeper into selected areas of substantive contract law, students read materials that focus on writing and interpreting contractual provisions. Because a core focus of the class is writing for contracts, students regularly engage in drafting exercises to hone their drafting skills. The course also focuses on negotiation in a transactional setting, and how discussions with both clients and other parties can distill the key business terms that are to be reflected in a contract. Although substantive law and theory is utilized throughout the course, the primary objective of the course is exposing students to some of the practical, real-world skills essential to a transactional law practice.

LAWS 4179 Construction Law Seminar (3 Credits)
This course examines the legal relationships, obligations, rights, and remedies that govern the diverse parties to a construction project, including owners, lenders, contractors, material men, sureties, insurers, subcontractors, laborers, and others. A substantial portion of construction law (and accordingly, the primary focus of this class) is advanced contract law. Experience in the construction industry is not required, but those students who are unfamiliar with construction will benefit from spending a little extra time learning basic construction concepts and processes.

LAWS 4181 Corporate Drafting Seminar (3 Credits)
Corporate drafting focuses on writing responsive, lucid, unambiguous corporate documents. Students assume the role of the in-house counsel and other members of the corporate negotiating team as the team structures, negotiates, drafts, and implements corporate transactions. This course requires extensive writing. This course satisfies the Upper Level Writing requirement (ULW).

LAWS 4185 Business Entities (4 Credits)
The course provides an overview of the state law requirements for the operation of each type of business (Model Business act and LLC/LLP state statutes) and the difference in the tax treatment for each type of business. The objective is to give students a basic understanding of some of the do's and don'ts for each business and how they might advise a client as to the preferred business form in typical factual situations. The class explores both the legal and practical aspects of the operation of the various types of businesses. The class also discusses the availability and viability of alternative remedial mechanisms to section 1983. Prerequisite: LAWS 4100.

LAWS 4186 Corporate Taxation I (3 Credits)
The federal income taxation of corporations and their shareholders with emphasis on the creation of the corporation, establishment of its capital structure, operational alternatives, distribution to shareholders, stock dividends and redemptions, personal holding company, and accumulated earnings tax. Cross listed with TAX 4200.
LAWS 4187 Corporate Taxation II (3 Credits)
A continuation of Corporate Taxation I with emphasis on corporate reorganizations, operation, liquidation of subsidiary corporations and corporate division, and carryover of tax attributes. Cross listed with TAX 4300. Prerequisite: LAWS 4186.

LAWS 4188 Corporate Taxation III (3 Credits)
Advanced corporate taxation problems with emphasis on collapsible corporations; liquidations; detailed study of sections 305, 36, 307; loss carryovers and Subchapter S corporations. Cross listed with TAX 4330. Prerequisite: LAWS 4186.

LAWS 4190 Corporations (4 Credits)
Corporations provides students with a basic introduction to corporations, including the roles of shareholders and creditors. The instructor also covers the various duties and liabilities of offices and directors, and supplies a brief overview of the applicability of the federal securities laws.

LAWS 4195 Criminal Law (4 Credits)
The course explores the definition of crime and criminal liability.

LAWS 4197 Victim's Rights (3 Credits)
Victim’s rights has emerged as an important arena for the criminal justice field in the 21st Century. Anyone planning a career in criminal justice will want to engage in this seminar class to learn about the law and its application to victim’s rights. This class is designed to explore beyond advanced criminal procedure the role of the criminal justice system and its response to victim’s. In-depth discussions will be held about victim’s rights and criminal procedure.

LAWS 4200 Criminal Procedure (3 Credits)
Criminal Procedure outlines Constitutional and other rules regulating pretrial evidence acquisition by government officials in criminal matters. The course commonly includes the following topics: an overview of criminal justice administration; arrest; search and seizure; the exclusionary rule and its administration; wiretapping electronic eavesdropping; entrapment; interrogation; and confessions and lineup practices.

LAWS 4201 Death Penalty Jurisprudence (3 Credits)
The course is designed to make students aware of the substantive body of law surrounding the modern death penalty and the policy issues raised by the law. The course begins with the class constructing a fair death penalty. Students decide whether they, as the omnipotent legislature, want a death penalty. Then, students construct one that is fair, just and humane, and that achieves the goals that they have established for their death penalty.

LAWS 4202 Disability Law (3 Credits)
This course examines the growing area of disability law. Topics to be covered include discrimination based on disability in employment and public accommodations, as well as the requirement for educational institutions to provide special education services to disabled students. Relevant federal statutes are examined, including the Americans with Disabilities Act (with special emphasis on the ADA Amendments Act of 2009), Section 504 of the Rehabilitation Act, and the Individuals with Disabilities in Education Act.

LAWS 4203 Elder Law (3 Credits)
The course explores a range of issues relevant to legal counseling of elderly clients, such as mental and physical impairments, public assistance, Medicaid, social security, nursing homes, guardianships, trusts, and right to die issues.

LAWS 4205 Employment Law Survey (3 Credits)
This course provides a broad overview of the field of employment law. It begins with an exploration of the employer/employee relationship and the "at will" rule. It then addresses various constitutional, statutory, and common law doctrines that tend to be applied to the employer/employee relationship, often as exceptions to the "at will" rule. Contract, tort, and anti-discrimination doctrines will be covered, as well as constitutional doctrines addressing free speech and privacy in the workplace, and regulatory regimes addressing wages and hours. Finally, this course explores the post-employment relationship, including trade-secrets and non-competition agreements. These topics are addressed at both a theoretical and practical level.

LAWS 4206 Environmental Law Clinic (3 Credits)
The goal of the Environmental Law Clinic of the Student Law Office (SLO) is to protect the environment and public health, while teaching students practical legal skills that will translate into any practice area. Students applying for the Environmental Law Clinic are asked to select between two tracks: the Federal Wildlife Project or the Colorado Urban Project. Students who select the Federal Wildlife Project (FWP) track in the Environmental Law Clinic will work on the preservation of endangered species and their habitats throughout Colorado and the western United States. Students who select the Colorado Urban Project (CUP) track in the Environmental Law Clinic will work to address the emerging environmental issues along Colorado's urban Front Range. This is a yearlong course with 3 out of class credits for this course and 3 in class credits through the corequisite course. This course may satisfy the Upper Level Writing Requirement (ULW).

LAWS 4210 Energy Law (3 Credits)
Energy Law presents the regulation of production, conversion, transportation, distribution and pricing of fossil, hydro, nuclear, and other conventional sources of primary energy. It also offers insight into the regulation of renewable energy resources, including energy from the sun, wind, biomass, oceans, earth (geothermal), and rivers (including low-head hydro). There is an emphasis on new legislative and judicial development relating to these various energy sources. The course is taught in a seminar format, and students present and critique classmate papers as part of the class. This course satisfies the Upper Level Writing requirement (ULW).

LAWS 4211 Energy Law (3 Credits)
Energy Law presents the regulation of production, conversion, transportation, distribution and pricing of fossil, hydro, nuclear, and other conventional sources of primary energy. It also offers insight into the regulation of renewable energy resources, including energy from the sun, wind, biomass, oceans, earth (geothermal), and rivers (including low-head hydro). There is an emphasis on new legislative and judicial development relating to these various energy sources. The course is taught in a seminar format, and students present and critique classmate papers as part of the class. This course satisfies the Upper Level Writing requirement (ULW).

LAWS 4212 Copyright Law (3 Credits)
This course covers the major copyright law doctrines. Topics include the subject matter of copyright, the scope of protection, rights conferred, infringement doctrines, defenses, remedies, and attention to particular industries and recent development in the law. Recommended prerequisite: LAWS 4310.
LAWS 4215 Entertainment Law (3 Credits)
Entertainment Law focuses on issues that have an impact on the entertainment industry. Topics include copyright; service and trademark; licensing; publishing; unfair competition; antitrust; agency; and labor law. The class also explores publishing agreements.

LAWS 4218 Discovery Practicum (3 Credits)
Most civil litigations never get to trial. Instead, these cases are settled after the discovery period has revealed the strengths and weaknesses in the case. This course focuses on the instruments, rules, and case law governing discovery of information in litigation: interrogatories, document requests, requests for admissions, and depositions. It is taught in the form of a "whole-course simulation," which means students will represent a party and have an opposing counsel in a simulated litigation throughout the course. Students prepare and serve discovery documents (just as in practice), take, defend, and act as a witness in a deposition, and reach a settlement of the case at the end of the course. Because of the nature of the course and the many practice documents prepared during the semester, there is no final examination. This course will satisfy the Upper Level Writing requirement (ULW). This course is a "Carnegie Integrated Course."

LAWS 4219 Environmental Ethics & Justice (3 Credits)
This course provides a broad analytical consideration of ethical environmental policy-making. Students consider the historical aspect of environmental ethics as the various ethical approaches to making a decision concerning the environment. The class also explores the roles that the law, economics, and society's values play in environmental ethics.

LAWS 4220 Environmental Law (3 Credits)
Environmental Law covers the major federal laws and programs for environmental protection. These laws and programs include the National Environmental Policy Act; Clean Water Act; Clean Air Act; Resource Conservation and Recovery Act; and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Although the course focuses primarily on federal statutory law, it also incorporates some discussion of common law remedies. Recommended prerequisite: LAWS 4025.

LAWS 4224 Employment Law Benefits (3 Credits)
This course is a statute and case law course that introduces students to Employment Retirement Income Security Act (ERISA), the important federal law that controls the design and operation of virtually all employee benefit plans. The course offers students an understanding of the application of ERISA and how ERISA issues arise in business and private law practice. The classroom scenarios include lecture, problem solving and role playing to identify the kinds of experiences students are likely to experience in private practice.

LAWS 4225 Estate and Gift Taxation (3 Credits)
This class is a study of the federal estate tax; federal gift tax; and federal generation skipping transfer tax.

LAWS 4227 Employment Discrimination Law (3 Credits)
This course concerns federal constitutional and statutory law that prohibits discrimination in the workplace, including regulation of both private employers and the federal government. The course covers theoretical issues, such as the definition of equality, and practical problems that involve the complex procedural requirements of the applicable statutes.

LAWS 4229 Employment Law Seminar (3 Credits)
Students select topics relating to current issues in labor and employment law and will write publishable articles based on independent research. Students present their papers to the class toward the end of the semester. This course satisfies the Upper Level Writing requirement (ULW).

LAWS 4230 Estate Planning (2 Credits)
Estate analysis, including fact gathering and the analysis of data; the psychological aspects of “role playing” in estate planning; the members of the team (the attorney, the CPA, the life underwriter, the trust officer); life insurance in an estate and business planning context; planning with trusts, including revocable, short-term, and irrevocable; the transfer of a closely held business interest from one generation to the next, including full and partial stock redemptions, cross purchase agreements, private annuity, installment sale, retirement, recapitalization, qualified and nonqualified plans of deferred compensation; special estate planning considerations for the professional corporation, the highly paid executive, and the farmer and rancher; specific cases analyzed.

LAWS 4232 European Union Law (3 Credits)
The European Union (EU) has been described as the 21st century’s newest superpower. Bearing in mind the rapidly growing importance of the EU, this course introduces EU law, and emphasizes its historical underpinnings, institutional framework, legal procedures, and internal market. Moreover, emerging policies (e.g. enlargement, environment) are considered. The course examines these topics in the context of European political integration and where appropriate, the ongoing tension in the trans-Atlantic relationship between the EU and United States.

LAWS 4235 Evidence (4 Credits)
This required course is an introduction to procedural rules that regulate the use of evidence at trial, including coverage of the mode of examination, relevance, impeachment, character evidence, hearsay, expert evidence, and privileges. Particular attention is paid to the Federal Rules of Evidence.

LAWS 4236 Election Law (3 Credits)
This course examines Federal Election Law, specifically the Voting Rights Act; federal legislative districting; federal regulation of political parties; and the evolution of federal campaign finance law. The course does not address state campaign finance issues, ballot initiatives, or term limits. However, it may touch on those topics if time permits.
LAWS 4237 Evidence Practicum (3 Credits)
This practicum is designed to help students build trial skills and make the transition from evidence law learned in the classroom to evidence used in the courtroom. It provides simulation-type experiences requiring students to understand the foundations required to admit different kinds of evidence, to anticipate evidentiary issues, to make and to respond to objections, and to prepare examinations designed to avoid objections. The course supplements Trial Practice by focusing heavily on the rules of evidence. Prerequisites: LAWS 4365 and LAWS 4235.

LAWS 4238 Exempt Organizations (2 Credits)
The statutory exemption for “charities,” social welfare and social clubs, homeowners’ associations, fraternal orders, employee benefit organizations, mutual or cooperative companies, business and professional leagues, labor unions, exempt organizations, property title companies, federally organized or chartered organizations, and political organizations’ activities, funds, and lobbying activities; prohibited transaction rules; the private foundation; the unrelated business and debt-financed income tax exposures; excise tax exemptions; administrative appeal and declamatory judgment procedures; anti-discrimination considerations; charitable contributions. Crosslisted with TAX 4430.

LAWS 4240 Family Law (3 Credits)
This course is an examination of laws that involve and/or regulate families. Students learn the legal rights of families in cases incidental to marriage or without marriage. This includes child-parent relationships and the dissolution of marriage. This class also provides students with an understanding of new familial relationships.

LAWS 4250 Federal Courts (3 Credits)
This is an advanced public law course that examines the role of the federal courts in our constitutional system. It focuses on the federal courts’ role and power in relation to the other branches of the national government (separation of powers) and in relation to state and local governments (federalism). Specific topics include: the organic judicial powers of the federal judiciary, including Article III’s Case or Controversy requirement; congressional power to restrict or expand federal jurisdiction, the Supreme Court’s power to review state court rulings on federal law by direct appeal and on collateral review (habeas corpus), federal question jurisdiction, federal civil rights law under 42 U.S.C. § 1983, and many of the doctrines that limit federal judicial power to provide remedies to parties whose federal constitutional and civil rights have been violated, including official immunity, state sovereign immunity, and the abstention doctrines. It is highly recommended for students interested in pursuing federal judicial clerkships and/or careers in federal civil rights litigation, government representation, or other federal litigation.

LAWS 4251 Federal Wildlife Law (3 Credits)
This course covers federal wildlife law beginning with the Constitutional underpinnings of federal wildlife law. It focuses on the Endangered Species Act with some coverage of the Migratory Bird Treaty Act. The course takes new approaches to species and habitat preservation, paying particular attention to Colorado species.

LAWS 4259 Global Climate Change Law and Policy (3 Credits)
As concern over the threat of global climate change spreads, action on greenhouse gas emissions (GHGs) is increasingly commanding attention. This seminar consists of supervised research and writing on the issue of climate change and the legal and policy responses. The course focuses on the effects of climate change on development and the environment in industrialized and developing countries and the laws in the international, regional and domestic arenas that address the problem.

LAWS 4260 Gender and the Law (3 Credits)
This course examines the role of gender in many areas of the law, including employment discrimination and reproductive rights. Provides perspectives on the effects of gender-based hierarchy on the structure of the law and legal processes. Explore contemporary feminist jurisprudence and the impact of women in the legal profession.

LAWS 4262 Sexual Orientation Law Seminar (3 Credits)
This seminar offers an opportunity for students of any or no sexual orientation to study the relationship between law and sexual orientation to study the relationship between law and sexual orientation. Historically, law in the United States consistently and pervasively regulated the realm of human identity and behavior we call sexuality. Questions and claims challenging traditional assumptions about sexual orientation surfaced in the last twenty-five years. Our study of sexual orientation and law allows us to view the relationship between law and society through a new lens, that of sexual orientation. Specifically, we examine issues of sexual orientation arising in areas ranging from constitutional law criminal law, employment law, family law, health law, immigration law, to tax law. We discuss some or all of the currently controversial issues relating to sexual orientation and law, including such topics as the proliferation of both nondiscrimination laws and anti-gay initiatives like amendment 2 in Colorado, the constitutionality of laws prohibiting specified sexual behavior between different-sex and same-sex adults, the constitutionality of laws limiting the right to speak about sexual identity, public and private employment discrimination against gays and lesbians including the military ban on persons who are openly gay or lesbian, and discrimination against same-sex couples with respect to marriage, parenting, health benefits, and taxes.

LAWS 4265 Government Contracts Seminar (3 Credits)
This seminar provides an in depth examination of the unique statutory, regulatory and administrative process used by the U.S. Government when it annually spends more than $1 trillion taxpayer dollars to contract for goods and services used by Federal departments and agencies. Topics include the contract award and contract administration processes, with an emphasis on practical solutions to issues which routinely confront attorneys who advise businesses that do business with the Government.

LAWS 4270 LLCs and Operating Agreements (1 Credit)
This course provides an overview of limited liability companies, including the attributes and characteristics of LLCs, the pros and cons of the LLC form, and a comparison of LLCs to other types of entities. The course also covers the structure and components of the operating agreement, including an in-depth examination of various provisions included in operating agreements. In conjunction with the course content, students will also be exposed to client interview techniques for in person client meetings, as well as client conference calls.
LAWS 4276 Health Law (3 Credits)
This survey course introduces students to how the legal environment of health care shapes both its quality and its distribution. The course begins with a foundation in how health care is both provided and financed in the U.S., including managed care, Medicare, and Medicaid. This foundation sets the stage for studying the laws and policies that impact health law, including ERISA, antitrust, fraud and abuse, the False Claims Act, Stark, and HIPAA. This course does not focus on bioethics or medical malpractice. Students must submit a publishable quality paper on a health law topic approved by the professor. This course will satisfy the Upper Level Writing requirement (ULW).

LAWS 4277 Holocaust Seminar (3 Credits)
This course focuses on conceptions of individual and state accountability. By understanding how the Holocaust occurred, and how individual and collective acquiescence combined with affirmative conduct, we can begin to grasp the complex web that created a moment in time where morality and civilization were abdicated and almost eradicated. We examine how law, culture, power, ignorance and fear combined to create the Final Solution, and how conceptions of moral agency and accountability were forged in flames that marked the death camps. Students read narratives of resistance and collaboration and historical accounts of how the U.S., Europe and religious institutions interacted with the Third Reich. Through the readings and discourse that follow, students have the unique opportunity to question what constitutes moral agency and how individuals and cultural systems should be held accountable for circumstances that created the Third Reich and its ideology. This class is interdisciplinary thereby integrating law with literature, political theory and philosophy. Prerequisite: instructor’s permission.

LAWS 4280 Hughes Research Seminar (1-5 Credits)
Topic of Seminar to be determined by Hughes Research professor teaching the course.

LAWS 4285 Legal Research Skills - Advanced (0 Credits)
This zero-credit course introduces students to sources and methods for administrative law and legislative history research as well as subject-specific research on selected topics such as securities, natural resources, intellectual property, immigration, environmental and international law. Topics change each semester. Print and electronic materials are used throughout the course. Students must attend twelve (12) classes and pass the post-class assignments to complete the course successfully.

LAWS 4286 Legal Research Skills - Basic (0 Credits)
This zero-credit course introduces students to the basic primary sources of American law (cases and statutes), secondary sources, the Bluebook and citators and other tools for updating research. Print and electronic materials are used throughout the course. Students must attend eight (8) classes and pass the post-class assignments to complete the course successfully.

LAWS 4287 International and Human Rights: Indigenous Peoples (3 Credits)
This course explores some of the major contemporary legal issues facing indigenous peoples across the globe. The course covers issues as far ranging as: how indigenous groups are defined under the law; ethical and legal issues pertaining to indigenous self-governance including the tension between minority rights, individual rights, and democratic precepts; the uneasy application of self-determination law to indigenous self-governance; the implications of human rights, environmental, intellectual property, and international trade regimes for indigenous peoples; and international legal texts affecting indigenous peoples, such as the United Nations Declaration of the Rights of Indigenous Peoples. At the option of the individual student, this course can be used to satisfy the Upper Level Writing requirement (ULW).

LAWS 4288 International and Human Rights: Indigenous Peoples (3 Credits)
This zero-credit course introduces students to sources and methods for international, comparative and foreign law research. Topics may include treaty research, international trade law, human rights law, international intellectual property law, customary international law and private international law. Topics change each semester. Print and electronic materials are used throughout the course. Students must attend twelve (12) classes and pass the post-class assignments to complete the course successfully.

LAWS 4289 Human Rights Law (2 Credits)
The course provides an introduction to international civil and political rights and economic, social, and cultural rights in the international arena. It also covers the means available to protect such rights of the individual and groups. The focus is on the implementation part at the United Nations and other international, regional and national settings. Prerequisite: LAWS 4320.

LAWS 4290 Individual Tax Problems (3 Credits)
Using the Internal Revenue Code and the Federal Income Tax Regulations as a basis, substantive issues relating to individual taxation are covered. Areas included are general concepts of gross income, individual employee benefits and deductions, charitable deductions, alternative minimum tax, deductibility and classes of interest, office in home and vacation homes, and a general overview of the interrelationships of various statutory and non-statutory principles. Cross listed with TAX 4020.

LAWS 4295 Immigration Law (3 Credits)
This survey course examines such concepts as sovereign authority, exclusion, expulsion and asylum, and current developments in the area.

LAWS 4298 Immigration Law Advanced (3 Credits)
This course provides theoretical and practical approaches to the representation of non-citizens in removal proceedings. This course is designed for students who have an interest in practicing immigration law with a focus on deportation and removal practice before the Department of Homeland Security, the Executive Office for Immigration Review, and the federal courts. The goal of this course is to give students a theoretical framework for identifying and assessing immigration issues, including immigration consequences of criminal convictions, and for formulating strategies for effective prosecution and representation of non-citizens in removal proceedings. The instructor also teaches the practical tools and procedures, which students may apply to actual case representation. Prerequisite: LAWS 4295 or an immigration related externship.
LAWS 4300 Federal Indian Law (3 Credits)
This introductory course surveys the body of “Federal Indian Law,” focusing on the legal relationship between Indian nations and the United States, including implications of this relationship for states and individual citizens. The course covers the historical origins of federal Indian common law, the development of federal Indian policy, and tribal sovereignty in the modern era (tribal property, jurisdiction, criminal and civil governance, and economic development including gaming). It may provide a brief introduction to the Indian Child Welfare Act, religious and cultural freedoms, tribal law, and indigenous peoples in international law, if time allows.

LAWS 4303 International Criminal Law Practicum (3 Credits)
In this course, the class collectively analyzes the genocide, war crimes and crimes against humanity charges against an accused in a major international tribunal prosecution. Each student is assigned witnesses in the case and is expected to analyze that testimony and record their work in the case database using Casemap software meticulously following previously established protocols. The work involves the students learning the nature of the conflict generally, thoroughly learning the indictment against Taylor, getting up to speed on the law of war crimes and crimes against humanity, and finally assessing the witness testimony for relevant facts and attributing those facts to the legal outline in the case.

LAWS 4304 Insurance Law (3 Credits)
A comprehensive overview of laws, standards, concepts and remedies related to Insurance, including: interests protected by Insurance; selection and control of risks; insurable interest; the principle of indemnity; types and classifications of Insurance; making, dealing with and termination of insurance contracts; underwriting and claims handling; regulation of Insurance and insurers; subrogation; and extra-contractual liability. This course will satisfy the Upper Level Writing requirement (ULW).

LAWS 4309 International Law and the Use of Force (3 Credits)
This course deals with the two aspects of the use of force by countries: the initial decision to resort to force and then the regulation of that force once the conflict begins. In 1945, the United Nations Charter set out to prohibit the resort to force by its member states except in two limited situations: self-defense or where authorized by the Security Council. The Geneva Conventions and its protocols, as well as customary international law, regulate how that force is applied. The subject of this course is how these provisions have been interpreted since 1945 and trends in the law that will guide us in the future.

LAWS 4310 Introduction to Intellectual Property (3 Credits)
This survey course covers the basics of United States intellectual property law, including patents, copyrights, trademarks, and trade secrets. The course addresses the policies underlying the protection of intellectual property and compares the different ways organizations and individuals can use intellectual property to protect their interests. This course is intended both for students who want an introduction to intellectual property and for those who intend to pursue a career in intellectual property law.

LAWS 4315 International Business Transactions: Survey Course (3 Credits)
This course provides students with a general overview of international business transactions. The course examines the legal framework of international sales transactions including the commercial terms of the sales agreements, shipping contracts, insurance, financing arrangements and customs documentation. The course also examines the foreign direct investment transaction, international franchise and distribution agreements. The regulation of international business is reviewed, with special attention to the World Trade Organization agreements and regional trade areas.

LAWS 4317 International Environmental Law (3 Credits)
This is an introduction to International Environmental Law -- the expanding field of multi-nation treaties, laws, judicial decisions, policies, practices, and politics governing the global environment. IEL backgrounds students on the 21st century’s hottest international law topics -- sustainable development, climate change, transboundary air and water pollution, natural resources development, international trade, toxic waste and recycling, and protection of wildlife, ecosystems, human life, and human rights.

LAWS 4318 International Business Transactions: Federal Regulation (3 Credits)
IBT: Federal regulation examines the ability of the federal government to control international trade. The focus of the course is US export controls, embargoes, anti-terrorism regulations that apply to international commerce, and the Foreign Corrupt Practices Act. Students prepare a compliance program integrating these regulations into a workable framework for a company.

LAWS 4319 International Human Rights (3 Credits)
The seminar begins with a general overview of international human rights as put forth in the International Bill of Rights. The second part of the course focuses on the emerging area of corporate social responsibility and human rights. The last part of the seminar consists of student presentations on the topics of the research papers required for the course. This course will satisfy the Upper Level Writing requirement (ULW).

LAWS 4320 International Law (3 Credits)
International Law is the foundational course in public law, treaties, systems, and policies that bind nations into a world community of law. The class places special emphasis on the origins of international law; statehood; international responsibility and claims; use of force; and human rights.

LAWS 4341 International Commercial Arbitration (3 Credits)
This course uses the Willem C. Vis International Commercial Arbitration Moot Competition to give students practical skills-based training in the most important aspects of international commercial arbitration and international sales law. The Vis Moot is based on a problem governed by the U.N. Convention on Contracts for the International Sale of Goods (the “CISG”).
LAWS 4342 International and Comparative Mining Law (3 Credits)
The course deals with basic concepts of mineral law, as practiced in various jurisdictions. This includes exploration, mining and environmental protection and reclamation issues. It then focuses on the current evolution and legal and policy status of mining legislation, mineral investment agreements, and major actors. Students completing this course develop a basic understanding of the general approaches, legal frameworks, policies and agreements used to regulate the mining industry in key jurisdictions outside the United States. This course is taught in Spanish.

LAWS 4343 International and Comparative Petroleum Law (3 Credits)
The course deals with basic concepts of international law relating to petroleum investment, current elements of petroleum legislation, and petroleum investment agreements (production-sharing, concession, joint venture, service, management contracts). Also, students explore such aspects of petroleum law as dispute settlement and legal status. The instructor will discuss the major actors (international petroleum companies, state petroleum enterprises, Ministries of Energy) and their legal and policy status. Students completing the course leave with a basic understanding of the general approaches, policies, and agreements used to regulate the petroleum industry in key selected jurisdictions outside the United States.

LAWS 4344 International Tax (3 Credits)
Introduction to U.S. international taxation with an equal emphasis on inbound and outbound transactions. Resident and nonresident alien taxation, withholding taxes, effectively connected (business) income, foreign investment in U.S. real estate, tax treaties, branch taxes, earnings stripping, conduit financing rules, foreign earned income exclusion, classification of foreign entities, foreign tax credit, foreign personal holding companies, controlled foreign corporations, passive foreign investment companies, export transactions, Subpart F manufacturing rules, outbound property transfers, and transfer pricing. Cross listed with TAX 4420.

LAWS 4345 Jurisprudence (3 Credits)
The course is designed to introduce several contemporary modes of legal thought. The course is an exploration and critical evaluation of these differing perspectives on law are pursued to foster an understanding of the interdependency between legal philosophy and legal decision process, the role law plays in our culture, and the social and philosophical impediments to law’s effectiveness.

LAWS 4347 International Environmental Law in Latin America (2 Credits)
This course examines the role of international law in promoting cooperative solutions to some of the most pressing environmental problems confronting the planet. The course begins with an introduction to the international law framework within which international environmental law has developed, and emphasizes the relationship between international environmental law and international human rights law. The course then uses several case studies to analyze the legal regimes that have developed to address environmental problems of particular relevance to Latin America, including protection of biodiversity, climate change adaption and mitigation, and protection of water resources. This course is taught in Spanish.

LAWS 4348 International Criminal Procedure and Practice (3 Credits)
The International Criminal Court and the various international and internationalized tribunals such as the International Criminal Tribunal for Rwanda and for the former Yugoslavia prosecute a unique and evolving set of international criminal laws designed to end the impunity of military and political leaders engaged in mass violence. The post-World War II Nuremberg trials were the first attempt to use tribunals to hold individuals criminally responsible. Later, the Nuremberg present was the basis of the creation of ad hoc war crimes tribunals for the former Yugoslavia and Rwanda in the early 1990s, which then opened the door to other tribunals such as the Special Court for Sierra Leone, the Extraordinary Chambers for Cambodia and the International Criminal Court. The practitioners of the tribunals represent the range of cultures, mores and legal traditions of the world. These varied experiences create different expectations as to the conduct of proceedings and what amounts to procedural fairness. This course studies the rules of procedure and practice that have developed at the international tribunals in the multi-cultural context.

LAWS 4350 Juvenile Law (3 Credits)
This course examines the legal parameters surrounding juveniles. Students gain a basic understanding of juvenile law, such as the legal definition of who is considered a child and the allocation of power between the state, parent(s), and the children. The course examines what protection the Constitution provides children and the historical development and philosophy of juvenile justice to understand the foundation of juvenile law. The focus of the course also includes an examination of rights of abused children and children who are delinquents and status offenders.

LAWS 4351 International Mergers and Acquisitions (3 Credits)

LAWS 4355 Labor Law (3 Credits)
Labor Law provides a background of modern labor relations law and union pressures with an historical review of the laws that shape this field. Laws covered include the National Labor Relations Act; National Labor Management Relations Act; Labor-Management Reporting and Disclosure Act of 1959; Civil Rights Act of 1964; employer unfair labor practices; union unfair labor practices; internal affairs of labor organizations; collective bargaining and settlement of labor disputes; and state labor legislation. Also, it explores employer and union labor practices and manners in which disputes concerning these practices may be resolved.

LAWS 4358 Land Conservation Transactions (3 Credits)
This course covers the fundamental law and principles related to land conservation. It is a research based class, and students are responsible for researching, presenting information and drafting regarding a specific conservation project. This course provides all the background necessary to allow students to conduct a meaningful research foray in and to create conservation easements for land conservation.
LAWS 4360 Land Use Planning (3 Credits)
This course examines government controls used in the regulation of land use and development and the urbanization of the built environment in cities and metropolitan areas in the United States. The course includes an analysis of state and local laws and federal constitutional issues related to the use of master plans, zoning and land development codes, growth management and smart growth development techniques, as well as the topics of subdivision regulation, eminent domain and urban renewal. Special problems in land use planning studied include exclusionary zoning, regulation of aesthetics, design controls and visual beauty, signs and billboard, religious land use, protection of natural lands and wildlife habitat, regulation of natural resources development, fair housing laws, and the protection of private property rights in the urban regulatory process.

LAWS 4362 Latin American Law (3 Credits)
This course seeks to provide students with a basic understanding of Latin American legal traditions. Intended for students who will come into contact with Latin American law in their work as lawyers, international civil servants, business executives and diplomats. The course examines the civil law tradition and constitutional law issues and current developments, such as Latin American economic integration, reform of the public sector, and the emergence of the Inter-American system for the protection of human rights.

LAWS 4365 Law and Economics (3 Credits)
This course is an examination of selected common law, regulatory law, and Constitutional law issues from the perspective of economic efficiency analysis.

LAWS 4370 International Investments (3 Credits)
The global investor is faced with a complicated task. He must deal with multiple currencies, multiple markets, multiple cultures, and multiple regulatory environments. However, the most important aspect of international investment is the use of multiple currencies. Accordingly, the first module of this course lays the foundation of foreign exchange rates: the basic facts of foreign exchange quotations, international parity conditions and arbitrage implications, and exchange rate forecasting. The second module covers the various assets and markets available for global investing: international bonds, equities, alternative investments, and optimal international portfolio selection. The third and final module develops risk control techniques available with derivatives: forwards, futures, options, and swaps. Overall, this course will emphasize conceptual understanding and applications, rather than lengthy theoretical exposition and mathematical analysis.

LAWS 4375 Law and Society (3 Credits)
The primary focus of this seminar is on law as a product of the structure of society. The subject matter can be divided into four distinct sections: 1) What factors affect the development of substantive law? This section examines the influence of values, beliefs and norms. 2) Given the existence of substantive law, what organizations develop to carry out the administration of law? Here concentration is on the phenomena classified as legal roles, organizations, institutions, and inter-institutional relations - e.g., juries, the legal profession, courts, legislature, etc. 3) How does law affect social behavior? and 4) What is the role of law in social change?.

LAWS 4378 Race, Class & Reproductive Rights (3 Credits)
This course examines how race and class status affect women's reproductive rights and how both legal rules and medical practices in this area rely on stereotypes and enforce norms of "good motherhood" on women. Topics covered include some or all of the following: abortion, contract parenthood ("surrogacy"), cloning, sterilization, embryo freezing, pregnancy-based employment discrimination, criminal prosecutions of women for prenatal substance abuse, and court-ordered Cesarean sections.

LAWS 4379 International Trade Law (3 Credits)
This course examines the law of international trade in goods and services, focusing principally on the law of the World Trade Organization and the General Agreement on Tariffs and Trade. We examine the trading system's rules restraining national restrictions on trade that address, among other things, tariff and non-tariff barriers, discrimination, regionalism, anti-dumping, countervailing duties, and safeguards. The course also spends time considering the relationship between trade and other regulatory areas or social values, such as environmental protection, health and safety standards, human rights, intellectual property protection, and other facets of globalisation. This course satisfies the Upper Level Writing requirement (ULW).

LAWS 4380 Hazardous Waste and Toxic Substances (3 Credits)
This practical, hands-on course reviews the major federal environmental protection programs, with an emphasis on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or "Superfund") and the Resource Conservation and Recovery Act (RCRA). It also covers Toxic Torts, Underground Storage Tanks, the Clean Water Act, Safe Water Drinking Act, and the Clean Air Act. Other materials may be distributed by the instructor on OSHA, NEPA, TSCA, OPA, the Colorado state voluntary cleanup program (VCUP), toxicology, and immunity issues. The course emphasizes practical application of major environmental laws. Students become familiar with statutory and regulatory schemes, and are expected to be able to identify environmental legal issues and apply environmental laws and regulations to hypothetical problems. JD student prerequisites: LAWS 4220, LAWS 4450, or LAWS 4495. LLM and MRLS student prerequisites: LAWS 4220, LAWS 4450, or LAWS 4495, or be registered to take any of these.

LAWS 4382 Legislative Process: Institutions & Interpretations (3 Credits)
This course is designed to be a three credit introductory course on the legislative process. This course focuses on theories of the process through an examination of theories of representation, theories of deliberation, direct democracy, and due process of lawmakers. Finally, this course will also explore legispundence. Legispundence explores theories of statutory interpretation and constitutional/statutory provisions which govern the political process and its participants. This course is intended to serve very practical goals. Students considering careers as legislative drafters, legislative staffers, elected officials, lobbyists or activists should emerge from this course with an understanding of the legislative process and a sense of how courts, agencies, and the executive branch are likely to interpret statutes. This course provides litigators with the tools to convince the courts that their interpretation of a statute is the correct one. For those students whose careers will require advising others about the meaning of statutes, this course helps provide the skills needed to perform that task.
This course will explore issues of sustainability, as they relate to land use, and will help prepare students to work in the field of urban planning and development in the suburbs to urban infill projects in the city center. Cities are exploring ways of promoting new, more sustainable forms of development around the city to accommodate population growth without promoting sprawl. From transit oriented development in the suburbs to urban infill projects in the city center, cities are exploring ways of promoting new, more sustainable forms of development – sometimes in places that are not ready to accept increased density and amidst changing notions of what Americans really want. This course will explore issues of sustainability, as they relate to land use, and will help prepare students to work in the field of urban planning and development. Partnering with a local organization and utilizing the concept of "Action Learning," students will work in teams as they engage in real-time problem solving of a complex issue involving land use and sustainability. It is anticipated the course will include a field trip and work with practitioners engaged in the issue of concern. A research paper and final presentation will be required.
LAWS 4413 Trail Tactics (3 Credits)
This course is intended for those who truly desire to be a trial lawyer. It is an advanced, hands-on course which is designed to teach you how to be successful in trial – not just trial practice, but overall trial strategy. This course will teach you not just what to do in trial, but will also answer the question as to why you do what you do. It involves the strategy of trying cases, including trial themes, as well as preparation and participation in doing voir dire, opening statements, direct and cross examination of witnesses, when to make objections and when not to make objections, as well as closing. You will learn to use various trial techniques included in the text Rules of the Road, and will learn all the ins and outs of trying a case in front of a jury.

LAWS 4414 Private Equity Seminar (3 Credits)
In this course students will learn legal doctrine and practical skills through the examination of various aspects of private equity groups. The class will focus on legal issues arising in private equity investment cycles, including raising a fund, investing the fund, managing the investment, and exiting the investment. Students will consider the legal foundations of fund formation, business law, and structuring investments, including state and federal laws affecting business associations and corporate transactions. The class will also highlight tax and regulatory considerations of private equity groups and their investments. The class will have a heavy emphasis on practical skills, including critical thinking, and best practices for beginning lawyers, including structuring transactions, drafting transactional documents, and negotiating deals.

LAWS 4415 Protecting Intellectual Property in International Business Transactions (3 Credits)
The first portion of this seminar will cover topics such as general international conventions and treaties designed to protect intellectual property; conventions and treaties designed specifically for patents, trademarks and copyrights. Students will determine what protections to try to seek for a variety of intellectual property examples and, in pairs, if possible, negotiate and draft a licensing agreement, a manufacturing agreement, an employment agreement or some other agreement that embodies international intellectual property issues. Students will then choose a topic, such as patent, trademark or copyright issues in a particular region or particular industry. Each student will prepare a presentation for the class on the topic. Then the student will use the class feedback in conjunction with research for the presentation to complete a paper on the topic. The drafting and paper will take the place of a final exam. The paper qualifies for the Upper Level Writing Requirement.

LAWS 4416 Representing the Marijuana Client (3 Credits)
This class is designed to provide students with an understanding of the realities of representing a marijuana client (either private or public) in the current turbulent legal environment. We will study the background of marijuana regulation at the state and federal levels in the United States, with particular attention paid to the federalism implications of the dispute between state and federal law in this area. We will then turn to specific areas of law impacted by marijuana law reform in the states, from legal ethics, to regulatory compliance, to criminal law enforcement, to the financial and tax aspects of running a marijuana business in the current legal regime.

LAWS 4417 Representing the Spanish Speaking Client (3 Credits)
This course is a survey of the substantive law of matters likely to be encountered by attorneys representing Spanish-speaking clients in the United States. Topics may include, among others, immigration law, family law, criminal law, employment law, wills and estates, and consumer rights. The course will introduce vocabulary required to communicate with Spanish-speaking clients in the United States, as well as, survey the basic substantive law in each area. The course will be taught in Spanish.

LAWS 4418 Workplace Law Practicum: Sports & Entertainment Law (3 Credits)
This course will expose students to contemporary sports law practice as an aspect of general entertainment law from a labor and employment perspective. Students will learn relevant doctrine regarding such matters as collective bargaining, individual contract rights, administrative law, interest and grievance arbitration and the impact of the anti-trust laws on labor and employment relations at the professional and collegiate levels. They will have the opportunity to develop practical skills by drafting documents for a simulated NLRB union organizing or unfair labor practice proceeding, reading and interpreting actual transcripts of NLRB or arbitration proceedings, acting as an advocate in a mock baseball arbitration, and engaging in simulated negotiations by drafting bargaining proposals and arguing for those proposals in a bargaining session among classmates.

LAWS 4420 Legal Practice Seminar – Law as a Business (3 Credits)
This course provides an overview of the business functions of a law practice. Students learn how effective law practice administrators and managers base policy and management decisions on a comprehensive understanding of the law firm as a complex and interdependent equation. JD course, open to MSLA students.

LAWS 4421 Introduction to Small Practice Management (3 Credits)
This course provides an introduction to the administrative needs necessary to open and operate a solo or small legal practice. Topics include: administrative needs specific to various types of legal practice; space and facilities; technology; document management systems; malpractice insurance; outsourcing; health insurance; conflicts; and human resources issues.

LAWS 4423 Legal Databases Research (3 Credits)
This course introduces students to a variety of legal databases, both fee-based and free, that can be utilized for conducting effective legal research as a student and practicing lawyer. Students learn to analyze and critically evaluate whether or not a database provides accurate information and resources. Students learn to determine which legal databases are most useful for specific types of information and resource needs. Students learn to construct successful search strategies that can be employed to search a database and find the information required. This course equips students to become expert searchers in the online environment.
LAWS 4424 Legal Spanish for Lawyers (2 Credits)
This course prepares students with basic Spanish proficiency to represent Spanish-speaking clients in the U.S. legal system or to work in Spanish on transnational matters involving Latin America. It combines one-on-one Spanish immersion instruction with a structured classroom component. The Spanish immersion component introduces and builds on each student’s legal Spanish vocabulary in areas of law likely to require lawyering in Spanish or in areas identified as priorities by the student. The structured classroom component allows students to practice skills in Spanish, such as client interviewing, intake, and client counseling, through simulations and group exercises. This course is taught in Spanish.

LAWS 4425 Legal Profession (3 Credits)
This required course is the study of the legal profession in American society. Topics include the history, structure, and function of the legal profession; the role of lawyers in the delivery of legal services; standards of professional ethics (including the Code of Professional Responsibility and the Rules of Professional Conduct); professional responsibility problems that confront the legal profession; developments in the delivery of legal services; disciplinary procedures; and admission to the practice of law.

LAWS 4430 Mediation and Arbitration Clinic (3 Credits)
This is a course offering clinical experience in both mediation and arbitration. The student learns mediation skills, performs mediation simulations, and mediates actual cases. Students are oriented to the role of arbitrator, perform arbitration simulations, and attend actual arbitrations. By gaining experience in both roles, students learn which process to choose for resolving a particular dispute. In addition, students learn lawyering skills such as communication, negotiation, problem solving, and drafting agreements. Application must be sent to the Student Law Office for admission to this course. Students will earn 3 out of class credits for this course and 2 in class credits through the corequisite course L4803, Mediation and Arbitration Clinic Seminar. Corerequisite: LAWS 4803. Prerequisite: permission of faculty supervisor.

LAWS 4433 Media Law (3 Credits)
This course addresses the First Amendment, statutory, and common law regimes under which the news media operate in the United States, ranging from the seminal New York Times v. Sullivan to the recent decisions on anonymity for online bloggers. This course is designed to provide opportunities for serious study/discussion of legal issues affecting the news media, as well as opportunities for practical experience in the tasks confronted by today's media lawyers. This course satisfies the Upper Level Writing requirement (ULW).

LAWS 4436 Litigation Technology (3 Credits)
Litigation Technology gives students up-close, hands-on learning to prepare and effectively use electronic illustrative aids and demonstrative exhibits in trial and alternative dispute settings. Each student prepares opening statements, closing arguments, and direct and cross-examinations, utilizing litigation software. Students learn to create their own presentations, and how to advocate most effectively using technology.

LAWS 4441 Business Mergers & Acquisition (3 Credits)
This is a transactions based course that focuses on teaching future junior associates practical deal skills in the context of M&A law. The course covers how M&A deals (e.g. asset sales and triangular mergers) are structured, how lawyers interact with various parties to engineer a transaction, the basics of a negotiated document, allocation of value and risk, drafting techniques, advising boards, and due diligence concerns. We work with statutes relevant to M&A transactions (with a focus on Delaware law and the MBCA), federal securities laws (the Act, proxy rules and the Williams Act), and survey tax and antitrust laws. Finally, the course also covers anti-takeover defenses, deal protection devices, and board fiduciary obligations. While the course includes theory and policy discussions, it also incorporates practical assignments, a drafting exercise, and a team presentation. Prerequisite: LAWS 4190.

LAWS 4442 Trial Practice III: Mentors Practicum (3 Credits)
Advanced Trial Practice: Mentors Practicum is a year-long, skills-based course for law school students seeking to refine their trial skills, and improve their understanding and application of evidence and criminal procedure, through teaching these skills to local area high school mock trial students. The course consists of two classes a week. The first takes place at the law school. This weekly class involves case analysis and evidentiary discussion, resulting in the law students preparing their lesson plans to be taught to the high school students. Lesson plans include trial topics such as case analysis and evidentiary discussions, direct and cross-examination, objections and the rules of evidence, opening statements, closing arguments, and development of theme and theory. The second weekly class takes place at a local area high school, where the law students act as mentor-coaches to high school mock trial teams.

LAWS 4444 Medical Malpractice (3 Credits)
This course is a study of the various types of medical malpractice claims, and special issues encountered in medical malpractice litigation. Students learn how to select and prepare medical negligence cases for trial, with focus on the use of discovery tools in medical cases, hiring and working with medical experts, and explore settlement, subrogation, and probate approval for the settled claims of a minor. Medicine is central to medical malpractice litigation, so students are also exposed to concepts in anatomy, physiology, pathology, medical terminology, and medical records in this course.

LAWS 4445 Mining Law (3 Credits)
This course provides the basic framework of mining law. It begins with the acquisition of title to and development of deposits of hard minerals and energy resources under the mining and mineral leasing laws of the federal and state governments in the western United States. Next, it emphasizes the practices and procedures of the various proprietary and regulatory agencies responsible for the management and administration of public lands. Finally, students learn how to resolve competitive demands for exclusive and multiple use of public lands for mineral production and conservation.
LAWS 4446 Multiculturalism, Race and the Law Seminar (3 Credits)
This course is designed to examine the interstices of cultures, race, identity and the law as manifested in legislation and jurisprudence. Through case law and articles, we uncover and examine the ways in which legal systems define and promote certain racial and cultural activities, identities, and classifications and discourage others. Some are advanced as legitimate, and deserving of protection, and others not so. These endorsements have a significant impact on the makeup of American society. We see ourselves as a melting pot of cultures and peoples from all over the world, but do our laws really promote this vision? Have our laws evolved to promote racial and cultural harmony, or to discourage it? While most discussion focuses on these issues as they appear in the United States, we also discuss cases and materials from other nations, including Australia, Canada, India, Israel, Europe and Africa. Race and culture have played a pivotal role in historical and current political events and these will also be examined from a global perspective. There is no final exam, but written work is assigned throughout the term, and a final research paper is required.

LAWS 4450 Natural Resource Law (3 Credits)
The course is designed primarily for students who wish to have an introduction to and an overview of the entire natural resources law area in one course. Students survey the primary natural resources subject matter areas: water law; mining law; oil and gas law; public land law; environmental law; and energy law.

LAWS 4452 Economics of Natural Resource and the Environment: Policy, Markets, and Economic Measurement (3 Credits)
This course deals with the basic concepts of financial evaluation of a natural resources project. The emphasis is on financial evaluation topics and issues relevant to a lawyer’s participation in a project. Students are introduced to the time-value of money; spreadsheet analysis; discounted cash flow; and spreadsheets, with relevancy to negotiations. Students are encouraged to consult with the director of this program before enrollment.

LAWS 4454 Psychiatry and the Law (3 Credits)
This course explores the relationships between psychiatry, psychology, medicine and the law. Subjects to be covered include: DSM-IV diagnoses and psychopharmacology; sanity and competency determinations; role of mental health experts in the court; special issues involving the mentally ill and death penalty; issues particular to juvenile offenders; third party protections and reporting requirements in child abuse and danger to third parties; civil commitment and involuntary treatment of the mentally ill; malpractice including professional misconduct and sexual boundary violations, and standards of mental health care; professional ethics in medicine and the law; law of informed consent and proxy decision making for medical treatment; confidentiality; clinical and legal aspects of end of life care; and prisoners’ rights in correctional settings including sex offender treatment. Readings include landmark state and federal decisions shaping each of these areas, along with readings from legal and mental health literature.

LAWS 4460 Negotiation and Mediation (3 Credits)
The course examines principles of negotiation, bargaining and dispute solving. Builds the development of skills in negotiation and later mediation. Principles of problem solving introduced in negotiation are further developed in an exploration of mediation, it’s legal, economic, skills context and its propriety as a process to resolve disputes in varying circumstances.

LAWS 4462 Negotiating Natural Resources Agreements (3 Credits)
Students completing this course leave with an understanding of the general approaches, and primary issues and motivations pertaining to the negotiation of large, internationally funded petroleum and mining projects. They particularly gain a perspective on the negotiation of first-tier agreements between trans-national companies and governments, and joint venture agreements between private parties.

LAWS 4463 Qualified Pension and Profit Sharing Plans (3 Credits)
An in-depth study of ERISA, labor department rules, and Internal Revenue Code provisions relating to qualified deferred compensation. The course is geared toward an understanding of all the pension and profit sharing rules required for plan qualification, with emphasis on qualified plan planning for both incorporated and unincorporated forms of business. Cross listed with TAX 4120.

LAWS 4464 Natural Resources Distinguished Practitioner Seminar (3 Credits)
The Distinguished Natural Resources Practitioner in Residence Seminar is a “capstone seminar” taught each year in the Spring Semester by a different but prominent natural resources or environmental law lawyer who has extensive experience in energy, resources, or environmental law work. The focus of the Seminar is on skills training, where the skills taught are those that all lawyers need in order to have a successful career in the practice of law. Among the "how-to" skills typically addressed are (1) how to obtain a job, either as a lawyer or as a law-trained worker; (2) how to obtain and retain clients; (3) how to work in the private sector, government sector, business sector, and in-house sector; (4) how to write; (5) how to work with associates and colleagues; (6) how to deal with technical or scientific matters in a legal context; (7) how to work in the litigation arena, before trial and appellate courts; (8) how to practice or appear before administrative agencies; (9) how to organize and refine a mass of complicated information so that a decision-maker can make sense of it. There is no final exam or paper expected; the grade is usually by class participation and small writing exercises. Prerequisite: permission of instructor.

LAWS 4465 Oil and Gas Law (3 Credits)
This course surveys the various characteristics of oil and gas interests. Topics include mineral rights, and how ownership leases and transfers of these rights should be handled. The instructor also distinguishes the field of oil and gas law on private lands from those in the public domain.

LAWS 4468 Pre-Trial and Discovery Practicum (3 Credits)
This “hands-on” course provides students with a practical understanding of the pretrial process and how discovery procedures shape and impact civil litigation today. The progression of class topics mirror the pretrial process within the context of a hypothetical case. Starting with initial client interviews, class topics include interrogatories, requests for production, electronic discovery, depositions, and expert discovery. Students also consider ethical issues relating to discovery and the pretrial process, and what remedies or sanctions are available for discovery abuses. This course will satisfy the Upper Level Writing requirement (ULW).
LAWS 4470 Banking Law (3 Credits)
This course provides an overview of the banking system, including the economic function of banks, the role of the central bank, and U.S. banking history. This course will cover the evolution of banking regulation, as well as recent developments that have intensified scrutiny on banks. Additionally, a "Real Deal" Workshop will provide students with an opportunity to a) gain hands-on training in transactional practice, (b) experience a "deal" from a lawyer’s perspective and learn about what transactional practice entails and (c) learn to draft stock purchase agreements, credit documents and other fundamental transactional agreements. Topics that will be covered include permissible activities of banks, the role of the FDIC, the Federal Reserve Board, and the Comptroller of Currency; and the regulatory response to crises in the banking system.

LAWS 4474 Patent Prosecution (3 Credits)
This course explores more than a dozen advanced topics in patent law. These issues include claim drafting; international patent applications; opinion letters; remedies in patent cases; security interests; patent ability of software; and patent ability of genetic sequences. While Patent Law is not a formal prerequisite for this course, students who have not taken Patent Law should be prepared to do extra reading in the first few weeks of the semester to familiarize themselves with the basic concepts of patent law.

LAWS 4480 Professional Ethics Seminar (3 Credits)
This seminar begins with brief introductions to ethics in general and professional ethics specifically, and then turns to in depth consideration of theoretical perspectives on lawyer’s ethics. For the remainder of the semester the seminar focuses on: (1) Comparative professional ethics: comparing the ethics of other professions–medicine, journalism and business, for example–with the ethics of lawyering. (2) Narrative ethics: stories (from literature, biography, or tradition) and how they inform ethical perception and choice. (3) Topics chosen by students for research and presentation.

LAWS 4481 Partnership Taxation (3 Credits)
Tax treatment of partnership income in the hands of the partner; the conduit rule; problems associated with the formation, operation, and dissolution of the partnership; sale of the partnership interest; withdrawal and retirement of partners; basis adjustments, unrealized receivables, and substantially appreciated inventory. Cross listed with TAX 4320.

LAWS 4483 Patent Litigation (3 Credits)
This is an in-depth study of laws, strategies and tactics of patent litigation. Topics include legal principles, procedures and strategies associated with patent claim construction, infringement, invalidity and unenforceability. Also, students cover patent trial practice with a focus on both the knowledge and practical skills necessary to litigate patent cases.

LAWS 4485 Business & Commercial Law Seminar (3 Credits)
Topical seminars scheduled periodically to afford students the opportunity for focused study of business and commercial law matters such as: consumer credit; mergers and acquisitions; corporate practice; bankruptcy; antitrust; quantitative evidence; representation of minority-and women-owned business firms.

LAWS 4487 Prosecutor as Protagonist (3 Credits)
This seminar is an in depth examination of the role of the prosecutor in our justice system. Attorney General Suthers leads wide ranging discussions about crime and punishment. Topics discussed and debated include the purpose of criminal sentencing, minimum mandatory sentences, the death penalty, the juvenile justice system, plea bargaining, prosecutor ethics, special prosecutors, criminal justice interest groups, prosecution oversight of police, forensic science, federalization of crime, attorney general activism, jury reform, reform of drug laws, and mental illness in the criminal justice system. Some of the top experts in Colorado on these subjects speak to the seminar participants.

LAWS 4489 Civil and Criminal Tax Procedure (2-4 Credits)
Statute of limitations on assessment/collection of deficiencies, definition of deficiency, restrictions on assessment and collection; statute of limitations on overpayments, claims and suits for refund, and limitations for criminal prosecutions; regulations and rulings—retroactive revocation; administrative settlements, closing agreements and compromises; civil penalties; tax return preparer penalties; civil litigation—injunctions, jurisdiction of Tax Court, District Court, and Court of Claims, small claims procedure, authority to increase deficiencies, choice of forum; jeopardy assessments and termination of taxable years; criminal tax investigations—administrative summons, document production (taxpayer and third party), constitutional protections, common law privileges, strategies; professional responsibilities and ethics for the tax practitioner. Cross listed with TAX 4910.

LAWS 4490 Property (4 Credits)
This course introduces selected topics relating to rights and interests in land and personal property. These topics include estates in land and future interests; private and/or public restriction of land use; conveyancing; interests and estates in land; and landlord/tenant relations.

LAWS 4495 Public Land & Resources Law (3 Credits)
This course provides an overview of law, policy, and procedures governing the third of United States land managed by the federal government for the benefit of all the people. The course traces the interwoven law, history, and economics controlling acquisition and allocation of public lands and resources and examines a selection of significant commercial uses and resource categories of land use practices. Recommended prerequisite: LAWS 4025.

LAWS 4497 Law & Popular Culture (3 Credits)
Why are there so many jokes about lawyers? Why is John Grisham so popular? What explains the success of the "Law and Order" franchise? Does popular culture affect the outcomes of trials? This seminar explores the role law plays in popular culture (for example, how law and lawyers are portrayed and perceived; how law shapes and defines pop culture) and the role popular culture plays in law and in the lives of lawyers (for example, the impact of cameras in the courtroom); should lawyers be allowed to write books and sell their clients’ stories? The reading list includes traditional materials (case law and legal scholarship) as well as movies, novels and other popular culture materials. Recommended prerequisite: LAWS 4425.
LAWS 4498 Public Interest Practicum (1 Credit)
The Public Interest Practicum is one option for students to satisfy the Public Service Requirement. The only satisfying course offered for only zero or one credit, it requires participation of the JD student in a 50-hour, non-compensated, law-related, public interest placement under the supervision of an attorney or judge who has been in practice or on the bench for a minimum of three years. A practicum student must complete the minimum of 50 hours in one of the following settings: judicial internship; government agency; private law firm doing pro bono or low bono work; non-profit (501(c)(3)) organization; or pre-approved uncompensated research project for a faculty member. A student may decide to take the Public Interest Practicum for 1 credit or 0 credit. The Public Interest Practicum for 1 Academic Credit requires a Public Interest Practicum Online Seminar component to supplement the practical experience. The Public Interest Practicum is beneficial for students who are not planning on satisfying the Public Service Requirement through other opportunities.

LAWS 4500 Public Utility Regulation (3 Credits)
This intensive, 1-week course presents law practitioners with recent innovations in the economics and policy of utility regulation. Course features guest lectures with individuals from industry and government sectors that are involved with utility regulation. Students learn the social science of utility regulation and gain insight into how utility regulation is conducted.

LAWS 4506 Energy & Project Finance Law (3 Credits)
This course explores the legal, economic, technological, and policy underpinnings of the Renewable Energy Industry, global warming, and associated implications to the electric utility and transportation sectors. The course addresses both domestic and international perspectives on renewable energy development.

LAWS 4508 Renewable Energy for the 21st Century: Law, Policy & Markets (3 Credits)
Renewable Energy for the 21st Century helps prepare students for future involvement in this dynamic sector. Students are introduced to the policy and legal framework involving renewables and energy efficiency as well as important technological and market-based issues.

LAWS 4509 Renewable Energy: Project Development and Regulation (3 Credits)
This course examines the broad range of legal topics that a renewable energy lawyer must understand in order to practice effectively. We examine the structure, regulation, and functioning of the electric energy industry in the United States. We explore in detail the law applicable to the development, ownership and operation of renewable projects across the spectrum of technologies. Significant emphasis is placed on the practical "real world" issues encountered in developing, financing and operating these projects.

LAWS 4510 Business Legal Research (2 Credits)
This course will introduce the legal material, research methodologies, and resources used in conducting business legal research. Students will gain experience locating and using law and guidance produced by government agencies, business-oriented legal treatises, transactional materials, and company/industry research. This class will take an integrative approach between the different business-related disciplines to provide students with a well-rounded knowledge base.

LAWS 4511 Renewable Energy Law (3 Credits)
The development of renewable energy sources has grown exponentially both nationally and worldwide. The increased appetite for renewable energy sources has driven a need for more information about those sources and the significant legal implications arising from the development of those sources. This course is organized by resource–solar, wind, hydropower, biomass, and geothermal. It focuses primarily on critical legal issues in tort, property, and contract areas raised by the expansion of these key renewable energy sources. The course also addresses the role of energy efficiency and some of the broader legal hurdles facing renewable energy use from a nationwide perspective.

LAWS 4520 Remedies (3 Credits)
Remedies provides students with the basic principles and problems of damages, restitution, and equity. Students enter into an investigation of fundamental concepts, such as remedial goals, problems of proof, and the relationship between remedies and substantive rights. The course also explores equitable remedies and alternative remedial devices available in any given situation.

LAWS 4524 Russian for Lawyers I (3 Credits)
This is a unique chance to break stereotypes about Russia! This sequence of courses introduces students to the fundamentals of the Russian language, with emphasis on legal and economic vocabulary. More specifically, this includes vocabulary and reading assignments that involve finance, international trade, stock exchange, and with a special focus on Natural Resources and Environmental Law in Russia. No prior knowledge of Russian is required.

LAWS 4525 Russian for Lawyers II (3 Credits)
This course picks up where Russian for Lawyers I leaves off by continuing to introduce students to the fundamentals of the Russian language, but with an emphasis on legal and economic vocabulary. More specifically, this includes vocabulary and reading assignments that involve finance and banking, insurance, international trade, and stock exchange/securities matters. Prerequisite: LAWS 4524.

LAWS 4526 Sales and Leases (3 Credits)
This course examines the formation and terms, as well as remedies for breach, of contracts for the sale of goods under Article 2 of the Uniform Commercial Code (UCC). The course completes the coverage of Article 2 of the UCC that was introduced in the first-year Contracts course. In addition, the course also examines the provisions on leases in Article 2A, sales transactions involving the use of documents of title (Article 7) and letters of credit (Article 5).
LAWS 4527 School of Mines Exchange (3 Credits)

LAWS 4528 Securities Law (3 Credits)
Students in this course study the statues and regulations regulating the offer and sale of securities by private and public corporations. Course material information pertaining to the Securities Exchange Act of 1934; federal regulation of the public securities markets; insider trading; broker-dealer regulation; tender offers; and public corporations. Recommended prerequisites: LAWS 4190 or LAWS 4048.

LAWS 4529 Securities Litigation (3 Credits)
The main focus of this course is the granting of a security interest in collateral in exchange for a loan and the priority among creditors to the collateral in case the debtor defaults on its obligation to repay. Secured transactions can be involved in a wide variety of legal representations, including transactional matters and litigation. The Secured Transactions Class is designed to provide students with a working understanding of Article 9 of the Uniform Commercial Code and how it comes into play in these transactions. Students who have taken the Commercial Law Survey course should not take this unless they wish to study this subject in greater depth.

LAWS 4530 Secured Transactions (3 Credits)
This course covers the law of secured transactions in personal property. It is not a securities course. Students who have taken the Commercial Law Survey course should not take this unless they wish to study this subject in greater depth. The main focus of this course is the granting of a security interest in collateral in exchange for a loan and the priority among creditors to the collateral in case the debtor defaults on its obligation to repay. Secured transactions can be involved in a wide variety of legal representations, including transactional matters and litigation. The Secured Transactions Class is designed to provide students with a working understanding of Article 9 of the Uniform Commercial Code and how it comes into play in these transactions.

LAWS 4539 Social Change Lawyering (2 Credits)
This course explores the role of law and the legal profession in pursuing broader social causes across the political spectrum, such as the pursuit of civil rights for racial minorities or the effort to overturn the constitutional right to abortion. Distinguished from the practice of law solely advocating the interests of individual clients, social change lawyering is a major component of the legal profession of the 21st century. Known variously as “public interest law,” cause lawyering, and by numerous other labels, this area of practice implicates many important issues worthy of serious scholarly consideration. Some of the topics that may be examined include: the competing definitions of social change lawyering and the relevance of such definitions; the history of American law and social change; the role of progressive/conservative ideologies in social change lawyering; the role of government and private firm lawyers in effectuating social change; strategies and organizational models for social change lawyering groups; the relationship between social change lawyers and their clients; the economics and financing of social change lawyering; ethics and social change lawyering; legal education and social change. Throughout the course, students are asked to critically examine the role of lawyers in social change, and question whether and how lawyers have been effective agents of social change in American society. The course does not use a traditional casebook. Rather, students study a set of materials comprised of excerpts from law review articles and books, historical and sociological materials, and problems. Students are required to write short, reflective discussion board posts on each week’s readings, as well as a more comprehensive final paper. Students may elect to use this seminar to fulfill the upper level writing requirement if they submit a draft of the final paper and do a substantial rewrite after receiving the instructor’s feedback. Prerequisite: permission of instructor.

LAWS 4543 Sexual Orientation and the Law (3 Credits)
This seminar offers an opportunity for students to study the relationship between law and sexual orientation. Historically, law in this country consistently and pervasively regulated the realm of human identity and behavior we call sexuality. However, questions and claims challenging traditional assumptions about sexual orientation have surfaced in the last twenty-five years. Our study of sexual orientation and law allows students to view the relationship between law and society through a new lens, that of sexual orientation.

LAWS 4545 Sports Law (3 Credits)
The course studies the legal problems of professional athletics. It applies the application of contract law, antitrust, labor law and income tax to the functioning of a professional league. The question of governmental regulation of professional sports is a constant focus of students’ work. Special attention is given to the impact of these questions on negotiating players’ contracts.

LAWS 4550 State & Local Government (2,3 Credits)
The institutional framework within which the decision-making process affecting urban areas operate; the rules by which the formal power to govern in urban areas is organized, limited and divided among decision-making units. Although dealing largely with the subject matter of traditional courses in municipal corporations, this course broadens that perspective to include newer institutional and organizational arrangements.

LAWS 4552 Securities Law Seminar (3 Credits)

LAWS 4553 Spanish for Lawyers (3 Credits)
This course is in beginning Spanish with an emphasis on the development of listening, speaking, reading and writing skills. The focus is on creating conversational exchanges about selected topics and situations in the present and future tenses. Students practice oral communication skills needed to converse with Spanish-speaking clients, using basic legal terminology. The customs and culture of Spanish-speaking people are also examined with the aid of video programs, CDs and readings. Topics: Greetings, spelling names and addresses, personal descriptions, numbers, coordinating meetings (times, driving directions), family members, housing arrangements and meals, grammatical structures, present and future tenses of verbs, ser and estar, possessive adjectives, commands, por and para and direct object pronouns. Legal Topics: intake, phone etiquette, interview, fees, and confidentiality.
LAWS 4554 Spanish for Lawyers II (3 Credits)
This course is the second of a two part series in beginning Spanish with an emphasis on the development of listening, speaking, reading and writing skills. The focus is on creating conversational exchanges about selected topics and situations in the present and past tenses. Students practice oral communication skills needed to converse with Spanish-speaking clients using basic legal terminology. The customs and culture of Spanish-speaking people are also examined with the aid of video programs, CDs and readings. Topics: Daily routine, the concept of time, shopping, sports and pastimes, holidays and traditions, transportation and travel. Grammatical structures: past tenses, uses of ser and estar, reflexive verbs, double object pronouns, verbs like gustar. Legal topics: interviewing client (divorce, robbery, domestic violence, and traffic accident), explaining civil and criminal court proceedings.

LAWS 4555 Street Law (3 Credits)
Under faculty supervision, students in two-person teams will teach law in urban high schools. An underlying principle of the course is that one of the best ways to learn is to teach. There will be weekly seminars and field performances supervised by the instructor. Students will develop skills in: practical application of legal concepts; substantive topics in federal and Colorado Law; teaching techniques; classroom management; and the multi-faceted roles of lawyers in the community. Each student will participate in researching, drafting, and presenting a course in a particular field of substantive law.

LAWS 4556 Subsustainable Dev & Trade (3 Credits)
This seminar is designed to give an introduction to the convergence of trade, environment, and development issues and law, addressing areas of conflict and synergies among them. It focuses on rules, procedures, and institutions aimed at making globalization compatible with sustainable development by integrating trade policy and law with policies that address other aspects of “human development”, such as, environmental concerns, social concerns, human rights, gender issues, and governance. This course satisfies the Upper Level Writing requirement (ULW).

LAWS 4560 Colorado Legal Research (1 Credit)
This course will focus on Colorado-specific primary and secondary sources using a problem-based approach, so as to simulate the type of work performed at law firms. It is geared toward students who have some experience with research and want to improve their skills and writing ability before they finish law school. Students will gain hands-on experience researching judicial (case law), legislative (statutory), and executive (administrative) legal materials and will learn research methodologies and strategies to tackle research problems effectively. Classes will combine instruction with hands-on scenarios using print and electronic resources and students will complete research and writing projects for this course, which runs for the first seven weeks of the semester. Students are required to bring their laptops to class.

LAWS 4561 Criminal Migration Law Seminar: The Intersection of Criminal Law & Immigration Law (3 Credits)
This seminar addresses the historical and contemporary relationship between criminal and immigration law. In particular, the course explores how individuals perceived to have violated a criminal offense are treated in the immigration law system, how individuals thought not to be citizens of the United States are uniquely affected by criminal procedure norms and substantive criminal law, and how states and the federal government have sought to police criminal activity by noncitizens. In the process, course participants will learn to analyze constitutional, statutory, and regulatory provisions concerning immigration, as well as procedural and substantive requirements concerning criminal proceedings as they affect noncitizens. Participants will also consider the motivations that resulted in various enforcement policies grounded in civil or criminal law related to immigration and immigrants.

LAWS 4562 E-Discovery (3 Credits)
Litigation is undergoing a significant transformation as technology continues to evolve and Society transitions from a “paper” to a “digital” world. That transformation inevitably impacts the legal community, confronting lawyers and clients with the choice of conducting discovery on a pre-computer, “business as usual” basis or embracing the challenges and opportunities presented by “e-discovery.” This course provides students with an understanding of the legal and practical challenges presented by “e-discovery” and how electronically stored information (“ESI”) shapes and impacts litigation and the pretrial process.

LAWS 4563 Environmental Law, Energy, & Natural Resources in Indian Country (3 Credits)
This Seminar explores energy and natural resources development on Native American tribal lands in the United States, and how tribes, states and the federal government regulate and enforce environmental quality within Indian Country. The Seminar is open to all interested students and does not require any previous study or experience in American Indian law. It provides an introduction to tribal sovereignty and self-determination, along with some of the basics of Indian Country jurisdiction and tribal sovereign immunity. Students will examine the federal governments trust responsibility to Indian tribes and nations. The Seminar also examines the legal framework used to regulate and enforce environmental quality, traditional and renewable energy development, and the use and stewardship of other natural resources on Indian lands. The goal of this Seminar is for students to gain a greater awareness of Indian tribes and nations and the critical role they play in overall U.S. environmental, energy, and natural resource law and public policy.

LAWS 4565 Intellectual Property Capstone (3 Credits)
The intellectual property capstone is a simulation based course that crosses different intellectual property disciplines. Several different adjuncts are asked to prepare real world problems in different substantive and procedural contexts. The problems vary from year to year, but generally deal with patent, copyright and trademark law from litigation, administrative (i.e. representation before the patent and trademark office) and business perspectives. Students are expected to have taken at least one prior intellectual property course. This course fulfills the experiential component of the IP Certificate requirement.
LAWS 4589 LLM and Master's Internship (0 Credits)
The Sturm College of Law encourages students to gain practical experience and to develop professional skills in the legal and policy fields. Some students may elect to pursue externships for credit while others may choose to pursue paid opportunities during their study in the program. Internships are supervised by faculty and GLS department who interact with the eligible student and the employer or organization that provides the externship. The internship should provide a new learning experience for the student intern and must be related to their field of studies (e.g. business and commercial law; environmental law and policy). Satisfactory completion of the internship will result in a passing grade for the externship. The Program Director and/or GLS Advisor may serve as Supervisor for non-JD interns.

LAWS 4605 Taxation of Natural Resource (2 Credits)
This course outlines the financial, business, and legal tax problems that may be encountered during the acquisition, operation, and disposition of natural resources properties. It is a strong course for students to develop skills in general tax planning for natural resources ventures.

LAWS 4610 Torts (4 Credits)
This introductory course considers compensation for private wrongs, covering harm to persons and property, with attention to legal theories of intentional torts, negligence and strict liability.

LAWS 4615 Torts (Advanced) (3 Credits)
Advanced Torts combines practical and theoretical discussion of issues that personal injury lawyers face in practice. The topics in the seminar vary but generally include fee agreements, damages, use of experts, medical malpractice, hospital and other liens, subrogation, and governmental immunity. The seminar emphasizes the empirical reality of injuries, claims, and litigation. Prerequisite: LAWS 4610.

LAWS 4618 Representing Clients Before the SEC (3 Credits)
SEC insiders explain the processes and practices of the Division, intertwined with discussion and analysis of SEC enforcement actions past and present. This course gives students critical information to effectively represent a wide variety of clients before the Division, among them public companies, regulated entities, defrauded investors, and perpetrators of crime.

LAWS 4631 Space and Technology Law (3 Credits)
Space and Technology Law is not one particular area of law. Rather it is best thought of as a combination of numerous areas of policy and law (including the Communications Act, the COMSAT Act, the Defense Production Act, the Land Remote Sensing Act, the Commercial Space Act, the Arms Export Control Act, the Export Administration Act, and several other bodies of law) that come together to govern the Space and High Technology industries. There is extensive overlap between what is considered high tech and what is considered space and how they are treated from a legal and policy standpoint. The course explores many of these interrelated issues.

LAWS 4634 Motions Practice (3 Credits)
In this class, students learn how to present and argue pre-trial motions. These motions include motions from civil practice (motion for preliminary injunction, motion to dismiss, motion for summary judgment, etc.) criminal practice (motion to suppress, Rule 35 (c), etc.) and evidentiary motions (Rules 403, 404, and 405). In addition, the course covers both legal and evidentiary motions in limine. Each student is asked to prepare, present, and argue a motion, as well as decide motions presented by others after making appropriate findings of fact and conclusions of law. Because a number of the motions involve the presentation of witnesses and appropriate case and statutory law, students learn trial skills, as well as refresh their knowledge of criminal and civil procedure, and the rules of evidence. Students are not asked to draft motions or prepare written briefs.

LAWS 4635 Trial Practice I: Basic Courtroom Skills (3 Credits)
The course is designed to teach the concepts and organizing principles of the formal trial process. It emphasizes the understanding necessary to develop, evaluate, prepare, and present a case for trial before a judge, jury, or other fact-finder. Exercises and simulations are used to demonstrate the importance of theory building and teach the functions of each stage of a trial. Students develop the advocacy skills appropriate to adversary adjudication. Prerequisite or corequisite: LAWS 4235.

LAWS 4637 Civil Litigation Practicum (3 Credits)
This course provides students a practical, hands-on approach to civil pretrial litigation. Students draft pleadings, motions and discovery requests essential in the litigation process prior to the actual trial stage.

LAWS 4638 Trial Practice III: Mentor's Practicum (3 Credits)
The Mentor's Practicum employs and relies upon integrated teaching, feedback, student collaboration, and multiple assessment. The practicum is designed for law school students who have exhibited advanced skills in trial advocacy, client advocacy, case analysis and communication.

LAWS 4640 Trusts and Estates (4 Credits)
Students enrolled in this course learn the ins-and-outs of trusts and estates planning. The course surveys everything involving succession wills, trusts, the role of third parties to a trust or estate, and property disposition.

LAWS 4651 Legal Writing (Advanced) (3 Credits)
Course involves a series of writing assignments, normally related. Typically, students research an initial legal issue, and then draft a first office memo. After receiving detailed feedback, students do at least one revision of that first office memo. Students then undertake research for a second legal issue, and then draft a second office memo. After receiving detailed feedback, students then do a revision of that second office memo. Finally, students use the final versions of those two office memos to create a court document, which they then revise as their final assignment. This course satisfies the Upper Level Writing requirement (ULW).
LAWS 4660 Scientific Evidence (3 Credits)
The course begins with the U.S. Supreme Court decision in Daubert v. Merrell Dow Pharmaceuticals, Inc. (113 S.Ct. 2786 (1993)). This decision threw out the Frye Rule that had governed the admission of scientific evidence in federal courts since 1923. While the Daubert rule now applies in all federal courts, states are free to either stay with the Frye Rule, adopt the new Daubert Standard or adopt some combination of the two. Students discuss the implications of these evidentiary changes in a number of areas of legal controversy. The course concentrates primarily on the use of social science evidence; however, topics include tort litigation involving Bendectin, and the controversy over the use of DNA testing in criminal cases. Other topics include the use of scientific evidence in consumer confusion cases; obscenity cases and the question of community standards; and the number of syndrome evidence cases, including post-traumatic stress disorder, battered woman syndrome, and rape trauma syndrome. Constitutional law cases include coverage of death penalty issues, jury size cases, and school segregation by race and gender (including the controversy over single-sex education, and the ending of school busing mandates by the federal courts). The goal of this course is to increase the proficiency of lawyers to use scientific evidence on behalf of clients and be able to defend against such evidence when presented by the opposing counsel.

LAWS 4670 Water Law (3 Credits)
Water Law is an introductory course for students interested in pursuing water law. It covers private property rights in water, and the legal and environmental controls surrounding it. Recommended prerequisite: LAWS 4025.

LAWS 4672 International Water Law (3 Credits)
This course presents a global overview of water law, systems, and practice in the modern world. It includes coverage of hydrology, history, national legal systems, and modern international treaties and cases. It has a special emphasis on sustainable development, equitable utilization, pollution control, and ecosystem protection utilized for multi-nation water basins. LAWS 4670 Water Law and LAWS 4320 International Law courses are not a prerequisite, as basics will be covered.

LAWS 4674 White Collar Crime (3 Credits)
This course is designed for students with an interest in advanced criminal law practice, particularly the growing legal field of white collar crime. This seminar course will introduce students to the major substantive legal areas that make up the white collar field, including mail and securities fraud, bribery, health care fraud, conspiracy, and money laundering. In addition, students will learn the basics of conducting a corporate internal investigation, dealing with search warrants and subpoenas, criminal pre-trial matters, special considerations for criminal discovery, and common ethical issues. By the end of the course, students will have learned the basic substantive and procedural issues involved in white collar practice. Students will learn from and interact with a variety of practitioners drawn from the private and government sector. Instructor permission is required for enrollment.

LAWS 4686 Wills Lab (1 Credit)
This lab is designed to provide students with practical experience with interviewing and drafting for a real client while under the close supervision of a practicing attorney. Clients come primarily from Legal Aid. Each student is individually supervised by a volunteer attorney or by Prof. Marsh. The attorney goes with the student to the first interview with the client to assist the student if any difficulties come up in the interview. Then the student drafts the appropriate documents from scratch, and the attorney helps the student determine what revisions are necessary. When documents are in final form the attorney assists the student in having the documents properly signed. Documents include will, living will, and medical or financial powers of attorney, as appropriate. Letter grades are given by Prof. Marsh. Note that no student is allowed to drop the Wills Lab after the first interview with the client unless there is a severe medical emergency. There will be one introductory meeting scheduled during lunch time. All the rest of the work is scheduled individually by the student, supervising attorney, and client. NOTE: Students will NOT be allowed to drop the course after the first interview with the client. Prerequisite: LAWS 4640.

LAWS 4700 Special Topics (1-5 Credits)
LAWS 4701 Special Topics (1-5 Credits)
LAWS 4702 Special Topics (1-5 Credits)
LAWS 4703 Special Topics (1-5 Credits)
LAWS 4704 Special Topics (1-5 Credits)
LAWS 4705 Special Topics (1-5 Credits)
LAWS 4706 Special Topics (1-5 Credits)
LAWS 4707 Special Topics (1-5 Credits)
LAWS 4708 Special Topics (1-5 Credits)
LAWS 4709 Special Topics (1-15 Credits)

LAWS 4800 Criminal Defense Clinic (3 Credits)
This clinic offers students the opportunity to defend low-income clients charged with various criminal offenses. These offenses include DUI/DDWAI; domestic violence; assault; theft; disturbance; child abuse and neglect; menacing; etc. Students represent their clients in various municipal and county courts in the area. This course requires numerous court appearances for arraignments, pre-trial motions, and sentencing. Students should be prepared for an intense litigation experience in misdemeanor criminal defense. Students earn 3 out of class for this course and 3 in class credits through the corequisite course. Corequisite: LAWS 4801. Prerequisite: permission of faculty supervisor.
LAWS 4801 Criminal Defense Clinic Seminar (3 Credits)
The Criminal Law Clinic Seminar must be taken in conjunction with the Criminal Law Clinic. Class sessions will be devoted to a variety of topics, including classes on lawyering skills, substantive law, issues of lawyering and society, and case review sessions, in which student attorneys will present information about their cases/projects to each other and give and solicit feedback about issues they are confronting in the representation of their clients. The classes include simulation exercises that are critiqued by faculty, and field exercises that involve trips to the Denver jail. Classes are taught by clinical faculty and by guest speakers who include area judges, practitioners, interpreters and other court personnel. Clinic class will be held twice a week for 75 minutes each session. Students earn 3 in class credits for this course and 3 out of class credits through the corequisite course. Corequisite: LAWS 4800.

LAWS 4802 Environmental Law Clinic Seminar (3 Credits)
The ELCP clinic seminar must be taken in conjunction with the ELCP Clinic. During class, students will review federal civil procedure through a lecture series entitled "anatomy of a lawsuit," have specific lectures on effective legal writing, and commonly used statutes such as the Freedom of Information Act, and Endangered Species Act. Each student must also prepare a class presentation on their assigned major case, and participate in random, less formal docket meetings. Students must also attend four guest lectures from lawyers and other professionals on environmental law advocacy issues. Students earn 3 in class credits for this course and 3 out of class credits through the corequisite course. Corequisite: LAWS 4206.

LAWS 4803 Mediation & Arbitration Clinic Seminar (2 Credits)
The Mediation and Arbitration Clinic Seminar must be taken in conjunction with the Mediation and Arbitration Clinic. The seminar meets once a week for 90 minutes. Students read articles on mediation issues and receive intensive training in the classroom that is reinforced with classroom simulations. Students are also required to critique each other in the simulations. The seminar focuses upon identifying and resolving issues that arise during actual mediations. Students will earn 2 in class credits for this course and 3 out of class credits through the corequisite course. Corequisite: LAWS 4430.

LAWS 4805 Civil Litigation Clinic (3 Credits)
The Civil Litigation Clinic students represent low-income clients in a variety of civil disputes. The clinic permits students to participate in the selection of cases and problems they work on. Students have represented clients in areas involving wage and hour claims, housing discrimination, eviction defense and domestic violence protection orders. Additionally, the Civil Litigation Clinic requires some form of community outreach project enabling the student to learn about the client populations they serve. Students will earn 3 out of class for this course and 3 in class credits through the corequisite course. Corequisite: LAWS 4806.

LAWS 4806 Civil Litigation Clinic Seminar (3 Credits)
The Civil Litigation Clinic students represent low-income clients in a variety of civil disputes. The clinic permits students to participate in the selection of cases and problems they work on. Students have represented clients in areas involving wage and hour claims, housing discrimination, eviction defense and domestic violence protection orders. Additionally, the Civil Litigation Clinic requires some form of community outreach project enabling the student to learn about the client populations they serve. Students will earn 3 out of class for this course and 3 in class credits through the corequisite course. Corequisite: LAWS 4805.

LAWS 4807 Child Advocacy Seminar (2 Credits)
The Child Advocacy Externship Seminar is a course and taught by the Rocky Mountain Children's Law Center. In the fall semester, the seminar course focuses on the laws surrounding advocacy for children in dependency & neglect, delinquency, civil protection order, and education cases. In the spring, students can enroll in a 2-credit Advanced Child Advocacy seminar to expand on the fall semester with topics such as the overlap of child welfare and family law, immigration advocacy, appellate advocacy for children, trial practice in the child welfare context, ethical issues in the representation of children, and a variety of other hot topic child advocacy issues. Students can choose to also enroll in a corresponding externship for credit. For more information on the field work component, please visit http://www.law.du.edu/index.php/legal-externship-program/specific-externship-programs/child-advocacy-externship-program.

LAWS 4809 Child Rights Clinic (3 Credits)
The Civil Rights Clinic (CRC) represents individuals and groups in civil and human rights matters. The CRC's current cases address a range of complex constitutional issues litigated before the Federal District Court for the District of Colorado. Some of the claims currently being litigated in the CRC will impact constitutional jurisprudence nationwide. The current CRC docket is focused on the constitutional rights of prisoners. These cases challenge prison conditions and policies pursuant to the First, Fifth, Eighth and Fourteenth Amendments on issues such as: indefinite solitary confinement, failure to provide prisoners with adequate medical or mental health care, long-term denial of outdoor exercise, and the prison's refusal to provide meaningful process to individuals placed in long-term segregation. Students will earn 3 out of class for this course and 3 in class credits through the corequisite course L4812, Civil Rights Clinic Seminar. This course meets the Upper Level Writing requirement (ULW).

LAWS 4812 Civil Rights and Disability Law Clinic Seminar (3 Credits)
The Civil Rights Clinic (CRC) represents individuals and groups in civil and human rights matters. The CRC's current cases address a range of complex constitutional issues litigated before the Federal District Court for the District of Colorado. Some of the claims currently being litigated in the CRC will impact constitutional jurisprudence nationwide. The current CRC docket is focused on the constitutional rights of prisoners. These cases challenge prison conditions and policies pursuant to the First, Fifth, Eighth and Fourteenth Amendments on issues such as: indefinite solitary confinement, failure to provide prisoners with adequate medical or mental health care, long-term denial of outdoor exercise, and the prison's refusal to provide meaningful process to individuals placed in long-term segregation. Students will earn 3 in class credits for this course and 3 out of class through the corequisite course L4805, Civil Rights Clinic. This course meets the Upper Level Writing requirement (ULW).
LAWS 4867 Advising the Adviser: Compliance and Enforcement under the Investment Advisers Act (3 Credits)
This class will focus generally on investment adviser (IA) compliance with the federal securities laws and the Securities and Exchange Commission’s (SEC) role with respect to that compliance. We will focus on how to advise an IA with respect to SEC regulations, touching on topics such as an IA’s role as a fiduciary and an IA’s requirements with respect to marketing, best execution, and principal and cross trading. We will also focus on what’s necessary to establish and operate a robust IA compliance program.

LAWS 4880 DU Law Journal (0-3 Credits)
Scholarly journals are edited at the College of Law, allowing students to participate in research in various fields. Permission to enroll is obtained from the managing editor for credit of 0-3 semester hours.

LAWS 4884 Int’l Law Journal (0-3 Credits)
Scholarly journals are edited at the College of Law, allowing students to participate in research in various fields. Permission to enroll is obtained from the managing editor for credit of 0-3 semester hours.

LAWS 4888 Transportation Law Journal (0-3 Credits)
Scholarly journals are edited at the College of Law, allowing students to participate in research in various fields. Permission to enroll is obtained from the managing editor for credit of 0-3 semester hours.

LAWS 4889 Water Law Review (0-3 Credits)
Scholarly journals are edited at the College of Law, allowing students to participate in research in various fields. Permission to enroll is obtained from the managing editor for credit of 0-3 semester hours.

LAWS 4991 Corporate Apprenticeship Program (4 Credits)
The Corporate Apprenticeship Program’s purpose is to provide the opportunity for law students to learn about the distinct challenges facing corporate counsel. This program is offered solely in the spring term and consists of four mandatory seminars and 15 hours of work per week (preferably on consecutive days) in the legal department of sponsoring corporations. The interactive seminars are designed to introduce students to the practice environment and operations of an in-house corporate legal department.

LAWS 4996 Thesis (1-10 Credits)
The program is designed to allow students the opportunity to gain experience working in legal programs of concern to the legal profession and the community. Example placements include public defenders’ offices; prosecutors’ offices; the Attorney General’s office; Legal Service offices; judicial clerkships; and selected private firms. Need special enrollment permission from Internship/Externship Office. A maximum of 10 credit hours may be awarded for this program.

LAWS 4999 Directed Research (2-3 Credits)
Direct Research is an opportunity for students to research and write on any area of law approved by a full-time faculty member who agrees to direct the project. The research project must be completed within the semester for which the student is registered. The research is compiled into a paper of publishable quality. A copy is delivered to the supervising faculty member for grading and a second copy is delivered to the associate dean for academic affairs by the last day of exams for that semester. Students may petition for either two or three semester hours. A maximum of five semester hours credit for Directed Research is permitted in satisfaction of the 90-credit degree requirement. A Directed Research application form (available in the registrar’s office) signed by both the faculty supervisor and student is required for enrollment. The registrar’s office will register the student for his or her directed research once the student’s application form has been approved. All directed research projects must conform with the upper level writing requirement, which involves a mandatory rewrite, in addition to any other requirements. This course satisfies the Upper Level Writing requirement (ULW). Permission is required from the faculty supervisor and the Assistant Dean for Student Affairs to increase credit hours to 4 or 5.

LAWS 5025 Externship (1-10 Credits)
The program is designed to allow students the opportunity to gain experience working in legal programs of concern to the legal profession and community. Example placements include public defenders’ offices; prosecutors’ offices; the attorney general’s office; legal service offices; judicial clerkships; and selected private firms. Externship Seminar: In conjunction with the above field placement each student shall meet in a seminar under the supervision of a member of the law faculty to explore common and contrasting areas of professional responsibility, professional tasks and skills, decision making and dispute resolution presented in the various extern settings.

LAWS 5026 Trial Practice III: National Trial Team (3 Credits)
The Trial Teams Course is for the new and veteran students who are selected to represent the school on one of the national trial teams. The course meets one night a week during the summer session for five hours each night. The course is split into two sections, one for returning team members, and one for the newly-selected team members. The course is an advanced courtroom-simulation course in which students work intensely with other students and the instructor, delving into increasingly complex areas of case analysis, evidentiary interpretation and application, examination drafting and presentation, and ethical dynamics of fact patterns. The veteran section begins the first class with students presenting both sides of a criminal case. The new member section begins with refreshers on case analysis, evidence, and courtroom strategies, and culminates with final trials. There is weekly out-of-class case analysis, drafting, and preparation required. Grading is based on classroom participation, written homework, simulated courtroom presentations, and a final trial.
LAWS 5027 American Association for Justice Trial Team (3 Credits)
Sturm's American Association for Justice Trial Team (AAJ) is one of four of the school's advanced courtroom-simulation based "team-courses" in which students find themselves working intensively with five other students and an instructor, delving deeply into increasingly complex areas of case analysis, evidentiary interpretation and application, examination drafting and presentation, and ethical dynamics of fact patterns. Students must invited to be on one of Sturm's National Trial Teams, after tryouts that are held every spring (April). The team-courses meet all three semesters (fall, spring, and summer). Being invited onto one of the teams is a two-year commitment. Starting the first week of each semester, and continuing throughout the entire semester, the AAJ team-course meets twice a week in a classroom environment, for a total of 2.5 classroom hours per week. The AAJ team-course also meets a second time each week for courtroom simulation performances and video review, for an additional four (4) hours. There is also substantial out-of-class case analysis and examination drafting required. The team competes on the national level in the fall at an "invitational" tournament, and in the spring in the AAJ tournament against other ranked law schools from around the country. Grading is based on classroom participation, written homework, and simulated courtroom presentations. Prerequisite: LAWS 4635.

LAWS 5028 ABA Trial Team (3 Credits)
Sturm's ABA/NTC team is one of four of the school's advanced courtroom-simulation based "team-courses" in which students find themselves working intensively with five other students and an instructor, delving deeply into increasingly complex areas of case analysis, evidentiary interpretation and application, examination drafting and presentation, and ethical dynamics of fact patterns. Students must be invited to be on one of Sturm's National Trial Teams, after tryouts that are held every spring (April). The team-courses meet all three semesters (fall, spring, and summer). Being invited onto one of the teams is a two-year commitment. Starting the first week of each semester and continuing throughout the entire semester, the ABA/NTC team-course meets twice a week in a classroom environment, for a total of five (5) classroom hours per week. The ABA/NTC team-course also meets a third time each week for courtroom simulation performances and video review, for an additional four (4) hours. There is also substantial out-of-class case analysis and drafting required. The team competes on the national level in the fall at an "invitational" tournament, and in the spring in the ABA/NTC tournament against other ranked law schools from around the country. Grading is based on classroom participation, written homework, and simulated courtroom presentations.

LAWS 5029 Semester in Practice (1-12 Credits)
The Semester in Practice program is designed to allow students the opportunity to develop practice skills by working full-time in legal programs of concern to the legal profession and community. This is a capstone experience offered to students in their last year of law school, where students have significant exposure to the substantive law in their externship. Example placements include public defenders' offices; prosecutors' offices; the attorney general's office; legal service offices; judicial clerkships; and selected private firms. As this is an externship, credit may vary, up to 12 credits, depending on the student. Externship Seminar: In conjunction with the above field placement, each student shall meet in a three-credit graded seminar under the supervision of a member of the externship faculty to explore common and contrasting areas of professional responsibility, professional tasks and skills, decision making and dispute resolution presented in the various extern settings.

LAWS 5030 Semester in Practice Seminar (3 Credits)
This seminar is the classroom component of the Semester in Practice (SIP) course. Through class discussion, we explore a variety of issues that provide students with the opportunity to reflect on the legal profession and how they perceive their role in the profession - currently and prospectively. We focus primarily on professional identity and ethical issues of key importance to the practice of law.

LAWS 5031 Legal Externship Seminar (1-3 Credits)
The Legal Externship Program is divided into practice-specific programs. Students enrolled in each of these programs are required to also enroll in an accompanying for-credit seminar that addresses topics specific to each practice area.

Legal Administration Courses
MSLA 4050 The Impact of Court Governance (1 Credit)
This course informs students on the policy making process of local court governance and the impact of the process on court operations and public services. Various governance structures are explored to include the benefits of principle based governance. Students gain in-depth insight into the roles and relationships of judges and court administrators as leaders and governing authorities within the judicial system. Course knowledge is applicable to all levels of national and international court jurisdiction.

MSLA 4080 Law Firm Information Technology (2 Credits)
This course is designed to inform the student on the complexities of information technology in a law firm setting. Topics include time and billing, assessing the IT needs of the office, networking abilities, creating a paperless office, security, case management, outsourcing, and knowledge management.

MSLA 4090 Court Information Technology (2 Credits)
This course is designed to introduce students to the intricacies of information technology in a court setting and the importance of an efficient and effective system. Topics include communications technology (internal and external), virtual courthouses, electronic case filing, legal research systems, information and systems security, networking abilities and needs, court reporting/recording and accessibility to the public (website).

MSLA 4100 Court Fiscal Management (3 Credits)
This course focuses on the key aspects of fiscal management in a court setting. Students learn models of public budgeting, internal controls, procurement, outsourcing, RFPs, internal and external auditing, and government funding models. Prerequisite: MSLA 4410.
MSLA 4121 Human Res & Performance Mgmt (3 Credits)
This course will provide a broad overview of the field of human resource and performance management. Students learn what managers and administrators need to know to effectively address Human Resource issues in today’s workplace. The course will provide major concepts and techniques of performance management in law and court environments. By employing perspectives of both the employer and employee the class will focus on “best practices” utilized by managers and administrators and emphasize decision-making skills and processes in the context of Human Resources law and policy. Students will learn how to achieve organizational goals via management of a company’s most precious resource, their people. This textbook provides an overview of the content upon which the most common HRCI certifications (SPHR, PHR) are based.

MSLA 4151 Applied Leadership and Management Theory (3 Credits)
This course is designed to provide the student with an understanding of the importance of effective leadership and management in the workplace. Students will learn the tools necessary to manage conflict, build strong teams, function as a team, manage performance, create and maintain a positive work environment, and motivate others.

MSLA 4180 Court Case Flow and Load Management (2 Credits)
This course is designed to provide the student with the fundamental principles of managing an effective case management system. Students will learn the importance of an efficient case flow management system, the history of case management, electronic case filing, civil and criminal rules of procedure, case assignment, quality assurance and time standards and major case, records management and reporting systems, strategies necessary to gain judicial support, leadership and cooperation to effectuate effective case flow management practices, and improve judicial performance as it relates to the disposition of actions.

MSLA 4181 Inclusiveness in the Legal Profession - The Next Generation of Diversity Efforts (1 Credit)
Diversity and inclusiveness are hot topics in the legal profession. This highly interactive course will educate students about the state of diversity and inclusiveness within the legal profession, the systemic underpinnings of the lack of diversity, how to create inclusive environments for successful retention and advancement of female and diverse attorneys and staff, as well as the importance of diversity and inclusiveness to the viability of the legal profession. Students will be challenged to draw upon their own life experiences, to consider different perspectives, and provide thoughtful analysis on how they can incorporate diversity and inclusiveness practices with their career path and future legal organizations.

MSLA 4200 The Business of Courts (3 Credits)
This course is designed to provide the student with the fundamental principles and elements of the key functions performed by the courts. These functions include jury management, court based mediation and arbitration programs, court reporting, client expectations, contingency planning, continuity of operations planning, needs and expectations of litigants without lawyers, interpreter services, court and staff performance measurement and management, and the role of the court administrator.

MSLA 4201 Law Firm Administration (3 Credits)
This course informs the student of the fundamental principles, elements and day-to-day operational processes of law office management. Topics covered in this course include law office culture, law firm organization, succession planning, practice areas, client communication flow, collection challenges, and understanding and working with law office timekeeping, accounting, and billing systems.

MSLA 4205 Lawyer Recruitment, Development, and Advancement in Law Firms (2 Credits)
This course will focus on the key aspects of lawyer recruitment, development and advancement in law firms. Students will learn the primary methods for recruiting and hiring lawyers at all experience levels, and the most important elements of lawyer development, including orientation, integration, legal and core skills training, experiential learning, mentoring, performance management, and evaluations. Traditional compensation and advancement models, as well as emerging trends in all of these areas, will also be covered during the course.

MSLA 4215 Court Space, Facilities and Security (2 Credits)
This course is designed to inform the students of the fundamentals of managing the court’s space, facilities and security. Aspects of this course include: facilities management, operational standards and management, safety and security, assessing courthouse building needs, developing space planning reports, the management of all types of space projects, building and personnel security issues, contingency planning, and disaster recovery.

MSLA 4300 Introduction to the United States Judicial System (3 Credits)
This course provides the student with an overview of the United States judicial system. Students learn the fundamentals of our legal system, historical basis of the U.S. judicial system, the foundation, structure, purpose, what it stands for, and the varying levels of the U.S. court system.

MSLA 4301 Judicial Performance and Evaluation (1 Credit)
This course informs students on the complexities of judicial performance and evaluation. Students learn the fundamentals of developing a judicial performance program, measuring the effectiveness of performance recommendations, commissions on judicial performance, and the components of the evaluation process.

MSLA 4310 World Judicial Systems (3 Credits)
The goal of this course is to compare and contrast the role of the judiciary in various legal systems. Topics include types of courts and court systems (including domestic, supranational, i.e., the European Union, and international courts), judicial independence, separation of powers, and challenges facing the judiciary such as miscarriages of justice. Students also compare court procedures (civil, criminal, appellate review) in different types of legal systems.
MSLA 4320 Fundamentals of Comparative Law (3 Credits)
This course introduces the classifications of the world’s legal systems: (civil law, common law, Islamic law, customary law, and mixed law systems). Students will learn the general elements of a legal system then compare and contrast these features in different types of legal systems as they are used in various countries or other jurisdictions including the European Union. Students will also explore internet and electronic resources to research and analyze foreign legal systems.

MSLA 4330 Specialty Courts (2 Credits)
This course will provide the students with an understanding of the purpose, functionality and effectiveness of specialty courts. Topics will include the types of specialty courts and how to create them, maintaining sustainability, treatment options, demographics, budgeting and measuring specialty court performance.

MSLA 4380 Communication, Writing, and Research in Legal Business (3 Credits)
This is a foundation course is designed to provide students with effective, productive, and relevant communication, writing, and research skills used in legal business today. Topics will include writing press releases, social media news/headlines/updates, executive summaries, email strategies based on audience, etc.

MSLA 4384 Court Comm & Media Relations (2 Credits)
This course will inform the students how to address communications and manage media relations for the courts. Topics will include views of the court from multiple perspectives, communicating to different constituencies, public relations and customer satisfaction, and educational outreach programs.

MSLA 4385 Law Firm Communications and Technology (3 Credits)
This course is designed to build student’s foundation knowledge of technology in the legal environment. The competitive landscape in the law firm setting is stronger than it ever has been, and this competitiveness forces law firms to find efficient and innovative ways to conduct business in this new landscape through the use of technology. Topics of this course will include identification of technologies used in law firms and legal departments as well as thoughts about how to leverage those technologies to help gain efficiencies.

MSLA 4386 Law Firm Client Services and Satisfaction (2 Credits)
This course is designed to inform the student of the importance of client service and satisfaction and its value to the law firm. Topics covered in this course include external communication, client feedback, partnering with clients, client relationship management, and evaluation and survey design.

MSLA 4410 Accounting and Financial Management in Legal Business (3 Credits)
This course will explore the principals and practices of financial accounting including the standards that govern the preparation of financial statements in legal business. Students will gain a comprehensive overview of double entry accounting, a detailed understanding of assets, liability, equity, revenue and expenses and how they affect the income statement, balance sheet, and statement of cash flows. Special attention will be given to the unique attributes of financial reports related to law firms.

MSLA 4415 Statistics for the Legal Administrator (2 Credits)
This course will introduce the fundamentals of statistics for the legal administrator. Students will learn how to measure efficiencies and work performance, perform and analyze needs assessment, track productivity; measure cases flows, and assess client needs.

MSLA 4640 ADR for the Court and Law Firm Administrators (1 Credit)
This course has been designed for the Court/Legal Administrator to explore and understand the skills essential when negotiating/mediating conflict and to examine the ADR system designed for court-annexed, Federal/state agency and private sector arbitration/mediation programs. Students will have an opportunity to explore issues related to ADR in the public and private sector by actively participating in weekly online discussions and experience hands-on learning buy developing an ADR system to include the process for selecting a panel of ADR specialists, and a process for implementing and managing the program.

MSLA 4901 Law Firm Financial Management (3 Credits)
This course focuses on the key aspects of financial management in a law firm setting. Students analyze financial reports/data, work flow analysis and assessment, understand trust accounts, client billing and internal controls, to ultimately recognize and understand the financial health of the law firm. Prerequisite: MSLA 4410.

MSLA 4950 Strategic Planning in Courts (2 Credits)
This course is designed to prepare the student in creating a strategic plan for the courts. Students learn to think strategically, design surveys, perform an environmental analysis, set goals, develop action plans, and measurement tools.

MSLA 4954 Project Management (2 Credits)
This course is designed to provide students with the tools to effectively manage a project regardless of its size. Topics include clarifying the project goals, using objectives to define responsibilities, understanding GANTT and PERT charts, goal setting, prioritization, time management, consensus building, developing creative teams, empower the project team, motivating the team, communications tools, how to handle conflicts, and how to celebrate your success.

MSLA 4999 Directed Research MSLA (1-17 Credits)
MSLA Directed Research is an opportunity for students to research and write on any area of legal administration approved by an MSLA faculty member who agrees to direct the project. The research project must be completed within the semester for which the student is registered. The research is compiled into a paper of publishable quality that is delivered to the MSLA program director by the last day of exams for that semester. A Directed Research application form (available in the Registrar’s Office) signed by both the faculty supervisor and student is required for enrollment. The Registrar’s Office will register the student for his or her directed research once the student’s application form has been approved.
MSLA 5010 Capstone: Externship/Project (3 Credits)
The externship or creative project is designed to complement the student’s area of study. The externship enables the student to work in a practical setting and acquire the experience in a legal environment. The creative project option provides students, already working in the legal environment, an opportunity to complete a project or research paper on a topic determined by student and MSLA office. A grade of “pass” is given after the work is completed, and a letter from the supervisor summarizing the student’s experience is submitted to the MSLA Office.

University College
University College (http://universitycollege.du.edu/answers/why-university-college.cfm), the college of professional and continuing studies at the University of Denver, provides a fully accredited educational experience for busy adults through challenging and career-relevant classes online, on campus, or in a convenient combination of both. Earn your master’s degree (http://universitycollege.du.edu/masters-degrees.cfm) or add a new skill set to your portfolio with a graduate certificate (http://universitycollege.du.edu/certificates.cfm). At University College, education engages, challenges, and energizes our students.

Arts and Culture
Office: University College Student Support Center
Mail Code: 2211 S. Josephine St., Denver, CO 80208
Phone: 303-871-2291, 800-347-2042
Email: ucolsupport@du.edu
Web Site: http://www.universitycollege.du.edu

Master of Liberal Studies in Arts and Culture with a concentration in Art, Literature, and Culture
The Art, Literature, and Culture master’s degree is offered online, or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. University College offers graduate students the opportunity to experience and study rich and varied literary, visual, and performance art across a variety of cultures. The master’s degree concentration is an interdisciplinary program that is presented within a context of the political and social environment. Students will enhance their ability to be critical, active participants in the arts, as well as connect with artistic material and the act of creative expression.

Students will discover how the arts operate within culture from expert instructors, and they will develop a broad cultural literacy that will provide critical thinking skills needed to excel within the arts and culture industry. From performing arts to literature, film to visual art, a master’s degree in the Art, Literature, and Culture concentration from the University of Denver’s University College provides graduates with an outstanding education that helps to prepare them for a professional position within an art, literature, or culture field. Customize your Arts and Culture master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to:

• Plan for artistic programs and events
• Strategize organizational development, inclusiveness, and leadership
• Create plans for audience development
• Propose and apply entrepreneurial strategies to lead and develop arts and culture programs in nonprofit, governmental, and for-profit sectors

Master of Liberal Studies in Arts and Culture with a concentration in Arts Development and Program Management
The Arts Development and Program Management master’s degree concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults. Designed and developed for professionals in the arts and culture field, the Arts Development and Program Management master’s degree concentration focuses on the leadership knowledge needed to thrive. As students learn to become thought leaders within the arts and culture industry, they are exposed to effective management skills, solutions-oriented techniques applicable to arts organizations, and concepts for funding, marketing, and event planning.

The Arts Development and Program Management concentration teaches students to plan, sustain, and develop strategic marketing and funding methodologies for arts organizations, both nonprofit and for-profit. Expert instructors who work in the fields in which they teach will provide industry insight and help students achieve the practical knowledge needed to work as effective arts managers. Customize your Arts and Culture master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to:
• Plan events that promote the arts
• Determine, develop, and retain key audiences
• Evaluate the opportunities and build a strategic marketing plan using various forms of media
• Create plans and strategies to gain funding through grants, fundraising, and donations

Master of Liberal Studies in Arts and Culture with a concentration in Creative Writing

The Creative Writing master’s degree concentration is offered online, or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. The University of Denver’s University College Creative Writing master’s degree concentration helps students explore, define, and develop their writing abilities for both personal and professional satisfaction. Whether they are interested in writing fiction, creative nonfiction, poetry, or drama, intensive reading in literary genres and workshops in writing and revision will help students sharpen and deepen their writing skills. Creative Writing students can expect small class settings to provide the best opportunity for personalized learning.

In the Creative Writing concentration, students will move beyond mechanics and refine their writing skills to use the written language to communicate more clearly, artfully, and powerfully. Dedicated and experienced faculty members provide expert instruction, as they guide students to address their writing strengths and weaknesses in a supportive atmosphere. Students in the Creative Writing concentration love to learn creative writing and literature, and our graduates live the writing life, whether they teach writing or write for professional and personal reasons. Customize your Arts and Culture master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to:

• Write artfully, evoking emotions and expressing points of view
• Critique literature with the eye of a writer and editor
• Communicate clearly and powerfully
• Assess and address your own writing strengths and weaknesses

Certificate in Arts and Culture with a concentration in Art, Literature, and Culture

The graduate certificate in the Art, Literature, and Culture concentration is offered online, or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. The graduate certificate in Art, Literature and Culture concentration allows students to add a new skill set to their portfolio as they enhance their ability to be critical, active participants in the arts, as well as connect with artistic material and explore personal creative expression. Expert instructors from the field of arts and culture help students develop cultural literacy and the critical thinking skills needed to succeed within the arts and culture industry. From performing arts to literature, film to visual art, a graduate certificate in the Art, Literature, and Culture from the University of Denver's University College provides graduates with an outstanding education that helps to prepare them for a professional position within an art, literature, or culture field. Credits earned through this graduate certificate may apply toward a master’s degree in Arts and Culture.

This certificate prepares students to:

• Plan for artistic programs and events
• Strategize organizational development, inclusiveness, and leadership
• Create plans for audience development
• Propose and apply entrepreneurial strategies to lead and develop arts and culture programs in nonprofit, governmental, and for-profit sectors

Certificate in Arts and Culture with a concentration in Arts Development and Program Management

The graduate certificate in Arts Development and Program Management concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults. Designed specifically for professionals in the arts management and cultural fields, the graduate certificate in Arts Development and Program Management concentration focuses on the entrepreneurial skills needed to excel within an arts organization, such as funding and leadership techniques. With a graduate certificate in Arts Development and Program Management concentration, students will be prepared for vibrant careers as managers or facilitators in an arts organization. Applied, hands-on courses delivered online or on campus in the evenings, or in a combination of both, will prepare students for a fast-paced arts and culture career. Learn best practices for the arts and culture industry and utilize them in arts organization innovation and event planning, as well as marketing and fundraising. Credits earned through this graduate certificate may apply toward a master’s degree in Arts and Culture.

This certificate prepares students to:

• Plan events that promote the arts
• Determine, develop, and retain key audiences
• Evaluate the opportunities and build a strategic marketing plan using various forms of media
Certificate in Arts and Culture with a concentration in Creative Writing

The graduate certificate in the Creative Writing concentration is offered online, or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. The University of Denver’s graduate certificate in Creative Writing concentration helps students explore, define, and develop their writing abilities for both personal and professional satisfaction. Whether they are interested in writing fiction, creative nonfiction, poetry, or drama, intensive reading in literary genres and workshops in writing and revision will help students sharpen and deepen their writing skills.

Through the graduate certificate in the Creative Writing concentration, students move beyond mechanics and refine their writing skills to use the written language to communicate more clearly, artfully, and powerfully at a professional and personal level. Dedicated faculty members provide expert instruction, as they guide students to extend their potential as writers. Students in the Creative Writing concentration love to learn creative writing and literature, and our graduates live the writing life. University College allows students to foster creativity in a positive atmosphere, helping them to sustain and strengthen their creative writing prowess. Credits earned through this graduate certificate may apply toward an Arts and Culture master’s degree.

This certificate prepares students to:

- Write artfully, evoking emotions and expressing points of view
- Critique literature with the eye of a writer and editor
- Communicate clearly and powerfully
- Assess and address your own writing strengths and weaknesses

Master's Degree Admission

Admission Criteria

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted on a provisional basis. The GMAT and GRE are NOT required.

Admission Process

Master’s degree applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/masters.cfm).

- Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- Application Fee: A $75 non-refundable application fee is required for an application to be processed.
- One Official Transcript from each Post-Secondary Institution: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
- Two Letters of Recommendation: Two confidential letters of recommendation are required.
- Personal Statement: A personal statement (two pages double spaced) is required. The statement should include information on how the degree will enhance career plans and meet educational goals. Sharing personal experiences, abilities, achievements, and goals is encouraged. This document has considerable influence in the decision to admit applicants with attention given to written communication skills.
- Résumé/Curriculum Vitae (CV).
- Degree Plan: The degree plan, detailing courses for the academic program, is required to complete the admission process and can be completed through the University College online Degree Builder (http://universitycollege.du.edu/DegreeBuilder/Student/ChooseDegree.aspx) tool.
- Language Proficiency: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
- Proof of Permanent Residency: Permanent Residents must provide a copy of their Registration Alien Card (green card).
- Admission Interview: An interview may be required at the program director’s request.
- Creative Writing Applicants: Applicants must submit a writing sample (2-3 pages) in any genre.
- International Applicants: Additional requirements are listed below for international applicants.
Certificate ADMISSION

Admission Criteria
A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process
Certificate applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

- Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- Application Fee: A $50 non-refundable application fee is required for an application to be processed.
- One Official Transcript from each Post-Secondary Institution: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
- Résumé/Curriculum Vitae (CV).
- Certificate Plan: The certificate plan, detailing courses for the academic program, is required to complete the admission process and can be completed through the University College online Degree Builder (http://universitycollege.du.edu/DegreeBuilder/Student/ChooseDegree.aspx) tool.
- Language Proficiency: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
- Proof of Permanent Residency: Permanent Residents must provide a copy of their Registration Alien Card (green card).
- Admission Interview: An interview may be required at the program director’s request.
- Creative Writing Applicants: Applicants must submit a writing sample (2-3 pages) in any genre.
- International Applicants: Additional requirements are listed below for international applicants.

International aDMIssion
International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College’s International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees are the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.

Additional Admission Requirements for International Applicants
- English Proficiency: All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.

1. **TOEFL:** A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.

2. **Academic IELTS:** A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.

3. **Possible Exemptions:** International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.

4. **English Conditional Acceptance (ECA):** Master’s degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA
requires an evaluation by the University of Denver’s English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.

- **Official Transcripts and Translations**: International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.

- **Photocopy of Diploma/Degree Certification and Appropriate Translations**: Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.

- **A Photocopy of Current Passport**: Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.

- **The Supplemental Information Form (SEVIS Supplement)**: Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.

- **Financial Verification Form**: Applicants seeking an I-20 student visa must submit financial verification documents.

**Master of Liberal Studies in Arts and Culture with a Concentration in Art, Literature and Culture**

**Degree Requirements**

<table>
<thead>
<tr>
<th>Core coursework requirements:</th>
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<tbody>
<tr>
<td>MALS 4470</td>
<td>Arts and Culture: History, Context, and Trends</td>
</tr>
<tr>
<td>MALS 4480</td>
<td>Arts and Culture: Best Practices and Practical Skills</td>
</tr>
<tr>
<td>MALS 4490</td>
<td>Cultural Participation and Program Planning</td>
</tr>
<tr>
<td>MALS 4915</td>
<td>Research in Humanities</td>
</tr>
<tr>
<td>MALS 4901 or MALS 4902</td>
<td>Capstone Project</td>
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<tr>
<td>or MALS 4904</td>
<td>Capstone Seminar</td>
</tr>
<tr>
<td>or MALS 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
</tr>
</tbody>
</table>

**Concentration requirements (Choose four courses):**

| MALS 4050 | World Visual & Performance Art | 4 |
| MALS 4444 | Emerging Trends in Art | 4 |
| MALS 4750 | Literature to Film | 4 |
| MALS 4755 | World Literature | 4 |

**Elective requirements (Choose three courses):**

| MALS 4070 | The Writing Life: Concepts, Practices, and Professionalism |  |
| MALS 4080 | Literary Genres for Writers: Drama, Fiction, Creative Nonfiction, Poetry |  |
| MALS 4745 | Children’s Literature |  |
| MALS 4880 | From Romance to Realism | |

**Total Credits**

| 48 |

**Minimum number of credits required: 48**

Students will work with their personal academic advisor to determine the best set of courses to choose for their electives.

A satisfactory quality of achievement with a grade point average of “B” (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of “C” grade. A grade lower than “C” renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

**Master of Liberal Studies in Arts and Culture with a Concentration in Arts Development and Program Management**

**Degree Requirements**

<table>
<thead>
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<th>Core course requirements:</th>
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<tr>
<td>MALS 4470</td>
<td>Arts and Culture: History, Context, and Trends</td>
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<td>MALS 4480</td>
<td>Arts and Culture: Best Practices and Practical Skills</td>
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Arts and Culture

MALS 4490  Cultural Participation and Program Planning  4
MALS 4905  Graduate Social Research Methods  4
MALS 4901  Capstone Project  4
or MALS 4902  Capstone Seminar
or MALS 4904  Interdisciplinary Capstone Seminar

Concentration requirements (Choose four courses):
MALS 4280  Funding the Arts and Program Development  4
MALS 4281  Event Planning  4
MALS 4283  Marketing the Arts: Audience Development and Retention  4
MALS 4284  Arts and Culture Entrepreneurship  4

Elective requirements (Choose three courses):  12
MALS 4050  World Visual & Performance Art
MALS 4070  The Writing Life: Concepts, Practices, and Professionalism
MALS 4080  Literary Genres for Writers: Drama, Fiction, Creative Nonfiction, Poetry
MALS 4270  Writing & Healing
MALS 4444  Emerging Trends in Art
MALS 4740  Natural Science and Literature
MALS 4745  Children's Literature
MALS 4750  Literature to Film
MALS 4755  World Literature
MALS 4880  From Romance to Realism

Total Credits  48

Minimum number of credits required: 48

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Master of Liberal Studies in Arts and Culture with a Concentration in Creative Writing

Degree Requirements

Core course requirements:
MALS 4070  The Writing Life: Concepts, Practices, and Professionalism  4
MALS 4080  Literary Genres for Writers: Drama, Fiction, Creative Nonfiction, Poetry  4
MALS 4190  The Writer's Workshop  4
MALS 4915  Research in Humanities  4
MALS 4901  Capstone Project  4
or MALS 4903  Creative Capstone Seminar
or MALS 4904  Interdisciplinary Capstone Seminar
or MALS 4920  Portfolio Capstone

Concentration requirements:
MALS 4090  Writing for the Stage: Fundamentals of Writing Drama  4
MALS 4120  Writing Non-Fiction  4
MALS 4130  Fiction Fundamentals  4
MALS 4150  Poetry: The Voice Within  4

Elective requirements (Choose three courses):  12
MALS 4163  Writing the Screenplay
MALS 4175  Literary Translation
MALS 4240  Memoir & Personal Essay
MALS 4260  Writing the Short Story
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### Certificate in Arts and Culture with a Concentration in Art, Literature and Culture

**Program Requirements**

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**Minimum number of credits required:** 48

### Certificate in Arts and Culture with a Concentration in Arts Development and Program Management

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Certificate in Arts and Culture with a Concentration in Creative Writing

Program Requirements

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Total Credits: 24

Minimum number of credits required: 24

Courses

MALS 4020 Graduate Research and Writing (4 Credits)
Critical thinking, accomplished through solid research and clear writing, is paramount to success in one's academic and professional pursuits. This course enables students to develop clear analytic and rhetorical writing skills at the graduate level; these skills are utilized throughout the curriculum in all degree areas. Each student organizes and produces a focused paper on a topic related to the student's degree field that contains a continuing argument centered around a clear thesis statement supported by the work of experts. Sources are evaluated for validity and incorporated in the paper with regard to the absence of plagiarism and proper Turabian author-date documentation. Focusing on the thesis statement, students research and analyze current data and trends in the field, build a rhetorical argument, and draw conclusions. The course stresses editing and revision for mechanics, style, and language. It is designed to improve writing and communication skills for use in academic and professional settings. This course is required of all degree seeking students and should be taken in the first two quarter of enrollment. A final grade of B or better must be earned in this course to meet degree requirements.

MALS 4030 Philosophy and Spirituality (4 Credits)
Throughout time human beings have used systems of thinking and belief to grasp at the big questions of life, including the search for meaning, the existence of God, and whether we are truly free or living according to a predestined path. This core course examines various wisdom traditions, sets of spiritual belief, and schools of thought from throughout the world. In it, students will draw upon diverse wisdom and spiritual traditions and apply good critical thinking to contemporary ethical situations. Students will demonstrate an ability to comprehend and use key terms in philosophy and spirituality and learn to develop a discerning attitude toward systems of thought and spirituality. They will also recognize methodology used in philosophical and spiritual discourse, and contemplate how to apply philosophy and faith to problems and situations in today's world.

MALS 4045 The Human Condition (4 Credits)
Within the rich tradition of the liberal arts and humanities lies the study of the social sciences, the academic undertaking of viewing and understanding the human condition. It is important for the humanist scholar to think about who we are, and how we are doing as people. This core course focuses on the disciplines that gauge how individuals and groups live, learn and grow - sociology, psychology, gender and sex studies, marriage and family, anthropology, and related subjects. The class uses case studies to examine how people live and react to their circumstances.

MALS 4050 World Visual & Performance Art (4 Credits)
This course draws upon global artistic traditions of visual art and performance in conveying how human beings express ideas, themes, and emotions. Students view and experience artistic forms and movements throughout history and from a variety of traditions across the world, critically analyzing art movements and forms across time. They synthesize ideas across cultures, traditions, and types of creative expression and make connections and distinctions between genres and art forms. A different, rich, artistic theme is the focus each time the course is taught.
MALS 4070 The Writing Life: Concepts, Practices, and Professionalism (4 Credits)
This course aims to provide aspiring writers a basic knowledge of the creative and professional tools they will need to succeed, whatever their individual goals or life situation. This course tackles questions and challenges common to all writers at one time or another. Primary considerations include: What exactly does it mean to be a writer? What are my motivations for wanting to write? How can I identify and prioritize writing projects? How do I move my writing projects forward from concept to completion? These primary challenges require writers to narrow their creative focus and to cultivate habits of thought and behavior that sustain creative efforts in a world full of distractions, obligations, and competing claims on their time.

MALS 4080 Literary Genres for Writers: Drama, Fiction, Creative Nonfiction, Poetry (4 Credits)
This course deals with the four core literary genres: Drama, Fiction, Creative Nonfiction, and Poetry. These genres are distinguished from one another in two ways: first, by the relative weight each genre gives to the key cross-genre elements, and secondly, by each genre’s distinctive approach to structure and form. Within each genre, subgenres have evolved over time, each recognizable by particular patterns, each playing by a distinct set of rules. Whether writing within or across or even against those rules, writers need to understand how literary genres work in order to write effectively. This course aims to foster that understanding and prepare students to shape their writing in ways that align with their creative vision.

MALS 4090 Writing for the Stage: Fundamentals of Writing Drama (4 Credits)
This course uses readings of dramatic texts, brief lectures, writing assignments, and the performance of those writings to develop the skills required to write for the stage. Students learn the essentials of drama, including the design of effective plots, the creation of vivid characters, and the writing of performable dialogue. Students also explore the effects of drama’s necessarily collaborative process and varieties of stagecraft on the way playwrights shape their texts. Examples illustrate successful uses of key dramatic techniques and help students explore various approaches to expressing themselves fully and clearly through a range of open-ended exercises. Students also develop practical critiquing skills with the aim of helping themselves and their classmates create compelling plays that appeal to both theater professionals and theatrical audiences.

MALS 4120 Writing Non-Fiction (4 Credits)
This course concentrates on the craft of writing nonfiction, which includes genres and approaches such as memoir, the personal essay, narrative nonfiction, travel writing, humor, criticism, and experimental forms. Class discussions involve some lecture but are structured more as a workshop. Students learn about writing and write about learning. Members of the class are expected to express their ideas about the craft and to workshop their writing. The class is a safe place for writers to share their work with others and to learn from one another.

MALS 4130 Fiction Fundamentals (4 Credits)
effective, powerful writing requires skills that can be acquired. This course is a combination of workshops and lectures focusing on the interplay of plot, characterization, and pacing. Students learn to turn personal experience into story structure and tap the psychological well-spring which enables writers to sustain momentum. The instructor utilizes literary examples to illustrate successful uses of these concepts. Students are invited to bring material at any stage of development to the first class. During the course, development and critique of each student’s material is encouraged.

MALS 4150 Poetry: The Voice Within (4 Credits)
This course is a combination of readings in poetry and poetics, brief lectures, and open discussions focused on the interplay of image, metaphor, rhythm, emotions and ideas in the expressive form of writing called poetry. Students learn to tap the imaginative sources that all creative writing springs from and flow those energies into poetic form. Examples illustrate successful uses of key poetic concepts and help students explore various approaches to expressing themselves fully and clearly through a range of open-ended exercises. Students develop practical critiquing skills with the aim of helping themselves and their classmates write with greater subtlety and power.

MALS 4163 Writing the Screenplay (4 Credits)
Screenwriting is the art of telling a story in images. This class focuses on elements of form and structure, with particular emphasis on format, character development, plot and dialogue. Movies are studied to illustrate genre, fixed and fluid characters, tragic flaw, the dynamic of relationships, development of protagonist and antagonist, and other screen elements. Numerous in-class exercises, discussions, workshops and screenings enable students to find the dramatic essence of stories, write a detailed film synopsis, treatment, and the first act of a feature-length screenplay.

MALS 4175 Literary Translation (4 Credits)
Translation is essential for a genuine exchange of ideas between people of different linguistic and cultural backgrounds. Besides being an essential service for cultural understanding, literary translation is also a form of creative writing. This course includes readings in the history, theory, and practice of literary translation, along with analysis of sample translations by leading translators. Students will also practice translation of literary texts, including poetry and short works of fiction and nonfiction. While increasing the student’s awareness of the art of literary translation as an end in itself, the course also demonstrates translation’s value in enriching a writer’s development in his or her own work. Students should have basic skills in the source language of their choice, but full fluency is not required.

MALS 4190 The Writer’s Workshop (4 Credits)
A writer writes” is the universal mantra of the writing life, but one of the critical steps in developing a work in progress is getting constructive feedback. Unfortunately, all too often, a writer ends up disappointed because the feedback received is superficial, too polite, or little more than proofreading. This course teaches students to workshop in a meaningful way, responding to content, focus, coherence, and organizational issues. Students learn to elicit more feedback from their workshop colleagues, demonstrating the relationship between reader and writer. The class explores a variety of genres, and each student produces short exercises and longer projects that demonstrate a grasp of various aspects of the writing craft. Periodically, guest authors with different writing specialties join the class to discuss the writing experience and shed light on the workshop process.
MALS 4240 Memoir & Personal Essay (4 Credits)
Personal essays and memoirs are forms of writing that attempt to arrive at universal truths through self-exploration. Students examine the work of several modern essayists and analyze a literary memoir. Through course readings, writing, workshopping, and discussions, students analyze and apply what makes this writing work. By incorporating literary elements such as conflict, characterization, dramatic structure, and transformation, students turn their personal experiences into meaningful nonfiction narratives. As V.S. Pritchett said of the memoir, "It's all in the art. You get no credit for living." Personal essays need not deal with the author's biography at all, only with his or her experience in a limited way. This course combines reading, writing, analysis, and discussion facilitation.

MALS 4260 Writing the Short Story (4 Credits)
The dramatic elements of the short story are distinct from any other form of fiction. This workshop is for writers who plan to seriously study the form of the contemporary short story, and to apply their learning to their own projects. Students focus equally on reading published works and writing/revising an original short story, as well as discussing aspects of publishing. Weekly writing exercises, readings, and workshops of student stories are combined to provide the most direct, effective training in this dynamic form. Prerequisite: MALS 4130 (Fiction Fundamentals).

MALS 4270 Writing & Healing (4 Credits)
Many writers attest to the emotional, spiritual, and even physical benefits of writing. In this course, we explore a variety of ways written expression can help us navigate the human journey. Students learn leading theoretical models of journal and poetry therapy (interactive bibliotherapy), assess poems for use in personal growth contexts, and participate in experiential discussions and writing exercises. Students focus on the writing and healing process rather than their own self-explorations of healing through writing. Students submit a portfolio of reflection writings, as well as complete a final paper on a writing topic that intersects with a personal growth experience or interest.

MALS 4280 Funding the Arts and Program Development (4 Credits)
Arts organizations must always consider funding when developing programming. Organizational strategic planning is analyzed, and fundraising is examined as a major component of that planning. Various tools and techniques for fundraising, including communication and planning skills, are analyzed and applied to case studies. Students explore different forms of fundraising and their implications for programming, which may include private or public grants, governmental funding, fundraising events, and private donations.

MALS 4281 Event Planning (4 Credits)
Events and festivals play a large role in promoting the arts and developing links between the arts community and wider audiences and patrons. Students address various topics associated with event and festival planning and management, such as program development, marketing and audience development, venue considerations, and building partnerships. Students create an event program and plan.

MALS 4283 Marketing the Arts: Audience Development and Retention (4 Credits)
This course provides a strategic approach to audience and markets. Students study basic principles of marketing and audience identification. They build strategic marketing plans that are cohesive with the mission and programming of the organization, utilizing various forms of media. Audience characteristics are examined from various perspectives, and theories of creating commitment to the arts are studied. Students create an arts marketing plan for an organization or event.

MALS 4284 Arts and Culture Entrepreneurship (4 Credits)
In any sector of the Arts and Culture field, whether government, non-profit, or for profit, it is essential to be able to develop programs and/or organizations from conception through implementation and assessment. This development requires the clear communication of what is needed to develop, implement, and sustain this plan over time. In this course, students take an entrepreneurial approach to develop a program or organization in the arts and culture field. Students develop and present a comprehensive business plan to define, map, structure, and assess the program / organization in either the non-profit or for profit sector.

MALS 4440 Artists on Art (4 Credits)
This course explores the professional life of the artist, including how artists conceive of a vision for their work, organize their time and space, and communicate about their art. Students read significant works (diaries, correspondence, and essays) by and about artists, and have opportunities to interact with working artists. Students keep and produce a journal to explore ideas, plan projects, and describe methods and media to be used in their current or proposed work.

MALS 4442 History of Methods and Media (4 Credits)
This course provides a review of selected periods and movements in the history of art with special attention to the methods, materials, media and design techniques used by artists of different eras. Students explore the relationships of available technologies and media to the purpose and social influences that created particular stylistic periods and movements. Through careful study of images and by completing several brief assigned projects, students explore typical artistic problems and generate creative responses.

MALS 4444 Emerging Trends in Art (4 Credits)
This course focuses on what is "going on" in the arts: contemporary trends, what's hot, what's not, and why. Selected themes in modern and contemporary art are reviewed to help students discover how their art will fit into or counter emerging trends in art. The latest cutting edge developments in art are explored, and students are challenged to describe the place and purpose for their work.

MALS 4448 Studio Art: Drawing (4 Credits)
This studio course explores essential components of drawing including composition, line, value, proportion, shape, positioning, and perspective. Materials to be covered include pencil, charcoal, pastel, and pen and ink. Light source, shading, and value are also addressed. Drawing styles and techniques explored in this course vary each session.
MAL 4450 Studio Art: Painting (4 Credits)
This studio course is designed for students working beyond the beginning level in painting and will involve extensive experimentation with materials and techniques to address individual painting problems identified by faculty and students. The organization of ideas and development of personal imagery are addressed. Painting styles and techniques explored in this course vary each session.

MAL 4452 Studio Art: Ceramics (4 Credits)
This studio course focuses on the use of the potter’s wheel as a ceramic tool. Work will include simple to complex thrown and altered forms. Hand-building techniques and non-traditional approaches to use of materials, glazing and firing are also studied. Styles and techniques explored in this course vary each session.

MAL 4454 Studio Art: Sculpture (4 Credits)
This studio course addresses core issues of three-dimensional form. Students learn about the processes of modeling, casting, carving, and construction of armatures. Emphasis is placed on discovering where images and ideas come from, how they develop, and how they interface with various materials and techniques for sculptural representation.

MAL 4455 Into the Future: Global Trends and Forecasting (4 Credits)
Why is learning about the future important today? How do we look into the future and analyze the dynamic global environment that is changing on a daily basis? This course will challenge students to look into the future and examine the following seven important trends: Globalism, Human Genome/Cloning, Migration/Generational Change, New Energy Processes, Religion/Ethics, Security/Terrorism, and Technological Change. Each student will write a research paper analyzing a future trend or issue and give a class presentation about their findings. In so doing, they will demonstrate an awareness of the pitfalls and opportunities for humanity in this interlinked, globalized, 21st century world.

MAL 4456 Studio Art: Photography (4 Credits)
This course explores the techniques and aesthetics of artistic photography, including a thorough overview of old and new methods. Instruction includes camera use, picture processing, and presentation. Assignments provide a context for developing technical skills and exploring personal interpretation.

MAL 4458 Studio Art: Printmaking (4 Credits)
This course introduces intaglio and relief printmaking methods in addition to paper lithography. Intaglio techniques include copper plate etching and engraving. Relief printing includes linoleum cut and woodcut methodology. Single plate black and white and multiple plate color methods are reviewed. Students focus on work in one of these media for a class project.

MAL 4460 Studio Art: Digital Art (4 Credits)
This course lays the groundwork for design literacy and digital art making. Class objectives include understanding how meaning is formed and learning digital applications in art reflecting cultural, social, political and psychological contexts. Students are expected to complete pre-course work to gain software literacy and attend a post-course critique; class time is spent on creating digital art works.

MAL 4462 Studio Art: Mixed Media (4 Credits)
This course explores the techniques and aesthetics of mixed media in visual art, including an exploration of innovative media use. Instruction includes method and media processing and presentation. Assignments provide a context for developing technical skills and exploring personal interpretation.

MAL 4470 Arts and Culture: History, Context, and Trends (4 Credits)
This course examines the significant and growing economic, social, and educational impact of the arts in today’s rapidly changing environment. Discussion of current and historical trends in the visual, performing, literary, and media arts provide a context for practical applications in the field.

MAL 4480 Arts and Culture: Best Practices and Practical Skills (4 Credits)
This course provides a comprehensive overview of nonprofit best practices with specific applications to arts and culture organizations. Governance, budget planning and management, organizational development, advocacy, marketing and fundraising, community and rural development, event planning and facilities management are discussed using exemplary and diverse arts organizations as case studies.

MAL 4490 Cultural Participation and Program Planning (4 Credits)
In this course, students explore changing attitudes and participation in the arts and the need for innovative approaches to engage audiences. Audience development and involvement is explored, especially in terms of arts education. The connection between cultural participation and program planning is closely examined. Various models are discussed on a theoretical level, and diverse arts organizations serve as case studies for practical applications.

MAL 4530 China and The Pacific Rim (4 Credits)
This course is an introduction to the rich cultural traditions of Asia, past, present and future—its religious and philosophical systems, artistic and literary contributions, and patterns of political, social, and economic development. It will also investigate the shared experiences of Asian Americans in the U.S. with an emphasis on people of Chinese, Japanese, Korean, Southeast Asian, Pacific Islander and South Asian ancestry. Contemporary issues such as ethnic association, discrimination, interracial conflict, generational differences, and gender roles and relationships also will be covered. Students are expected to gain from this course and appreciation of the cultural complexity of Asia and Asian-American communities.

MAL 4544 The Middle East (4 Credits)
The Middle East has been referred to as the “World Trouble Spot,” but it is also a region of vibrant cultural traditions and a rich past, present and future. Students in the course examine the impact of the Middle East’s history - and its unique artistic, literary, and cultural contributions - on the present day. They also study the current Middle East peace process, the oil economy, and radical Islam as it relates to jihadism and terrorism.
MALS 4546 Africa (4 Credits)
This course focuses on the study of literature, politics, and culture of Africa from pre-colonial times to the present. The course begins with an examination of Africa as the "navel of the world" with a discussion of some key moments in African history. Students explore the four regions of Africa with country or region-based examples of culture and politics - colonial rule in East Africa, war of independence in North Africa, military rule in West Africa and Apartheid in Southern Africa. In each case, historical accounts as well as literary representations will be presented in political, social, and economic contexts.

MALS 4552 India and Pakistan (4 Credits)
India and Pakistan hold core beliefs that are almost diametrically opposed. India advocates Democracy, religious freedom, non-violence and technology. Pakistan exemplifies the rise of radical Islam, return to Sharia law, and promotion of Jihad. In this course, students will explore the themes of religious freedom, Dharma, non-violence, and Democracy as taught by Emperor Ashoka, Gandhi, and Nehru. They will also explore the establishment of Sharia law in Pakistan and Jihad as a military strategy to deal with India (Kashmir) and Soviet Union (Afghanistan and the Taliban).

MALS 4605 Sustainable Development (4 Credits)
Economic development, ecology and democracy are three volatile forces in the world today. Players in the tension between them include nations, large corporations, and a groundswell of farmers, workers, and ordinary people. This course looks at the model of sustainable development as a way for countries to make long-term and ethical decisions about how to use resources: earth, water, air, energy, as well as the most important resource, people. Contrasts will be drawn between Western economies humming along in the Digital Age and the emerging world attempting the leap from an agricultural paradigm to industrialization, while trying to avoid falling into the Malthus trap of overpopulation. Students will develop an understanding of the complex, intertwined relationship between economic growth, environment and humanity.

MALS 4701 Topics in Literature (4 Credits)
The content of this course varies each term. The topics may include time-sensitive issues in the area of literature, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

MALS 4702 Topics in Writing (1-4 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues in the areas of writing and literature, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

MALS 4703 Topics in Film (1-5 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues from the film industry, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

MALS 4704 Topics in Art (1-5 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues from the film industry, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

MALS 4705 Topics in Liberal Studies (1-5 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues from the film industry, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

MALS 4740 Natural Science and Literature (4 Credits)
The natural sciences have inspired some of the most entertaining, creative and provocative works in international literature. Writers like Thoreau, Gould, McPhee, Kingsolver and others have explored some of the most complex theories that explain the majesty of the physical world. Students read and analyze many works in this popular genre. Specifically, the class looks at how these writers use story to shape their work, how they introduce and explain multifaceted theories for the layperson, and how recent scientific theory has shaped our culture. Students also have an opportunity to write about scientific subjects in their own voice.

MALS 4745 Children's Literature (4 Credits)
This course is an introductory study of all levels of children's literature for the student who is interested in literature, the student who is planning to teach, and for those who are or will be parents. This course introduces students to types, genres, and varieties of literature for reading to children as well as reading by children. The main focus is to remember the joys and wonders of reading as a child and young adult, and to approach the literature selected not as "just a kid's book," but as literature with real quality standards and room for critical and analytical discussions.

MALS 4750 Literature to Film (4 Credits)
In this course, we examine the adaptation of literary works into films. We closely study selected modern literary works and the film interpretations of each work. Focusing on the transition from one narrative form to another, the course aims at enhancing the critical skill of students as well as their creative ability. Therefore, we also have mini scripting workshops as a way of imaginatively highlighting the sort of considerations that go into the making of the film script.
MALS 4755 World Literature (4 Credits)
In this course, students take a literary tour of the world in 70 days. Stops along the way include classic works of the 20th-Century from Africa, Asia, Europe, and Latin America - fiction, nonfiction, and poetry. As with any whirlwind tour, students learn a little about "the other" and a lot about themselves. An emphasis can help us see our own literary and cultural assumptions with new eyes. Students are also asked to reflect on thematic relationships and differences among texts from different times and places.

MALS 4880 From Romance to Realism (4 Credits)
Nineteenth-century Britain witnessed wide-scale social, political, and cultural upheaval: the French Revolution, the expansion of empire, naval dominance, massive political reforms, and ongoing debate about women. This course explores the great writings of the period, examining the transition from the Romanticism of the early part of the century, characterized by the writing of William Wordsworth, S. T. Coleridge, Jane Austen, and Sir Walter Scott, to the realism of the later century employed by such writers as Charles Dickens, George Eliot, Robert Browning, and Alfred, Lord Tennyson. We explore the tensions, gaps, and overlaps between these two categories - Romanticism and realism - and their place in the writing of the authors whose works are frequently labeled as Romantic or realist. The course emphasizes both the literature itself and the cultural forces from which the literature developed.

MALS 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass.

MALS 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The student produces a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students' research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

MALS 4903 Creative Capstone Seminar (4 Credits)
The Creative Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating creative work and a paper that critically addresses its context in the degree field of study. In the critical paper, the student presents writing and content motivations of the creative work, supports those motivations with professional and academic work in the field, analyzes the creative work in the context of the writing and literature fields, and reflects upon the creative process. The seminar is dependent upon collegial discussion of student writing process and drafts under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. The course structure, facilitated by the faculty member, guides the students through the creative process and writing of an analytical capstone paper; the instructor provides intensive feedback on the capstone process and papers. Students are responsible for generating the course content through ongoing discussion of and peer feedback on the capstone process and individual work, as well as the analysis and contextualization of focused student creative work and papers within the wider degree field of study. Students will professionally and academically communicate their creations and findings through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

MALS 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.
MALS 4905 Graduate Social Research Methods (4 Credits)
Graduate Social Research Methods is an exploration of the methods and purposes of social science research from the perspective of the researcher as well as that of the informed professional and consumer of information. Students will learn about the process of research, including the development of research questions, the purpose of various social science research methods, the role of professional ethics, and general approaches to the analysis and interpretation of data. Students will develop the ability to read and critique basic social science research articles and to implement simple research designs. Students will develop and write a research proposal around a specific research question informed by a review of the literature. Technical requirements include the ability to read and modify Microsoft Excel documents. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

MALS 4915 Research in Humanities (4 Credits)
Graduate Social Research Methods is an exploration of the methods and purposes of social science research from the perspective of the researcher as well as that of the informed professional and consumer of information. Students will learn about the process of research, including the development of research questions, the purpose of various social science research methods, the role of professional ethics, and general approaches to the analysis and interpretation of data. Students will develop the ability to read and critique basic social science research articles and to implement simple research designs. Students will develop and write a research proposal around a specific research question informed by a review of the literature. Technical requirements include the ability to read and modify Microsoft Excel documents. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

MALS 4920 Portfolio Capstone (4 Credits)
The Portfolio Capstone course provides students the opportunity to reflect upon the work they have done throughout their graduate studies at University College and synthesize their learning. Students in the Portfolio Capstone produce deliverables that include: (1) a thorough annotation of their portfolio, a process requiring critical and creative thinking about their educational experience, and (2) a pinnacle project that identifies, analyzes, and elaborates significant themes in their program experience, evaluates their accomplishments, connects their coursework to their professional goals, and assesses those goals in the context of their chosen field. Students must complete the Portfolio Capstone with a grade of B or better.

MALS 4980 Internship (4 Credits)
The internship is designed to offer students a purposeful experience in a practical, industry-related setting. The internship is an individualized learning experience and a training plan is created for each student in conjunction with the internship site to provide experiences related to the skills and knowledge covered in the certificate and master's programs.

MALS 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a credit basis and only for degree candidates.

MALS 4992 Directed Study (1-8 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Communication Management
Office: University College Student Support Center
Mail Code: 2211 S. Josephine St., Denver, CO 80208
Phone: 303-871-2291, 800-347-2042
Email: ucolsupport@du.edu
Web Site: http://www.universitycollege.du.edu

Master of Arts in Communication Management with a concentration in Alternative Dispute Resolution
The alternative dispute resolution concentration is designed for early and mid-career professionals who are seeking to enhance their ability to think creatively, problem-solve effectively, gain insight into restorative communication practices, and manage conflict in all types of professional interactions. In this concentration students analyze the nature, roots, and resolution of conflict in organizational and interpersonal settings. Guided by practitioner-faculty, students develop contextually appropriate conflict management strategies and hone mediation, negotiation, and facilitation skills in order to find acceptable resolution for all parties.

This degree prepares students to do the following:
- Apply conflict theories in understanding and analyzing conflict situations
- Assess the role of culture in conflict situations
- Articulate and defend a variety of processes to resolve conflict
- Develop contextually appropriate conflict management systems for work with diverse stakeholders
Perform alternative dispute resolution practices while adhering to applicable codes of ethics

Master of Arts in Communication Management with a concentration in Learning and Development

The Learning and Development concentration is designed for early and mid-career learning and development professionals looking to excel as internal or external consultants in a variety of organizational settings and across platforms. This program prepares students in three complementary areas: 1) a strong foundation in the distinct ways adults learn; 2) exposure to and utilization of diverse instructional technologies and strategies; and, 3) advanced facilitation and communication skills. Students acquire advanced knowledge of how adults process information and the specific skills required to meet adult learning needs. Blending traditional training strategies with the latest multi-media technologies and guided by practitioner-faculty, students learn through application by designing and executing projects from start to finish, including needs assessment, design, delivery, implementation, and evaluation. Additionally, students develop advanced communication skills to work with individuals and teams in increasingly global workplaces using multiple modalities.

This degree prepares students to do the following:

- Design and execute projects from needs assessment through design, delivery, implementation, and evaluation
- Elucidate key components of adult learning theories; assess contributions of these theories; articulate challenges to, limits of, and new directions for these theories; and apply them to meet organizational needs
- Identify, analyze, choose, and defend best instructional strategies and techniques to achieve learning objectives
- Develop advanced facilitation and communication skills and demonstrate the ability to respond appropriately to varied audiences with diverse needs and across platforms
- Evaluate and communicate impact of projects using most relevant metrics and analytics

Master of Arts in Communication Management with a concentration in Marketing Communication

The Marketing Communication concentration in Communication Management is designed for early and mid-career professionals looking to create innovative, integrated, omni-channel marketing communication campaigns that are driven by strategic objectives, reach clearly defined target audiences, and deliver desired results. Students analyze consumer behavior, conduct market research, and engage the power of brands and messages in order to develop powerful marketing strategies. They evaluate various tactics, measure their effectiveness, and explore the intricacies of working with or in complex, multi-functional teams to execute compelling marketing campaigns. Students cultivate research-based decision making and creative thought through hands-on application of course material, guided by practitioner-faculty.

This degree prepares students to do the following:

- Design, manage, and measure persuasive, integrated, omni-channel marketing communication campaigns
- Assess the current scope and learn how to anticipate future trends in traditional, social, mobile, email, and search marketing
- Measure marketing communication efforts and create plans to adjust future campaigns based on results
- Create strategies to elevate an organization’s or client’s marketing and branding efforts through the use of appropriate tactics

Master of Arts in Communication Management with a concentration in Organizational Communication

The Organizational Communication concentration is designed for early and mid-career communicators seeking to improve their ability to manage communication processes, navigate the complexities of groups and teams, and become more responsive communication professionals. Students enhance and deepen their interpersonal, organizational, and managerial communication skills by increasing their ability to adeptly manage crises, handle change, and skillfully resolve organizational challenges. By analyzing and critiquing barriers to effective communication, students make the best use of persuasion, negotiation, and cultural awareness skills in courses that are designed and led by practitioner-faculty.

This degree prepares students to do the following:

- Articulate and defend various persuasion and crisis management techniques to make contextually appropriate selections
- Evaluate and utilize business communication concepts, tools, and presentation techniques
- Assess and apply theories and best practices of group and team dynamics
• Identify barriers to effective communication and develop plans to ensure productive outcomes

• Create strategies to lead change by applying principles of change, critical change dynamics, and processes for knowledge transfer within organizations

Master of Arts in Communication Management with a concentration in Public Relations

The Public Relations concentration in Communication Management is designed for mid-career professionals looking to expertly reach an organization’s diverse constituents, manage its identity, and maximize the impact of its reputation. Students learn strategies to connect with third-party influencers, utilize mass media outlets, and leverage social media platforms, all while employing principles of persuasion and quality content creation for traditional and digital media. From researching and evaluating audiences, to planning public relations campaigns, implementing communication plans, and measuring effectiveness, students apply critical thinking, precise writing, and complex reasoning. Courses are designed and led by practitioner-faculty who provide students with expert support while guiding them through the application of course material to communication challenges facing today's PR professionals.

This degree prepares students to do the following:

• Communicate persuasively to targeted audiences to meet specific organizational outcomes

• Create communication plans with measurable results using public relations best practices, tactics, and strategies

• Develop, manage, and analyze effective media relations practices

• Articulate and defend the selection of techniques to measure, monitor, and influence an organization’s reputation

• Articulate the primary principles and practices of public relations in an increasingly interconnected, global economy

Master of Arts in Communication Management with a concentration in Organizational Development

The Organizational Development master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Students learn about organizations. Successful organizations are dynamic entities; adjusting goals, structure, and strategies due to needs and influences. Sometimes these adjustments are large, but quite often there are a series of small to mid-size changes that affect employees and processes resulting in the need for an organizational development (OD) intervention. Students will learn the history, challenges, and successes of OD and the different models and techniques to warrant a productive culture in a variety of organizational sizes, sectors, and types. An OD intervention strategy will be created by defining the role of the practitioner as an internal or external consultant and constructing a diagnosis plan, synthesizing data from interviews and observations, and effectively communicating the findings in various applicable formats. Finally, a personal philosophy regarding change will be developed and then examined through the context of analyzing organizational values and ethics, culture, and the human impact of change on employees.

The importance of culture and effective intervention strategies is discussed throughout the Organizational Development master’s degree concentration. Customize your Leadership and Organizations master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Articulate and define organizational development, history of OD, and challenges and possibilities using an intentional OD intervention

• Develop and defend a personal philosophy of organizational change

• Evaluate the impact of organizational culture and core values on OD interventions

• Integrate the contract for a successful OD intervention with the organizational culture and determine the role of an OD practitioner in each stage of an OD intervention, distinguishing between an internal and external consultant

• Assess, compare, and contrast different models of change and describe the impact of each model on an OD process

• Define and organize OD strategies for different types of organizations (sectors, life cycle, size, industry, types of innovation, or other defining characteristics) for maximizing impacts of OD interventions

• Summarize the importance and impact of the different organizational structures and design on OD strategy and interventions

• Construct an organizational diagnosis plan by using interviewing, group facilitation, process observation, synthesis of data, and writing effective reports, with providing effective presentations of the findings

• Analyze the human side of change and build strategies for successful implementation of an OD intervention that honor the loss, resistance and acceptance of changes
Certificate in Communication Management with a concentration in Alternative Dispute Resolution

The Alternative Dispute Resolution graduate certificate is designed for early and mid-career professionals who are seeking to enhance their ability to think creatively, problem-solve effectively, gain insight into restorative communication practices, and manage conflict in all types of professional interactions. In this concentration students analyze the nature, roots, and resolution of conflict in organizational and interpersonal settings. Guided by practitioner-faculty, students develop contextually appropriate conflict management strategies and hone mediation, negotiation, and facilitation skills in order to find acceptable resolution for all parties.

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Certificate in Communication Management with a concentration in Marketing Communication

The Marketing Communication graduate certificate is designed for early and mid-career professionals looking to create innovative, integrated, omni-channel marketing communication campaigns that are driven by strategic objectives, reach clearly defined target audiences, and deliver desired results. Students analyze consumer behavior, conduct market research, and engage the power of brands and messages in order to develop powerful marketing strategies. They evaluate various tactics, measure their effectiveness, and explore the intricacies of working with or in complex, multi-functional teams to execute compelling marketing campaigns. Students cultivate research-based decision making and creative thought through hands-on application of course material, guided by practitioner-faculty.

Certificate in Communication Management with a concentration in Organizational Communication

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Certificate in Communication Management with a concentration in Public Relations

The Public Relations graduate certificate in Communication Management is designed for mid-career professionals looking to expertly reach an organization’s diverse constituents, manage its identity, and maximize the impact of its reputation. Students learn strategies to connect with third-party influencers, utilize mass media outlets, and leverage social media platforms, all while employing principles of persuasion and quality content creation for traditional and digital media. From researching and evaluating audiences, to planning public relations campaigns, implementing communication plans, and measuring effectiveness, students apply critical thinking, precise writing, and complex reasoning. Courses are designed and led by practitioner-faculty who provide students with expert support while guiding them through the application of course material to communication challenges facing today’s PR professionals.

MASTER’S DEGREE ADMISSION

Admission Criteria

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process

Master’s degree applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants...
will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

- **Application**: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- **Application Fee**: A $50 non-refundable application fee is required for an application to be processed.
- **One Official Transcript from each Post-Secondary Institution**: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
- **Two Letters of Recommendation**: Two confidential letters of recommendation are required.
- **Personal Statement**: A personal statement (two pages double spaced) is required. The statement should include information on how the degree will enhance career plans and meet educational goals. Sharing personal experiences, abilities, achievements, and goals is encouraged. This document has considerable influence in the decision to admit applicants with attention given to written communication skills.
- **Résumé/Curriculum Vitae (CV)**.
- **Degree Plan**: The degree plan, detailing courses for the academic program, is required to complete the admission process and can be completed through the University College online Degree Builder (http://universitycollege.du.edu/DegreeBuilder/Student/ChooseDegree.aspx) tool.
- **Language Proficiency**: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
- **Proof of Permanent Residency**: Permanent Residents must provide a copy of their Registration Alien Card (green card).
- **Admission Interview**: An interview may be required at the program director’s request.
- **International Applicants**: Additional requirements are listed below for international applicants.

**CERTIFICATE ADMISSION**

**Admission Criteria**

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are **NOT** required.

**Admission Process**

Certificate applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

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- **Admission Interview**: An interview may be required at the program director’s request.
- **International Applicants**: Additional requirements are listed below for international applicants.
INTERNATIONAL ADMISSION

International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College’s International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University of Denver Office of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.

Additional Admission Requirements for International Applicants

- **English Proficiency:** All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.
  1. **TOEFL:** A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.
  2. **Academic IELTS:** A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.
  3. **Possible Exemptions:** International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.
  4. **English Conditional Acceptance (ECA):** Master’s degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA requires an evaluation by the University of Denver’s English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.

- **Official Transcripts and Translations:** International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.

- **Photocopy of Diploma/Degree Certification and Appropriate Translations:** Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.

- **A Photocopy of Current Passport:** Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.

- **The Supplemental Information Form (SEVIS Supplement):** Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.

- **Financial Verification Form:** Applicants seeking an I-20 student visa must submit financial verification documents.

Master of Arts in Communication Management with a Concentration in Alternative Dispute Resolution

Degree Requirements

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 4020</td>
<td>Communication in Professions and Organizations</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4045</td>
<td>Applied Critical Thinking in Communication</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4050</td>
<td>Communication and Society: Theories and Applicantons</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4905</td>
<td>Graduate Social Research Methods</td>
<td>4</td>
</tr>
</tbody>
</table>

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COMM 4901</td>
<td>Capstone Project</td>
<td>4</td>
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<tr>
<td>or COMM 4902</td>
<td>Capstone Seminar</td>
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<tr>
<td>or COMM 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>or COMM 4920</td>
<td>Portfolio Capstone</td>
<td></td>
</tr>
</tbody>
</table>
COMM 4002  Effective Facilitation and Presentation  4  
COMM 4220  Conflict Theory  4  
COMM 4222  Negotiation Principles and Practice  4  
COMM 4221  Mediation Principles and Practices  4  
or COMM 4270  Forty-Hour Mediation  

**Elective requirements (Choose three courses)**  12

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 4224</td>
<td>Conflict and Culture</td>
</tr>
<tr>
<td>COMM 4225</td>
<td>Restorative Practices</td>
</tr>
<tr>
<td>COMM 4226</td>
<td>Managing Organizational Conflict</td>
</tr>
<tr>
<td>COMM 4270</td>
<td>Forty-Hour Mediation</td>
</tr>
<tr>
<td>COMM 4006</td>
<td>Communicating Effectively in Groups and Teams</td>
</tr>
<tr>
<td>COMM 4016</td>
<td>Persuasion Methods and Techniques</td>
</tr>
<tr>
<td>COMM 4035</td>
<td>Intercultural Communication</td>
</tr>
</tbody>
</table>

**Total Credits**  48

**Minimum number of credits required: 48**

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

**Master of Arts in Communication Management with a Concentration in Learning and Development**

**Degree Requirements**

**Core coursework requirements**

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<tr>
<th>Course</th>
<th>Title</th>
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<td>Communication and Society: Theories and Applicaitons</td>
</tr>
<tr>
<td>COMM 4905</td>
<td>Graduate Social Research Methods</td>
</tr>
<tr>
<td>COMM 4901</td>
<td>Capstone Project</td>
</tr>
</tbody>
</table>
or COMM 4902 | Capstone Seminar                           |
or COMM 4904 | Interdisciplinary Capstone Seminar          |
or COMM 4920 | Portfolio Capstone                         |

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>COMM 4200</td>
<td>Instructional Design and Technology</td>
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<tr>
<td>COMM 4203</td>
<td>Instructional Strategies for Adult Learners</td>
</tr>
<tr>
<td>COMM 4206</td>
<td>Evaluating Learning and Development Effectiveness</td>
</tr>
<tr>
<td>COMM 4002</td>
<td>Effective Facilitation and Presentation</td>
</tr>
</tbody>
</table>

**Elective requirements (Choose three courses)**  12

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 4030</td>
<td>Managing Learning in Organizations</td>
</tr>
<tr>
<td>COMM 4035</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>COMM 4006</td>
<td>Communicating Effectively in Groups and Teams</td>
</tr>
<tr>
<td>COMM 4016</td>
<td>Persuasion Methods and Techniques</td>
</tr>
<tr>
<td>COMM 4032</td>
<td>Communication for Change Management</td>
</tr>
</tbody>
</table>

**Total Credits**  48

**Minimum number of credits required: 48**

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree
be of “C” grade. A grade lower than “C” renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Arts in Communication Management with a Concentration in Marketing Communication

Degree Requirements

Core coursework requirements

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
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<td>COMM 4045</td>
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</tr>
<tr>
<td>COMM 4050</td>
<td>Communication and Society: Theories and Applications</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4905</td>
<td>Graduate Social Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>or COMM 4902</td>
<td>Capstone Seminar</td>
<td>4</td>
</tr>
<tr>
<td>or COMM 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>or COMM 4920</td>
<td>Portfolio Capstone</td>
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Concentration requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COMM 4140</td>
<td>Marketing Strategy and Process</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4301</td>
<td>Branding and Market Positioning</td>
<td>4</td>
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<tr>
<td>COMM 4321</td>
<td>Digital Marketing Communication</td>
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<tr>
<td>COMM 4324</td>
<td>Web Analytics</td>
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Elective requirements (Choose three courses):

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COMM 4002</td>
<td>Effective Facilitation and Presentation</td>
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<td>COMM 4006</td>
<td>Communicating Effectively in Groups and Teams</td>
<td></td>
</tr>
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<td></td>
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<tr>
<td>COMM 4144</td>
<td>Public Relations Principles and Process</td>
<td></td>
</tr>
<tr>
<td>COMM 4145</td>
<td>Public Relations Writing and Tactics</td>
<td></td>
</tr>
<tr>
<td>COMM 4150</td>
<td>Dimensions of Reputation Management</td>
<td></td>
</tr>
<tr>
<td>COMM 4155</td>
<td>Public Relations Research and Measurement</td>
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</tr>
<tr>
<td>COMM 4222</td>
<td>Negotiation Principles and Practice</td>
<td></td>
</tr>
<tr>
<td>COMM 4318</td>
<td>Mobile Marketing</td>
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<tr>
<td>COMM 4320</td>
<td>Integrating Social Media</td>
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<tr>
<td>COMM 4323</td>
<td>Email Marketing</td>
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<tr>
<td>COMM 4326</td>
<td>Digital Campaign Management</td>
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</tr>
<tr>
<td>COMM 4327</td>
<td>Writing for Digital Media</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 48

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of “B” (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of “C” grade. A grade lower than “C” renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Arts in Communication Management with a Concentration in Organizational Communication

Degree Requirements

Core coursework requirements

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
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<td>COMM 4020</td>
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<tr>
<td>COMM 4045</td>
<td>Applied Critical Thinking in Communication</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4050</td>
<td>Communication and Society: Theories and Applications</td>
<td>4</td>
</tr>
</tbody>
</table>
COMM 4905  Graduate Social Research Methods  4
COMM 4901  Capstone Project  4
or COMM 4902  Capstone Seminar
or COMM 4904  Interdisciplinary Capstone Seminar
or COMM 4920  Portfolio Capstone

Concentration requirements
COMM 4002  Effective Facilitation and Presentation  4
COMM 4006  Communicating Effectively in Groups and Teams  4
COMM 4016  Persuasion Methods and Techniques  4
COMM 4032  Communication for Change Management  4
or ORL 4420  Leading Change for Transformation

Elective requirements (Choose three courses):  12
COMM 4030  Managing Learning in Organizations
COMM 4035  Intercultural Communication
COMM 4140  Marketing Strategy and Process
COMM 4144  Public Relations Principles and Process
COMM 4150  Dimensions of Reputation Management
COMM 4221  Mediation Principles and Practices
COMM 4270  Forty-Hour Mediation

Total Credits  48

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

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**Master of Arts in Communication Management with a Concentration in Organizational development**

**Degree Requirements**

Core coursework requirements
COMM 4020  Communication in Professions and Organizations  4
COMM 4045  Applied Critical Thinking in Communication  4
COMM 4050  Communication and Society: Theories and Applicaitons  4
COMM 4905  Graduate Social Research Methods  4
COMM 4901  Capstone Project  4
or COMM 4902  Capstone Seminar
or COMM 4904  Interdisciplinary Capstone Seminar
or COMM 4920  Portfolio Capstone

Concentration requirements
ORL 4110  Fundamentals of Organizational Development  4
ORL 4115  Organizational Culture and Organizational Development Impacts  4
ORL 4120  Team Interventions  4
ORL 4125  Evaluate & Sustain Change  4

Elective requirements (Choose three courses):  12
COMM 4200  Instructional Design and Technology
COMM 4203  Instructional Strategies for Adult Learners
COMM 4206  Evaluating Learning and Development Effectiveness
COMM 4002  Effective Facilitation and Presentation
COMM 4030  Managing Learning in Organizations
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>COMM 4150</td>
<td>Dimensions of Reputation Management</td>
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</tr>
<tr>
<td>COMM 4216</td>
<td>Performance Consulting</td>
<td></td>
</tr>
<tr>
<td>COMM 4230</td>
<td>21st Century Learning</td>
<td></td>
</tr>
<tr>
<td>COMM 4035</td>
<td>Intercultural Communication</td>
<td></td>
</tr>
<tr>
<td>COMM 4006</td>
<td>Communicating Effectively in Groups and Teams</td>
<td></td>
</tr>
<tr>
<td>COMM 4016</td>
<td>Persuasion Methods and Techniques</td>
<td></td>
</tr>
<tr>
<td>COMM 4032</td>
<td>Communication for Change Management</td>
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</tr>
</tbody>
</table>

**Total Credits: 48**

**Minimum number of credits required: 48**

Students may choose from the elective options above, or they may work with their advisor to choose electives.

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**Master of Arts in Communication Management with a Concentration in Public Relations**

**Degree Requirements**

**Core coursework requirements**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COMM 4020</td>
<td>Communication in Professions and Organizations</td>
<td>4</td>
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<tr>
<td>COMM 4045</td>
<td>Applied Critical Thinking in Communication</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4050</td>
<td>Communication and Society: Theories and Applications</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4905</td>
<td>Graduate Social Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>or COMM 4902</td>
<td>Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>or COMM 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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</tr>
<tr>
<td>or COMM 4920</td>
<td>Portfolio Capstone</td>
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</table>

**Concentration requirements**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COMM 4144</td>
<td>Public Relations Principles and Process</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4145</td>
<td>Public Relations Writing and Tactics</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4150</td>
<td>Dimensions of Reputation Management</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4155</td>
<td>Public Relations Research and Measurement</td>
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**Elective requirements (Choose three courses):**

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<tr>
<td>COMM 4016</td>
<td>Persuasion Methods and Techniques</td>
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<tr>
<td>COMM 4140</td>
<td>Marketing Strategy and Process</td>
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<tr>
<td>COMM 4321</td>
<td>Digital Marketing Communication</td>
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<tr>
<td>COMM 4327</td>
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</tr>
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</table>

**Total Credits: 48**

**Minimum number of credits required: 48**

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## Certificate in Communication Management with a Concentration in Alternative Dispute Resolution

### Program Requirements

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
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</tr>
<tr>
<td>COMM 4220</td>
<td>Conflict Theory</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4222</td>
<td>Negotiation Principles and Practice</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4221</td>
<td>Mediation Principles and Practices</td>
<td>4</td>
</tr>
<tr>
<td>or COMM 4270</td>
<td>Forty-Hour Mediation</td>
<td></td>
</tr>
</tbody>
</table>

**Elective requirements (Choose two courses):**

<table>
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<th>Title</th>
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<td>Communication and Society: Theories and Application</td>
</tr>
<tr>
<td>COMM 4224</td>
<td>Conflict and Culture</td>
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</tr>
<tr>
<td>COMM 4226</td>
<td>Managing Organizational Conflict</td>
</tr>
<tr>
<td>COMM 4270</td>
<td>Forty-Hour Mediation</td>
</tr>
</tbody>
</table>

**Total Credits**

24

*Minimum number of credits required: 24*

## Certificate in Communication Management with a Concentration in Learning and Development

### Program Requirements

**Concentration requirements**

<table>
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<td>Instructional Design and Technology</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4203</td>
<td>Instructional Strategies for Adult Learners</td>
<td>4</td>
</tr>
<tr>
<td>COMM 4206</td>
<td>Evaluating Learning and Development Effectiveness</td>
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**Elective requirements (Choose two courses):**

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<tr>
<td>COMM 4150</td>
<td>Dimensions of Reputation Management</td>
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<tr>
<td>COMM 4216</td>
<td>Performance Consulting</td>
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<td>COMM 4230</td>
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<td>COMM 4032</td>
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<td>Communication and Society: Theories and Application</td>
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</tbody>
</table>

**Total Credits**

24

*Minimum number of credits required: 24*
## Certificate in Communication Management with a Concentration in Marketing Communication

### Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>COMM 4140</td>
<td>Marketing Strategy and Process</td>
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<tr>
<td>COMM 4301</td>
<td>Branding and Market Positioning</td>
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<tr>
<td>COMM 4321</td>
<td>Digital Marketing Communication</td>
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<tr>
<td>COMM 4324</td>
<td>Web Analytics</td>
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</tbody>
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**Elective requirements (Choose two courses):**

- COMM 4150: Dimensions of Reputation Management
- COMM 4320: Integrating Social Media
- COMM 4323: Email Marketing
- COMM 4325: Essentials of Search Marketing
- COMM 4327: Writing for Digital Media
- COMM 4318: Mobile Marketing
- COMM 4144: Public Relations Principles and Process
- COMM 4145: Public Relations Writing and Tactics
- COMM 4155: Public Relations Research and Measurement
- COMM 4326: Digital Campaign Management
- COMM 4002: Effective Facilitation and Presentation
- COMM 4006: Communicating Effectively in Groups and Teams
- COMM 4016: Persuasion Methods and Techniques
- COMM 4222: Negotiation Principles and Practice
- COMM 4035: Intercultural Communication
- COMM 4020: Communication in Professions and Organizations
- COMM 4045: Applied Critical Thinking in Communication
- COMM 4050: Communication and Society: Theories and Applications

**Total Credits:** 24

### Minimum number of credits required: 24

## Certificate in Communication Management with a Concentration in Organizational Communication

### Program Requirements

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<tr>
<td>COMM 4032</td>
<td>Communication for Change Management</td>
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<tr>
<td>or ORL 4420</td>
<td>Leading Change for Transformation</td>
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**Elective requirements (Choose two courses):**

- COMM 4150: Dimensions of Reputation Management
- COMM 4226: Managing Organizational Conflict
- COMM 4030: Managing Learning in Organizations
- COMM 4216: Performance Consulting
- COMM 4221: Mediation Principles and Practices
- COMM 4270: Forty-Hour Mediation
- COMM 4140: Marketing Strategy and Process
- COMM 4144: Public Relations Principles and Process
- COMM 4035: Intercultural Communication
- COMM 4020: Communication in Professions and Organizations

**Total Credits:** 24
Certificate in Communication Management with a Concentration in Public Relations

Program Requirements

Concentration requirements

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Total Credits: 24

Minimum number of credits required: 24

Courses

**COMM 4002 Effective Facilitation and Presentation (4 Credits)**
The evolution and increasing presence of technology in the workplace has changed the way we conduct meetings, present information, and facilitate in-person and virtual group conversations. In this course students hone their presentation and facilitation skills by assessing their audience, purpose, and the desired outcomes of the engagement. Students learn to use appropriate and memorable visual aids, maximize audience and/or participant engagement, and employ communication competencies to increase sensitivity to group dynamics and verbal and nonverbal cues. Whether facilitating high-level face-to-face meetings, conducting virtual interactions, or presenting to groups, students will gain the skills and confidence needed for effective synchronous communication across varied delivery methods.

**COMM 4006 Communicating Effectively in Groups and Teams (4 Credits)**
Effective group and team processes are invaluable to every organization. Ensuring productive and satisfying group interactional outcomes in organizational, professional and personal settings can be difficult. Focusing upon theory, application, and the practice of working together as a team—including development of group dynamics, leadership, and assessment—students gain knowledge about their strengths and weaknesses in teams, incorporate new skills, enhance productivity, and reduce barriers to effective communication in groups and teams.

**COMM 4016 Persuasion Methods and Techniques (4 Credits)**
The ability to write and speak in a persuasive manner is often the difference between success and failure. This course looks at a variety of concepts, techniques, and tools designed to improve the persuasiveness of written and spoken interactions. Differences between persuasion, negotiation and mediation are discussed and applied to case presentations. This course requires participation and presentations, readings, discussions and projects. This course is highly interactive, and attendance is mandatory.

**COMM 4020 Communication in Professions and Organizations (4 Credits)**
Communication professionals play a variety of roles within organizations, but what the best all have in common is mastery of foundational communication skills. In this course, students hone their writing, editing, presenting, and personal-branding skills, while learning how factors such as perception, inference, verbal and nonverbal communication, organizational culture, change, and conflict impact how people interact within the context of large and small organizations.
In today's highly competitive information society, there is a tremendous need for continuous learning and employee development at all levels of an organization. New knowledge is the foundational resource for the creation and implementation of new visions, structures, and outcomes leading to organizational success. The learning organization, when effectively managed, is engaged in continuous improvement, and grows beyond its current state to widen its creative capacity for the future. In this course, students explore concepts, processes, models, and tools to cultivate a learning organization, and to manage the learning and development function within an organization. The focus of this course is on preparing students to be able to identify major business challenges and the competencies needed to support them from a learning and development perspective.

COMM 4032 Communication for Change Management (4 Credits)
This course prepares students to be change leaders in their organizations. The course begins with a focus on understanding critical change dynamics, including organizational structure, phases and roles. The students study and practice competencies which allow organizational members to direct change dynamics in effective ways. The development of competencies are accomplished through discussion, lecture, video, case studies, and change assessment inventories. Concepts and practices of coaching, mentoring and facilitation are explored as methods of supporting change leaders with intergenerational knowledge transfer, or employee development.

COMM 4035 Intercultural Communication (4 Credits)
There is a growing need to communicate effectively across cultural differences. Culture—defined as an accumulated pattern of values, beliefs, and behaviors shared by an identifiable group of people with a common history and verbal and nonverbal code system—pervades every aspect of the communicative process (Neuliep, 2015, p. xvi). This course uses a contextual approach to examine the ways culture, communication, context, and power intersect in intercultural communication interactions. We will identify and analyze obstacles and barriers to effective intercultural communication. Finally, we will examine strategies and skills needed to become a competent and effective intercultural communicator.

COMM 4045 Applied Critical Thinking in Communication (4 Credits)
This course provides an examination of the critical thinking processes and models of decision making and problem solving. The suitability, usage, and effectiveness of critical thinking models in achieving positive organizational outcomes are emphasized. Faculty and student perspectives and experiences, along with case studies, demonstrate applications of the critical thinking and problem solving processes within various communication settings and specialties.

COMM 4050 Communication and Society: Theories and Applications (4 Credits)
Expert communication professionals excel in their craft and their careers by applying foundational communication theories and principles to their practice. While practitioners benefit from an understanding of seminal, theoretical approaches, it is imperative that professionals are able to confidently navigate the contemporary, evolving environment of cultural and commercial communication. This foundational course provides an overview of seminal interpersonal, mass and mediated communications theories and applies them to today’s workplace in order to situate praxis as a meaningful pathway to enhance impact. The theories included in this course have been carefully selected based on their ability to be practiced in the field; examples include Attribution Theory, Social Exchange Theory, Mass Society Theory, Political Economy of Communication, and Encoding/Decoding. Additionally, students develop a command of digital communication frameworks using emerging approaches to digitization, convergence, and networked culture. Readings and assessments are geared toward active comprehension of communication theories so that students are able to recall and implement analytical concepts in their approach to decision-making, effective communication and creative-thinking skills in their professional environments.

COMM 4070 Understanding Human Communication (4 Credits)
This course emphasizes the many communication theories, their origin, and applied use in personal, organizational and smaller professional settings. The course utilizes case studies, surveys, projects, and self-assessment to encourage students to reflect on personal experiences with issues like interpersonal communication and group and team dynamics to facilitate understanding of the importance of applying theory to practice. Key skills and strengths are identified as they relate to students’ professional goals and objectives.

COMM 4117 International Technical Comm (3 Credits)
This course focuses on communication and technical writing skills needed to address today’s international business environment. Students will develop the foundational skills necessary to write for translation, as well as develop an understanding of, and sensitivity to, the challenges inherent in intercultural technical communication. Additionally, international standards organizations and the role they play in international communication will be discussed.

COMM 4140 Marketing Strategy and Process (4 Credits)
COMM 4140 Marketing Strategy and Process is an application-oriented course to help students examine the fundamentals of marketing, and develop the insights and skills to formulate and implement sound, ethical marketing strategies and processes. The weekly topics covered in this course are divided into three main content areas: 1) foundations, 2) marketing mix elements with an emphasis on communications, and 3) strategy and planning. Each content area helps students apply strategic concepts through discussion and teamwork. Throughout the quarter, students explore marketing decisions by examining how information and research are used to inform marketing management decisions. Because marketing communication plays such a critical role in marketing success, special emphasis is placed on message and media factors. All of the course material culminates in the development of a marketing plan.
COMM 4144 Public Relations Principles and Process (4 Credits)
In a complex global environment, business, government, nonprofit, and other organizations require professional public relations practitioners who can effectively develop two-way relationships with constituents/publics to enable strategic and effective communication processes. This course explores the essential components of public relations through an examination of the profession, its publics, and effective processes. Areas studied include the nature and history of public relations; applying theories; use of strategy; the value of relationship development; an overview of the range of communication tactics; the evolving role of digital communications and social media; and the importance of ethics and transparency.

COMM 4145 Public Relations Writing and Tactics (4 Credits)
Leveraging effective and persuasive writing to develop relationships with media and other target audiences is an integral part of public relations. This course deepens students’ knowledge of the strategic use of public relations tactics, while ensuring they become effective, creative, clear, and concise architects and translators of the written word. To assist in this development, public relations practitioners have a number of communication tools at their disposal. Determining the correct tool to use is based on a strategic approach to all public relations efforts. Professionals must consider their objectives, publics, and key messages in choosing tactics to effectively influence the intended audience. In this course, students examine the purposes, style, format, content, and distribution of tactics used to support public relations programs and the concepts behind generating effective public relations copy. Tactics such as news releases, fact sheets, media alerts/advisories, feature articles, newsletters, emails, pitches, brochures, and social media will enable the creation of a public relations writing portfolio by the end of class.

COMM 4150 Dimensions of Reputation Management (4 Credits)
Reputation management is the process of tracking, maintaining, and defending a consistent message and positive image across all media. It applies to corporations and individuals, to billion-dollar brands and grassroots causes. Today’s reputation management integrates public relations, search engine optimization (SEO), content marketing, and social media management. It requires constant monitoring and participation in the dialogues that comprise modern media as the traditional roles of sender and receiver merge and evolve. Awareness of the ethical and global considerations surrounding the digital landscape is imperative. As digital presence has become the front lines of reputation management, systems use various predefined criteria for processing complex data to report behavior and activity surrounding a reputation, thereby automating the process of determining positive sentiment, influence, and trustworthiness. This course will present the history of managing reputations in the mass media era, from the dawn of the 20th century to present day. Through the study of proactive and reactive programs, students will learn how to apply reputation management principles in times of quiet and crisis, monitoring, positioning, and measuring a brand’s presence online.

COMM 4155 Public Relations Research and Measurement (4 Credits)
Public relations practitioners leverage research at the formative stage of every campaign: during the campaign to measure effectiveness, and at the conclusion of a campaign, to show results. This requires strategic processes to guide organizations toward the best possible actions in creating and sustaining relationships with target publics. This course introduces students to research methods available to public relations professionals, which are dependent on writing measurable objectives to drive accurate evaluation during and following a campaign. Students will explore how to creatively, effectively, efficiently, and ethically adapt research methods to practical application based on available budget, time constraints, and other resources. They then justify these methods to potential clients.

COMM 4200 Instructional Design and Technology (4 Credits)
Designing training that maximizes results is a central concern in organizations. Students in this course identify the elements of effective training, they identify and discuss how learning occurs both formally and informally in organizations, and how trainers must plan for learning in order to meet organizational needs and objectives. The stages of systematic instructional design are presented, and students are given an opportunity to create an instructional design project that might be applied in their work settings. Students involved in training are provided with a fundamental understanding of technology uses for skill and professional development.

COMM 4203 Instructional Strategies for Adult Learners (4 Credits)
Adult learning is very different from the learning processes in children. Adults bring a great deal of experience to the learning situation and are intent on the application of their newfound knowledge and skills. The factors that determine how adults learn, as well as appropriate instructional strategies to best reach these learners, are discussed. Students in this course focus on using adult learning principles to strategically design training materials and facilitate adult learning in various workplace settings.

COMM 4206 Evaluating Learning and Development Effectiveness (4 Credits)
Assessment and evaluation enable learning and development professionals to determine if the benefits of the training endeavors are worth the costs, whether training has met organizational goals, and if further training is necessary. Through case studies, practice exercises, and the development of an authentic assessment plan, students learn how to design, interpret, and apply different types of learning and development evaluation concepts and methods to their respective or intended work settings.

COMM 4216 Performance Consulting (4 Credits)
This course develops the competencies necessary to become a skilled internal consultant. Human Resources professionals, training professionals, and any student interested in organizational consultation should enroll. Topics include the role of the performance consultant, the performance consulting process, forming a data collection strategy for needs assessment, contracting and client intervention. Students also learn how to plan for an initial project meeting and differentiate between business, performance, learning, and work environment needs. This course also helps students establish a framework for leadership coaching to help leaders develop clarity and effectively communicate a vision for moving into a desired future. The principles of coaching are explored from the vantage point of leadership and communication theories including transformational leadership, conflict management, and the use of effective dialogue to coordinate management of meaning (how individuals organize and manage meanings and how they coordinate their meanings with one another).
COMM 4220 Conflict Theory (4 Credits)
The focus of this course is an overview of communication theory as it relates to conflict management. Students study various theories in order to explain and predict the course of conflict interactions. The theories are used to analyze case studies and select the most appropriate method of conflict management from the methods of negotiation, facilitation, mediation, arbitration, and litigation.

COMM 4221 Mediation Principles and Practices (4 Credits)
This course presents students with an overview of a variety of mediation models, basic principles, procedural steps, and benefits of mediation. Students examine various stages of mediation, including preparation, the mediation session(s), caucusing and settlement. Teaching methods include mini-lectures, discussions, and hands-on experience through role-playing and case studies. Recommended Prerequisite: COMM 4222 Negotiation Principles & Practice is strongly encouraged prior to this course.

COMM 4222 Negotiation Principles and Practice (4 Credits)
Negotiation is at the core of alternative dispute resolution. This course presents the theoretical groundwork for interest-based dispute resolution upon which principled negotiation and other alternative dispute resolution methods are founded. Topics include the definition of the negotiation process, different types of negotiation, and negotiation strategies. Students have an opportunity to practice and compare different negotiation techniques. Teaching methods are experiential in nature and include mini-lectures, discussions, and role-plays. Students also develop strategies for managing challenging negotiations and breakdowns.

COMM 4224 Conflict and Culture (4 Credits)
Diversity and multiculturalism are ever present in our global community. Inherent in this diversity is a network of cultural traditions, values and communication styles. This course addresses dispute resolution in multicultural settings and broadens students’ understanding of how to assess and resolve conflicts in which ethnicity and other dimensions of cultural diversity are integral components. Only after understanding one’s own biases and cultural perspectives can people work to understand others’ cultural differences.

COMM 4225 Restorative Practices (4 Credits)
Students in this course explore theories and practice of Restorative Practices within alternative dispute resolution models. Restorative practice is a philosophical approach to be used in conjunction with traditional justice and conflict resolution systems. This concept is increasingly used when an offense has occurred, as a method of healing individuals and communities who have been harmed/impacted by that action. With beginnings in indigenous societies, the basic principle is to bring those harmed together with the community in a dialogue aimed at reestablishing personal and relational balance for all involved. Restorative practice’s initial practitioners were often within the traditional justice system, yet this method of conflict resolution has expanded to a wide range of applications including education, non-profit, government, human resources, classroom management, and healthcare.

COMM 4226 Managing Organizational Conflict (4 Credits)
Conflict is a part of all businesses, government, and nonprofit organizations. It is a product of human existence and diversity in an interrelated society. Though many people fear conflict as a threat to a productive work environment, it is not conflict itself that jeopardizes harmony but unresolved conflict, and the associated costs are well documented. Organizations increasingly recognize that conflict need not carry costly financial and interpersonal burdens and can, in fact, serve as a productive change agent. Students in this course explore the nature and sources of organizational conflict and facilitate development of practical skills to recognize and manage conflict using case studies, exercises, speakers, and field research. Students are introduced to the concept of various conflict resolution methods, including individual initiative, negotiation, mediation, restorative justice, and arbitration. This course is well suited for leaders and aspiring leaders in any profession who want to increase their interpersonal capability and enhance their value in organizations.

COMM 4230 21st Century Learning (4 Credits)
Place changes over the past decade include how organizational expertise is used, decreased time for formal training, globally distributed workforces, and the use of technologies as drivers of change in the roles and functions of trainers. The current trajectory magnifies the need for skill sets and mindsets that position a workforce for jobs not yet created. This course challenges participants to research changes related to the use of technologies in various fields, analyze and develop their own preparedness for the future, practice environmental scanning, use various online tools and strategies for learning management and communication, facilitation, and performance support. Participants can expect to engage in active-learning strategies including the use of online tools, webliography development, case-based learning, directed discussion, and learner presentations.

COMM 4270 Forty-Hour Mediation (4 Credits)
This course is designed specifically for individuals interested in becoming mediators or integrating mediation skills into their current positions within (but not limited to) human resources, public service, healthcare, law, non-profit management, etc. The course satisfies the initial training requirements for professional mediators in accordance with the Mediation Association of Colorado (the MAC) and the Association for Conflict Resolution (ACR). The DU mediation training is distinctive for several reasons, including: small class size (limited to 24 people) and the opportunity to network with accomplished mediators and mediation coaches.

COMM 4301 Branding and Market Positioning (4 Credits)
The American Marketing Association (AMA) defines a brand as a “name, term, sign, symbol or design, or a combination of the intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of other sellers.” Organizations of all types – private, public, and nonprofit – increasingly recognize the importance of their brand and its role in strategic marketing, particularly market positioning. An in-depth examination of branding includes: brand messaging, the process of brand development, fundamentals and theories of consumer behavior and related environmental, cognitive or behavioral influences. Students have the opportunity to research consumer behavioral strategies and explore issues related to brand creation and maintenance, as well as how to leverage, manage, and evaluate their brand.
COMM 4318 Mobile Marketing (4 Credits)
Mobile technologies can be found in your pocket, on your coffee table, at your workplace, and even on your wrist. If a business's marketing plan doesn't include mobile, that business plan simply isn't complete. The growing field of mobile marketing has created a new set of communication imperatives and business opportunities. This course is designed to familiarize students to the tools used to implement a robust mobile marketing strategy. Current and future organization and business leaders will learn mobile marketing best practices and gain the knowledge to implement and analyze the results of their mobile marketing efforts.

COMM 4320 Integrating Social Media (4 Credits)
Social media, including blogs, social platforms, online video, and paid advertising on social networking sites are accelerating the velocity of communications. Content is now created, published, accessed, consumed and shared in real time. Organizations must evaluate social media techniques and determine how best to incorporate them to achieve their marketing communication objectives. This course focuses on integrating social media elements into the enterprise-wide marketing strategy. Students gain first-hand knowledge of various social media techniques and best practices through hands-on, practical exercises. Students not only learn the current technologies, but will gain the skills needed to successfully communicate on behalf of an organization using any social, real-time platform. Through online research, case studies, and interaction with industry experts, students experience the strategic application of social media in communication.

COMM 4321 Digital Marketing Communication (4 Credits)
Digital Marketing enables business to reach a vast audience at a fraction of the cost of traditional marketing media and enables organizations to connect and engage with specific user groups to promote their objectives. The focus of this course is to provide a fundamental understanding of digital marketing communications techniques and how to integrate them into the traditional marketing mix. Digital strategies, tactics, and measurement will be explored. Through discussion, research, online searches, and evaluation of case studies and projects, students learn about the essential elements of digital marketing and strategic integrated marketing communication.

COMM 4322 Email Marketing (4 Credits)
Today's consumer expectations for relevant, engaging, and timely messages have made email marketing an essential component of the multichannel marketing mix. The creation and delivery of personalized, targeted messages to subscribers can drive both engagement and ROI. This class examines the development and integration of email marketing (including tools, copy, design, service providers, tracking and measurement) to enhance business relationships, encourage customer loyalty and acquire new customers.

COMM 4324 Web Analytics (4 Credits)
Web analytics is the collection, analysis, and reporting of digital traffic in order to measure and optimize internet marketing programs. The practice of web analytics includes tools for measuring website traffic, conducting business/market research, estimating usage patterns for digital campaigns, and providing insights into visitor behavior. The focus of this class is on developing a performance measurement system for the digital channel, incorporating both on-site and off-site analytics. Key performance indicators are tied to internet marketing goals and tactical campaigns. Students conduct a review of online metrics, compare analytics vendors, and develop a performance tracking system and a management dashboard report.

COMM 4325 Essentials of Search Marketing (4 Credits)
Search marketing is a communicator's medium and a vital part of any marketing mix. This type of digital marketing specifically focuses on increasing a website's visibility in the search engine results pages (SERPs) through organic Search Engine Optimization (SEO) and pay-per-click (PPC) while also drawing attention to quality website content or well-crafted paid ad messaging. This class will provide deep insight into the tools and tactics of search marketing. Students will learn what makes search marketing demanding and how to overcome the challenges presented by regular search engine algorithm updates, increasing mobile device usage, and the influence of social media. Two key techniques of SEM will be explored: search engine optimization (SEO) to improve results from the natural or organic listings, and paid search marketing, or pay-per-click (PPC), to deliver results from the sponsored listings within search engines. A variety of search practices, including mobile and local, will be explored.

COMM 4326 Digital Campaign Management (4 Credits)
Any successful marketing or communication campaign — digital or traditional — is dependent on many factors, from its strategic beginnings through its final readout. However, perhaps the most critical factors driving the success of a digital campaign are rooted within the human, technical, and business processes through which that campaign comes to life. Assuming a foundational understanding of digital marketing techniques (i.e., web, search marketing, social media, etc.), this course will focus on the practical management of digital marketing and communication campaign efforts, including planning, management, and measurement.

COMM 4327 Writing for Digital Media (4 Credits)
Much of communicators’ and marketers’ messaging is conveyed through digital media. This course examines how the behavior of on-screen readers fundamentally differs from that of print readers and how that difference informs the process of creating and editing effective copy for a wide range of digital media, including traditional websites, mobile sites, online advertising, social media, and more. The course utilizes essential principles of content strategy and content marketing and applies them to the content creation process.

COMM 4701 Topics in Applied Comm (4 Credits)
The content of this course varies each time it is offered. Topics may include time-sensitive issues in the field of communication, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects, such as ethics, human communication theory, or interpersonal communication. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.
COMM 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of a B- or better is required to pass.

COMM 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produces a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the supervision of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

COMM 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

COMM 4905 Graduate Social Research Methods (4 Credits)
Graduate Social Research Methods is an exploration of the methods and purposes of social science research from the perspective of the researcher as well as that of the informed professional and consumer of information. Students will learn about the process of research, including the development of research questions, the purpose of various social science research methods, the role of professional ethics, and general approaches to the analysis and interpretation of data. Students will develop the ability to read and critique basic social science research articles and to implement simple research designs. Students will develop and write a research proposal around a specific research question informed by a review of the literature. Technical requirements include the ability to read and modify Microsoft Excel documents. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

COMM 4920 Portfolio Capstone (4 Credits)
The Portfolio Capstone course provides students the opportunity to reflect upon the work they have done throughout their graduate studies at University College and synthesize their learning. Students in the seminar produce deliverables that include: (1) a thorough annotation of their portfolio, a process requiring critical and creative thinking about their educational experience, and (2) a capstone project that identifies, analyzes, and elaborates significant themes in their program experience, evaluates their accomplishments, connects their coursework to their professional goals, and assesses those goals in the context of their chosen field. Students must complete the Portfolio Capstone with a grade of B or better.

COMM 4980 Internship (4 Credits)
The Organizational and Professional Communication Internship is designed to offer students a purposeful experience in a practical, industry related setting. The internship is an individualized learning experience. A training plan is created for each student in conjunction with the internship site supervisor to provide experiences related to the skills and knowledge covered in the certificate and master’s programs as well as professional goals. Students are responsible for finding their own internship site and proposing their internship ideas. University College will send notification to all COMM students if they hear of internship possibilities. Students may also work through the DU career center, to explore opportunities for internship experiences. To be eligible for an internship, completion of a minimum of 28 hours of graduate coursework in the field of specialty is required OR Academic Director approval for students with previous work experience in the field.

COMM 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. Before registering for the independent study, the student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices. Independent Study is offered only on a for-credit basis.
COMM 4992 Directed Study (1-5 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Environmental Policy and Management
Office: University College Student Support Center
Mail Code: 2211 S. Josephine St., Denver, CO 80208
Phone: 303-871-2291, 800-347-2042
Email: ucolsupport@du.edu
Web Site: http://www.universitycollege.du.edu

Master of Science in Environmental Policy and Management with a concentration in Energy and Sustainability
The Energy and Sustainability master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Students are prepared to enter the dynamic industry of energy and sustainability, which is emerging in importance and popularity around the world. Students will establish a solid foundation in energy and sustainability concepts, and then learn to integrate environmental systems, put policy into practice, and develop effective sustainability plans. Regulatory and policy issues related to energy development, implementation, and use, energy finance, and alternative and renewable energy processes will be examined, along with renewable energy sources, plans for integration, and trends within the field of energy.

Sustainable systems must be considered and developed in the areas of growth, transportation, energy, policy, and business models in order to head off looming environmental, political, and humanitarian problems. This will be accomplished through a comprehensive study of sustainability in the areas of economic development, green building, land use, transportation, and water resources. Customize your Environmental Policy and Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:
- Demonstrate a solid understanding of how non-renewable and renewable energy sources are developed, used, regulated, and financed
- Articulate a strong working knowledge of sustainability concepts
- Show an understanding of trends and issues in areas of traffic management, climate science, water supplies, and green buildings
- Develop plans for the integration of sustainable practices into products, business and marketing plans, environmental policies, and organizational processes
- Build finance schemes and marketing strategies for their plans so they can be presented to an organization leader as an executable idea

Master of Science in Environmental Policy and Management with a concentration in Environmental Analytics and Reporting
The Environmental Analytics and Reporting master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. This certificate and concentration emphasizes learning how to utilize the tools and insights of the data analytics revolution to perform sophisticated environmental analyses and reports. Students learn possible uses of data analytics in an era of sustainability and ever-increasing complexity to manage the environmental elements of their organizations more effectively. Constructively reporting these results, trends, and accomplishments is an important avenue of communication in any organization. Environmental professionals will learn to identify and obtain a data set from a publicly traded company, from their own organization, or another public or governmental source suitable to use for carrying out analytics projects. Clear questions will be formulated and framed; analytical algorithms will be run on cloud technologies to reveal relevant insight into environmental issues. Context for these analyses will be provided through study of ISO 14001, fundamental U.S. environmental statutes, and governmental and NGO environmental reporting standards and requirements.

This degree prepares students to do the following:
- Analyze the value, function, and use of data and analytics and assess the promise of cognitive computing techniques
- Assess effective management techniques for analytics projects by evaluating the people and process implementations and changes associated with data and analytics efforts
- Differentiate between the most commonly used analytical techniques and formulate business cases and define an analytics modeling pilot project for data and analytics initiatives specific to your field
• Evaluate how and when to use analytics to create or enhance business value.

• Apply the ISO 14001 framework as a proactive and systematic approach to environmental management develop ISO 14001 environmental policies including objectives and targets, implement an environmental management program, monitor and measure program results, and review the program to ensure continual improvement.

• Make informed judgments based on the requirements of, and interrelationships of, key environmental statutes including: National Environmental Policy Act (NEPA), Clean Air Act (CAA), Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Emergency Planning and Community Right-to-Know Act (EPCRA), Occupational Safety and Health Act (OSHA), and related toxics laws; and the legal system and the roles of Congress, the President, executive agencies, states, and courts in shaping environmental laws.

• Conduct analyses and craft reports addressing SEC requirements and NGO standards, e.g., the 30 GRI environmental performance indicators, and Sustainability Accounting Standards Board recommendations.

• Design and perform analyses on a structured data set using a choice of software analysis and statistics tools and craft the environmental reporting elements of organizational reports addressing matters such as sustainability, risk, efficiency, impacts, permit status, routine releases, unplanned events, strategies, operations monitoring, management monitoring, ethics, stakeholder perceptions, innovation, and collaboration.

Master of Science in Environmental Policy and Management with a concentration in Environmental Assessment of Nuclear Power

The Environmental Assessment of Nuclear Power master's degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. This degree addresses the requirements and topics needed for any Environmental Impact Statement (EIS), as well as the human health and environmental risks associated with the use of radioactive materials. Students will be prepared with essential knowledge to complete, analyze, and enhance Environmental Impact Statements—documents that provide valuable information about proposed development processes of nuclear energy. The program will also support the educational infrastructure that allows the nation to move forward with its nuclear energy initiatives by promoting and strengthening the teaching/learning needs in environmental protection around nuclear sites and installations, including uranium mines and milling facilities.

The master's degree concentration in Environmental Assessment of Nuclear Power goes beyond environmental basics; students will understand the role of scientific quantification of nuclear project action and the interaction with the environment, while pursuing alternative power solutions that contribute to the sustainable development of nuclear energy. Learn the laws and policy associated with nuclear energy and become an expert in the interaction between nuclear power and the environment. Customize your Environmental Policy and Management master's degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Develop the skills necessary to prepare an EIS, and their interdisciplinary nature
• Develop the ability to critically analyze the EIS document and the implementation policy process
• Understand the role of scientific quantification of nuclear project action and the interaction with the environment
• Enhance the individual and team skills necessary in the preparation of an EIS
• Advance knowledge in nuclear energy policy and laws
• Develop a foundation for improving engineering design of nuclear systems and nuclear waste treatment facilities that would be friendlier to the environment
• Develop the capability to identify alternative design features that would be friendlier to the environment and contribute to sustainable development of nuclear energy

Master of Science in Environmental Policy and Management with a concentration in Environmental Health and Safety

The Environmental, Health and Safety master's degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Whether students currently work in environmental health and safety positions for commercial or government operations, or aspire to, the Environmental, Health and Safety master's degree prepares them with the management skills and technical knowledge required to become a health and safety manager or officer. Students will begin with the foundational statutory and regulatory origins of environmental health and safety compliance management and learn how to effectively and efficiently streamline resources to integrate safety and health regulations across sectors and industries.

Critical instruction is given on relevant training, emergency planning, procedural operations, and the management of worker health and safety, in addition to environmental management and reporting systems and business and finance strategy. Customize your Environmental Policy and
Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Evaluate the benefits and barriers to integration of environmental health and safety including the fundamentals of safety management, training requirements, emergency planning, setting goals, objectives, and operating procedures, and how management views environmental health and safety

- Describe the Occupational Safety and Health Act and other rules governing workplace safety with emphasis on the overlap between safety and environmental laws, OSHA’s inspection and enforcement authority, employee and employer rights and record keeping requirements

- Develop and apply compliance programs including how to reduce losses of direct and indirect costs due to accidents and how to convince management and employees that safety programs are beneficial

- Investigate workplace safety topics including costs of accidents, investigation programs, practical application of worker’s compensation, confined space entry programs, injury/illness records and reporting, programs for new fall protective rules and personal protective equipment programs

**Master of Science in Environmental Policy and Management with a concentration in Environmental Management**

The Environmental Management master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Master’s degree students will learn environmental management and leadership essentials, providing them with critical knowledge related to technology, law, and economics as they each relate to the environment. Facilitating environmental innovation, development plans, and integration will be discussed, along with essential permitting and regulatory issues that environmental managers need.

Students in the Environmental Management master’s concentration will receive engaging instruction from professional practitioners who work in the fields in which they teach in topics ranging from economics to law, leadership to regulations, as each topic relates to the environment. Designed for students seeking a combination of leadership, policy, and environmental issue education, the concentration prepares graduates to address and manage complex environmental systems. Customize your Environmental Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Examine the requirements and implementation strategies of the National Environmental Policy Act and the requirements of various federal agencies which are responsible for National Environmental Policy Act implementation.

- Critique Environmental Impact Statements and Environmental Assessments for regulatory compliance and thoroughness in disclosing environmental effects of proposed actions.

- Investigate the Resource Conservation and Recovery Act’s regulations governing performance requirements for treatment, storage and disposal of solid and hazardous waste generation and disposal.

- Explain and summarize developing trends in waste minimization, solid waste management and special waste controls.

- Demonstrate how to use the ISO 14001 framework as a proactive and systematic approach to environmental management and develop a complete program that integrates the ISO 14001 requirements with the existing strategic management methods of an organization.

- Assess personal leadership attributes and construct a personal leadership development plan that integrates leadership principles necessary for advancement including interpersonal communication and leading environmental innovation using the natural world as a model.

**Master of Science in Environmental Policy and Management with a concentration in Environmental Policy**

The Environmental Policy master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Designed for professionals working in organizations focused on environmental policy development or advocacy such as legislatures, regulatory agencies, consultants, and advocacy groups, the Environmental Policy master’s concentration provides students with policy analysis and development skills needed to serve as a senior analyst or manager within a policy-making organization.

Students will receive valuable instruction—from professional practitioners who work in the fields in which they teach—in topics ranging from economics to law, ethics to finance, as each topic relates to environmental policy. A master’s degree concentration in Environmental Policy will prepare students for careers that impact environmental decisions. Foundational public environmental policy analysis will be discussed, including
contemporary methods for analytical model development, implementation, and evaluation. Customize your Environmental Policy and Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Outline the legal and philosophical underpinnings of the environmental movement, both in the United States and internationally, including the use of international laws and treaties to mitigate, lessen, or eliminate damage to various aspects of the environment.

• Analyze global environmental issues including endangered species, overpopulation, resource depletion, biodiversity, ocean dumping, deforestation, desertification, global warming, and ozone depletion.

• Explain how to encourage sustainability through consumption patterns that ensure a continuing resource supply for future generations and through achieving a balance between environmental protection and economic development.

• Describe the field of public environmental policy including contemporary methods of policy analysis, agenda-setting, models of policy formulation and implementation, and policy evaluation.

• Examine ethical considerations in environmental management and decision making and explore various philosophies of humankind’s relationship with the environment.

• Develop and express a personal philosophy addressing one’s own role in the regulatory, technical, scientific, and financial management of the environment.

Master of Science in Environmental Policy and Management with a concentration in Natural Resource Management

The Natural Resource Management master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Designed for professionals whose primary interest is the management of natural resources for organizations which plan or regulate the use of natural resources, or commercial operations which extract and use natural resources (e.g., mining or forestry management), the Natural Resource Management concentration prepares students to work in professional roles overseeing natural resource management for commercial or government purposes. Learn historic and contemporary management systems and principles, along with key policies and procedures needed to excel in the public or private sectors related to natural resource management.

Degree-seeking students are exposed to a breadth of knowledge pertaining to natural resources, water management, zoning, forestry management, mining, and land use issues. Focused skills concentrate on technology, management, and communication knowledge that is critical to success in the natural resource management field. Customize your Environmental Policy and Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Analyze the practical and theoretical basis of recreational land use in the context of ecosystem management and explore the responsibilities of various federal, state and local agencies, environmental and wildlife interest groups, and other organizations involved in wildlife management issues.

• Discuss the statutory and regulatory policies and current issues regarding the management and use of lands in wilderness systems, wild and scenic river corridors, parks, and open spaces.

• Explain historic and contemporary management systems and principles by examining key policies, guidelines, and planning procedures of governmental agencies, resource-based industry and the public.

• Describe how the biological, physical, social, and economic aspects of lands, waters, and natural resources work together to achieve sustainable conditions that encourage preservation and management of natural resources for recreation.

• Investigate the basic principles, trends, challenges, and controversies of the administration of maintaining certain wildlife species including threats from water and air pollution, poaching and other illegal actions.

• Characterize the field of public environmental policy including contemporary methods of policy analysis, agenda-setting, models of policy formulation and implementation, and policy evaluation.

Certificate in Environmental Policy and Management with a concentration in Energy and Sustainability

The graduate certificate in Energy and Sustainability concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Busy adults who already hold master’s degrees, or professionals
who work within the field of energy development, will benefit from a graduate certificate in Energy and Sustainability, a dynamic field that is emerging in importance and popularity. Ideal for students seeking further study related to sustainable systems, energy development and use, energy finance, and alternative and renewable energy process, the graduate certificate in Energy and Sustainability may be earned online or on campus in the evenings. Students will develop integration strategies, build finance schemes and marketing plans, articulate a strong working knowledge of sustainability concepts, and learn about energy and sustainability systems.

Sustainable systems must be considered and developed in the areas of growth, transportation, energy, policy, and business models in order to head off looming environmental, political, and humanitarian problems. This will be accomplished through a comprehensive study of sustainability in the areas of economic development, green building, land use, transportation, and water resources. Credits earned through this graduate certificate may apply toward a master’s degree in Environmental Policy and Management.

Certificate in Environmental Policy and Management with a concentration in Environmental Analytics and Reporting

The Environmental Analytics and Reporting master's degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. This certificate and concentration emphasizes learning how to utilize the tools and insights of the data analytics revolution to perform sophisticated environmental analyses and reports. Students learn possible uses of data analytics in an era of sustainability and ever-increasing complexity to manage the environmental elements of their organizations more effectively. Constructively reporting these results, trends, and accomplishments is an important avenue of communication in any organization. Environmental professionals will learn to identify and obtain a data set from a publicly traded company, from their own organization, or another public or governmental source suitable to use for carrying out analytics projects. Clear questions will be formulated and framed; analytical algorithms will be run on cloud technologies to reveal relevant insight into environmental issues. Context for these analyses will be provided through study of ISO 14001, fundamental U.S. environmental statutes, and governmental and NGO environmental reporting standards and requirements.

Certificate in Environmental Policy and Management with a concentration in Environmental Assessment of Nuclear Power

The graduate certificate in Environmental Assessment of Nuclear Power concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. The graduate certificate addresses the requirements and topics needed for any Environmental Impact Statement (EIS), as well as the human health and environmental risks associated with the use of radioactive materials. Graduate certificate students will be prepared with essential knowledge to complete, analyze, and enhance Environmental Impact Statements—documents that provide valuable information about proposed development processes of nuclear energy. The graduate certificate program will also support the educational infrastructure that allows the nation to move forward with its nuclear energy initiatives by promoting and strengthening the teaching/learning needs in environmental protection around nuclear sites and installations, including uranium mines and milling facilities.

The graduate certificate in Environmental Assessment of Nuclear Power goes beyond environmental basics; certificate students will understand the role of scientific quantification of nuclear project action and the interaction with the environment, while pursuing alternative power solutions that contribute to the sustainable development of nuclear energy. Learn the laws and policy associated with nuclear energy and become an expert in the interaction between nuclear power and the environment. Credits earned through this graduate certificate may apply toward a master's degree in Environmental Policy and Management.

Certificate in Environmental Policy and Management with a concentration in Environmental Health and Safety

The graduate certificate in Environmental, Health and Safety concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Designed and delivered for professionals who already holds a master's degree, or for professionals looking to further their environmental career with a new skillset, the graduate certificate in Environmental, Health and Safety concentration may be earned online or on campus in the evenings. Certificate students will explore the foundational statutory and regulatory origins of environmental health and safety compliance management and learn how to effectively and efficiently streamline resources to integrate safety and health regulations across sectors and industries.

Students pursuing this graduate certificate, either online or on campus, will acquire environmental management skills and technical knowledge that prepare them to work with health and safety statutes and regulations, management of worker health and safety issues, environmental management and reporting systems, and business and finance. Credits earned through this graduate certificate may apply toward a master's degree in Environmental Policy and Management.

Certificate in Environmental Policy and Management with a concentration in Environmental Management

The graduate certificate in Environmental Management concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Environmental Management certificate students will develop...
essential management skills and technical knowledge required to function in a variety of managerial positions within the environmental field. Certificate students learn to facilitate environmental innovation and integrate systems while complying with regulatory and policy matters.

The Environmental Management certificate is designed for busy adults who already hold a master's degree, or for professionals looking to further their environmental career with a new skillset in leadership, policy, and environmental issues. The graduate certificate in Environmental Management concentration provides detailed instruction on statutes and regulations, management and reporting systems, business and finance strategy, and communication and negotiation skills as they each relate to environmental management. Environmental Management graduate certificate students take master's-level classes but do not complete a capstone project. Credits earned through this graduate certificate may apply toward a master's degree in Environmental Policy and Management.

Certificate in Environmental Policy and Management with a concentration in Environmental Policy

The graduate certificate in Environmental Policy concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Designed and delivered for professionals who already hold master's degrees or for those looking to further their environmental career with a new skillset, the graduate certificate in Environmental Policy concentration is ideal for adult students seeking an innovative, career relevant graduate certificate. Environmental policy analysis at the public level will be discussed, including contemporary methods for analytical model development, implementation, and evaluation.

Environmental Management and Policy students who are currently in the field of environmental policy, or for those aspiring to join the field, will develop skills through the online graduate certificate program that will serve them well in a policy making organization, such as values and ethics, communication and negotiation, policy analysis, and environmental laws and regulations. Environmental Policy graduate certificate students take master’s level classes, but do not complete a capstone project. Credits earned through this graduate certificate may apply toward a master's degree in Environmental Policy and Management.

Certificate in Environmental Policy and Management with a concentration in Natural Resource Management

The Natural Resource Management graduate certificate concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Designed for professionals who already hold master’s degrees, or for busy adults looking to further their environmental career with a new skillset, the graduate certificate in Natural Resource Management will prepare students to work in natural resource management roles for commercial or government organizations. Certificate students will learn historic and contemporary management systems and principles, in addition to essential policies and procedures needed to thrive in natural resource management in the public or private sectors.

The graduate certificate is designed for professionals whose primary interest is the management of natural resources for organizations which plan or regulate the use of natural resources, or commercial operations which extract and use natural resources. Graduate certificate students will develop organizational leadership skills and learn environmental statutes and regulations pertaining to natural resource management. Credits earned through this graduate certificate may apply toward a master's degree in Environmental Policy and Management.

MASTER’S DEGREE ADMISSION

Admission Criteria

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process

Master’s degree applications are reviewed on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/masters.cfm).

- Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- Application Fee: A $75 non-refundable application fee is required for an application to be processed.
- One Official Transcript from each Post-Secondary Institution: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
- Two Letters of Recommendation: Two confidential letters of recommendation are required.
CERTIFICATE ADMISSION

Admission Criteria

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process

Certificate applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

- Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- Application Fee: A $50 non-refundable application fee is required for an application to be processed.
- One Official Transcript from each Post-Secondary Institution: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
- Résumé/Curriculum Vitae (CV).
- Certificate Plan: The certificate plan, detailing courses for the academic program, is required to complete the admission process and can be completed through the University College online Degree Builder (http://universitycollege.du.edu/DegreeBuilder/Student/ChooseDegree.aspx) tool.
- Language Proficiency: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
- Proof of Permanent Residency: Permanent Residents must provide a copy of their Registration Alien Card (green card).
- Admission Interview: An interview may be required at the program director’s request.
- International Applicants: Additional requirements are listed below for international applicants.

INTERNATIONAL ADMISSION

International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College’s International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.
Additional Admission Requirements for International Applicants

- **English Proficiency:** All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.

  1. **TOEFL:** A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.
  
  2. **Academic IELTS:** A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.

  3. **Possible Exemptions:** International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.

  4. **English Conditional Acceptance (ECA):** Master’s degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA requires an evaluation by the University of Denver’s English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.

- **Official Transcripts and Translations:** International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.

- **Photocopy of Diploma/Degree Certification and Appropriate Translations:** Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.

- **A Photocopy of Current Passport:** Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.

- **The Supplemental Information Form (SEVIS Supplement):** Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.

- **Financial Verification Form:** Applicants seeking an I-20 student visa must submit financial verification documents.

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**Master of Science in Environmental Policy and Management with a Concentration in Energy and Sustainability**

**Degree Requirements**

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EPM 4003</td>
<td>Environmental Finance and Economics</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4200</td>
<td>Environmental Protection Law</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4001</td>
<td>Environmental Foundations and Principles</td>
<td>4</td>
</tr>
<tr>
<td>or EPM 4115</td>
<td>Introduction to Ecology</td>
<td></td>
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<tr>
<td>or EPM 4710</td>
<td>Environmental Project Management</td>
<td></td>
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<tr>
<td>EPM 4910</td>
<td>Research Practices and Applications</td>
<td>4</td>
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<tr>
<td>EPM 4901</td>
<td>Capstone Project</td>
<td>4</td>
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<tr>
<td>or EPM 4902</td>
<td>Capstone Seminar</td>
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<tr>
<td>or EPM 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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**Concentration requirements**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4230</td>
<td>Energy Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4232</td>
<td>Sustainability: Policy and Practice</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4233</td>
<td>Sustainable Transportation</td>
<td>4</td>
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**Elective requirements (Choose three courses):**

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<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>EPM 4234</td>
<td>Climate Change and Science</td>
<td></td>
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<tr>
<td>EPM 4235</td>
<td>Green Building</td>
<td></td>
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<tr>
<td>EPM 4236</td>
<td>Nuclear and Hydrogen Energy</td>
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<td>EPM 4237</td>
<td>Renewable Energy</td>
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<tr>
<td>EPM 4238</td>
<td>Water and Food Sustainability</td>
<td></td>
</tr>
</tbody>
</table>
Minimum number of credits required: 48

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Master of Science in Environmental Policy and Management with a Concentration in Environmental Analytics and Reporting

Degree Requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EPM 4003</td>
<td>Environmental Finance and Economics</td>
<td>4</td>
</tr>
<tr>
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<td>Environmental Protection Law</td>
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</tr>
<tr>
<td>EPM 4001</td>
<td>Environmental Foundations and Principles</td>
<td>4</td>
</tr>
<tr>
<td>or EPM 4115</td>
<td>Introduction to Ecology</td>
<td></td>
</tr>
<tr>
<td>or EPM 4710</td>
<td>Environmental Project Management</td>
<td></td>
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<tr>
<td>EPM 4910</td>
<td>Research Practices and Applications</td>
<td>4</td>
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<tr>
<td>EPM 4901</td>
<td>Capstone Project</td>
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<tr>
<td>or EPM 4902</td>
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<td>or EPM 4904</td>
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Concentration requirements

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>EPM 4610</td>
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<td>EPM 4620</td>
<td>Environmental Reporting Standards and Models</td>
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Elective requirements (Choose three courses):

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
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<tr>
<td>EPM 4355</td>
<td>ISO 14001 Standards</td>
<td>4</td>
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<tr>
<td>EPM 4500</td>
<td>Leadership for Environmental Managers</td>
<td>4</td>
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<td>EPM 4710</td>
<td>Environmental Project Management</td>
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</tr>
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<td>EPM 4980</td>
<td>Internship</td>
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Total Credits 48

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

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Master of Science in Environmental Policy and Management with a Concentration in Environmental Assessment of Nuclear Power

Degree Requirements

Core coursework requirements

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Master of Science in Environmental Policy and Management with a Concentration in Environmental Health and Safety

Degree Requirements

Core coursework requirements

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<tr>
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<td>Introduction to Ecology</td>
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<td>or EPM 4710</td>
<td>Environmental Project Management</td>
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<td>EPM 4910</td>
<td>Research Practices and Applications</td>
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<td>EPM 4901</td>
<td>Capstone Project</td>
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<tr>
<td>or EPM 4902</td>
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<td>or EPM 4904</td>
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Concentration requirements

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<tr>
<th>Course</th>
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<td>Environmental Health &amp; Safety</td>
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Elective requirements (Choose three courses):

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<tr>
<td>EPM 4500</td>
<td>Leadership for Environmental Managers</td>
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<td>EPM 4705</td>
<td>Land Use Planning</td>
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<td>EPM 4980</td>
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**Master of Science in Environmental Policy and Management with a Concentration in Environmental Management**

**Degree Requirements**

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<td>ISO 14001 Standards</td>
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<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
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<td>EPM 4390</td>
<td>Environmental Policy Analysis</td>
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<td>EPM 4980</td>
<td>Internship</td>
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**Total Credits** 48

**Minimum number of credits required: 48**

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**Master of Science in Environmental Policy and Management with a Concentration in Environmental Policy**

**Degree Requirements**

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<td>EPM 4232</td>
<td>Sustainability: Policy and Practice</td>
<td>4</td>
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<td>EPM 4390</td>
<td>Environmental Policy Analysis</td>
<td>4</td>
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<tr>
<td>EPM 4400</td>
<td>Environmental Values and Ethics</td>
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### Elective requirements (Choose three courses):

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<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
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<tr>
<td>EPM 4108</td>
<td>Impacts of Recreational Use</td>
<td></td>
</tr>
<tr>
<td>EPM 4140</td>
<td>NEPA</td>
<td></td>
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<tr>
<td>EPM 4355</td>
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### Master of Science in Environmental Policy and Management with a Concentration in Natural Resource Management

#### Degree Requirements

**Core coursework requirements**

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<td>Environmental Protection Law</td>
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<td>Introduction to Ecology</td>
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<td>or EPM 4710</td>
<td>Environmental Project Management</td>
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<td>EPM 4910</td>
<td>Research Practices and Applications</td>
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<td>EPM 4901</td>
<td>Capstone Project</td>
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**Concentration requirements**

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<tr>
<td>EPM 4108</td>
<td>Impacts of Recreational Use</td>
<td>4</td>
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<tr>
<td>EPM 4120</td>
<td>Introduction to Natural Resource Management</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4220</td>
<td>Endangered Species and Wildlife</td>
<td>4</td>
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<td>EPM 4390</td>
<td>Environmental Policy Analysis</td>
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<td>EPM 4236</td>
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<td>Land And Visual Resources</td>
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<td>Internship</td>
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Total Credits: 48

**Minimum number of credits required: 48**

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Certificate in Environmental Policy and Management with a Concentration in Energy and Sustainability

Program Requirements

Concentration requirements

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<tr>
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<tbody>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
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<td>EPM 4230</td>
<td>Energy Fundamentals</td>
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<td>EPM 4232</td>
<td>Sustainability: Policy and Practice</td>
<td>4</td>
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<td>EPM 4233</td>
<td>Sustainable Transportation</td>
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Elective requirements (Choose two courses):

<table>
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<tr>
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<tbody>
<tr>
<td>EPM 4234</td>
<td>Climate Change and Science</td>
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<td>EPM 4235</td>
<td>Green Building</td>
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<td>EPM 4236</td>
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<td>EPM 4237</td>
<td>Renewable Energy</td>
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<tr>
<td>EPM 4238</td>
<td>Water and Food Sustainability</td>
</tr>
<tr>
<td>EPM 4980</td>
<td>Internship</td>
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Total Credits: 24

Minimum number of credits required: 24

Certificate in Environmental Policy and Management with a Concentration in Environmental Analytics and Reporting

Program Requirements

Concentration requirements

<table>
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<tbody>
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<td>Analytics II</td>
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<td>Environmental Reporting Standards and Models</td>
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<td>EPM 4625</td>
<td>Environmental Analysis and Reporting Project</td>
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Elective requirements (Choose two courses):

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<th>Course</th>
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<tbody>
<tr>
<td>EPM 4200</td>
<td>Environmental Protection Law</td>
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<tr>
<td>EPM 4355</td>
<td>ISO 14001 Standards</td>
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</table>

Total Credits: 24

Minimum number of credits required: 24

Certificate in Environmental Policy and Management with a Concentration in Environmental Assessment of Nuclear Power

Program Requirements

Concentration requirements

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<td>EPM 4461</td>
<td>Assessment of Social Impacts</td>
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<tr>
<td>EPM 4462</td>
<td>Ecology, Soil, and Water</td>
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</tr>
<tr>
<td>EPM 4463</td>
<td>Air Quality, Noise and Transportation</td>
<td>4</td>
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<tr>
<td>EPM 4465</td>
<td>Environmental Restoration and Waste Management</td>
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<td>EPM 4460</td>
<td>Land And Visual Resources</td>
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<td>EPM 4464</td>
<td>Nuclear Power Plant Systems</td>
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Certificate in Environmental Policy and Management with a Concentration in Environmental Health and Safety

Program Requirements

Concentration requirements

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<td>Environmental Health &amp; Safety</td>
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<td>EPM 4520</td>
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Total Credits: 24

Minimum number of credits required: 24

Certificate in Environmental Policy and Management with a Concentration in Environmental Management

Program Requirements

Concentration requirements

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Certificate in Environmental Policy and Management with a Concentration in Natural Resource Management

Program Requirements

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<td>Introduction to Natural Resource Management</td>
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<td>EPM 4220</td>
<td>Endangered Species and Wildlife</td>
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Minimum number of credits required: 24

Courses

EPM 4001 Environmental Foundations and Principles (4 Credits)
Each major federal environmental law has a basis in protecting human health, as well as the environment. Although protection of the environment is claimed to be the purpose of the law, protection of the public’s health ultimately becomes its foremost effort. This course provides an overview of how government institutions address environmental health concerns, develop policy, apply the law, and implement environmental public health protections. In addition, how environmental health law is implemented by agencies; the responsibilities of local, state and federal agencies; the rights of the citizens subject to these rules; and the role of the courts throughout the process are explored.

EPM 4002 Integrated Environmental Systems (4 Credits)
The earth as a whole is comprised of many systems that affect the environment. Some have large wide ranging reach, while others are restricted to a relatively small area. Included is everything in between. Actions in one area or system may have unintended secondary and tertiary consequences in that system or others. This course uses various tools and materials to study a few environmental systems and determine connections, consequences, impacts, barriers, decision making, life cycle costs, etc.

EPM 4003 Environmental Finance and Economics (4 Credits)
This class provides an overview of economics and finance in an environmental context. Topics include an overview of the economic system, efficiency, equity, market failure, environmental regulation, benefit-cost analysis, valuing the environment, pollution control, energy, conservation of natural resources, performance metrics, risk and return, time value of money, cost of capital, returns on investments, and standard financial reports. The class makes use of reading assignments, written assignments, case studies, and class participation. The course emphasizes relationship between business management and environmental quality, and provides students with a financial and economic decision-making framework for understanding and analyzing environmental issues.

EPM 4040 Wetland Ecology and Management (4 Credits)
This course provides a detailed examination of aquatic communities and habitats with an emphasis on freshwater systems. The recognition, identification, classification, and maintenance requirements of various wetland communities are stressed. Students analyze Section 404 of the Clean Water Act and the permitting process. Guidelines for placing dredge and fill materials in wetlands and other construction projects that directly or indirectly affect these areas are reviewed. Students explore concepts related to regulatory enforcement, mitigation, and the need for additional policies and actions to sustain as well as protect these critical communities.

EPM 4108 Impacts of Recreational Use (4 Credits)
The practical and theoretical basis of recreational use of public and private lands is examined in the context of ecosystem management. The statutory and regulatory policies and current issues regarding the management and use of lands in wilderness systems, wild and scenic river corridors, parks, and open spaces are discussed in detail. The impacts of recreational uses on the environment and conflicts with other uses of land and resources are discussed. Land use planning policies and decisions which respond to recreation, wilderness and open space issues are examined. Field trips to Rocky Mountain National Park, Chatfield State Park, or other outdoor recreation sites will be scheduled to supplement classroom meetings.
EPM 4115 Introduction to Ecology (4 Credits)
This course examines the concepts of the ecosystem, populations, communities, the flows of energy, material cycles, and the necessity of diversity. Concepts including the unity of organisms and inseparable interactions with the physical environment are analyzed. Class discussions include topics such as the formation, distribution, and organization of ecological communities; plant succession and nutrient cycling; evolutionary trends of plant and animal populations; and species interactions in subalpine and alpine forests, prairies, and plains.

EPM 4120 Introduction to Natural Resource Management (4 Credits)
This course provides an introduction to natural resource management with an overview of historic and contemporary management systems and principles. Students examine key policies, guidelines, and planning procedures of governmental agencies, resource-based industry and the public. Topics include the simultaneous consideration of biological, physical, social, and economic aspects of lands, waters, and natural resources to achieve sustainable conditions. Other topics are multiple use/sustained yield management; soil and water conservation and protection; use, restoration, and preservation of renewable and non-renewable resources; and the preservation and management of natural resources for recreation, spiritual renewal, and other amenity values.

EPM 4140 NEPA (4 Credits)
Students examine the requirements and implementation strategies of the National Environmental Policy Act. The Council on Environmental Quality, National Environmental Policy Act Regulations and the rules and requirements of various federal agencies which are responsible for National Environmental Policy Act implementation are examined in detail. Specific applications of National Environmental Policy Act to private and public activities which constitute major federal actions significantly affecting the quality of the human environment are discussed. Representative Environmental Impact Statements and Environmental Assessments are presented and critiqued for regulatory compliance and thoroughness in disclosing environmental effects of proposed actions. Prerequisite: EPM 4200 (Environmental Protection Law).

EPM 4150 Global Environmental Law and Policy (4 Credits)
This course explores the legal and philosophical underpinnings of the environmental movement, both in the United States and internationally. Students will analyze global environmental issues including endangered species, overpopulation, resource depletion, biodiversity, ocean dumping, deforestation, desertification, global warming, and ozone depletion. Emphasis is placed on management options and the use of international laws and treaties to mitigate, lessen, or eliminate damage to various aspects of the environment.

EPM 4200 Environmental Protection Law (4 Credits)
This course reviews a wide spectrum of laws which protect our environment and health. Students will discuss the purpose, context and implications of the most important laws, regulations and court cases that affect the quality of our lives. Coverage includes: National Environmental Policy Act (NEPA), Clean Air Act (CAA), Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Emergency Planning and Community Right-to-Know Act (EPCRA), Occupational Safety and Health Act (OSHA), and related toxics laws. It provides an overview of the legal system and the roles of Congress, the President, executive agencies, states, and courts in shaping environmental laws.

EPM 4220 Endangered Species and Wildlife (4 Credits)
This course provides an overview of the basic principles, trends, challenges, and controversies of the administration of maintaining certain wildlife species. Threats from water and air pollution, poaching and other illegal actions, interrelationships of wildlife and their habitats, and biodiversity will be discussed. Students gain an understanding of the roles and responsibilities of various federal, state and local agencies, environmental and wildlife interest groups, and other organizations involved in wildlife management issues.

EPM 4230 Energy Fundamentals (4 Credits)
This course provides a well-rounded primer on energy as a resource and its importance in the economy and the world today. Renewable energy and alternative fuels as well as nuclear and hydrogen-based technologies will be explored. This course also provides an in-depth view of issues surrounding the development, enforcement and application of energy regulatory policy.

EPM 4232 Sustainability: Policy and Practice (4 Credits)
In 1987 the Brundtland Commission, formerly the World Commission on Environment and Development, defined sustainability as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The wording suggests the concept of sustainability is difficult to define. Certainly it relates to some of the most challenging questions of our times: How do we encourage consumption patterns to ensure a continuing resource supply for future generations? How can an individual enterprise, whether it is a major corporation or a mom-and-pop business, practice sustainability? How do well-meaning executives, scientists, engineers and policymakers achieve a balance between environmental protection and economic development?

EPM 4233 Sustainable Transportation (4 Credits)
21st Century transportation planning on the local and global scale involves consideration of environmental policies and sustainable practices. Development of an efficient system for moving goods and people along highways, airways and public transit networks must coordinate with legal requirements governing automobile source emissions, water pollution, mitigation of congestion, and crisis management. Conflicts occur along political fault lines between public interest groups, environmental justice advocates, the business community, government regulators, and the ordinary commuter. Consideration is given to different fuel sources, including carbon-based, hydrogen, electricity, and biofuels. The course also examines fuel efficiency (CAFE) and trends in emission science and regulation.
EPM 4234 Climate Change and Science (4 Credits)
Global Warming is a cause celebre, but how much do we really know about the science involved in studying the earth's climate? Moving beyond the social and political opinions espoused in the current debate on climate change, this course delves into the chemical and physical forces at play in the arena. This course covers scientific processes used in measuring climate dynamics, among them ozone chemistry, carbon and oxygen cycles, and heat and water budgets. It explores scales and methods for detecting climate change, including analyzing ice cores, instrumental records, and time series. Some attention will be dedicated to "climate forcing" caused by such things as orbital variations, volcanism, plate tectonics, and solar variability.

EPM 4235 Green Building (4 Credits)
Builders, developers and designers increasingly are promoting the use of green construction practices in the pursuit of healthier, smarter buildings. Students in this course examine sustainable building strategies and tools, including LEED (Leadership in Energy and Environmental Design), the nationally-accepted benchmark for the design, construction and operation of high-performance green buildings. LEED promotes a whole-building approach by recognizing performance in five areas: sustainable site development, water savings, energy efficiency, materials selection and indoor air quality. What materials are best in the design and operation of green building? How can a designer or building owner make better use of power and water efficiency programs? What are the recent developments, trends and case studies of green buildings and materials?.

EPM 4236 Nuclear and Hydrogen Energy (4 Credits)
Two future- and high-tech oriented energy sources are explored in this course, nuclear power and hydrogen fuel. The course covers principles used in fission energy and in nuclear power engineering, including controlled chain reactions and reactor design criteria. It also attends to issues of radioactive waste treatment and storage and the mitigation of other radiation hazards. Currently, some 20% of the United States electric power comes from nuclear plants that use low-enriched uranium as fuel, burn nothing, and emit virtually no CO2. What is the future for this form of energy? In addition to nuclear power technology, the course focuses on fuel cells and the hydrogen economy, which brings its own questions concerning cost-benefit analysis and risks. Do these new economy, relatively "clean" energies present a way to avoid the downward trend of depleting natural resources, or do they send a siren song with the waste and safety problems they present?.

EPM 4237 Renewable Energy (4 Credits)
Renewable energy sources now generate an estimated 13 percent of power worldwide. A political hot button, renewable energy sources range in their effectiveness, with some technologies already mature and economically viable, while still others need additional development or government subsidies to survive. The course begins with an overview of the major alternative sources, examining each one in-depth to consider its benefits, as well as its environmental and economic risks. We cover thermal systems and photovoltaics in the generation of solar power; atmospheric science and weather in the study of wind power; the organic chemistry that is involved in biomass, biofuels and agricultural residues; direct use of hot water in geothermal systems; and other alternative sources such as tidal and wave energy. Problems vexing grid placement and dissemination throughout a source network is also studied.

EPM 4238 Water and Food Sustainability (4 Credits)
For such basic human needs, water and food present their own highly-technical challenges inside legal, political and environmental spheres. This course delves into environmental, economic, and social implications in water usage and water resources regulation. This course also takes a broad look at food and farming systems at community, society, and ecosystem levels.

EPM 4280 RCRA Permitting and Compliance (4 Credits)
This course presents Resource Conservation and Recovery Act's cradle-to-grave regulations governing solid and hazardous waste generation and disposal, the various permitting requirements, and the process by which permits are obtained. Design and performance requirements for treatment, storage, and disposal facilities are examined. Developing trends in waste minimization, solid waste management, and special waste controls are also examined.

EPM 4355 ISO 14001 Standards (4 Credits)
This advanced course introduces the new ISO 14001 standard for environmental management systems. It includes a history and developmental context review of the ISO 14001 standard. This class reviews the specific elements and processes that form certifiable 14001 environmental management systems. Using an example, students develop a complete program that integrates the 14001 requirements with the existing strategic management methods of an organization. This program demonstrates how to use the 14001 framework as a proactive and systematic approach to environmental management. Class discussions include developing an environmental policy, specifying objectives and targets, implementing an environmental management program, monitoring and measuring program results, and reviewing the program to ensure continual improvement.

EPM 4390 Environmental Policy Analysis (4 Credits)
This course provides a basic introduction to the field of public environmental policy analysis. Specifically, it serves as a foundation course that introduces contemporary methods of policy analysis, agenda-setting, models of policy formulation and implementation, and policy evaluation. The focus is principally on concepts, analytical approaches, and research methods.

EPM 4400 Environmental Values and Ethics (4 Credits)
Students examine ethical considerations in environmental management and decision making. Discussions cover personal versus organizational attitudes; cultural, economic, and historic values; science versus politics; and international and intergenerational policies. The course also explores various philosophies of humankind's relationship with the environment. Students are encouraged to develop and express a personal philosophy relative to their role in the regulatory, technical, scientific, and financial management of the environment.
EPM 4460 Land And Visual Resources (4 Credits)
This course is designed to provide students from a broad range of disciplines with the skills to carry out applied research tasks and projects requiring the integration of geographic information system technologies and geospatial data. Students are introduced to a collection of techniques and data sources with a focus on acquiring and integrating data. Legal, ethical, and institutional problems related to data acquisition for geospatial information systems is also be discussed.

EPM 4461 Assessment of Social Impacts (4 Credits)
Students examine how the introduction of nuclear power systems or a nuclear waste treatment facilities affect the demographic and economic characteristics of a specific region. Basic analysis of archaeological resources, historic buildings and structures, and traditional cultural properties are also considered. Pertinent areas of environmental law provides guidelines and regulations with relation to the nuclear industry and current policy issues including the importance of the Energy Policy Act of 2005.

EPM 4462 Ecology, Soil, and Water (4 Credits)
A general overview of the potential effects of nuclear power facilities on ecosystems and ecological resources. These include terrestrial resources, wetlands, floodplains, aquatic resources, protected and sensitive species, geology, soil mechanics and seepage. In site-specific scales, the following items need to be considered, such as physical alteration of the landscape, disruption of natural processes, such as flooding and fires, and pollution.

EPM 4463 Air Quality, Noise and Transportation (4 Credits)
Air quality, noise and transportation issues can potentially be affected in the area surrounding a nuclear power plant in a variety of ways. Students become acquainted with the methodology of the dose rate estimations to the public and workers; the methods that are in place to monitor and reduce the risk to the public and workers from all hazards; and various pathways of exposure from possible nuclear contaminants and related pollution. Perceptions of citizens as stakeholders are considered. Identifying and profiling atmospheric toxic sources, developing and assessing emerging measurement methods, characterizing the degree and extent of local air toxicity problems, and tracking progress of air toxin reduction efforts. The impact of transportation on human and environmental risk assessment, including the primary methods and routes used to transport to a specific site, affected employees, commercial shipments, hazardous and radioactive material shipments, transportation packaging, transportation accidents, and onsite and offsite traffic volumes.

EPM 4464 Nuclear Power Plant Systems (4 Credits)
This course presents the basic components of nuclear power plant systems, their functional purpose, and operating conditions, including an overview of the equipments design and components from the safety point of view. An overview of nuclear power plants is presented in context of their impact on the environment and human health, including active and passive safety aspects.

EPM 4465 Environmental Restoration and Waste Management (4 Credits)
Environmental Restoration is the identification and elimination of hazardous materials from a designated site such that the risks to human health and the environment are reduced to an acceptable level for an intended future land use. This course examines successful environmental restoration activities that were used to reduce and mitigate risk associated with past operations of nuclear and nuclear-related facilities and the significant potential to release harmful contaminants. Environmental restoration effects on the ecological and human health risk assessments and analyses related to the transport, treatment, storage, and disposal of waste from the contaminated site are presented. Remediation processes for radioactive materials and other hazardous wastes and the eventual storage, processing, and disposal and the potential effect on humans and the environment is studied. An overview is given on the development of a radiological protection program for an EIS report. External and internal hazards: control measures and monitoring, and other important limits and measurements are explored.

EPM 4500 Leadership for Environmental Managers (4 Credits)
This course is an overview of basic leadership and management skills with an emphasis on topics germane to practicing environmental professionals. It addresses three main subject areas: performance metrics and standard financial reports (i.e., how organizations and businesses keep score); leadership (i.e., changes in behavior and work habits necessary for advancement from staff to management; and achieving clarity in organizational values and mission); and basic elements of internal and external communications. The class will make use of reading assignments, written assignments and class participation.

EPM 4510 Environmental Health & Safety (4 Credits)
The exponential growth in regulations and the increased demand to streamline resources present a unique opportunity for the environmental professional to integrate safety and health practices both horizontally and vertically within the organization. Students will evaluate the benefits and barriers to integrating environmental health and safety programs with applicable laws and regulations. Topics addressed in the class will include a brief review of EPA and OSHA standards as well as an introduction to industrial hygiene, workplace safety management, hazard evaluation and control, and the integration of environment, health, and safety. The course also reviews concepts essential for the understanding and implementation of environmental safety and health policies for use in the workplace.

EPM 4520 OSHA Law (4 Credits)
This course provides an in-depth review of the laws and regulations that govern the safety and health of workers. The course is of value to students seeking to expand knowledge of the Occupational Safety and Health Act. Emphasis is on the areas of overlap between safety and environmental laws, OSHA’s inspection and enforcement authority, employee and employer rights, record keeping requirements and an outline of labor’s interest in OSHA cases. Current topics such as OSHA reform legislation and regulatory agenda are discussed.
EPM 4525 Workplace Safety Management (4 Credits)
This course examines Occupational Safety and Health Administration rules governing work place safety and other applicable industry standards, like those of the American National Standards Institute and National Fire Protection Association. Students learn how to develop and apply compliance programs, how to reduce losses of direct and indirect costs due to accidents, and how to convince management and employees that safety programs are beneficial. Important programs and topics include development of costs of accidents, investigation programs, practical application of worker’s compensation, confined space entry programs, injury/illness records and reporting, programs for new fall protective rules, personal protective equipment programs, and actions to develop financial and management support.

EPM 4610 Analytics I (4 Credits)
This course explores how companies can and do use data analytics in an era of sustainability and ever-increasing complexity to manage their businesses more effectively. The course has a managerial focus rather than a technical one. Students do not need a statistics or analytics background. It is designed to provide managers with sufficient background on the potential value of data analytics, the business process change associated with data analytics, and the underlying technologies to enable them to interface effectively with analysts and data scientists. A key component of the course is developing a pilot project or business case for an analytics project of your choice.

EPM 4615 Analytics II (4 Credits)
Building on the course content of Environmental Analytics I, this course retains a managerial focus rather than a technical one. Students do not need a statistics or analytics background. It is designed to prepare managers to identify and obtain a publicly available data set (or one from their own organization), suitable to use for carrying out an analytics project, often the pilot project identified in the previous course. In addition, the course goes into the next level of detail on analytical algorithms and cloud technologies to enable students to frame the questions to be answered or insights revealed from running an analytics application. Finally, the course provides an introduction to cognitive computing and its applications, trends, and potential impacts.

EPM 4620 Environmental Reporting Standards and Models (4 Credits)
Students learn the reporting requirements of existing and emerging environmental reporting standards, e.g., SEC requirements, EU standards, NGO standards, Global Reporting Initiative environmental performance indicators, and Sustainability Accounting Standards Board recommendations, and how to craft mandatory and optional reports that conform to these standards and requirements.

EPM 4625 Environmental Analysis and Reporting Project (4 Credits)
Students will design and perform a project that applies the tools and insights of the data analytics revolution to perform sophisticated environmental analyses, and use the results of these analyses to craft mandatory and optional reports that meet existing and emerging environmental reporting standards, e.g., SEC requirements, EU standards, NGO standards, Global Reporting Initiative environmental performance indicators, and Sustainability Accounting Standards Board recommendations.

EPM 4701 Topics in EPM (2-5 Credits)
The content of this course will vary each time it is offered. The topics may include time-sensitive issues in the field of environmental policy and management, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content will be announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

EPM 4705 Land Use Planning (4 Credits)
This course includes a comprehensive examination of the land use planning efforts of federal, state, and local governments. The legal authorities, responsibilities, and conflicts of these governmental entities are examined in detail. Class discussions include: setting goals and objectives for specific components of ecosystems; design of projects to achieve desired ecologic conditions; the interrelationship between home rule authority, local zoning and planning requirements, and federal/state natural resource plans; use of new technologies in planning, and public participation in land use plans.

EPM 4710 Environmental Project Management (4 Credits)
Students discuss environmental project management from the government, industry, and contractor perspectives. The course looks at successful project management organization, planning, and communication strategies. Using examples, students will also examine complex projects needing management. The types of contractual assistance needed will be reviewed.

EPM 4780 Air, Water and Soil Pollution (4 Credits)
This course addresses sources, reactions, and remediation of pollutants occurring in the atmosphere, waters, and soil. The deposition of pollutants from the atmosphere to soil and surface waters (acid rain) is covered. The migration of pollutants from surface waters through the soil to ground waters are also discussed.

EPM 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of a B- or better is required to pass.
EPM 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. The students produce a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students' research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

EPM 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

EPM 4910 Research Practices and Applications (4 Credits)
This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through contrasting and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master's degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

EPM 4980 Internship (1-4 Credits)
The EPM Internship is designed to offer students a purposeful experience in the field of environmental policy and management. The internship is an individualized learning experience and a training plan is created for each student in conjunction with the internship site to provide experiences related to the skills and knowledge covered in the certificate and master's programs.

EPM 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed it with all appropriate offices before registering for the independent study. Independent Study is offered only on a for-credit basis.

EPM 4992 Directed Study (1-10 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Geographic Information Systems
Office: University College Student Support Center
Mail Code: 2211 S. Josephine St., Denver, CO 80208
Phone: 303-871-2291, 800-347-2042
Email: ucolsupport@du.edu
Web Site: http://www.universitycollege.du.edu

Certificate in Geographic Information Systems
The certificate in Geographic Information Systems is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. University College offers the region's first complete graduate certificate program in Geographic Information Systems. The certificate includes courses that are required of all degree-seeking students and should be taken in the first three quarters of enrollment.
Systems. Designed and delivered for busy adults, the Geographic Information Systems graduate certificate helps professionals add to their skillset with technology skills that help solve real-world problems related to GIS.

Certificate students receive applied instruction from professional practitioners who work in the fields in which they teach as they learn to plan, implement, and execute a project using GIS, GPS, remote sensing, internet mapping, or digital image processing. The GIS certificate allows students to explore training fundamentals at a very hands-on, applied level necessary to succeed in the field.

Gain a contextual background in GIS, from the management of natural resources to public utility management, public works engineering, environmental impact assessment, and even market research. In a burgeoning integrative world, it is vital to grasp the diverse fundamentals of each topic within the Geographic Information Systems industry and gain an insider’s perspective to specific fields as they each relate to GIS training. Credits earned through this graduate certificate may apply toward a master’s degree in Geographic Information Science offered in the Department of Geography and the Environment or Information and Communications Technology.

Geographic Information Systems Outcomes
This program prepares students to do the following:

• Describe, analyze, and evaluate the nature of geographic data
• Compare, contrast, and apply appropriate applications of GIS technology to solve spatial problems
• Apply GIS technology to solve real-world problems
• Plan, implement, and execute a GIS project

Certificate admission
Admission Criteria
A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process
Certificate applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

• Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
• Application Fee: A $50 non-refundable application fee is required for an application to be processed.
• One Official Transcript from each Post-Secondary Institution: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
• Résumé/Curriculum Vitae (CV).
• Certificate Plan: The certificate plan, detailing courses for the academic program, is required to complete the admission process and can be completed through the University College online Degree Builder (http://universitycollege.du.edu/DegreeBuilder/Student/ChooseDegree.aspx) tool.
• Language Proficiency: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
• Proof of Permanent Residency: Permanent Residents must provide a copy of their Registration Alien Card (green card).
• Admission Interview: An interview may be required at the program director’s request.
• International Applicants: Additional requirements are listed below for international applicants.

International Admission
International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).
Admitted international applicants whose native language is not English are required to attend University College's International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.

Additional Admission Requirements for International Applicants

- **English Proficiency:** All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.
  1. **TOEFL:** A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.
  2. **Academic IELTS:** A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.
  3. **Possible Exemptions:** International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.
  4. **English Conditional Acceptance (ECA):** Master’s degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA requires an evaluation by the University of Denver’s English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.

- **Official Transcripts and Translations:** International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.
- **Photocopy of Diploma/Degree Certification and Appropriate Translations:** Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.
- **A Photocopy of Current Passport:** Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.
- **The Supplemental Information Form (SEVIS Supplement):** Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.
- **Financial Verification Form:** Applicants seeking an I-20 student visa must submit financial verification documents.

Certificate in Geographic Information Systems with a Concentration in Geographic Information Systems

**Program Requirements**

**Core coursework requirements**

Complete the following two courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>GIS 4101</td>
<td>Introduction to Geographic Information Systems</td>
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<tr>
<td>GIS 4504</td>
<td>Cartographic Design</td>
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</tbody>
</table>

**Elective requirements (Choose four courses):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>GIS 4070</td>
<td>ArcObjects</td>
</tr>
<tr>
<td>GIS 4080</td>
<td>Python Programming</td>
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<tr>
<td>GIS 4110</td>
<td>Geographic Statistics</td>
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<tr>
<td>GIS 4200</td>
<td>Geospatial Intelligence</td>
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<tr>
<td>GIS 4510</td>
<td>GIS in Business</td>
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<tr>
<td>GIS 4520</td>
<td>GIS in Telecommunications</td>
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<tr>
<td>GIS 4530</td>
<td>Crime Mapping and Analysis</td>
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<tr>
<td>GIS 4540</td>
<td>Conservation GIS</td>
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<tr>
<td>GIS 4570</td>
<td>Geographic Information Systems in Public Health</td>
</tr>
<tr>
<td>GIS 4620</td>
<td>Geodatabase Application</td>
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</table>
Minimum number of credits required for certificate: 24 credits

Courses

GIS 4070 ArcObjects (4 Credits)
This class is an introduction to the development of custom applications and tools in GIS. It combines ESRI's ArcObjects with C#.NET programming language to introduce students to desktop GIS development. Students learn about the C# language, Object Oriented Programming, ESRI's Object Model Diagrams, conversion of VBA code to C# code, the creation of custom GIS based forms, buttons, and tools, and the automation of the GIS workflow. Students leave this class with the ability to create embedded tools as well as distributable C#.NET GIS applications based on ArcGIS 10.

GIS 4080 Python Programming (4 Credits)
This course introduces Python concepts and the Python scripting environment in a GIS environment. Python is a free, open-source scripting language that has been integrated with ArcGIS. Python is a dynamic, interpreted language that can be used to automate redundant tasks and workflows in GIS. Students learn tools and techniques and proper Python syntax, script flow, and error handling. Students learn to write scripts that allow them to automate redundant tasks and workflows in GIS. Students learn to write scripts that allow them to automate geoprocessing processes and GIS work more efficiently. This course teaching fundamental concepts needed to create Python scripts in ArcGIS. Prerequisite: GIS 4101 or similar GIS course and/or work experience.

GIS 4101 Introduction to Geographic Information Systems (4 Credits)
This is the initial course in Geographic Information Systems (GIS). General introduction including background, development, trends, prospects in this rapidly evolving technology; basic components, functions of GIS, fundamental spatial, geographic concepts explored through use of GIS software.

GIS 4110 Geographic Statistics (4 Credits)
This course introduces the basic concepts of probability and statistics with an emphasis on applications and an ongoing focus regarding the nature and problems associated with spatial or geographic data.

GIS 4200 Geospatial Intelligence (4 Credits)
The term geospatial intelligence (GEOINT) means the exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the earth. GEOINT consists of imagery, imagery intelligence and geospatial information. This course serves as an introduction to the fundamentals of the geospatial intelligence community, core GEOINT technologies and operations, and the role of GEOINT in national, regional and local security affairs supporting decision makers and operations. The course is built on a framework of data, technology and analysis in support of the GEOINT community which may include natural disasters, first responders, military problems, homeland defense, and law enforcement.

GIS 4504 Cartographic Design (4 Credits)
The theory and art of map making developed over several thousand years and has recently been revolutionized by computer technology. This course is designed to expose students to the use of computer techniques in assessing technical design issues in the compilation of accurate and meaningful automated geographic mapping products. ArcView is used in a series of hands-on lab exercises to produce typical GIS mapping products. Each class includes lecture and discussion of cartographic design concepts. Emphasis is placed on reader perception of map design elements, and also includes an introduction to appropriate software tools and application of concepts through lab exercises. In-class time is provided for work on lab exercises. It is likely that additional lab time outside of class will be necessary and/or valuable for students, particularly in completion of the final project. Prerequisite: GIS 4101.
GIS 4510 GIS in Business (4 Credits)
Businesses continue to embrace GIS as an effective alternative to traditional manual mapping analysis methods. GIS has emerged as an affordable solution for performing essential revenue producing and expense reducing functions. Many years ago, successful GIS implementation required huge capital investment and a large staff of GIS experts; however, with the introduction of more powerful inexpensive computers and easier to use software, companies of all sizes are unleashing the business potential of GIS on the marketplace. This course exposes students to various business applications and uses of GIS as well as the underlying theories and technology behind the applications. This course emphasizes various business disciplines including Marketing, Real Estate, Transportation, and Oil & Gas using ArcView GIS in practical, hands-on exercises that demonstrate the theories and concepts discussed in the lectures.

GIS 4520 GIS in Telecommunications (4 Credits)
Telecommunications is a thriving technology and business, accounting for a significant percentage of technical advances and revenue around the globe. GIS has emerged as a crucial tool in the telecommunications field for maintaining existing entities, planning for additional ones, and for gaining an advantage in this very competitive marketplace. The use of GIS in the telecom industry continues to grow because GIS technology accommodates the many CAD programs and drawings representing plant and transmission towers/coverage as well as the geographic representations of those items. Only a few years ago, introducing GIS into a telecom business required significant cash outlay, but through less expensive hardware and more user-friendly software, now even a modest CLEC can implement an effective GIS. This course exposes students to the various applications and uses for GIS in the telecom arena by breaking down the miscellaneous telecom requirements into GIS components and technological solutions. This course emphasizes specific telecom technology application requirements and allows students, through hands-on-lab work, to discover the power of GIS in delivering superior telecom solutions. This course also focuses on OSP/ISP applications and solutions, network connectivity issues as well as the exploding future of wireless technology.

GIS 4530 Crime Mapping and Analysis (4 Credits)
Municipal police departments, county sheriff departments, and other state and federal law enforcement agencies use GIS technology as a tool to analyze crime statistics and patterns. This course explores how GIS technology is used in law enforcement to provide strategic, tactical, and administrative crime analysis.

GIS 4540 Conservation GIS (4 Credits)
This course is designed to provide students with an introduction to the use of geographic information systems (GIS) in conservation. Students receive an introduction to the use of GIS in various types of conservation studies and preservation. Emphasis is placed on the types of applications and analytical techniques in environmental fields where GIS is commonly used as a mapping and analytical tool. The analytical techniques used in lab exercises consist of practical applications that support planning and management of land, species, and habitats.

GIS 4550 Geographic Information Systems in Public Health (4 Credits)
GIS offers many applications and functionality that are tremendously beneficial to the Public Health industry. The ability to visualize cases in space (geographically) and time is invaluable in analyzing spatial clusters of health related events. Further the ability to model the spread of a potential epidemic can literally be a life saver. GIS is a natural choice for solving many Public Health issues including: analyzing the location of diseases; the spread of contagious diseases (both vector borne as well as the spread through human contact); the cause and effect of environmental factors; as well as the availability of Health facilities.

GIS 4620 Geodatabase Application (4 Credits)
This course in Geodatabase Application is logically broken into two separate component parts; the first section deals with Geodatabase concepts and provides a general overview of the Geodatabase structure and implementation including; background, object classes, feature classes, relationship classes, domains, validation rules, and Geodatabase topology. The second portion of the course focuses on Geodatabase Application introducing advanced features of Geodatabase, providing a solid foundation for the application of the Geodatabase to model and address complex real world issues. Geodatabase Linear Referencing, Geodatabase Surface Modeling, and Geocoding Services in the Geodatabase, are explored. This course incorporates a hands-on lab component. Computer lab exercises are designed to introduce the student to concepts and Geodatabase application. Strong emphasis is placed on Geodatabase design. Design objectives, design guidelines and functional requirements of the resulting Geodatabase model are addressed.

GIS 4630 Public Domain Data for GIS (4 Credits)
Geospatial data are the foundation upon which GIS and spatial analysis rests. As GIS has matured, the challenge has evolved from generating data to managing the enormous volume of data from government agencies, nonprofit organizations, and industry, and increasingly, from ordinary citizens through citizen science and volunteered geographic information efforts. Key to working with this volume of data are essential issues such as privacy, copyright, public domain, cost recovery, metadata standards, and data quality that GIS professionals must grapple with to be effective in the 21st Century. This class discusses and applies these issues and works with a rich array of data sources to enable effective decision-making in a Geographic Information System.

GIS 4650 Demographic Analysis Using GIS (4 Credits)
This course offers an overview of US Decennial Census data, covering a brief historical overview of why census information is collected, collection procedures, geographic coverage, and subject matter contained in census reports. Using a popular PC-based desktop mapping software program, students learn how to navigate through census files and create a variety of thematic maps. Several application areas, such as marketing, demographic analysis and facility planning, are used in sample exercises.
GIS 4670 GIS and the Law (4 Credits)
This course provides an overview, from a legal perspective of the role of government in handling and disseminating GIS data; an explanation and analysis of state and federal legislation and court decisions regarding open-records laws; and, an explanation and analysis of other laws or legal doctrines that affect GIS such as copyright, contract, right of privacy, anti-trust, tort liability and ethics.

GIS 4680 Environmental Applications (4 Credits)
This class provides students with an introduction to practical applications of computerized Geographic Information Systems (GIS) in environmental assessment and natural resource management. Emphasis is placed on automated analytical techniques and data presentation methods that support facility site selection, environmental impact analyses, resource management, and characterization of environmental hazards. This course is designed to provide students who participate in environmental assessment projects with introductory preparation for practice as GIS professionals in public agencies or in the private sector.

GIS 4685 GIS and Natural Hazards (4 Credits)
This course is designed to provide students with an introduction to the use of GIS in natural hazard assessment. Students receive an introduction to the use of geographical information systems (GIS) in various types of natural disasters and response management. Emphasis is placed on the types of applications and analytical techniques in environmental fields where GIS is commonly used as a mapping and analytical tool. The analytical techniques used in lab exercises consist of practical applications that support hazard risk and assessment, mitigation, and emergency response planning.

GIS 4687 Hydrologic Modeling in GIS (4 Credits)
Hydrology is concerned with movement of the earth's waters through the hydrologic cycle, and the transport of constituents carried in its flow. In GIS, the landscape is represented by means of geographically referenced data describing the character and shape of relief features. A spatial hydrology model simulates the water flow and transport in a specific locale using GIS data structures. Hydrologic modeling in GIS allows us to automatically delineate a drainage system and quantify the characteristics of the system. It focuses on the movement of water across a land surface. This course looks at the basic inputs to hydrologic modeling in GIS, walks students through established modeling procedures, and has students work on projects that are real and relevant as model applications. Instruction is largely hands-on, project-oriented.

GIS 4690 GPS for GIS (4 Credits)
This course is an introduction to GPS (Global Positioning Systems) concepts, techniques, and applications as they relate to GIS data collection. Lectures focus on satellite surveying, GPS technology, error sources, program planning, data collection design, and Quality Control and Quality Assurance issues for data collection programs. Lab exercises include planning a GPS survey, designing a field data collection plan and associated data dictionary, field data collection, and data integration into a GIS.

GIS 4700 Remote Sensing (4 Credits)
This course provides a survey of remote sensing technologies, applications, and the industry. This course is designed for GIS, Geography and Geoscience students who seek to broaden their understanding of remote sensing in support of Geographic Information Systems. Introductions to the electromagnetic spectrum, energy sources, radiation principles, aerial cameras, and electronic imaging provide the student with the initial building blocks to a thorough understanding of remote sensing. This course provides an overview of the various high altitude and space-based collection systems and their characteristics, with a view toward future systems and capabilities. In addition, this course exposes students to the techniques of extracting relevant information from both hard copy and digital imagery.

GIS 4701 Topics in Geographic Information Systems (2-5 Credits)
The content of this course varies each time it is offered, depending on the interests and needs of the students. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

GIS 4740 Digital Image Processing (4 Credits)
This course is the second in the two-course Remote Sensing emphasis of University College's GIS Certificate Program. The curriculum is a rigorous presentation of digital imaging processing theory with emphasis on its application to airborne and space borne imagery. The course includes computer laboratory exercises and workshops, where the students apply theory to satellite and air photo data. Interpretation of the digitally processed data is also included in the class exercises. Examples of vector and raster data integration are be shown as well.

GIS 4750 UAVs and GIS (4 Credits)
The purpose of this course is to introduce GIS students to the emerging world of using Unmanned Aerial Vehicles (UAV) in the GIS workplace for data collection, reconnaissance, and research. UAVs are in the news every day highlighting their use in a military context. Soon the Federal Aviation Administration (FAA) will release new rules and regulations governing the use of UAVs in the civilian sector. This course will prepare students to be conversant in the world of UAVs, basic aviation, safety, flying, misson planning, and general data gathering techniques for use in GIS. Prerequisite: GIS 4101-Introduction to GIS.

GIS 4760 UAS Photogrammetry (4 Credits)
Surveying, photogrammetric mapping, GPS, and remote sensing are critical components to working in the UAV and GIS domain. The second course in this two-course sequence will expand on the data collection process highlighted in the first class and deliver the foundations required by GIS professionals working with UAVs. Prerequisite: GIS 4750-UAVS and GIS.
This degree prepares students to do the following:

- Assemble regulatory compliance requirements for research, development, and marketing of healthcare products in the international setting to
- Evaluate health delivery systems in developed and emerging countries in terms of successes, opportunities, and challenges to inform adaptation
- Examine regional attitudes, traditions, and cultural differences to apply understanding of those concepts to global-health-related critical thinking
- Assess global legal, cultural, and governance issues and challenges in both delivery of healthcare services and marketing of products to determine
- Develop and evaluate decision-making strategies to integrate systems, processes, and procedures across various organizational functions.
- Create team management and communication plans for face-to-face, virtual, and remote teams.
- Generate and analyze strategies to transfer management skills across a variety of organizational, geographic and/or cultural settings.
- Assemble regulatory compliance requirements for research, development, and marketing of healthcare products in the international setting to
- Recommend appropriate courses of action for an organization.

GIS 4860 Internet Mapping (4 Credits)
Creating web-based maps allows city and local governments, businesses, and other organizations to publish, discover, and share geospatial information. This course introduces the fundamentals of various web-based mapping systems and software applications. Students complete comprehensive projects, each resulting in the creation of a working web site using different technologies. Students make use of WMS (Web Map Services) and WFS (Web Feature Services), integrating them into their web sites and creating their own web map service.

GIS 4980 Internship (4 Credits)
GIS students may fulfill up to three quarter hours of electives by enrolling in a GIS internship with a GIS company or an agency actively engaged in GIS activities. Students incorporating professional work experience must work with an approved mentor, who evaluates the student’s performance and learning. The internship is designed to provide practical experience to students without prior professional experience in the field. Students who are employed on a full-time basis in the GIS industry may not use paid work experience as part of the academic program.

GIS 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a for-credit basis.

GIS 4992 Directed Study (1-8 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the directed study. Directed Study is offered only on a for-credit basis.

Global Affairs

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Master of Liberal Studies in Global Affairs with a concentration in Global Health Program Management

The Global Affairs master’s degree concentration in Global Health Program Management is offered online to meet the needs of busy adults. This concentration is offered collaboratively with the Healthcare Leadership Master’s program. Delivery and support of healthcare in the global setting has increasingly emerged as a multinational, multi-organizational endeavor, pulling together individuals and groups from multiple locations and backgrounds to provide services. Individuals, organizations and corporations routinely come together, providing both emergency and long-term medical services. Individuals and groups engaged in management of direct healthcare service programs, as well as those responsible for the development and marketing of medical devices and products to support healthcare, require specialized skill when operating in the international market. This concentration builds on general knowledge of leadership in healthcare with a focus on global healthcare.

Students in this concentration will gain transferable skills across functions, assisting them in managing healthcare services, or developing and marketing of medical devices, pharmaceuticals and other products, within the international health care setting. Knowledge gained through this concentration will also be of assistance to those writing grants for global healthcare programming, services and product development. Curriculum includes topics such as working with remote teams, regional governance, employment and labor law, independent cross-functional decision making, customs and importation laws, regulatory compliance, and other management and legal concerns. Building on desirable areas of expertise identified by those hiring in these fields, this course of study is designed to create a portfolio of skills applicable to various aspects of global health management that can be applied in a multitude of settings throughout the world.

This degree prepares students to do the following:

- Generate and analyze strategies to transfer management skills across a variety of organizational, geographic and/or cultural settings.
- Create team management and communication plans for face-to-face, virtual, and remote teams.
- Develop and evaluate decision-making strategies to integrate systems, processes, and procedures across various organizational functions.
- Assess global legal, cultural, and governance issues and challenges in both delivery of healthcare services and marketing of products to determine most effective implementation strategies.
- Examine regional attitudes, traditions, and cultural differences to apply understanding of those concepts to global-health-related critical thinking and decision-making skills.
- Evaluate health delivery systems in developed and emerging countries in terms of successes, opportunities, and challenges to inform adaptation and application of lessons learned.
- Assemble regulatory compliance requirements for research, development, and marketing of healthcare products in the international setting to recommend appropriate courses of action for an organization.
• Appraise management principles for healthcare related Non-Government Organizations (NGO's).

Master of Liberal Studies in Global Affairs with a concentration in Global Issues

The Global Issues master’s degree concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults. The curriculum fosters the professional competencies students need to succeed in the ever-evolving, globalized marketplace of goods, services, and ideas. Focusing on practical analysis and problem solving, students explore and discuss the effects of culture and history on global public policy trends, geopolitical and economic issues, and international governance structures. There are ample opportunities for students to tailor their studies to meet individual needs and develop the skills most valuable to them. Courses cover the practical and professional issues involved in working across cultures, benefitting students in a variety of business, government, and nonprofit fields with global exposure.

Students who seek to expand their global skillset will learn to analyze contemporary issues and trends in a global context, viewing the influence of events and ideas on the world stage. Classes are taught by professional practitioners who work in the fields in which they teach and contend with global issues in their fields. From human rights to sustainable development, areas of focus in the Global Issues concentration explore contemporary issues and trends in a global context. Customize your Global Affairs master's degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Compare and contrast issues, policies, and traditions across a variety of cultures
• Analyze the legal, cultural, and political intricacies of human rights and recommend effective international polices for conducting business
• Analyze and recommend processes, procedures, and policies for sustainable development
• Formulate strategies to address to global challenges commonly encountered in professional roles by analyzing the influence of cultural and historical events and ideas on decision-making processes.

Master of Liberal Studies in Global Affairs with a concentration in Translation Studies

The Translation Studies master’s degree concentration is offered entirely online to meet the needs of busy adults. Earning a master’s degree with a concentration in Translation Studies provides students the knowledge and transferable skills to become effective translators or interpreters in a professional capacity, either from English to Spanish or Spanish to English. Translation students (must be admitted into the degree program with proficiency in Spanish and English) will gain a broad theoretical and practical background through translation studies, as well as practice in different types of translation—such as legal, medical, and law enforcement translation and interpretation, as well as Web and software localization and translation for the publishing industry.

Classes are taught online and are led by professional practitioners of translation and interpretation who work in the fields in which they teach. Students will learn what it takes to become a professional translator as they gain valuable communication training and experience by apprenticing as a translator in a professional setting. Translation Studies will cover essential terminology, computer applications for translators, and issues related to managing projects internationally in individual and team-based environments. Customize your Global Affairs master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select the translation and/or interpretation courses that cater to your specific career needs.

This degree prepares students to do the following:

• Utilize and apply translation and/or interpretation theories and methods to a variety of fields, which may include legal, commercial, medical, software and Web, law enforcement, and publishing specialties
• Translate from English to Spanish and Spanish to English using essential terminology and appropriate computer applications to produce either written translations or live interpretation
• Analyze the cultural, organizational, and structural contexts of source and target languages, to provide effective and accurate translations that meet client needs and requirements
• Demonstrate project management and translation or interpretation skills in a professional setting

Master of Liberal Studies in Global Affairs with a concentration in World History and Culture

The World History and Culture master’s degree concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults.

The master’s degree concentration explores international studies in an applied, practical manner for professionals and executives working across cultures and across industries. From competition and conflict, building community to cooperation, a broad range of topics will prepare students for an equally broad range of careers.
Students who seek to critically examine the history and culture of the world from a diverse range of perspectives will gain a firm grasp of international studies and the world at large as they study the historical, political, sociological, and economic factors that contribute to other nations’ cultures, identities, and history. Customize your Global Affairs master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Analyze historic, political, sociological, and economic factors contributing to cultures and identities
- Interpret world religious traditions
- Develop strategies to address issues in working internationally
- Evaluate the role of geography in globalization trends

Certificate in Global Affairs with a concentration in Global Issues

The graduate certificate in Global Issues concentration offered at University College focuses on current events and socio-political international affairs. Certificate students who seek to expand their skill set will learn to analyze contemporary issues and trends in a global context, viewing the influence of events and ideas on the world stage.

Classes are taught by professional practitioners who work in the fields in which they teach and contend with global issues in their fields. From human rights to sustainable development, areas of focus in the Global Issues concentration explore contemporary issues and trends in a global context. Students become immersed in the analytical and solutions-oriented mindset of an international relations expert and apply the transferable skills learned to their profession immediately. Credits earned through this graduate certificate may apply toward a master’s degree in Global Affairs.

Certificate in Global Affairs with a concentration in Translation Studies

The graduate certificate in Translation Studies concentration is offered entirely online to meet the needs of busy adults and help students expand their translator or interpreter skills and stay ahead of the curve in this competitive industry. Translation Studies concentration students will gain the knowledge and transferrable skills needed to become effective translators or interpreters in a professional capacity, either from English to Spanish or Spanish to English. Certificate students with proficiency in Spanish and English will gain a broad theoretical and practical background through translation studies, as well as practice in different types of translation and/or interpretation (legal, medical, law enforcement, Web and software localization, and translation for the publishing industry).

Classes are led by translation and interpretation experts who work in the field, are taught online, and are geared toward busy adults. Learn what it takes to become a professional translator and gain valuable translator training and experience by apprenticing as a translator in a professional setting. The online graduate translation certificate will cover essential terminology, computer applications for translators and interpreters, and issues related to working in a multi-cultural context. Credits earned through this graduate certificate may apply toward a master’s degree in Global Affairs.

Certificate in Global Affairs with a concentration in World History and Culture

The World History and Culture graduate certificate is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults. Explore international studies in an applied, practical manner through the certificate program, designed for professionals and executives working across cultures and across industries. From competition and conflict, building community to cooperation, a broad range of topics will prepare students for an equally broad range of careers.

Students who seek to critically examine the history and culture of the world from a diverse range of perspectives will gain a firm grasp of international studies and the world at large as they study the historical, political, sociological, and economic factors that contribute to other nations’ cultures, identities, and history. Credits earned through this graduate certificate may apply toward a master’s degree in Global Affairs.

Master’s Degree Admission

Admission Criteria

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process

Master’s degree applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/masters.cfm).

- Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
Certificate Admission

Admission Criteria
A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

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International Admission

International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College's International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year's work experience.

Additional Admission Requirements for International Applicants

- **English Proficiency:** All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.

  1. **TOEFL:** A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.

  2. **Academic IELTS:** A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.

  3. **Possible Exemptions:** International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.

  4. **English Conditional Acceptance (should this be Admission not Acceptance?) (ECA):** Master's degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA requires an evaluation by the University of Denver's English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.

- **Official Transcripts and Translations:** International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.

- **Photocopy of Diploma/Degree Certification and Appropriate Translations:** Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.

- **A Photocopy of Current Passport:** Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.

- **The Supplemental Information Form (SEVIS Supplement):** Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.

- **Financial Verification Form:** Applicants seeking an I-20 student visa must submit financial verification documents.

Master of Liberal Studies in Global Affairs with a Concentration in Global Health Program Management

Degree Requirements

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>GS 4010</td>
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<td>4</td>
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<td>GS 4020</td>
<td>Cultural Positioning and Assessment</td>
<td>4</td>
</tr>
<tr>
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<td>Issues in Working Internationally</td>
<td>4</td>
</tr>
<tr>
<td>GS 4905</td>
<td>Graduate Social Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>GS 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>or GS 4902</td>
<td>Capstone Seminar</td>
<td></td>
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<tr>
<td>or GS 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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**Concentration requirements (Choose four courses):**
### Master of Liberal Studies in Global Affairs with a Concentration in Global Issues

**Degree Requirements**

**Core coursework requirements**

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**Elective requirements (Choose three courses):**

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<td>GS 4200</td>
<td>Globalization and Human Geography</td>
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**Total Credits**

48

**Minimum number of credits required: 48**

Students will work with their personal academic advisor to determine the best set of courses to choose for their electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University's grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

### Master of Liberal Studies in Global Affairs with a Concentration in Translation Studies

**Degree Requirements**

**Core course requirements**

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**Total Credits**

48

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GS 4300 Foundations of Translation: The Role of the Professional Translator 4
GS 4310 Foundations of Interpretation 4
GS 4311 The Language Services Business for Translators & Interpreters 4
GS 4312 Research for Translation & Interpretation 4
GS 4901 Capstone Project 4
or GS 4902 Capstone Seminar
or GS 4904 Interdisciplinary Capstone Seminar

Concentration requirements
GS 4301 Written & Sight Translation for Translators & Interpreters 4
GS 4302 Computer Aided Translation (CAT): An Introduction to Software for Translators 4
GS 4303 Language Services Practicum 4
GS 4308 Introduction to Terminology for Translators & Interpreters 4

Elective requirements (Choose three courses): 12
GS 4304 Introduction to Legal Translation
GS 4305 Localization and Translation of Software and Web Pages
GS 4306 Translation of Medical Texts for the Health Care Industry
GS 4307 Translation Project Management
GS 4313 Translation for the Publishing Industry
GS 4314 Translation & Interpretation for Law Enforcement
GS 4315 Interpreting for Health Care

Total Credits 48

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Master of Liberal Studies in Global Affairs with a Concentration in World History and Culture

Degree Requirements

Core coursework requirements
GS 4010 Global Players, Structures, and Trends 4
GS 4020 Cultural Positioning and Assessment 4
GS 4030 Issues in Working Internationally 4
GS 4905 Graduate Social Research Methods 4
GS 4901 Capstone Project 4
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Concentration requirements
GS 4200 Globalization and Human Geography 4
GS 4210 World Religious Traditions 4
GS 4220 Competition and Conflict 4
GS 4230 Community and Cooperation 4

Elective requirements (Choose three courses): 12
GS 4100 Hunger, Food, and Health
GS 4110 Sustainable Development
GS 4120 Terrorism and War in the 21st Century
Global Affairs

Program Requirements

Certificate in Global Affairs with a Concentration in Global Issues

Concentration requirements

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Total Credits: 24

Minimum number of credits required: 24

Certificate in Global Affairs with a Concentration in Translation Studies

Concentration requirements

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Total Credits: 24

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Certificate in Global Affairs with a Concentration in World History and Culture

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Minimum number of credits required: 24
The course ends with an analysis of current resistance responses and alternatives for the future.

Examine the interconnection of economics, politics, migration, culture, trade, settlement patterns and development at different scales through the lens of scale, place, and identity are used to examine current globalization trends, debates, and implications on human settlements and activities. Students develop an understanding of the complex, intertwined relationship between economic growth, environment and humanity.

In the 21st century, the word “terrorism” is a part of the common vernacular used with multiple, and at times vague, meanings. This course prepares students to understand and explain the contexts and impacts of terrorism through interdisciplinary exploration of terrorism theories. Students investigate how these theories apply to both real world situations and responses to terrorism and how these theories contribute to our understanding of 21st century concepts of war and terror.

In building a global perspective, it is essential to be able to position oneself culturally and interact with people from other cultural backgrounds. This course addresses the question of how to learn about different regions and cultures and how to assess the similarities and differences with one’s own. Students learn about how to define culture. They develop skills to research countries, regions, and cultures through history, human geography, religion, and artistic traditions. They use the knowledge gleaned through research to build cross-cultural communication skills.

In a global marketplace, working internationally is very common. There are many legal, corporate, and cultural issues that individuals and corporations in the international workplace encounter on a regular basis. This course addresses legal issues – such as contracts and agreements, import/export regulations, intellectual property, and human resources – that affect how business is done across national and cultural lines. In addition, workers need to be able to assess the business and social cultures in another country in order to navigate the business climate and networking protocols.

A growing world population, climate change, and scarce resources have many implications on hunger, food, and health. Floods and droughts, conflict and migration affect food supplies, which create hunger. Cultural norms and practices, famine, forced migration, and conflict contribute to health concerns. New strains of disease threaten global pandemics. Students in this course examine current issues of hunger, food, and health in a global context. Social, political, cultural, and economic aspects of these issues are analyzed. The role of governmental and non-governmental organizations and agencies in issues of hunger, food, and health are discussed. Students debate the causes and solutions of global hunger, food, and health issues, using case examples to support their arguments.

In this course, globalization is studied from historical and contemporary perspectives. Structures of community and organizations, governmental and nongovernmental, are examined and compared. Students study cases of global conflict and cooperation. Global issues are introduced, and students examine the role of the United States in the world across issues, borders, and cultures.

Economic development, ecology and democracy are three dynamic, powerful and volatile forces in the world today. Players in the tension between them include nations, large corporations, and a groundswell of farmers, workers, and ordinary people. This course looks at the model of sustainable development as a way for countries to make long-term and ethical decisions about how to use resources: earth, water, air, energy, as well as the most important resource, people. Contrasts are drawn between Western economies and the emerging world attempting the leap from an agricultural paradigm to industrialization, while trying to avoid falling into the Malthus trap of overpopulation. Students develop an understanding of the complex, intertwined relationship between economic growth, environment and humanity.

The Universal Declaration of Human Rights was adopted by the UN General Assembly in 1948. With this international recognition of human rights is a responsibility to promote and protect those human rights. In this course, those rights and the organizations that promote and protect them are studied. The philosophical and theoretical bases for the concept of human rights is examined. In addition, students delve into women’s human rights and perspectives, including feminist perspectives on international human rights and issues such as trafficking, refugees, economic and social rights. The role of women in promoting and defending universal human rights is highlighted.

This course examines human-environment relations under globalization from the lens of human geography. Core concepts of human geography such as scale, place, and identity are used to examine current globalization trends, debates, and implications on human settlements and activities. Students examine the interconnection of economics, politics, migration, culture, trade, settlement patterns and development at different scales through the lens of geography. The course ends with an analysis of current resistance responses and alternatives for the future.
GS 4210 World Religious Traditions (4 Credits)
This course examines the religions of the world and their roles in defining cultures and societies. Major world religions are examined and discussed in this course, including their varied beliefs, rituals, and institutions. Comparisons and distinctions are drawn between the various Western and non-Western traditions. In addition to major religions, smaller religious movements and distinct religions from around the world are also discussed.

GS 4220 Competition and Conflict (4 Credits)
In this course, students study philosophies, cultures, and events of competition and conflict across the globe and throughout history. Theories of the dialectic, competition, and struggle for advancement are analyzed. Social and belief systems of nationalism, capitalism, and survival of the fittest are among those that create boundaries and encourage competition and, at times, conflict. Students delve into and analyze various conflicts and cultures throughout history marked by ideals of competition, individualism, and power.

GS 4230 Community and Cooperation (4 Credits)
In this course, students examine world cultures, ideas, and events across history through a lens of community and cooperation. Philosophies of community, social cooperation, and unity for societal progress are analyzed. The philosophies of socialism and communism, their various modes of implementation, and their success are assessed. International organizations that foster cooperation and community, such as the United Nations and the European Union are investigated. Social movements for change that create communities across borders are analyzed and discussed.

GS 4300 Foundations of Translation: The Role of the Professional Translator (4 Credits)
This course examines fundamental translation ideas and theories through assigned readings, lectures, and class discussions. It explores the links between linguistic and cultural factors and their relevance to translation. The course covers the different aspects of translation, surveys translation tools and reference materials, discusses professional roles of translators, analyzes the public perception of the profession, and examines standard business practices and professional codes of ethics. It also introduces the actual practice of translation through realistic exercises.

GS 4301 Written & Sight Translation for Translators & Interpreters (4 Credits)
This is an introductory course for translators and interpreters covering a variety of registers: commercial, journalistic, legal, literary, medical, and technical. Students learn to apply text analysis, text typology, and contrastive analysis of their working languages to identify, analyze, and resolve translation/interpretation problems while independently developing an efficient and rational approach to the process of translation or interpretation. In addition, course assignments include practice and graded exercises in translation and sight translation, utilizing authentic texts drawn from an extensive variety of text categories that include, but are not limited to, current events, general political economy, general legal documents, and scientific and technical topics for general audiences. Language-specific.

GS 4302 Computer Aided Translation (CAT): An Introduction to Software for Translators (4 Credits)
This course provides an introduction to various types of Computer-Assisted Translation (CAT) tools, including translation memory software and translation QA tools. Translation theory or field-specific terminology are not covered. Students become familiar with the concept of translation memory, learn to use the main features (create, import, export, analyze, clean up) of some of the applications available, and use translation memory in the translation process as necessary to create a translation project workflow from start to end. Students also learn to use translation QA tools to revise and perfect translations drafted using translation memory tools. This course may be taken concurrently with GS 4300: Foundations of Translation.

GS 4303 Language Services Practicum (4 Credits)
The Practicum helps students develop and establish an identity as professionals because it builds a practical knowledge of translation or interpretation as a profession. Its goal is to empower students to identify and pursue professional development opportunities and specializations. Students are expected to apply the knowledge, skills, and attitudes attained in the translation and interpretation curriculum by apprenticing under qualified translators or interpreters, language agencies, law firms, government agencies (e.g., school districts, the IRS, police departments, social services agencies), and/or healthcare and community-based organizations in a variety of general work situations. Interns shadow their mentors and then move into actual translation or interpretation assignments in monitored situations. Initiation into the language industry through interaction with members of the profession, professional organizations, and institutions is encouraged. Students must prepare a final project based on their practicum experience, following the University College Internship Handbook. The practicum should be taken as one of the last two Translation Studies classes.

GS 4304 Introduction to Legal Translation (4 Credits)
Because a legal document bears legal liabilities, the translation of a legal document has the same legal effect as the original. As a result, the requirements for accuracy in legal translation (meaning, tone, and style) are quite high. This course provides an overview of the nature of legal translation and an introduction to the principles of comparative law, such as how to research legal issues in the countries of the language pair. The concepts of equivalence and zero equivalence are analyzed. Participants translate different types of agreements, certificates, and affidavits, as well as a wide array of documents focusing on probate, family, poverty, and criminal law. Students are given assignments on the research approach, steps, and skills needed to tackle a legal translation project from start to finish. Fundamental legal translation theory is emphasized at the beginning of the course and conveyed in the form of assigned readings, lectures, class discussions, and independent research. Language specific. Prerequisites: GS 4301 and admission to the Master of Liberal Studies in Global Affairs with a Translation Studies specialty of the Certificate of Advanced Study in Translation Studies.
GS 4305 Localization and Translation of Software and Web Pages (4 Credits)
This course provides students with a general overview of the field of web page translation and an introduction to software localization. Class topics range from technical discussions on computer architecture to tips for managing localization projects. Students gain a thorough understanding of the basic components of a localization project (web, software, online help, and documentation) and insight into the larger context of software/web localization and internationalization processes. Using real-life examples and hands-on exercises, students explore the cultural, technical, and organizational challenges in the adaptation of culturally sensitive elements. Prerequisites: GS 4301 and admission to the Master of Liberal Studies in Global Affairs with a Translation Studies specialty of the Certificate of Advanced Study in Translation Studies.

GS 4306 Translation of Medical Texts for the Health Care Industry (4 Credits)
This course covers medical terminology involving patient education, medical research, drug development, the human body and systems, major diseases, as well as the most common injuries. Students translate documents used in general medical practice and are introduced to the common roots, prefixes and suffixes in medical terminology. Translation skills are reinforced by analyzing different levels of difficulty in medical texts, by translating, and by addressing requests for editing and rewriting translated materials for patient populations and audiences of different education levels. Students practice translating medical office correspondence, informational brochures, patient letters, discharge information, hospital intake questionnaires, living wills, patient outreach/educational materials, instructions for taking medications, laboratory tests, and medical disability reports, among others. Language-specific. Prerequisites: GS 4301.

GS 4307 Translation Project Management (4 Credits)
This course gives students the opportunity to address both translation and non-translation related issues associated with planning, executing, controlling, and delivering a final translation for a client (either direct or as an agency). Particular focus is given to hands-on practice of the various communications between the parties. The course outlines an effective project management methodology that can be applied to large or small translation/localization projects. Language generic. Prerequisites: GS 4301 and admission to the Master of Liberal Studies in Global Affairs with a Translation Studies specialty of the Certificate of Advanced Study in Translation Studies.

GS 4308 Introduction to Terminology for Translators & Interpreters (4 Credits)
Terminology is a fundamental part of both translation and interpretation, and knowing how to create and use terminology is a skill necessary both to translators and interpreters. This course will introduce what terminology is, how a termbase differs from a simple glossary or from a dictionary, and how terminology differs from allied fields such as lexicography. It will further introduce some tools used by translators, interpreters and terminologists in their work. Language generic.

GS 4309 The Language Services Business for Translators & Interpreters (4 Credits)
Translation and interpretation are professions that typically require their practitioners to set up businesses on their own. This course addresses the key issues involved in being an independent contractor in the language industry, including how to acquire clients, how to price professional language services, how to estimate different types of service, and how to manage different client relationships, from government entities to private individuals. The course also analyzes the differences between working directly for clients and working with translation agencies or as a staff translator or interpreter, where it is crucial to know how to work on a team with other language professionals and content experts. The course also covers basic standard business practices in the language industry and business codes of ethics.

GS 4310 Foundations of Interpretation (4 Credits)
This course examines the profession of interpreting, including employment opportunities, the role of the interpreter, administrative matters, and ethical considerations. In addition, an overview will be given of the three modes of interpretation (sight, consecutive, and simultaneous), as well as the different areas of interpretation, such as legal, medical, business, community, and conference interpretation.

GS 4311 The Language Services Business for Translators & Interpreters (4 Credits)
Translation and interpretation are professions that typically require their practitioners to set up businesses on their own. This course addresses the key issues involved in being an independent contractor in the language industry, including how to acquire clients, how to price professional language services, how to estimate different types of service, and how to manage different client relationships, from government entities to private individuals. The course also analyzes the differences between working directly for clients and working with translation agencies or as a staff translator or interpreter, where it is crucial to know how to work on a team with other language professionals and content experts. The course also covers basic standard business practices in the language industry and business codes of ethics.

GS 4312 Research for Translation & Interpretation (4 Credits)
Not so long ago, the only way for researchers to conduct research for their assignments was to consult the reference works they happened to own, or (if they lived near a good library), go to the library and hope what they needed was available there. The Internet changed all that, revolutionizing the translation and interpretation professions. Now translators and interpreters have at their disposal a seemingly bottomless well of information. At the same time, the research skills needed for translation and interpretation also have changed. This course teaches students how to conduct research using a variety of online tools, how to distinguish between reliable and unreliable sources of information, how to take advantage of the research tools made available by libraries, and in particular how to leverage the various types of resources offered by different types of libraries. Language-generic.

GS 4313 Translation for the Publishing Industry (4 Credits)
Most professional translators work outside the publishing industry: they work as freelancers or staff translators in business, technical, medical, legal translation—or in some other translation specialization. But when people outside our industry think of translators, it is likely they think of book translators, i.e., translators who work for the publishing industry. Working as a translator for the publishing industry may be rewarding, but in many respects it is different from the kind of work most translators are accustomed to. This course will explore such themes as the difference between working on book-length projects and shorter projects, and the difference between translations performed as "work done for hire" and copyrighted translations. It will look at publishing contracts, and at the difference between translating non-fiction and fiction works. It will also survey the most prominent theories of translation, past and present, to see how they apply to the translation of literature. Language-specific.

GS 4314 Translation & Interpretation for Law Enforcement (4 Credits)
This course explores the scope and nature of translating and interpreting in a law enforcement context, including the kinds of documents a translator is likely to encounter and how an interpreter interacts with both law enforcement professionals and members of the public who lack fluency in English. Language-specific.
GS 4315 Interpreting for Health Care (4 Credits)
This course explores the general body of knowledge that serves as the context for the health care interpreting profession and covers the special skills and abilities health care interpreters must demonstrate. It addresses the health care interpreter code of ethics, essential health care terminology, and the different modes of interpreting used in health care settings. The course also covers how to interact effectively with other health care professionals and how to serve as an effective cultural broker between U.S. health care providers and patients with limited English proficiency.

GS 4701 Topics in Global Affairs (4 Credits)
The content of this course varies each time it is offered. Specific course content is detailed on a quarterly schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

GS 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of a B- or better is required to pass.

GS 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produce a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

GS 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

GS 4905 Graduate Social Research Methods (4 Credits)
Graduate Social Research Methods is an exploration of the methods and purposes of social science research from the perspective of the researcher as well as that of the informed professional and consumer of information. Students will learn about the process of research, including the development of research questions, the purpose of various social science research methods, the role of professional ethics, and general approaches to the analysis and interpretation of data. Students will develop the ability to read and critique basic social science research articles and to implement simple research designs. Students will develop and write a research proposal around a specific research question informed by a review of the literature. Technical requirements include the ability to read and modify Microsoft Excel documents. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

GS 4980 Internship (4 Credits)
The internship is designed to offer students a purposeful experience in a practical, industry related setting. The internship is an individualized learning experience and a training plan is created for each student in conjunction with the internship site to provide experiences related to the skills and knowledge covered in the certificate and master’s programs.

GS 4991 Independent Study (1-5 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a credit basis and only for degree candidates.


GS 4992 Directed Study (1-5 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Healthcare Leadership

Office: University College Student Support Center
Mail Code: 2211 S. Josephine St., Denver, CO 80208
Phone: 303-871-2291, 800-347-2042
Email: ucolsupport@du.edu
Web Site: http://www.universitycollege.du.edu

Master of Science in Healthcare Leadership with a Concentration in Global Health Program Management

The Healthcare Leadership master’s degree concentration in Global Health Program Management is offered online to meet the needs of busy adults. This concentration is offered collaboratively with the Global Affairs Master’s program. Delivery and support of healthcare in the global setting has increasingly emerged as a multinational, multi-organizational endeavor, pulling together individuals and groups from multiple locations and backgrounds to provide services. Individuals, organizations and corporations routinely come together, providing both emergency and long-term medical services. Individuals and groups engaged in management of direct healthcare service programs, as well as those responsible for the development and marketing of medical devices and products to support healthcare, require specialized skill when operating in the international market. This concentration builds on general knowledge of leadership in healthcare with a focus on global healthcare.

Students will gain transferable skills across functions, assisting them in managing healthcare services, or developing and marketing of medical devices, pharmaceuticals and other products, within the international health care setting. Knowledge gained through this concentration will also be of assistance to those writing grants for global healthcare programming, services and product development. Curriculum includes topics such as working with remote teams, regional governance, employment and labor law, independent cross-functional decision making, customs and importation laws, regulatory compliance and other management and legal concerns. Building on desirable areas of expertise identified by those hiring in these fields, this course of study is designed to create a portfolio of skills applicable to various aspects of global health management that can be applied in a multitude of settings throughout the world.

This degree prepares students to

• Generate and analyze strategies to transfer management skills across a variety of organizational, geographic and/or cultural settings
• Create team management and communication plans for face-to-face, virtual, and remote teams
• Develop and evaluate decision-making strategies to integrate systems, processes, and procedures across various organizational functions
• Assess global legal, cultural, and governance issues and challenges in both delivery of healthcare services and marketing of products to determine most effective implementation strategies
• Examine regional attitudes, traditions, and cultural differences to apply understanding of those concepts to global-health-related critical thinking and decision-making skills
• Evaluate health delivery systems in developed and emerging countries in terms of successes, opportunities, and challenges to inform adaptation and application of lessons learned
• Assemble regulatory compliance requirements for research, development, and marketing of healthcare products in the international setting to recommend appropriate courses of action for an organization
• Appraise management principles for healthcare related Non-Government Organizations (NGO’s)

Master of Science in Healthcare Leadership with a Concentration in Healthcare Policy and Regulatory Leadership

The Healthcare Policy and Regulatory Leadership master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Career-relevant courses provide students with the knowledge and tools to help them achieve leadership with a pulse on the dynamism in healthcare and continuing emergence of reform leading to changes in healthcare policy.

Students acquire the essential tools necessary to become leaders who help shape, interpret, and implement policies and regulations that impact a value-driven healthcare system. Students improve their understanding of healthcare systems, legislative procedures, and trends as they relate to healthcare regulatory systems and public policy. Students examine the relationship between public policy, the patient as the consumer, and the impact of culture on the formation of policy and practice within a transitioning healthcare environment. Customize your Healthcare Leadership master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.
This degree prepares students to

- Compare variations in healthcare delivery domestically and internationally
- Examine the legislative process involved in the creation of healthcare public policy
- Assess how change leads to resistance and what measures must be adopted to incorporate change
- Correlate how professional standards and accreditation relate to quality assurance in various areas of healthcare
- Analyze the processes involved in the implementation of healthcare public policy and healthcare reform

**Master of Science in Healthcare Leadership with a Concentration in Managing Legal Issues in Healthcare**

The Managing Legal Issues in Healthcare master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. This program provides legal professionals, health providers, practice managers, healthcare administrators, and others with the concentrated knowledge of how law and medicine must work in cooperation to deliver better health, better care, and lower costs while ensuring patient safety. Students interested in policy and advocacy find this concentration applicable to career advancement.

In the Managing Legal Issues in Healthcare program, students explore the intersection of law and health systems as they navigate business and practice management in the health industry. Students will acquire specialized skills related to the economic and legal structures associated with healthcare systems and delivery mechanisms in order to assess and respond to common legal and policy issues facing health organizations. Principles of change management will be applied throughout all coursework to provide leadership skills necessary to develop, facilitate, and maintain change across health systems.

The curriculum focuses on legal and policy issues including transactional law, professional liability, professional review, patient privacy, and anti-discrimination—all discussed in relation to both inpatient and outpatient facilities and providers. Unique legal concerns related to academic and entrepreneurial medicine are addressed including research regulations, intellectual property, and product development. Customize your Healthcare Leadership master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to

- Analyze the intersection of law and healthcare in health administration
- Assess legal and regulatory systems that impact healthcare payment and delivery
- Summarize legal issues that influence academic medical research and health entrepreneurship
- Examine ethical considerations that affect healthcare
- Identify business principles necessary to manage the legal components of healthcare systems

**Master of Science in Healthcare Leadership with a Concentration in Medical and Healthcare Information Technologies**

The Medical and Healthcare Information Technologies master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Innovative classes cover how to reduce costs and improve access to quality healthcare through technologies that comprise the framework of modern interconnected healthcare.

Students stay at the cutting edge of emerging healthcare information technology and telehealth with a master’s degree concentration by learning how technology affects and improves diagnosis, treatment, training, patient records, and financial transactions. You’ll gain high-level knowledge of the interoperability of healthcare information systems, the benefits and barriers associated with electronic health records systems, and the emerging use of distance medicine.

Courses emphasize provider and patient interaction and how to improve overall efficiency through relevant health informatics. Customize your Healthcare Leadership master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to

- Assess how technology affects diagnosis, treatment, training, record keeping, financial transactions and data outcome analysis
- Compare and contrast emerging trends in medical and healthcare information technology including electronic health records and telehealth
- Analyze how technology can help improve quality of patient care and reduce costs as healthcare moves from a volume-based to value-based system
- Recommend different ways to facilitate discussion and communication between clinical providers and technical staff
Master of science in Healthcare Leadership with a Concentration in Strategic Leadership in Healthcare Organizations

The Strategic Leadership in Healthcare Organizations master's degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. This concentration prepares students to develop and administer strategic plans for various types of healthcare systems.

Students acquire the skills needed to successfully and strategically lead within healthcare organizations through the integrative process of a changing healthcare industry. Through analysis of the interrelationships of value, quality, and price, students examine the financial state of healthcare at the macro level, allowing them to better understand budgetary restraints while striving to realize an organization’s vision and goals.

Using case-based study techniques, students explore practice and system management, strategic planning, and change leadership. Customize your Healthcare Leadership master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to

• Compare and contrast leadership and administration characteristics that contribute to success in the provision of healthcare
• Evaluate basic components of a strategic plan and change management, relating them to financial planning and patient value within the healthcare system
• Analyze issues that support and detract from a harmonious workplace environment, and how these issues affect patient services, and provide solutions in effectively dealing with these issues
• Compare and contrast the strategic management functions required to lead and administer various types of healthcare systems
• Demonstrate expertise in the complex history and process of healthcare economics

Certificate in Healthcare Leadership with a Concentration in Global Health Program Management

The Healthcare Leadership certificate in Global Health Program Management is offered online to meet the needs of busy adults. Delivery and support of healthcare in the global setting has increasingly emerged as a multinational, multi-organizational endeavor, pulling together individuals and groups from multiple locations and backgrounds to provide services. Individuals, organizations and corporations routinely come together, providing both emergency and long-term medical services. Individuals and groups engaged in management of direct healthcare service programs, as well as those responsible for the development and marketing of medical devices and products to support healthcare, require specialized skill when operating in the international market.

Students in this certificate will gain transferable skills across functions, assisting them in managing healthcare services, or developing and marketing of medical devices, pharmaceuticals and other products, within the international health care setting. Knowledge gained through this concentration will also be of assistance to those writing grants for global healthcare programming, services and product development. Curriculum includes topics such as working with remote teams, regional governance, employment and labor law, independent cross-functional decision making, customs and importation laws, regulatory compliance and other management and legal concerns. Building on desirable areas of expertise identified by those hiring in these fields, this course of study is designed to create a portfolio of skills applicable to various aspects of global health management that can be applied in a multitude of settings throughout the world.

Certificate in Healthcare Leadership with a Concentration in Healthcare Policy and Regulatory Leadership

The graduate certificate in Healthcare Policy and Regulatory Leadership concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Certificate students will add new skills to their portfolio, including knowledge of how to help shape, interpret, and implement policies and regulations that impact a value-driven healthcare system. The Healthcare Policy and Regulatory Leadership concentration will provide an improved understanding of healthcare systems, legislative procedures, and trends as they relate to healthcare-related public policy and healthcare law.

Career-relevant courses provide students with the knowledge and tools to help them achieve leadership with a pulse on the dynamism in healthcare and continuing emergence of reform leading to changes in healthcare policy. Improve your understanding of healthcare systems, legislative procedures, and trends as they relate to healthcare regulatory systems and public policy by earning a certificate. You’ll examine the relationship between public policy, the patient as the consumer, and the impact of culture on the formation of policy and practice within a transitioning healthcare environment. Credits earned through this certificate may apply toward a master's degree in Healthcare Leadership.
Certificate in Healthcare Leadership with a Concentration in Managing Legal Issues in Healthcare

The Managing Legal Issues in Healthcare graduate certificate is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. This certificate program provides legal professionals, health providers, practice managers, healthcare administrators, and others with the concentrated knowledge of how law and medicine must work in cooperation to deliver better health, better care, and lower costs while ensuring patient safety.

Certificate students will explore the intersection of law and health systems as they navigate business and practice management in the health industry. Earn specialized skills related to the economic and legal structures associated with healthcare systems and delivery mechanisms in order to assess and respond to common legal and policy issues facing health organizations. Principles of change management will be applied throughout all coursework to provide leadership skills necessary to develop, facilitate, and maintain change across health systems.

Certificate curriculum focuses on legal and policy issues including transactional law, professional liability, professional review, patient privacy, and anti-discrimination—all discussed in relation to both inpatient and outpatient facilities and providers. Credits earned through the graduate certificate may apply toward a master’s degree in Healthcare Leadership.

Certificate in Healthcare Leadership with a Concentration in Medical and Healthcare Information Technologies

The Medical and Healthcare Information Technologies graduate certificate is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Certificate courses emphasize provider and patient interaction and how to improve overall efficiency through relevant health informatics. Innovative classes cover how to reduce costs and improve access to quality healthcare through technologies that comprise the framework of modern interconnected healthcare.

Certificate students stay at the cutting edge of emerging healthcare information technology and telehealth by learning how technology affects and improves diagnosis, treatment, training, patient records, and financial transactions. You’ll gain high-level knowledge of the interoperability of healthcare information systems, the benefits and barriers associated with electronic health records systems, and the emerging use of distance medicine. Credits earned through this graduate certificate may apply toward a master’s degree in Healthcare Leadership.

Certificate in Healthcare Leadership with a Concentration in Strategic Leadership in Healthcare Organizations

The Strategic Leadership in Healthcare Organizations graduate certificate is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. This certificate prepares students to develop and administer strategic plans for various types of healthcare systems.

Certificate students will acquire the skills needed to successfully and strategically lead within healthcare organizations through the integrative process of a changing healthcare industry. Through analysis of the interrelationships of value, quality, and price, students examine the financial state of healthcare at the macro level, allowing them to better understand budgetary restraints while striving to realize an organization’s vision and goals. Using case-based study techniques, students explore practice and system management, strategic planning, and change leadership. Credits earned in the graduate certificate may apply toward a master’s degree in Healthcare Leadership.

MASTER’S DEGREE ADMISSION

Admission Criteria

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process

Master’s degree applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/masters.cfm).

- **Application:** Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- **Application Fee:** A $75 non-refundable application fee is required for an application to be processed.
CERTIFICATE ADMISSION

Admission Criteria
A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process
Certificate applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

INTERNATIONAL ADmission

International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College’s International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.
University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.

Additional Admission Requirements for International Applicants

- **English Proficiency:** All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.

  1. **TOEFL:** A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.

  2. **Academic IELTS:** A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.

  3. **Possible Exemptions:** International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.

  4. **English Conditional (Admission?) (ECA):** Master's degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA requires an evaluation by the University of Denver's English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.

- **Official Transcripts and Translations:** International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.

- **Photocopy of Diploma/Degree Certification and Appropriate Translations:** Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.

- **A Photocopy of Current Passport:** Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.

- **The Supplemental Information Form (SEVIS Supplement):** Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.

- **Financial Verification Form:** Applicants seeking an I-20 student visa must submit financial verification documents.

***Master of science in Healthcare Leadership with a Concentration in Global Health Program Management***

**Degree Requirements**

**Core coursework requirements**

<table>
<thead>
<tr>
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Master of science in Healthcare Leadership with a Concentration in Healthcare Policy and Regulatory Leadership

Degree Requirements

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Total Credits: 48

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University's grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.
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<td>Legal Issues: Healthcare Research, Development and Entrepreneurship</td>
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<td>Legal Issues: Healthcare Delivery and Payment Systems</td>
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**Minimum number of credits required: 48**

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Master of science in Healthcare Leadership with a Concentration in Medical and Healthcare Information Technologies

**Degree Requirements**

**Core coursework requirements**

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<td>HC 4301</td>
<td>Fundamentals of Healthcare Information Systems</td>
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<td>HC 4310</td>
<td>Electronic Health Records Systems</td>
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<td>HC 4315</td>
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<td>HC 4325</td>
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<td>HC 4335</td>
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**Master of science in Healthcare Leadership with a Concentration in Strategic Leadership in Healthcare Organizations**

**Degree Requirements**

**Core coursework requirements**

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**Total Credits**: 48

**Certificate in Healthcare Leadership with a Concentration in Global Health Program Management**

**Program Requirements**

**Core coursework requirements**

**Concentration requirements**

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**Total Credits**: 24
Minimum number of credits required: 24

**Certificate in Healthcare Leadership with a Concentration in Healthcare Policy and Regulatory Leadership**

Program Requirements

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Elective requirements (Choose two courses):

| HC 4005                     | Healthcare Macroeconomics |
| HC 4100                     | Management Principles in Healthcare Systems |
| HC 4110                     | Healthcare Innovative Strategies and Change Management |
| HC 4130                     | Organizational Behavior in Healthcare |

Total Credits 24

Minimum number of credits required: 24

**Certificate in Healthcare Leadership with a Concentration in Managing Legal Issues in Healthcare**

Program Requirements

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<td>HC 4005</td>
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Elective requirements (Choose two courses):

| HC 4200                     | Comparative Healthcare Systems |
| HC 4210                     | Quality Improvement for HC Leaders |
| HC 4225                     | Healthcare Public Policy and the Legislative Process |
| HC 4230                     | Implementation and Evaluation of Healthcare Public Policy |

Total Credits 24

Minimum number of credits required: 24

**Certificate in Healthcare Leadership with a Concentration in Medical and Healthcare Information Technologies**

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Elective requirements (Choose one course):

| HC 4005                     | Healthcare Macroeconomics |
| HC 4100                     | Management Principles in Healthcare Systems |
| HC 4110                     | Healthcare Innovative Strategies and Change Management |

Total Credits 24
Organizational Behavior in Healthcare

Total Credits

Minimum number of credits required: 24

Certificate in Healthcare Leadership with a Concentration in Strategic Leadership in Healthcare Organizations

Program Requirements

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Total Credits

Minimum number of credits required: 24

Courses

HC 4000 Healthcare Systems and Regulatory Environments (4 Credits)
This course opens with a comprehensive overview of the functions of various types of healthcare organizations: providers, insurance companies, government agencies, and professional associations. Alternative payment and provider models are reviewed, regulatory bodies and issues are explored, and healthcare reform efforts and proposals are discussed. Supply and demand projections for personnel are examined. The work of key federal agencies (NIH, National Center for Disease Control, and Food and Drug Administration) is reviewed as well as the activity of national and international non-governmental organizations. Major national and global public health challenges are introduced.

HC 4005 Healthcare Macroeconomics (4 Credits)
This course focuses on macro analysis of the current financial state of healthcare in the United States. The interrelationships of value, quality, and price are analyzed. The importance of transparency of quality and its effect on value is articulated. Compensation and payer models are compared including the role of employer benefits, private health insurance plans, Medicare and Medicaid, and various mechanisms used to cover the costs of prescription drugs. Current issues, such as pay for performance, cost saving through prevention, cost shifting, and healthcare for the aging, are discussed.

HC 4010 Healthcare Communication and Leadership (4 Credits)
This course focuses on the welfare of patient, family, and community in the context of medical team communication and leadership. Models for communicating highly technical medical information with patients and others involved in their care are examined. Students weigh and assess differences in personal and organizational cultures to optimize patient-centered outcomes. Students acquire a sound body of knowledge and terminology to facilitate communication and leadership across a multitude of disciplines essential in the delivery of healthcare. NOTE: This course is strongly recommended within the first 3 terms of study.

HC 4100 Management Principles in Healthcare Systems (4 Credits)
Healthcare systems are dynamic and require constant attention to maintain relevance and competency. In this course students encounter and explore the strategic management functions required to lead and administer various types of healthcare systems. Techniques are explored for analyzing a system and moving it forward from where it is to where it needs to be.

HC 4110 Healthcare Innovative Strategies and Change Management (4 Credits)
Strategic planning for maximum use of financial resources is critical to success within a healthcare system. The starting point includes understanding all of the basic components of a strategic plan: mission, vision, strategy and tactics. A strategic plan answers the questions: Why are we here? Where are we going? How will we get there? What resources do we need? Creative and innovative thinking when considering allocation and management of resources is explored. Students learn the conceptual language and systems of strategic planning and decision making. They learn the application of these principles to provide successful change management within an organization.

HC 4130 Organizational Behavior in Healthcare (4 Credits)
Patient satisfaction, an element of healthcare management, is often a result of how well the entire healthcare system functions. Students examine successful examples of cooperation, compatibility, and dedication within the workplace and explore what contributes to a harmonious and effective healthcare environment. Interpersonal skills are discussed, as well as ethical guidelines and laws that define acceptable workplace behavior.
HC 4200 Comparative Healthcare Systems (4 Credits)
This course describes variations in healthcare delivery systems locally, nationally, and globally as they relate to policy, structure, and finance. Comparisons of systems are made relative to expenditure of resources and outcomes. Students learn about healthcare coverage, access to care, healthcare rationing, provider manpower distribution, and seeking healthcare in foreign countries (medical tourism). The discrepancy between the desirable and the practical is explored, and students are asked to outline and defend a system that they believe is both desirable and practical.

HC 4210 Quality Improvement for HC Leaders (4 Credits)
This course is designed to review the body of knowledge and core competencies needed to function at the level of Certified Professional in Healthcare Quality (CPHQ) in a healthcare organization. Skills gained are applicable to managers and administrators of hospitals, practices, and clinics. Course content is beneficial to clinicians and others interested in quality and patient safety. This course facilitates the successful pursuit of the CPHQ certification exam. Core competencies, aligned with the CPHQ certification exam, to be explored in detail include: Leadership and Management; Quality and Performance Improvement; Healthcare Safety; Information Management and Regulation, Accreditation and Continuous Readiness. Students are strongly encouraged to complete HC4000 and HC4220 prior to registering for the course.

HC 4220 Ethical Considerations in Healthcare (4 Credits)
This course explores ethical considerations encountered throughout the United States' healthcare industry as well as within the broader global environment. Both clinical and non-clinical scenarios will be examined. Students will learn to apply ethical principles, theories, and concepts to analyze and draw conclusions for a broad range of ethical dilemmas. Through readings, class discussions, and assignments, students will recognize how ethical considerations vary depending on the perspective of the stakeholder or assessor, a critical step in making ethical decisions with no single right answer.

HC 4225 Healthcare Public Policy and the Legislative Process (4 Credits)
This class provides students with an understanding of the political and legislative procedures that lead to healthcare policy change and reform. Students examine the influences and functions of government agencies, legislative processes and procedures and executive branch rule-making. Students objectively evaluate how policy changes occur at the federal and state levels and subsequently affect the functioning as a citizen and professional. Class lecture focuses on the legislative path of federal law and then follows it through to the outcomes at the state level. Students explore the importance of developing relationships, communication and advocacy strategies with elected officials and various stakeholder groups that interact with the federal and state legislative processes.

HC 4230 Implementation and Evaluation of Healthcare Public Policy (4 Credits)
This course examines strategies for implementation and evaluation of healthcare public policy. Students develop skills in analyzing issues, considering and weighing pros and cons of proposed policy, and in defending strategies for bringing about change. Beginning with the passage of a new law, policy, or regulation, students track the process to implement and evaluate new policy. Topics related to implementation of a new policy include funding the implementation, effect on constituents and the overall national economy, sustainability, and short and long term evaluation of the policy. At the conclusion of this course, students will prepare an implementation plan for selected recently passed state legislation. Students are strongly encouraged to complete both HC4000 and HC4225 prior to registering for this course.

HC 4301 Fundamentals of Healthcare Information Systems (4 Credits)
Healthcare information technology (HIT) systems can improve cost and efficiency when systems are properly evaluated and implemented. Good IT systems are also increasingly being associated with better patient outcomes. However, healthcare has lagged behind other industries in adoption of IT systems. A major challenge to healthcare professionals is understanding the major underlying technical concepts involved in the jargon-filled world of healthcare information systems. This foundational course provides a working knowledge of key HIT definitions and concepts. It is not designed to turn students into network administrators or software developers; rather, it is to equip the student to become an active and valuable participant – or even a team leader – in the evaluation, selection, implementation and ongoing operation of health information systems. Note: This course is a pre-requisite for HC 4325 except with approval by the academic director.

HC 4310 Electronic Health Records Systems (4 Credits)
Electronic health records systems - electronic medical records (EMRs), electronic health records (EHRs), and personal health records (PHRs) are all the buzz these days, yet for the past 30 years the healthcare sector has clung to paper records, manila file folders and clipboards. Technology vendors have been claiming for years that their systems are mature enough to be successfully used, yet many providers say they will retire or sell their practice before they will adopt EMR/EHR technology. Other providers, who have made the leap of faith and have implemented EMR/EHR technology, say they would never go back to paper records. Against this backdrop, this course explores in great detail the technical and controversial aspects of healthcare information technology in general and the specific factors involving evaluation and adoption of EMR systems. We explore the fundamental components of modern electronic records systems, and review their impact on both business and clinical functions, discussing barriers to adoption and how to overcome them. A class exercise is utilized to evaluate one or two EMR systems, and role-play actual evaluation in a clinic environment. Key areas of interoperability, interfaces and standards are introduced. The course is practical and thought-provoking as it emphasizes critical thinking and the synthesis of ideas from multiple sources and perspectives. Participants are challenged to develop their own viewpoints and opinions, substantiated by the published work of those who are thought leaders in the field of HIT, as well as the participants' own experiences.

HC 4315 Telehealth (4 Credits)
Access to proper medical facilities presents a gap in quality healthcare, particularly for certain populations and specialties. The advantages and challenges of telehealth services to address these issues are presented. Special focus is placed on how communication, innovative technology, safety, and efficiency are addressed through telehealth as access and distance become less of a barrier. Regulatory, legislative, and political considerations regarding telehealth implementation are discussed. Students evaluate business and technology infrastructure models required to support telehealth services. Students compare stories of patient reaction to telehealth as a primary or secondary means of access to care.
HC 4325 Healthcare Information Technology Applications (4 Credits)
This course covers the major healthcare information technologies and topics other than the electronic health records systems. There is a large focus in healthcare technology on electronic records systems. However, there are many other important systems that form the complete framework of modern connected healthcare. This course includes electronic practice management (EPM/PMS) systems, scheduling, billing, diagnostics/labs, reporting, payment interfaces and business intelligence in healthcare. Prerequisite: HC 4301, or approval by the academic director.

HC 4335 Information Systems Security in Healthcare (4 Credits)
This course will introduce students to information security risks facing the healthcare industry. Students will learn how to better protect healthcare organizations and their patients’ data. Students will learn about recent security breaches, the impact of those breaches on healthcare organizations, and all of the key players involved. This course also covers the evolution of healthcare IT and the continuously evolving risk and regulatory landscape. Students will explore the regulations of HIPAA and how they relate to day-to-day operations in healthcare organizations. Additionally, this course will prepare students to support information security initiatives in order to protect the organization while futhering the advancement of healthcare IT capabilities. This is not a technical course, however we will be learning about how security is impacted by technology and what we must do across technology in order to secure our healthcare systems, our organizations, and our patients.

HC 4400 Legal Issues: Healthcare Providers and Facilities (4 Credits)
This course is a primer on the legal and compliance considerations associated with operation and administration of healthcare provider groups and facilities. Topics include the Stark and anti-kickback laws, contract law, licensure and credentialing, professional liability, staff management and professional review, HIPAA and patient privacy, safety, highlights of the Patient Protection and Affordable Care Act of 2010 (PPACA), and civil rights and non-discrimination in the private and public sector.

HC 4410 Legal Issues: Healthcare Research, Development and Entrepreneurship (4 Credits)
This course describes legal issues which impact medical research, development of pharmaceutical agents and medical devices, food safety regulation and principles of healthcare entrepreneurism and biotechnology. Topics include institutional review board, data management and security, grants, loans and capital investment as funding sources, and intellectual property.

HC 4420 Legal Issues: Healthcare Delivery and Payment Systems (4 Credits)
This course provides an understanding of the legal complexities of creating and managing delivery and payment models for healthcare services. Course content revolves around the current challenges of evolving from volume based to value based reimbursement principles. Topics include fraud and abuse and compliance systems, legal foundations of private vs. public payment systems, disparities in access and reimbursement, health information exchanges and health insurance exchanges, and review or current healthcare reform efforts in reimbursement procedures.

HC 4500 Operational Challenges in Global Health Management (4 Credits)
This course presents challenges in operations that are unique to healthcare services and products being delivered in the international market. Topics include international marketing of services and healthcare products, negotiation styles, ethical considerations, organizational structure, transporting of medical goods and personnel, individual travel health and medical tourism as a business model. Cultural and religious considerations in healthcare delivery are discussed. Grants and research management for global health are compared with domestic procedures.

HC 4510 Legal and Employment Issues in Global Health Management (4 Credits)
This course is a primer on the legal and compliance considerations associated with operation and administration of healthcare provider groups and facilities. Employment and labor law are discussed in relationship to employment across international lines and within foreign countries. Intellectual property, patent and copyright of healthcare products, curriculum, and programs are examined. Customs laws, foreign trade, and other regulations such as healthcare licensing and credentialing of personnel are developed. Human resource challenges such as remote team management are discussed.

HC 4520 Global Health NGO Management (4 Credits)
Students will examine factors that impact organizational performance in the global nonprofit health sector. Students expore current challenges associated with Non-Government Organizations (NGOs) that operate in low-income and middle-income countries. Examples include Doctors Without Borders, Shoulder to Shoulder, and others. Students are empowered to research and compare different NGOs and analyze factors that impact organizational effectiveness. Key challenges facing NGO leaders are analyzed and students provide recommendations to improve organizational performance. Course topics include assessment of NGO strategies, organizational resources and financing, and stakeholder relations. Other topics include analysis of countries' demographics, culture, healthcare delivery, policies, and external environment. It is recommended that students in the Global Health Program Management concentration or certificate complete HC4500 and HC4510 prior to registering for this course. Students in other concentrations or programs may take this course at any time as an elective.

HC 4530 Regulatory Compliance in Global Health Management (4 Credits)
This course discusses the various regulatory requirements of conducting healthcare related business from the perspective of research, development, and marketing of medical devices and pharmaceuticals. Both domestic and international requirements will be examined. Students will develop a template of skills for investigating healthcare related compliance issues that can be adapted to specific markets as needed.

HC 4701 Topics in Healthcare Leadership (1-10 Credits)
This is an advanced special topics seminar course. The focus is on specialized areas of interest. Topics courses may be used as electives within the Healthcare Leadership degree and certificates, and, with advance approval from Academic Director, may substitute for core courses in the degree or certificate programs.
HC 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of a B- or better is required to pass.

HC 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produces a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentations. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

HC 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

HC 4910 Research Practices and Applications (4 Credits)
This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through comparing and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master’s degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

HC 4980 Internship (1-10 Credits)
The Healthcare Internship is designed to offer students a purposeful experience in a practical, industry related setting. The internship is an individualized learning experience. A training plan is created for each student in conjunction with the internship site supervisor to provide experiences related to the skills and knowledge covered in the certificate and master’s programs as well as professional goals. Students are responsible for finding their own internship site and proposing their internship ideas. University College will send notification to all Healthcare students if they hear of internship possibilities. Students may also work through the DU career center, to explore opportunities for internship experiences.

HC 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a for-credit basis.

HC 4992 Directed Study (1-8 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Directed Study form and filed the form with all appropriate offices before registering for the directed study. Directed Study is offered only on a for-credit basis.
Information and Communications Technology

Master of Science in Information and Communications Technology with a concentration in Database Design and Administration

The Database Design and Administration master's degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults who are current or aspiring database designers and administrators. Learn how to design, administer, fine-tune, and maintain databases with a database administration degree, plus develop business acumen that will help you excel in IT. Master's degree students learn from expert instructors who work in the fields in which they teach, providing cutting-edge insight to what is needed to work efficiently and effectively in this sector of IT.

The combination of required and elective courses in the master's degree program covers key DBS technologies such as SQL Server, Oracle PL/SQL, Transact-SQL programming, and NoSQL databases. This extensive content delivered in a hands-on manner provides both the knowledge and the specific skills needed to put the student on the path to earn key industry certifications for vendor database platforms. Customize your Information and Communications Technology master's degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Analyze, design, develop, test, deploy, administer and maintain database applications and database security based on industry best practices and end-user requirements
- Apply data modeling, data warehousing, performance tuning, programming and maintenance through technologies such as SQL Server, Oracle, PL/SQL Transact-SQL, and NoSQL
- Create plans to solve organizational issues using business management strategies directly related to database administration theories and applications
- Formulate plans for database installation and configuration, maintenance, and backup and recovery

Master of Science in Information and Communications Technology with a concentration in Geographic Information Systems

The Geographic Information Systems (GIS) master's degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. GIS training prepares students to apply geographic information systems technology to solve real-world problems, whether determining the best location for a new store, analyzing environmental damage, or detecting crime patterns in a city. GIS solutions provide the capability to store, retrieve, and analyze spatial information by combining layers of data to yield valuable understanding of a locale.

As a current or aspiring GIS professional, you will receive applied instruction from professional practitioners who work in the fields in which they teach as you learn to plan, implement, and execute a GIS project through remote sensing, internet mapping, or digital image processing. Also, you will develop a valuable business background with creative, solution-oriented techniques through this versatile program, which emphasizes applied education that will propel your GIS career forward. Students will explore GIS fundamentals at a very hands-on, practical level necessary to succeed in the field of GIS. Customize your Information and Communications Technology master's degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Analyze the nature of, uses for, and implementation processes for geographic data
- Select appropriate applications of GIS technology to solve spatial problems based on organizational/client needs
- Analyze real-world problems and select the appropriate GIS tools and processes to address the issues
- Plan, implement, and execute a GIS project

Master of Science in Information and Communications Technology with a concentration in Information Systems Security

The Information Systems Security master's degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. A master's degree concentration in Information Systems Security from University College—a
designated National Center of Academic Excellence in Cyber Defense Education—combines technology, management, and business skills to prepare graduates for an exciting, high-demand career in IT security.

Master’s degree students receive applied instruction as they learn to navigate real-world security challenges, such as setting up a secure network, securing servers, and problem solving hypothetical security situations. Students also garner career-relevant knowledge on related IT subjects to better relate the challenges of the rapidly evolving world of cyber security and cyber threats to other key trends in the ICT industry. To ensure up-to-the-minute knowledge and skills, the curriculum was designed around the Common Body of Knowledge for CISSP certification developed by the International Information Systems Security Certifications Consortium (ISC)². In addition, the program was developed in collaboration with the Colorado Springs and Denver chapters of the Information Security Systems Association (ISSA), and the courses have been mapped to the Committee on National Security Systems (CNSS) standards. The University of Denver has been designated by NSA/DHS as a National Center of Academic Excellence in Cyber Defense Education.

Customize your Information and Communications Technology master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Develop and implement information security policies and procedures to meet organizational needs based on best practices
- Analyze security scenarios and design secure network solutions and applications
- Create strategies to establish secure operations, access control methods, and system security to meet organizational/client requirements
- Plan for business continuity based on organizational culture and requirements
- Evaluate encryption standards and solutions
- Conduct computer forensics analysis

Master of Science in Information and Communications Technology with a concentration in Mobile Application Development

The Mobile Application Development master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. With mobile application development on the rise, current software and web developers need to update their mobile app design skills to meet the growing demand in the marketplace. In this master’s degree program, students will learn best practices in browser-based and packaged apps, 3rd-party native extensions, distribution to app stores, and cross-platform application development. Degree-seekers will acquire specialized developer knowledge and the technical skillset needed to succeed as professional mobile app designers and developers.

In addition to the native and web standards-based application development techniques, you’ll also have the option to customize your program based on your career needs. For example, students can expand their technical skills in JavaScript, learn about next-gen wireless networks, learn PHP, or brush up on their knowledge of Flash. In the rapidly evolving, converged world of ICT, it is vital to grasp the diverse industry fundamentals, while also gaining an insider’s perspective regarding specific areas of ICT such as mobile application design and development. The master’s degree in Mobile Application Development provides a high level of applied knowledge pertaining to mobile app design and development that will help launch a career as a mobile app developer, or elevate your current position. Customize your Information and Communications Technology master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Analyze and apply best practices in browser-based and packaged apps, 3rd-party native extensions, distribution to app stores, and cross-platform application development.
- Compare, contrast, and use IDEs such as FDT or IntelliJ IDEA and SDKs such as Apache Flex
- Critique and build mobile applications in programming languages such as MXML, ActionScript, and Java
- Design and develop mobile applications applying best practices in code reuse, mobile usability, and mobile web standards such as HTML5, CSS3, and JavaScript
- Integrate XML for data description and exchange

Master of Science in Information and Communications Technology with a concentration in Project Management

The Project Management master’s degree specialty through the Information and Communications Technology program is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Combine information and communication technology skills with a project management and business background and become a proficient leader within the IT field. Receive hands-on, practical instruction from professional practitioners who work in the fields in which they teach on the tools and techniques of effective project
management. Learn how to develop a clear plan that places a project in the context of an organization's strategic plan, while considering the implications information and communication technologies present in any given project.

Graduates of the Project Management program will gain a firm grasp on converging information and communication technologies and learn to understand the fundamentals of each sector. Recognizing how each IT subject connects to one another, from information security systems to geographic information systems, will give students the competitive edge needed in this dynamic industry. The content for this concentration has been developed to parallel the Project Management Institute’s (PMI)® A Guide to the Project Management Body of Knowledge, (PMBOK® Guide) – Fifth Edition, Project Management Institute, Inc., 2013. The unique curriculum prepares students to succeed on the PMI® Project Management Professional (PMP)® Certification Exam. Customize your Information and Communications Technology master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Summarize and apply the basic principles of project management and become proficient in the use of project management software
• Analyze and apply agile concepts and techniques
• Design a comprehensive risk management plan for a project
• Create strategies to manage the complexity inherent in large-scale projects
• Relate project scope to cost, time, and resource requirements
• Develop procurement plans and assess project contracts

Master of Science in Information and Communications Technology with a concentration in Software Design and Programming

The Software Design and Programming master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Expand your knowledge of software design and programming principles, while developing the in-depth skills needed to succeed in the field with a Software Design and Programming master’s degree. Current or aspiring programmers will practice OO methods and programming, with a focus on modern web-based, client-server applications and systems. You will also select from a variety of elective courses that best meet your specific career needs for IT.

Degree-seekers learn how to develop quality software programs and applications, apply Software Quality Assurance practices, use software management processes such as the Unified Software Development Process, and code in languages such as C#, Java, Python, and PHP. Skills are applied in hands-on assignments, with expert instructors guiding software degree students to identify and overcome the challenges presented by designing and programming software with various languages and development tools. Customize your Information and Communications Technology master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Design software using best practices in security, Software Quality Assurance, and the Unified Software Development Process
• Generate program code in languages such as C#, Java, Python, and PHP
• Create database programming and queries
• Analyze the concepts of object oriented methods and programming and create code using the methodology
• Compare and contrast the features and benefits of IDEs such as Eclipse, NetBeans, and Visual Studio
• Assess appropriate implementations of frameworks such as J2EE, .NET, and Ruby on Rails

Master of Science in Information and Communications Technology with a concentration in Technology Management

The Technology Management master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. The Technology Management degree concentration represents the convergence of business and technology and emphasizes the impact technology can have on strategic and operational objectives when applied through sound business management practices. With the right technical skills, combined with a strategic perspective regarding critical business needs, you’ll be prepared to meet current industry demands, and positioned to meet the demands of tomorrow.

Graduates with a Technology Management master’s degree concentration or graduate certificate become proficient in creating, managing, and using technology to accomplish strategic organizational goals as they expand and strengthen their knowledge and skills in creative thinking, strategic and tactical decision making, and global awareness. In addition to the practical education received online or on campus, Technology Management master’s degree students will also receive a broader understanding of how related IT sectors impact their technology management roles. Customize your Information and Communications Technology master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.
This degree prepares students to do the following:

- Formulate plans to manage technologies for strategic advantage
- Develop and evaluate business cases based on organizational and client requirements
- Assess the role of strategic alliances within an organization
- Summarize project management principles and processes in relation to technology management strategies
- Create and defend IT service assurance plans
- Analyze cloud and internet law across various IT scenarios
- Evaluate strategies and utilize best practices in technology forecasting and innovation

**Master of Science in Information and Communications Technology with a concentration in Telecommunications Technology**

The Telecommunications Technology master's degree concentration is offered online to meet the needs of busy adults. Become a proficient, technical leader within the information and communications technology field through a Telecommunications Technology master's degree concentration. Learn how to evaluate emerging telecommunications technologies, wireless networks and services, and the convergence of voice, data, and multimedia services on the global IP network.

Students will learn how to assess and analyze telecommunications technologies, plus gain vital skills necessary to design, develop, and implement telecommunications systems such as wireless networks. The program emphasizes the challenges and approaches to deal with the immense wireless data traffic explosion from devices such as the iPhone, iPad, Android smartphones and connected laptops, as well as broadband services like VOIP and mobile video. Customize your Information and Communications Technology master's degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Analyze and design network solutions
- Analyze the "triple play" convergence of voice, video, and data over wireless networks
- Evaluate and apply best practices in network security
- Create plans to manage global telecommunications projects
- Evaluate next generation wireless networks and services

**Master of Science in Information and Communications Technology with a concentration in Web Design and Development**

The Web Design and Development master's degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. The program provides an in-depth knowledge of web design and web development through hands-on instruction. Move beyond first-generation HTML-based Web pages and learn to create interactive, state-of-the-art, Web-based applications that support the demands of contemporary e-business processes by pursuing a web design degree. Students will use a variety of essential software tools employed in professional web development projects, such as Animate CC, AJAX, and Ruby on Rails. The real-world development scenarios, coupled with the hands-on learning experience provided by professional practitioners who work in the fields in which they teach, result in a highly career-relevant, innovative degree in web design and development.

In addition to IT fundamentals, students will also develop essential business and problem-solving skills that will help them thrive in any organization. In an increasingly technological world, it is vital to understand the fundamentals of other fields of IT study, and how each converges with your web design and web development degree. Customize your Information and Communications Technology master's degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Create interactive web-based applications for e-business processes and consumer demands using tools such as cascading style sheets, web graphics construction, interface design and usability, web scripting, and databases
- Create requirements for and design the user experience by applying UX principles such as user personatics, information design, wireframing, and prototyping
- Analyze enterprise goals and apply information architecture and web-design foundational principles and theories to create client-server and cloud-based solutions
- Compare and contrast potential solutions for web, app, and mobile scenarios and apply technology such as JavaScript, HTML5, CSS3, XML, PHP, Python, and Ruby on Rails
- Assess how web design and development converges within the context of security, software, database design, and telecommunications
Certificate in Information and Communications Technology with a concentration in Database Design and Administration

The graduate certificate in Database Design and Administration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults who are current or aspiring database designers and administrators. Expand your skillset to include designing, administering, fine-tuning, and maintaining databases with a graduate certificate in database design and administration concentration. Expert instructors who work in the fields in which they teach provide excellent insight to what is needed to work efficiently and effectively in this sector of IT.

Become a leader in database design, development, and administration while you expand your skillset to include data modeling, data warehousing, performance tuning, programming, and building and maintaining client-server databases. The combination of required and elective courses in the graduate certificate program covers key DBS technologies such as SQL Server, Oracle PL/SQL, Transact-SQL programming, and NoSQL databases. This extensive content delivered in a hands-on manner provides both the knowledge and the specific skills needed to put the student on the path to earn key industry certifications for vendor database platforms. Credits earned through this graduate certificate may apply toward a master's degree in Information and Communications Technology.

Certificate in Information and Communications Technology with a concentration in Information Systems Security

The graduate certificate in Information Systems Security offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. A graduate certificate in Information Systems Security from University College—a designated National Center of Academic Excellence in Cyber Defense Education—combines technology, management, and business skills to prepare graduates for an exciting, high-demand career in IT security.

Certificate classes at University College use innovative lab experiences to provide hands-on expertise with industry-current security tools. Students also garner career-relevant knowledge on related IT subjects to better relate the challenges of the rapidly evolving world of cyber security and cyber threats to other key trends in the ICT industry. To ensure up-to-the-minute knowledge and skills, the curriculum was designed around the Common Body of Knowledge for CISSP certification developed by the International Information Systems Security Certifications Consortium (ISC)². In addition, the program was developed in collaboration with the Colorado Springs and Denver chapters of the Information Security Systems Association (ISSA), and the courses have been mapped to the Committee on National Security Systems (CNSS) standards. The University of Denver has been designated by NSA/DHS as a National Center of Academic Excellence in Cyber Defense Education. Credits earned through this graduate certificate may apply toward a master's degree in Information and Communications Technology.

Certificate in Information and Communications Technology with a concentration in Mobile Application Development

The graduate certificate in Mobile Application Development is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Current software and web developers need to update their mobile app design skills to meet the growing demand in the marketplace, and a graduate certificate will help expand skills and provide credentials needed to be competitive in the field. Students in the mobile application concentration will learn best practices in browser-based and packaged apps, 3rd-party native extensions, distribution to app stores, and cross-platform application development. Certificate students will also acquire specialized developer knowledge and the technical skillset needed to succeed as professional mobile app designers and developers.

Certificate students will be able to expand their technical skills in JavaScript, learn about next gen wireless networks, learn PHP, or brush up on knowledge of Flash. Students at University College gain a strategic business perspective and problem-solving skills that will help them thrive in any organization. In the rapidly evolving, converged world of ICT, it is vital to grasp the diverse industry fundamentals, while also gaining an insider’s perspective regarding specific areas of ICT such as mobile application design and development. Credits earned through this graduate certificate may apply toward a master’s degree in Information and Communications Technology.

Certificate in Information and Communications Technology with a concentration in Project Management

The graduate certificate in Project Management through the Information and Communications Technology program is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Combine information and communication technology skills with a project management and business background and become a proficient leader within the IT field. Receive hands-on, practical instruction from professional practitioners who work in the fields in which they teach on the tools and techniques of effective project management. Learn how to develop a clear plan that places a project in the context of an organization’s strategic plan, while considering the implications information and communication technologies present in any given project.

The Project Management concentration students will gain a firm grasp on converging information and communication technologies and learn to understand the fundamentals of each sector. Recognizing how each IT subject connects to one another, from information security systems to
Certificate in Information and Communications Technology with a concentration in Software Design and Programming

The graduate certificate in Software Design and Programming is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Expand your skillset to include software design and programming principles, while developing the in-depth knowledge needed to succeed in the field with a Software Design and Programming certificate. Current or aspiring programmers will practice OO methods and programming, with a focus on modern web-based, client-server applications and systems.

Certificate students learn how to develop quality software programs and applications, apply Software Quality Assurance practices, use software management processes such as the Unified Software Development Process, and code in languages such as C#, Java, Python, and PHP. Expert instructors guide software certificate students to identify and overcome the challenges presented by designing and programming software with various languages and development tools. A comprehensive perspective is also provided at University College, conveying how other technology domains such as application security and database design, affect software programming. Credits earned through this graduate certificate may apply toward a master’s degree in the Information and Communications Technology program.

Certificate in Information and Communications Technology with a concentration in Technology Management

The graduate certificate in Technology Management is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Learn how the convergence of business and technology impacts the strategic and operational objectives. Certificate students will gain the right technical skills, combined with a strategic perspective regarding critical business needs, as they are prepared to meet current industry demands, and positioned to meet the demands of tomorrow.

The Technology Management concentration allows students to become proficient in creating, managing, and using technology to accomplish strategic organizational goals as they expand and strengthen their knowledge and skills in creative thinking, strategic and tactical decision making, and global awareness. This applied Technology Management certificate offers professionals an opportunity to receive applied instruction from professional practitioners who bring deep expertise in business management strategies and their technological implications. Credits earned through this graduate certificate may apply toward a master’s degree in the Information and Communications Technology program.

Certificate in Information and Communications Technology with a concentration in Telecommunications Technology

The graduate certificate Telecommunications Technology is offered online to meet the needs of busy adults. The Telecommunications Technology concentration provides practical telecommunications instruction, including evaluating emerging telecommunications technologies, wireless networks and services, and the convergence of voice, data, and multimedia services on the global IP network. Certificate students will learn how to assess and analyze telecommunications technologies, plus gain vital skills necessary to design, develop, and implement telecommunications systems such as wireless networks. The dominant wireless telecom technologies and protocols are presented, including OFDM, MIMO, mobile IP, WiMAX, LTE, and WPANs.

In addition to ICT fundamentals, students will also develop essential strategic business and problem-solving skills that will help them thrive in any organization by creating effective alliances throughout the technology sector. Credits earned through this graduate certificate may apply toward a master’s degree in the Information and Communications Technology program.

Certificate in Information and Communications Technology with a concentration in Web Design and Development

The Web Design and Development graduate certificate is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Move beyond first-generation HTML-based Web pages and learn to create interactive, state-of-the-art, Web-based applications that support the demands of contemporary e-business processes by pursuing a web design certificate. The certificate program provides an in-depth knowledge of web design and web development through hands-on instruction. Students will gain the competitive advantage needed to meet current industry demands, as well as the foundations to meet the demands of tomorrow by expanding their IT skillset with a certificate.

Students will use a variety of essential software tools employed in professional web development projects, such as Animate CC, AJAX, and Ruby on Rails. The real-world development scenarios, coupled with the hands-on learning experience provided by professional practitioners who work in the fields in which they teach, result in a highly career-relevant, innovative degree in web design and development. Web design and development will be
MASTER'S DEGREE ADMISSION

Admission Criteria
A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process
Master’s degree applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/masters.cfm).

• Application: Applicants must complete the application online.
• Application Fee: A $75 non-refundable application fee is required for an application to be processed.
• One Official Transcript from each Post-Secondary Institution: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
• Two Letters of Recommendation: Two confidential letters of recommendation are required.
• Personal Statement: A personal statement (two pages double spaced) is required. The statement should include information on how the degree will enhance career plans and meet educational goals. Sharing personal experiences, abilities, achievements, and goals is encouraged. This document has considerable influence in the decision to admit applicants with attention given to written communication skills.
• Résumé/Curriculum Vitae (CV).
• Degree Plan: The degree plan, detailing courses for the academic program, is required to complete the admission process and can be completed through the University College online Degree Builder (http://universitycollege.du.edu/DegreeBuilder/Student/ChooseDegree.aspx) tool.
• Language Proficiency: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
• Proof of Permanent Residency: Permanent Residents must provide a copy of their Registration Alien Card (green card).
• Admission Interview: An interview may be required at the program director’s request.
• International Applicants: Additional requirements are listed below for international applicants.

CERTIFICATE ADMISSION

Admission Criteria
A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process
Certificate applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

• Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
• Application Fee: A $50 non-refundable application fee is required for an application to be processed.
• One Official Transcript from each Post-Secondary Institution: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
• Résumé/Curriculum Vitae (CV).
International Applicants: Additional requirements are listed below for international applicants.

INTERNATIONAL ADMISSION

International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College’s International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.

Additional Admission Requirements for International Applicants

- **English Proficiency:** All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.
  
  1. **TOEFL:** A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.
  2. **Academic IELTS:** A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.
  3. **Possible Exemptions:** International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.
  4. **English Conditional (Admission?) (ECA):** Master’s degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA requires an evaluation by the University of Denver’s English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.

- **Official Transcripts and Translations:** International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.

- **Photocopy of Diploma/Degree Certification and Appropriate Translations:** Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.

- **A Photocopy of Current Passport:** Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.

- **The Supplemental Information Form (SEVIS Supplement):** Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.

- **Financial Verification Form:** Applicants seeking an I-20 student visa must submit financial verification documents.

Master of Science in Information and Communications Technology with a Concentration in Database Design and Administration

Degree Requirements

Core course requirements
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4010</td>
<td>Enterprise Architecture</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4901</td>
<td>Capstone Project</td>
<td></td>
</tr>
<tr>
<td>ICT 4902</td>
<td>Capstone Seminar</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>ICT 4300</td>
<td>Web Enabled Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4400</td>
<td>Database Administration</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4405</td>
<td>Database Design &amp; Programming</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4410</td>
<td>Data Warehousing Design</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4305</td>
<td>Object-Oriented Methods</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4415</td>
<td>Database Backup and Recovery with Lab</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4451</td>
<td>Database Programming: Oracle PL/SQL</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4461</td>
<td>SQL Server with Lab</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4462</td>
<td>Transact - SQL Programming</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4465</td>
<td>NoSQL Databases</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4505</td>
<td>Website Design and Management</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4540</td>
<td>XML and Data in Application Development</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4695</td>
<td>Application Security</td>
<td>4</td>
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</table>

Elective requirements (Choose four courses): 16

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4010</td>
<td>Enterprise Architecture</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4901</td>
<td>Capstone Project</td>
<td></td>
</tr>
<tr>
<td>ICT 4902</td>
<td>Capstone Seminar</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
<td></td>
</tr>
</tbody>
</table>

**Minimum number of credits required: 48**

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

**Master of Science in Information and Communications Technology with a Concentration in Geographic Information Systems**

**Degree Requirements**

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4010</td>
<td>Enterprise Architecture</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4901</td>
<td>Capstone Project</td>
<td></td>
</tr>
<tr>
<td>ICT 4902</td>
<td>Capstone Seminar</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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</tr>
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</table>

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS 4101</td>
<td>Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>GIS 4700</td>
<td>Remote Sensing</td>
<td>4</td>
</tr>
</tbody>
</table>

Select three of the following: 12

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GIS 4070</td>
<td>ArcObjects</td>
<td></td>
</tr>
<tr>
<td>GIS 4080</td>
<td>Python Programming</td>
<td></td>
</tr>
<tr>
<td>GIS 4520</td>
<td>GIS in Telecommunications</td>
<td></td>
</tr>
<tr>
<td>GIS 4620</td>
<td>Geodatabase Application</td>
<td></td>
</tr>
<tr>
<td>GIS 4740</td>
<td>Digital Image Processing</td>
<td></td>
</tr>
</tbody>
</table>
GIS 4860  Internet Mapping

Elective requirements (Choose three courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>GIS 4070</td>
<td>ArcObjects</td>
</tr>
<tr>
<td>GIS 4080</td>
<td>Python Programming</td>
</tr>
<tr>
<td>GIS 4520</td>
<td>GIS in Telecommunications</td>
</tr>
<tr>
<td>GIS 4620</td>
<td>Geodatabase Application</td>
</tr>
<tr>
<td>GIS 4740</td>
<td>Digital Image Processing</td>
</tr>
<tr>
<td>GIS 4860</td>
<td>Internet Mapping</td>
</tr>
</tbody>
</table>

Total Credits 12

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University's grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Science in Information and Communications Technology with a Concentration in Information Systems Security

**Degree Requirements**

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
</tr>
<tr>
<td>ICT 4010</td>
<td>Enterprise Architecture</td>
</tr>
<tr>
<td>ICT 4901</td>
<td>Capstone Project</td>
</tr>
<tr>
<td>or ICT 4902</td>
<td>Capstone Seminar</td>
</tr>
<tr>
<td>or ICT 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
</tr>
</tbody>
</table>

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4300</td>
<td>Web Enabled Information Systems</td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
</tr>
<tr>
<td>ICT 4615</td>
<td>Computer and Physical Security</td>
</tr>
<tr>
<td>ICT 4845</td>
<td>Network Security with Lab</td>
</tr>
</tbody>
</table>

**Elective requirements (Choose four courses):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4405</td>
<td>Database Design &amp; Programming</td>
</tr>
<tr>
<td>ICT 4505</td>
<td>Website Design and Management</td>
</tr>
<tr>
<td>ICT 4610</td>
<td>TCP/IP Networks</td>
</tr>
<tr>
<td>ICT 4670</td>
<td>Disaster Recovery and Operations Security</td>
</tr>
<tr>
<td>ICT 4675</td>
<td>Information Systems Security in Healthcare</td>
</tr>
<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
</tr>
<tr>
<td>ICT 4685</td>
<td>Cloud and Internet Law</td>
</tr>
<tr>
<td>ICT 4690</td>
<td>Computer Forensics with Lab</td>
</tr>
<tr>
<td>ICT 4695</td>
<td>Application Security</td>
</tr>
<tr>
<td>ICT 4800</td>
<td>Network Communications and the Internet</td>
</tr>
</tbody>
</table>

Total Credits 16

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University's grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.
### Master of Science in Information and Communications Technology with a Concentration in Mobile Application Development

#### Degree Requirements

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
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</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4010</td>
<td>Enterprise Architecture</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>or ICT 4902</td>
<td>Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>or ICT 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
<td></td>
</tr>
</tbody>
</table>

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4510</td>
<td>Advanced Website Design and Management</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4576</td>
<td>Native Application Development with Adobe AIR on Mobile Devices</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4580</td>
<td>Mobile Application Development with Web Standards</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4515</td>
<td>Usability Design for Websites</td>
<td>4</td>
</tr>
<tr>
<td>or ICT 4555</td>
<td>Introduction to Animate CC</td>
<td></td>
</tr>
<tr>
<td>or ICT 4561</td>
<td>Web Development with PHP</td>
<td></td>
</tr>
<tr>
<td>or ICT 4570</td>
<td>Web Scripting with JavaScript</td>
<td></td>
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</table>

**Elective requirements (Choose four courses):** 16

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
</tr>
<tr>
<td>ICT 4300</td>
<td>Web Enabled Information Systems</td>
</tr>
<tr>
<td>ICT 4305</td>
<td>Object-Oriented Methods</td>
</tr>
<tr>
<td>ICT 4310</td>
<td>Client-Server Applications</td>
</tr>
<tr>
<td>ICT 4315</td>
<td>Object-Oriented Programming</td>
</tr>
<tr>
<td>ICT 4351</td>
<td>.NET Programming with C#</td>
</tr>
<tr>
<td>ICT 4361</td>
<td>Java Programming</td>
</tr>
<tr>
<td>ICT 4400</td>
<td>Database Administration</td>
</tr>
<tr>
<td>ICT 4405</td>
<td>Database Design &amp; Programming</td>
</tr>
<tr>
<td>ICT 4505</td>
<td>Website Design and Management</td>
</tr>
<tr>
<td>ICT 4515</td>
<td>Usability Design for Websites</td>
</tr>
<tr>
<td>ICT 4540</td>
<td>XML and Data in Application Development</td>
</tr>
<tr>
<td>ICT 4555</td>
<td>Introduction to Animate CC</td>
</tr>
<tr>
<td>ICT 4560</td>
<td>Web Graphics Production</td>
</tr>
<tr>
<td>ICT 4561</td>
<td>Web Development with PHP</td>
</tr>
<tr>
<td>ICT 4570</td>
<td>Web Scripting with JavaScript</td>
</tr>
<tr>
<td>ICT 4585</td>
<td>Web Development with Ruby on Rails</td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
</tr>
<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
</tr>
<tr>
<td>ICT 4695</td>
<td>Application Security</td>
</tr>
<tr>
<td>ICT 4840</td>
<td>Next Generation Wireless Networks and Services</td>
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<tr>
<td>COMM 4324</td>
<td>Web Analytics</td>
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<tr>
<td>GIS 4080</td>
<td>Python Programming</td>
</tr>
</tbody>
</table>

**Total Credits** 48

**Minimum number of credits required:** 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of “B” (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of “C” grade. A grade lower than “C” renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.
Master of Science in Information and Communications Technology with a Concentration in Project Management

Degree Requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4010</td>
<td>Enterprise Architecture</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>or ICT 4902</td>
<td>Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>or ICT 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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Concentration requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
</tr>
<tr>
<td>ICT 4105</td>
<td>Project Contracts and Procurement</td>
</tr>
<tr>
<td>ICT 4110</td>
<td>Project Management Tools and Techniques</td>
</tr>
<tr>
<td>ICT 4115</td>
<td>Project Management Dynamics</td>
</tr>
</tbody>
</table>

Elective requirements (Choose four courses): 16

<table>
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<tr>
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<tbody>
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</tr>
<tr>
<td>ICT 4020</td>
<td>Business Forecasting and Planning</td>
</tr>
<tr>
<td>ICT 4025</td>
<td>Technology and Innovation Management</td>
</tr>
<tr>
<td>ICT 4045</td>
<td>Information Technology Service Assurance</td>
</tr>
<tr>
<td>ICT 4155</td>
<td>Strategic Alliances in the Technology Sector</td>
</tr>
<tr>
<td>ICT 4160</td>
<td>Advanced Methods for Complex Projects</td>
</tr>
<tr>
<td>ICT 4165</td>
<td>Project Collaboration with SharePoint</td>
</tr>
<tr>
<td>ICT 4170</td>
<td>Agile Techniques and Practices in Project Management</td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
</tr>
<tr>
<td>ICT 4685</td>
<td>Cloud and Internet Law</td>
</tr>
<tr>
<td>ICT 4815</td>
<td>Managing Global Telecommunications Projects</td>
</tr>
</tbody>
</table>

Total Credits: 48

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

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Master of Science in Information and Communications Technology with a Concentration in Software Design and Programming

Degree Requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
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</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4010</td>
<td>Enterprise Architecture</td>
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<tr>
<td>ICT 4901</td>
<td>Capstone Project</td>
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<tr>
<td>or ICT 4902</td>
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<tr>
<td>or ICT 4904</td>
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Concentration requirements

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ICT 4300</td>
<td>Web Enabled Information Systems</td>
</tr>
<tr>
<td>ICT 4305</td>
<td>Object-Oriented Methods</td>
</tr>
<tr>
<td>ICT 4310</td>
<td>Client-Server Applications</td>
</tr>
<tr>
<td>ICT 4315</td>
<td>Object-Oriented Programming</td>
</tr>
</tbody>
</table>
### Elective requirements (Choose four courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
</tr>
<tr>
<td>ICT 4351</td>
<td>.NET Programming with C#</td>
</tr>
<tr>
<td>ICT 4361</td>
<td>Java Programming</td>
</tr>
<tr>
<td>ICT 4400</td>
<td>Database Administration</td>
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<tr>
<td>ICT 4405</td>
<td>Database Design &amp; Programming</td>
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<tr>
<td>ICT 4505</td>
<td>Website Design and Management</td>
</tr>
<tr>
<td>ICT 4510</td>
<td>Advanced Website Design and Management</td>
</tr>
<tr>
<td>ICT 4540</td>
<td>XML and Data in Application Development</td>
</tr>
<tr>
<td>ICT 4555</td>
<td>Introduction to Animate CC</td>
</tr>
<tr>
<td>ICT 4561</td>
<td>Web Development with PHP</td>
</tr>
<tr>
<td>ICT 4570</td>
<td>Web Scripting with JavaScript</td>
</tr>
<tr>
<td>ICT 4576</td>
<td>Native Application Development with Adobe AIR on Mobile Devices</td>
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<tr>
<td>ICT 4580</td>
<td>Mobile Application Development with Web Standards</td>
</tr>
<tr>
<td>ICT 4585</td>
<td>Web Development with Ruby on Rails</td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
</tr>
<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
</tr>
</tbody>
</table>

**Total Credits**: 48

**Minimum number of credits required**: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University's grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

---

**Master of Science in Information and Communications Technology with a Concentration in Technology Management**

### Degree Requirements

#### Core coursework requirements

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
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<tr>
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<td>ICT Business Foundations</td>
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</tr>
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<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4010</td>
<td>Enterprise Architecture</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>or ICT 4902</td>
<td>Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>or ICT 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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</table>

#### Concentration requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ICT 4015</td>
<td>Managing Technology for Strategic Value</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4020</td>
<td>Business Forecasting and Planning</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4025</td>
<td>Technology and Innovation Management</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
<td>4</td>
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</table>

#### Elective requirements (Choose four courses):

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ICT 4045</td>
<td>Information Technology Service Assurance</td>
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<tr>
<td>ICT 4105</td>
<td>Project Contracts and Procurement</td>
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<tr>
<td>ICT 4110</td>
<td>Project Management Tools and Techniques</td>
<td></td>
</tr>
<tr>
<td>ICT 4115</td>
<td>Project Management Dynamics</td>
<td></td>
</tr>
<tr>
<td>ICT 4155</td>
<td>Strategic Alliances in the Technology Sector</td>
<td></td>
</tr>
<tr>
<td>ICT 4160</td>
<td>Advanced Methods for Complex Projects</td>
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</tr>
<tr>
<td>ICT 4165</td>
<td>Project Collaboration with SharePoint</td>
<td></td>
</tr>
<tr>
<td>ICT 4170</td>
<td>Agile Techniques and Practices in Project Management</td>
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<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
<td></td>
</tr>
<tr>
<td>ICT 4675</td>
<td>Information Systems Security in Healthcare</td>
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</tr>
</tbody>
</table>
Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

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### Master of Science in Information and Communications Technology with a Concentration in Telecommunications Technology

#### Degree Requirements

**Core coursework requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4010</td>
<td>Enterprise Architecture</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>or ICT 4902</td>
<td>Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>or ICT 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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**Concentration requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ICT 4830</td>
<td>Broadband Wireless Networks</td>
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<td>ICT 4840</td>
<td>Next Generation Wireless Networks and Services</td>
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<td>Network Security with Lab</td>
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**Elective requirements (Choose four courses):**

<table>
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<tr>
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</tr>
<tr>
<td>ICT 4020</td>
<td>Business Forecasting and Planning</td>
<td></td>
</tr>
<tr>
<td>ICT 4045</td>
<td>Information Technology Service Assurance</td>
<td></td>
</tr>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
<td></td>
</tr>
<tr>
<td>ICT 4155</td>
<td>Strategic Alliances in the Technology Sector</td>
<td></td>
</tr>
<tr>
<td>ICT 4300</td>
<td>Web Enabled Information Systems</td>
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<tr>
<td>ICT 4305</td>
<td>Object-Oriented Methods</td>
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</tr>
<tr>
<td>ICT 4400</td>
<td>Database Administration</td>
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<tr>
<td>ICT 4405</td>
<td>Database Design &amp; Programming</td>
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<td>ICT 4410</td>
<td>Data Warehousing Design</td>
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<td>ICT 4415</td>
<td>Database Backup and Recovery with Lab</td>
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<td>ICT 4461</td>
<td>SQL Server with Lab</td>
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<td>Transact - SQL Programming</td>
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<td>NoSQL Databases</td>
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<tr>
<td>ICT 4505</td>
<td>Website Design and Management</td>
<td></td>
</tr>
<tr>
<td>ICT 4540</td>
<td>XML and Data in Application Development</td>
<td></td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
<td></td>
</tr>
<tr>
<td>ICT 4610</td>
<td>TCP/IP Networks</td>
<td></td>
</tr>
<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
<td></td>
</tr>
<tr>
<td>ICT 4685</td>
<td>Cloud and Internet Law</td>
<td></td>
</tr>
<tr>
<td>ICT 4695</td>
<td>Application Security</td>
<td></td>
</tr>
<tr>
<td>ICT 4815</td>
<td>Managing Global Telecommunications Projects</td>
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</tr>
<tr>
<td>ICT 4835</td>
<td>Advanced Network Technologies</td>
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</tbody>
</table>
GIS 4520  GIS in Telecommunications

| Total Credits | 48 |

**Minimum number of credits required: 48**

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**Master of Science in Information and Communications Technology with a Concentration in Web Design and Development**

**Degree Requirements**

**Core coursework requirements**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>ICT 4005</td>
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<tr>
<td>ICT 4010</td>
<td>Enterprise Architecture</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4901</td>
<td>Capstone Project</td>
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</tr>
<tr>
<td>or ICT 4902</td>
<td>Capstone Seminar</td>
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<td>or ICT 4904</td>
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**Concentration requirements**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ICT 4300</td>
<td>Web Enabled Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4505</td>
<td>Website Design and Management</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4510</td>
<td>Advanced Website Design and Management</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4515</td>
<td>Usability Design for Websites</td>
<td>4</td>
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</table>

**Elective requirements (Choose four courses):**

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<td>Principles of Project Management</td>
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<tr>
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<td>Object-Oriented Methods</td>
</tr>
<tr>
<td>ICT 4310</td>
<td>Client-Server Applications</td>
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<td>ICT 4400</td>
<td>Database Administration</td>
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<td>ICT 4555</td>
<td>Introduction to Animate CC</td>
</tr>
<tr>
<td>ICT 4560</td>
<td>Web Graphics Production</td>
</tr>
<tr>
<td>ICT 4561</td>
<td>Web Development with PHP</td>
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<tr>
<td>ICT 4570</td>
<td>Web Scripting with JavaScript</td>
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<td>IS Security Principles</td>
</tr>
<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
</tr>
<tr>
<td>ICT 4695</td>
<td>Application Security</td>
</tr>
<tr>
<td>GIS 4080</td>
<td>Python Programming</td>
</tr>
</tbody>
</table>

**Total Credits**

| 48 |

**Minimum number of credits required: 48**

Students may choose from the elective options above, or they may work with their advisor to choose electives.

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### Certificate in Information and Communications Technology with a Concentration in Database Design and Administration

**Program Requirements**

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4300</td>
<td>Web Enabled Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4400</td>
<td>Database Administration</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4405</td>
<td>Database Design &amp; Programming</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4410</td>
<td>Data Warehousing Design</td>
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**Elective requirements (Choose two courses):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
<td></td>
</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td></td>
</tr>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
<td></td>
</tr>
<tr>
<td>ICT 4305</td>
<td>Object-Oriented Methods</td>
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<tr>
<td>ICT 4415</td>
<td>Database Backup and Recovery with Lab</td>
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<tr>
<td>ICT 4451</td>
<td>Database Programming: Oracle PL/SQL</td>
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<tr>
<td>ICT 4461</td>
<td>SQL Server with Lab</td>
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<td>ICT 4462</td>
<td>Transact - SQL Programming</td>
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<td>ICT 4485</td>
<td>NoSQL Databases</td>
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<tr>
<td>ICT 4505</td>
<td>Website Design and Management</td>
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</tr>
<tr>
<td>ICT 4540</td>
<td>XML and Data in Application Development</td>
<td></td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
<td></td>
</tr>
<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
<td></td>
</tr>
<tr>
<td>ICT 4695</td>
<td>Application Security</td>
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</table>

**Total Credits**

24

**Minimum number of credits required:** 24

### Certificate in Information and Communications Technology with a Concentration in Information Systems Security

**Program Requirements**

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4300</td>
<td>Web Enabled Information Systems</td>
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</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
<td>4</td>
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<tr>
<td>ICT 4615</td>
<td>Computer and Physical Security</td>
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<tr>
<td>ICT 4845</td>
<td>Network Security with Lab</td>
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**Elective requirements (Choose two courses):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
<td></td>
</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td></td>
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<td>ICT 4100</td>
<td>Principles of Project Management</td>
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<tr>
<td>ICT 4610</td>
<td>TCP/IP Networks</td>
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<td>ICT 4670</td>
<td>Disaster Recovery and Operations Security</td>
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<td>ICT 4675</td>
<td>Information Systems Security in Healthcare</td>
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<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
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<tr>
<td>ICT 4685</td>
<td>Cloud and Internet Law</td>
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<td>ICT 4690</td>
<td>Computer Forensics with Lab</td>
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<td>ICT 4695</td>
<td>Application Security</td>
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</tr>
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<td>ICT 4800</td>
<td>Network Communications and the Internet</td>
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</table>

**Total Credits**

24

**Minimum number of credits required:** 24
# Certificate in Information and Communications Technology with a Concentration in Mobile Application Development

## Program Requirements

### Concentration requirements

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ICT 4510</td>
<td>Advanced Website Design and Management</td>
<td>4</td>
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<tr>
<td>ICT 4576</td>
<td>Native Application Development with Adobe AIR on Mobile Devices</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4580</td>
<td>Mobile Application Development with Web Standards</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4515</td>
<td>Usability Design for Websites</td>
<td>4</td>
</tr>
<tr>
<td>or ICT 4555</td>
<td>Introduction to Animate CC</td>
<td></td>
</tr>
<tr>
<td>or ICT 4561</td>
<td>Web Development with PHP</td>
<td></td>
</tr>
<tr>
<td>or ICT 4570</td>
<td>Web Scripting with JavaScript</td>
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### Elective requirements (Choose two courses):

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>GIS 4080</td>
<td>Python Programming</td>
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<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
<td></td>
</tr>
<tr>
<td>ICT 4300</td>
<td>Web Enabled Information Systems</td>
<td></td>
</tr>
<tr>
<td>ICT 4305</td>
<td>Object-Oriented Methods</td>
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</tr>
<tr>
<td>ICT 4310</td>
<td>Client-Server Applications</td>
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</tr>
<tr>
<td>ICT 4315</td>
<td>Object-Oriented Programming</td>
<td></td>
</tr>
<tr>
<td>ICT 4351</td>
<td>.NET Programming with C#</td>
<td></td>
</tr>
<tr>
<td>ICT 4361</td>
<td>Java Programming</td>
<td></td>
</tr>
<tr>
<td>ICT 4400</td>
<td>Database Administration</td>
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</tr>
<tr>
<td>ICT 4405</td>
<td>Database Design &amp; Programming</td>
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</tr>
<tr>
<td>ICT 4505</td>
<td>Website Design and Management</td>
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<tr>
<td>ICT 4515</td>
<td>Usability Design for Websites</td>
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<tr>
<td>ICT 4540</td>
<td>XML and Data in Application Development</td>
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</tr>
<tr>
<td>ICT 4555</td>
<td>Introduction to Animate CC</td>
<td></td>
</tr>
<tr>
<td>ICT 4560</td>
<td>Web Graphics Production</td>
<td></td>
</tr>
<tr>
<td>ICT 4561</td>
<td>Web Development with PHP</td>
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</tr>
<tr>
<td>ICT 4570</td>
<td>Web Scripting with JavaScript</td>
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</tr>
<tr>
<td>ICT 4585</td>
<td>Web Development with Ruby on Rails</td>
<td></td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
<td></td>
</tr>
<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
<td></td>
</tr>
<tr>
<td>ICT 4695</td>
<td>Application Security</td>
<td></td>
</tr>
<tr>
<td>ICT 4840</td>
<td>Next Generation Wireless Networks and Services</td>
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</table>

Total Credits: **24**

Minimum number of credits required: **24**

# Certificate in Information and Communications Technology with a Concentration in Project Management

## Program Requirements

### Concentration requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4105</td>
<td>Project Contracts and Procurement</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4110</td>
<td>Project Management Tools and Techniques</td>
<td>4</td>
</tr>
<tr>
<td>ICT 4115</td>
<td>Project Management Dynamics</td>
<td>4</td>
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### Elective requirements (Choose two courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
<td></td>
</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td></td>
</tr>
<tr>
<td>ICT 4015</td>
<td>Managing Technology for Strategic Value</td>
<td></td>
</tr>
<tr>
<td>ICT 4020</td>
<td>Business Forecasting and Planning</td>
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Total Credits: **24**
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ICT 4045</td>
<td>Information Technology Service Assurance</td>
</tr>
<tr>
<td>ICT 4155</td>
<td>Strategic Alliances in the Technology Sector</td>
</tr>
<tr>
<td>ICT 4160</td>
<td>Advanced Methods for Complex Projects</td>
</tr>
<tr>
<td>ICT 4165</td>
<td>Project Collaboration with SharePoint</td>
</tr>
<tr>
<td>ICT 4170</td>
<td>Agile Techniques and Practices in Project Management</td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
</tr>
<tr>
<td>ICT 4685</td>
<td>Cloud and Internet Law</td>
</tr>
<tr>
<td>ICT 4815</td>
<td>Managing Global Telecommunications Projects</td>
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</table>

Total Credits: 24

Minimum number of credits required: 24

## Certificate in Information and Communications Technology with a Concentration in Software Design and Programming

### Program Requirements

#### Concentration requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ICT 4300</td>
<td>Web Enabled Information Systems</td>
</tr>
<tr>
<td>ICT 4305</td>
<td>Object-Oriented Methods</td>
</tr>
<tr>
<td>ICT 4310</td>
<td>Client-Server Applications</td>
</tr>
<tr>
<td>ICT 4315</td>
<td>Object-Oriented Programming</td>
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</table>

Elective requirements (Choose two courses):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ICT 4000</td>
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</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
</tr>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
</tr>
<tr>
<td>ICT 4351</td>
<td>.NET Programming with C#</td>
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<td>ICT 4361</td>
<td>Java Programming</td>
</tr>
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<td>ICT 4400</td>
<td>Database Administration</td>
</tr>
<tr>
<td>ICT 4405</td>
<td>Database Design &amp; Programming</td>
</tr>
<tr>
<td>ICT 4505</td>
<td>Website Design and Management</td>
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<tr>
<td>ICT 4510</td>
<td>Advanced Website Design and Management</td>
</tr>
<tr>
<td>ICT 4540</td>
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</tr>
<tr>
<td>ICT 4555</td>
<td>Introduction to Animate CC</td>
</tr>
<tr>
<td>ICT 4561</td>
<td>Web Development with PHP</td>
</tr>
<tr>
<td>ICT 4570</td>
<td>Web Scripting with JavaScript</td>
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<tr>
<td>ICT 4576</td>
<td>Native Application Development with Adobe AIR on Mobile Devices</td>
</tr>
<tr>
<td>ICT 4580</td>
<td>Mobile Application Development with Web Standards</td>
</tr>
<tr>
<td>ICT 4585</td>
<td>Web Development with Ruby on Rails</td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
</tr>
<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
</tr>
<tr>
<td>ICT 4695</td>
<td>Application Security</td>
</tr>
<tr>
<td>GIS 4080</td>
<td>Python Programming</td>
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Total Credits: 24

Minimum number of credits required: 24

## Certificate in Information and Communications Technology with a Concentration in Technology Management

### Program Requirements

#### Concentration requirements

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ICT 4015</td>
<td>Managing Technology for Strategic Value</td>
</tr>
<tr>
<td>ICT 4020</td>
<td>Business Forecasting and Planning</td>
</tr>
<tr>
<td>ICT 4025</td>
<td>Technology and Innovation Management</td>
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Total Credits: 24

Minimum number of credits required: 24
ICT 4100  Principles of Project Management  4

**Elective requirements (Choose two courses):**

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<th>Course Title</th>
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<tbody>
<tr>
<td>ICT 4000</td>
<td>ICT Business Foundations</td>
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<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
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<td>ICT 4045</td>
<td>Information Technology Service Assurance</td>
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<tr>
<td>ICT 4105</td>
<td>Project Contracts and Procurement</td>
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<tr>
<td>ICT 4110</td>
<td>Project Management Tools and Techniques</td>
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<td>Project Management Dynamics</td>
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<tr>
<td>ICT 4165</td>
<td>Project Collaboration with SharePoint</td>
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<tr>
<td>ICT 4170</td>
<td>Agile Techniques and Practices in Project Management</td>
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<td>ICT 4605</td>
<td>IS Security Principles</td>
</tr>
<tr>
<td>ICT 4685</td>
<td>Cloud and Internet Law</td>
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<tr>
<td>ICT 4815</td>
<td>Managing Global Telecommunications Projects</td>
</tr>
<tr>
<td>COMM 4324</td>
<td>Web Analytics</td>
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</tbody>
</table>

Total Credits: 24

Minimum number of credits required: 24

**Certificate in Information and Communications Technology with a Concentration in Telecommunications Technology**

**Program Requirements**

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ICT 4800</td>
<td>Network Communications and the Internet</td>
</tr>
<tr>
<td>ICT 4830</td>
<td>Broadband Wireless Networks</td>
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<td>ICT 4840</td>
<td>Next Generation Wireless Networks and Services</td>
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<td>Network Security with Lab</td>
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**Elective requirements (Choose two courses):**

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<tbody>
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<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
</tr>
<tr>
<td>ICT 4015</td>
<td>Managing Technology for Strategic Value</td>
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<tr>
<td>ICT 4020</td>
<td>Business Forecasting and Planning</td>
</tr>
<tr>
<td>ICT 4045</td>
<td>Information Technology Service Assurance</td>
</tr>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
</tr>
<tr>
<td>ICT 4155</td>
<td>Strategic Alliances in the Technology Sector</td>
</tr>
<tr>
<td>ICT 4160</td>
<td>Advanced Methods for Complex Projects</td>
</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
</tr>
<tr>
<td>ICT 4610</td>
<td>TCP/IP Networks</td>
</tr>
<tr>
<td>ICT 4685</td>
<td>Cloud and Internet Law</td>
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<tr>
<td>ICT 4815</td>
<td>Managing Global Telecommunications Projects</td>
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<td>ICT 4835</td>
<td>Advanced Network Technologies</td>
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<td>GIS 4520</td>
<td>GIS in Telecommunications</td>
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</table>

Total Credits: 24

Minimum number of credits required: 24

**Certificate in Information and Communications Technology with a Concentration in Web Design and Development**

**Program Requirements**

**Concentration requirements**
### ICT 4300
Web Enabled Information Systems

### ICT 4505
Website Design and Management

### ICT 4510
Advanced Website Design and Management

### ICT 4515
Usability Design for Websites

**Elective requirements (Choose two courses):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
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<td>ICT Business Foundations</td>
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</tr>
<tr>
<td>ICT 4005</td>
<td>ICT Technical Foundations</td>
<td></td>
</tr>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
<td></td>
</tr>
<tr>
<td>ICT 4305</td>
<td>Object-Oriented Methods</td>
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</tr>
<tr>
<td>ICT 4310</td>
<td>Client-Server Applications</td>
<td></td>
</tr>
<tr>
<td>ICT 4405</td>
<td>Database Design &amp; Programming</td>
<td></td>
</tr>
<tr>
<td>ICT 4540</td>
<td>XML and Data in Application Development</td>
<td></td>
</tr>
<tr>
<td>ICT 4555</td>
<td>Introduction to Animate CC</td>
<td></td>
</tr>
<tr>
<td>ICT 4560</td>
<td>Web Graphics Production</td>
<td></td>
</tr>
<tr>
<td>ICT 4561</td>
<td>Web Development with PHP</td>
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</tr>
<tr>
<td>ICT 4570</td>
<td>Web Scripting with JavaScript</td>
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</tr>
<tr>
<td>ICT 4576</td>
<td>Native Application Development with Adobe AIR on Mobile Devices</td>
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<tr>
<td>ICT 4585</td>
<td>Web Development with Ruby on Rails</td>
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</tr>
<tr>
<td>ICT 4605</td>
<td>IS Security Principles</td>
<td></td>
</tr>
<tr>
<td>ICT 4680</td>
<td>Principles of Cryptography</td>
<td></td>
</tr>
<tr>
<td>ICT 4695</td>
<td>Application Security</td>
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<tr>
<td>COMM 4324</td>
<td>Web Analytics</td>
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</tr>
<tr>
<td>GIS 4080</td>
<td>Python Programming</td>
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</tr>
</tbody>
</table>

**Total Credits:** 24

**Minimum number of credits required:** 24

### Courses

**ICT 4000 ICT Business Foundations (4 Credits)**
This course provides an overview of the relationships between business needs and Information & Communications Technology solutions. The course focuses on fundamental attributes of business research and analysis in the ICT field. Applying appropriate research methods is a critical course requirement. Students demonstrate the critical skills required to define a problem, establish a business and technical context, perform appropriate research, propose and analyze alternative solutions, identify decision criteria, and make recommendations based on such considerations as benefits, technical feasibility, costs, risks, and resources. Students assess the relevance of research findings, considering the credibility of the source, relevance to the research question, and validity of the underlying data. Taking into account current industry trends and customer/user needs, students apply the product development process to create a product or service proposal, including business requirements and a detailed business case. The course establishes the professional and academic framework for the ICT master's degree program, setting a relevant industry context for all ICT concentrations.

**ICT 4005 ICT Technical Foundations (4 Credits)**
This course provides a substantive review of the technology at the core of the ICT industry. Coverage includes hardware, networking technology, databases, information services, applications, and content in an enterprise context. The application development process is briefly reviewed. A framework is developed around data at rest, data in transit, and data being processed. This framework is used to detail the roles of a variety of hardware and software artifacts, and their use in the production, processing, protection, and use of organizational information. The role of the ICT user interface and web systems in providing user access to content anytime anywhere is reviewed. The security requirements associated with a variety of information types are introduced, along with the current best practices used in information security.

**ICT 4010 Enterprise Architecture (4 Credits)**
In this course, students learn how to effectively and efficiently integrate information and communications technologies to support business goals. The course provides an overview of the global, enterprise-wide architectural framework that drives business decisions regarding selection and implementation of ICT systems and solutions. Topics include supporting and transforming Global Value Chains, e-business designs; creating enterprise architecture; and the various methodologies, tools and techniques used in the design and implementation of the enterprise architecture. The course encompasses all aspects of information and communications technology, including data networks, applications, operating systems, database systems, telecommunications systems, and hardware components in the context of a total enterprise-wide framework.
ICT 4015 Managing Technology for Strategic Value (4 Credits)
In this course, students acquire an in-depth understanding of the key management skills necessary to manage technology for strategic value. It concentrates on providing in-depth knowledge of strategic planning, the role of technology in business, and business process automation. It also provides students with the management skills and tools to prioritize technology investments, and manage technology products and projects. Topics include strategic planning and business alignment, managing business applications, business process automation, the role of web 2.0 in business processes, technology management, budgeting and capital investment prioritization, and build/buy decision-making in regards to custom-built and off-the-shelf solutions.

ICT 4020 Business Forecasting and Planning (4 Credits)
Business forecasting and planning brings together a wide diversity of skills: economic, financial, marketing, and technical analysis. This course brings together these concepts and extends prior coursework with coverage of budgeting, finance, costing, business planning, revenue forecasting, profit and loss statements, and balance sheet analysis as applied to information systems and services. Coverage includes the economics of software and other intellectual property, network effects, usage and sharing effects, sunk costs and monopoly effects, capacity and resource planning issues, and an introduction to the related regulatory issues. Students develop budgets or business plans for several increasingly difficult scenarios addressing a range of technology applications and services.

ICT 4025 Technology and Innovation Management (4 Credits)
Leaders of innovative firms build commitment to new directions, re-design structures to support new missions, and transform cultures. This course concentrates on the implementation of business strategy through effective structures and systems. Students learn why only 7% of companies are able to revitalize their organization once growth has stalled; students also learn what to do about it. Students analyze key aspects of strategic deployment, including organizational structure, cross-functional teams, product development, business model design, and change management. The course concludes with students developing a strategy for implementing an innovation. In this course students integrate the areas of knowledge covered in the ICT Foundations courses and the Technology Management concentration. It should be taken as the last of the four required courses in the Technology Management concentration. Prerequisites: ICT 4010, ICT 4015, ICT 4020, ICT 4100.

ICT 4045 Information Technology Service Assurance (4 Credits)
In today's technology-centric work environment, simply delivering IT services is no longer sufficient. Organizations must provide "assurance" that IT services and the underlying data assets are reliable, highly available and secure. IT Service Assurance or IT Quality Assurance includes many functions including IT service delivery, service level management, quality assurance testing and monitoring, change and release management, project management, security, and compliance, all within a risk management framework. This course evaluates these functions as integrated components of a service assurance program and their impact on the organization. It also investigates how service assurance is intertwined with the strategic and tactical initiatives of the organization. The use of case studies and actual IT related challenges and opportunities are utilized to anchor the course concepts. The combined in-class meetings and online course structure lend itself to ongoing interaction, collaboration, and sharing of ideas.

ICT 4100 Principles of Project Management (4 Credits)
This course is designed to provide students with practical skills in project management and the students who are continuing in the Project Management course sequence with a framework for the concepts and tools covered in the remainder of the program. The various elements of the project management processes, tools and techniques are explored, applying the software used in managing projects. Topics include a review of processes to initiate, plan, execute, monitor and control, and close a project. Project integration, scope (including requirements), time, cost management, and planning human resources are emphasized. Students learn project management skills through hands-on exercises using project management tools and techniques and project management software to emphasize the real world of managing a project.

ICT 4105 Project Contracts and Procurement (4 Credits)
This course is designed to provide students with practical skills in project contracts and procurement. This course introduces the various elements of the contract and procurement process, including exposure to procurement plans, Request for Information (RFI), Request for Quote (RFQ) and Request for Proposal (RFP), as well as the various types of contracts and change order procedures. The course builds upon the framework from the remainder of the program. Topics include how to develop a procurement plan, what type of RFs to use and why, selection criteria for vendors, and contract selection. Students learn project management skills through hands-on exercises developing procurement plans, RFX's and contracts. No prerequisites.

ICT 4110 Project Management Tools and Techniques (4 Credits)
This course introduces students to project risk and quality management and develops advanced skills in applying the project management tools and techniques learned in ICT 4100 (prerequisite course). A focused examination of scheduling, cost, quality, and risk management processes using advanced tools and techniques is included. Emphasis is placed on the project planning, execution, and monitoring and controlling processes. This course is on the Project Management Institute's (PMI) certification track. Prerequisite: ICT 4100 or equivalent knowledge.

ICT 4115 Project Management Dynamics (4 Credits)
This is an advanced course that applies the knowledge and skills learned in the prerequisite courses to a complex program. The planning, monitoring and controlling, and project close process groups are explored using case analyses of program and project plans. Learning is based on reading case material and the practical application of project management tools and techniques. Students receive hands on simulation experiences in planning and running subprojects, and work in Project Management Office (PMO) roles. Students develop a workable change management system, exercise project integration and communication skills, and demonstrate the ability to keep an overall program on track. They also demonstrate decision making skills, with emphasis on making tradeoffs based on solid business rationale. This course is on the Project Management Institute's (PMI) certification track. Prerequisites: ICT 4100 and ICT 4110.
ICT 4120 Lean Six Sigma—Getting Started (4 Credits)
Students use Lean tools and techniques to define and scope a problem, determine project objectives and benefits, and create a project charter. The students also learn to define the 'as is' process, validate the measurement system and measure outputs, and quantify process performance.

ICT 4125 Lean Six Sigma—Analyze (4 Credits)
Students apply Lean tools and techniques to identify potential causes (x's), investigate the significance of x's, identify significant causes, and provide a preliminary definition of process outcomes as a function of causes [y=f(x)].

ICT 4130 Lean Six Sigma: Improve and Control (4 Credits)
Students apply Lean tools and techniques to generate potential solutions, select and test a solution, develop an implementation plan, and create a control and monitoring plan. The students also learn the methods and techniques for implementing a full scale solution and finalizing transition.

ICT 4155 Strategic Alliances in the Technology Sector (4 Credits)
Strategic alliances are key drivers of business success in today's global economy and have gradually replaced vertical integration as the chief method of expansion. Business-to-business alliances provide organizations with a variety of benefits, including enhancing the capability of organizations and help to extract maximum value from available resources. While applicable to any industry, strategic alliances are particularly important in the technology sector. This course defines and discusses the roles of various types of strategic alliances in the technology sector, including informal alliances, partnerships, joint ventures, and outsourcing arrangements. It also explores strategies for managing profitably and exploring these external business relationships. Case studies are an integral part of the learning experience. Successful alliances such as the Apple-AA&T, Microsoft-Infosys, and Cisco-Intel are analyzed from the perspective of each party, 3rd party vendors, customers, and a variety of other stakeholders. Examples of unsuccessful alliances and the costs and benefits of foregoing alliance participation are also explored. No prerequisites.

ICT 4160 Advanced Methods for Complex Projects (4 Credits)
This course explores the planning and execution challenges that often cause complex projects to fail. The course provides a historical perspective regarding project management practices, and reviews evidence regarding trends in project outcomes. For example, despite the use of commonly accepted methods for project management and systems engineering, the success rate of NASA and DoD programs, as measured by schedule, budget, and requirements performance, is trending downward. The evidence shows similar trends in commercial industries (e.g., the Airbus A380 and Boeing 787 aircraft programs). The course addresses why the methods embodied in the Project Management Institute's (PMI) A Guide to the Project Management Body of Knowledge (PMBOK Guide) are sometimes insufficient to assure project success. The course then explores remedies drawn from recent research and cases in complex systems development and global teaming case studies. The instructor will host online reviews of readings and discussion. Students will learn and leverage visual modeling and simulation tools for the design of complex projects. Participation is voluntary, but recommended. Methods to handle complex, concurrent, and mutual dependencies across organizations and cultures will be applied. Based on case studies, the instructor will introduce Project Design methods, including student access to TeamPort project modeling and simulation software. The course culminates with teams in an online role play exercise to demonstrate collaborative planning and decision-making using these advanced methods. This exercise will require dedicated, synchronous interaction with other team members. Prerequisite: ICT 4100 or equivalent experience.

ICT 4165 Project Collaboration with SharePoint (4 Credits)
This course focuses on the role of collaboration as a critical success factor in project planning and execution. Complex projects typically entail cross-functional teams that are often geographically distributed, culturally diverse, and require collaboration across both organizational and corporate boundaries. This course covers best collaboration practices and the use of collaborative websites to facilitate communication, create shared understanding of processes and deliverable, and apply tools to achieve successful project completion. Hands-on assignments are used to illustrate how collaborative sites allow a project team to post, edit and jointly work on documents of all types, such as project charters, project plans, WBS, requirements, budgets, schedules, procurement activities and closeout activities. Students collaborate within the course to learn how collaborative sites can be used to control project documentation and enforce the security levels associated with those documents. Students also learn how these sites can be used for such activities as assigning tasks, building a project calendar, setting up logs for gathering information, and performing other typical project management duties. The lab portion of the courses uses SharePoint as a template and shows how to set up a site to create folders, lists, tasks lists, calendars, and set the associated security levels. A SharePoint site is created for each student and students have access to both the class site and their individual sites.

ICT 4170 Agile Techniques and Practices in Project Management (4 Credits)
Is the Agile vs. traditional project management debate over? At least in the world of software development, the debate is largely over, as evidenced by the widespread adoption of Agile methods. For example, according to Gartner, in 2012 Agile development methodologies will be used in 80 percent of all software development projects. As the term implies, however, the techniques and best practices for the successful application of Agile project management processes are not static, they will continue to evolve. And, Agile principles and practices are used across many project domains, each with their own unique characteristics and challenges. So, best Agile project management practices will continue to be dynamic. The Agile debate is now turning from the tactical to the strategic. Realizing the full benefits of Agile (e.g., faster time to market, improved responsiveness to customers, higher quality, and greater efficiency), means more than improving project execution. It requires transforming the business into an Agile enterprise. This course examines both the Agile processes and practices for delivering projects, and the cultural and programmatic challenges encountered in transforming the business into an Agile enterprise. The course content, in addition to reading assignments, uses practical assignments such as case studies, projects, and simulations to provide applied experience with Agile practices.
ICT 4305 Object-Oriented Methods (4 Credits)
This course introduces the object-oriented view of software analysis, modeling, and design. It defines all of the relevant concepts needed to understand the paradigm. A complete graphical notational scheme is taught for the purpose of diagramming objects and object interactions. The course covers the design, evolution, modification, and test/verifications phases of object-oriented development in some depth. Since project management plays a key role in the success of object-oriented development, its relation to the development process is discussed. The course also surveys the various object-oriented languages and tools available.

ICT 4310 Client-Server Applications (4 Credits)
This course provides a practical introduction to client-server applications and programming. The course examines key aspects of client-server computing such as systems requirements for operating systems, middleware, networks, servers and clients. The course develops the student's understanding of alternative client-server architectures to meet business requirements, the selection of application development tools, and the use of object-oriented analysis and design practices to implement client-server applications. Students also develop client applications using a variety of techniques. Prerequisite: ICT 4300.

ICT 4315 Object-Oriented Programming (4 Credits)
This course covers modern programming techniques using object-oriented methods. The course familiarizes the student with development tools and the syntax of a programming language by developing simple programs that use control flow techniques and basic input/output techniques. Basic methods to harden code against malicious attack are introduced, and basic verification techniques presented. Prerequisites: ICT 4300 and ICT 4305.

ICT 4351 .NET Programming with C# (4 Credits)
Students identify and describe the fundamentals of the .NET architecture, explain various .NET components, their respective responsibilities and functions, identify and explain .NET design issues and development solutions; identify and describe the fundamental .NET components; explain CLR execution, and have some familiarity with predominant .NET languages.

ICT 4361 Java Programming (4 Credits)
This course enhances the student's experience in object-oriented design and software development by performing and discussing object-oriented design for re-use of general purpose applications and small Java applications, including using the Java Collection API and Swing user interface classes. Topics include the use of Java as an object-oriented programming language, including encapsulation, simple inheritance, and polymorphism; design of Java classes using Java interfaces and packages; implementation of design patterns in working Java code; and use of Java Base Classes. The course also addresses the use of JAVA IDEs such as Eclipse and NetBeans. Note: This course does not address JavaScript. Prerequisites: ICT 4300, ICT 4305, ICT 4315.

ICT 4400 Database Administration (4 Credits)
This course introduces the roles and responsibilities, as well as the critical knowledge and skills needed to function as a database administrator. The course focuses on Oracle and Microsoft SQL Server, the two dominant global database platforms. Core components include installation and configuration of both database products and implementation of appropriate account privileges. Lab environments are used for hands-on lab assignments in the course, as well as in subsequent courses in the ICT Database Design and Administration concentration. Primary job responsibilities of database administrators are examined, including monitoring, maintaining, and administering database platforms and schemas, while applying best practices in database security. Broader topics, such as metadata, business intelligence, and data warehousing are examined from an organizational perspective. Prerequisite: ICT 4300.

ICT 4405 Database Design & Programming (4 Credits)
This course concentrates on the relational DB model and the conceptual, logical, and physical phases of database design and development. Entity-relationship modeling, data normalization to third normal form, and Structured Query Language programming are core components of the class. It includes additional data modeling techniques and upper Normal Forms (Boyce/Codd, Fourth, and Fifth). It delves into the concepts of database integrity and transaction management, concurrency protocols (locking and time stamping), and security schemes. In addition, emerging data warehouse technologies are introduced. Prerequisites: ICT 4300, ICT 4400.

ICT 4410 Data Warehousing Design (4 Credits)
Organizations with vision and courage are gaining competitive advantage by implementing data warehouses. Under the guidance of an executive sponsor, a team of data administrators, database specialists, and organizational analysts creates these contemporary decision support environments. Building a data warehouse is fundamentally different than building a subject area database for an operational system. In this course students use such data warehouse (DW) concepts as partitioning, granularity, record of source, and metadata as they learn how to build a viable decision support environment. Students further their understanding of such topics as architect development, data migration and integration, use of operational data stores, and transactional systems.
ICT 4415 Database Backup and Recovery with Lab (4 Credits)
This course explores basic database backup and recovery strategies and tactics using an Oracle database system. Topics include preparing backup, recovery and disaster plans, and performing complete and incomplete database recoveries using the Oracle Export/Import utility. Using hands-on activities and labs, students also gain experience with Oracle troubleshooting utilities, RMAN architecture and setting up Oracle standby databases. Prerequisites: ICT 4300, ICT 4400, ICT 4405.

ICT 4451 Database Programming: Oracle PL/SQL (4 Credits)
This course builds on ICT 4405 Database Design and Programming, allowing students to transform a database schema design into a database application prototype using Oracle’s PL/SQL. Topics include advanced SQL DDL, DML, and scripting, PL/SQL constructs, stored procedures, modular design and development, software development processes, views, sequences, cursors, dynamic SQL, error handling, locking, as well as performance and tuning, and database security. Using virtual E-Labs, students design and develop a database and related PL/SQL applications.

ICT 4461 SQL Server with Lab (4 Credits)
This course is an introduction to Microsoft SQL Server for both the DBA and Developer. The key new features of SQL Server are introduced and explored, and the various editions of SQL Server are contrasted. In-depth coverage is provided on how to use the new Microsoft SQL Server Management Studio for both administrative and development tasks. Special emphasis is given to query optimization techniques. An introduction to SQL Integration Services, SQL Analysis Services and SQL Reporting Services is also presented. Prerequisites: ICT 4300 and ICT 4405.

ICT 4462 Transact - SQL Programming (4 Credits)
Transact-SQL is the primary programming interface between applications and the Microsoft SQL Server database. Transact-SQL can be sent from programs or applications to the SQL Server database or can be built into reusable database stored procedures. This course focuses on Transact-SQL in a stored procedure context. Topics include: basic and advanced SQL, SQL functions, stored procedure declaration and execution, cursors, temp tables, error handling, transaction management, security, and performance issues. The course uses a combination of lecture, textbook reading assignments, and hands-on lab assignments to meet its objectives.

ICT 4485 NoSQL Databases (4 Credits)
Relational database systems have been dominant in the market for over forty years, and remain so today. However, the emergence of distributed and cloud computing, as well as the increasing need for storage of large databases (i.e., big data, such as human genome, Google search engine, social media data, Large Hadron Collider), have created the need for alternate data storage solutions. A number of different models/database management systems have been developed, that as a group are being referred to as NoSQL databases. A number of large, well-known companies use such databases, including Google, Amazon, Facebook, Twitter, Adobe, MTV, LexisNexis, the New York Times, Forbes and Netflix. Some companies use more than one variety of NoSQL databases. This course examines different non-relational (NoSQL) data models, such as Key-Value, Document, Column, Graph and the Object-Oriented database models. Students learn about advantages and disadvantages of the different approaches. This class includes hands-on experience with a representative sample of NoSQL databases. Computing developments that spurred the existence of NoSQL databases, such as big data, distributed, and cloud computing are also discussed. Prerequisites: ICT 4300 and ICT 4405.

ICT 4450 Website Design and Management (4 Credits)
This course builds on ICT 4405 Database Design and Programming, allowing students to transform a database schema design into a database application prototype using Oracle’s PL/SQL. Topics include advanced SQL DDL, DML, and scripting, PL/SQL constructs, stored procedures, modular design and development, software development processes, views, sequences, cursors, dynamic SQL, error handling, locking, as well as performance and tuning, and database security. Using virtual E-Labs, students design and develop a database and related PL/SQL applications.

ICT 4405 Website Design and Management (4 Credits)
This course extends student web design and development skills, and includes advanced HTML techniques and enhanced page design capabilities using CSS. The key to great web design is rooted in a solid foundation, which requires a plan or a “blueprint”. We explore best-practices in information architecture (IA) and how to incorporate user-centered design (UCD) techniques as a standard practice in web design. Students also develop an understanding and working knowledge of Cascading Style Sheets (CSS). Through the use of readings, examples, hands-on projects, and discussions the class builds an understanding of the foundations and applications of user-centered design to plan, build and manage a website. Through participation in a project and regular discussions, class members experience working as active and contributing members of the class and knowledge-building community. Prerequisite: ICT 3500, ICT 4300 or equivalent experience.

ICT 4510 Advanced Website Design and Management (4 Credits)
This course explores advanced techniques for web programming using current client-side web technologies. Use of JavaScript, jQuery and Ajax are covered. HTML5 technologies such as Forms, Local Storage and Web workers are introduced. Students create an interactive website. This is a hands-on course where students apply what they learn as they learn it. Students demonstrate mastery of the materials by applying the principles introduced in class to laboratory exercise, class discussions, and projects. Prerequisite: ICT 4505.

ICT 4515 Usability Design for Websites (4 Credits)
This course expands the student’s basic knowledge of Web page and website development (ICT 4505) by providing in-depth understanding of how to design Web applications with the user in mind. Students gain knowledge about how the fields of human factors engineering and psychology (e.g., visual perception, cognition, learning, and memory) relate to usability design as well as how usability assessments are conducted. Usability guidelines, design problems and design strengths, and best practices for common functions such as Web navigation, menus, scrolling, graphics and icons are explored. The class is a combination of lectures and lab experiences, culminating in the student’s developing a website, conducting a usability evaluation, and reporting on the results and recommendations from the evaluation.
ICT 4540 XML and Data in Application Development (4 Credits)
XML is an open, text-based markup language that provides structural and semantic information to data. This "data about data," or metadata, provides meaning and context to the application using it, and supports manipulation and display. The course focuses on techniques to make this data useful for business applications, as well as for browser display. Hands-on experience with the XML formats and manipulation, which includes programming techniques, forms the weekly assignments, culminating in a summary project. Other standards, such as JSON, are discussed, as well as use of CSS for display of XML data. Some JavaScript is introduced to illustrate the document model and techniques for integration of data. Prerequisites: Students should have familiarity with constructing HTML web pages and data concepts. Familiarity with a data manipulation or programming language will be helpful.

ICT 4555 Introduction to Animate CC (4 Credits)
This course introduces students to rich media design, animation, and interactive development for the web, desktop, mobile, and more using Adobe Animate CC. Students learn the fundamentals of working in the Adobe Animate CC authoring environment to produce web assets, small animations, and basic interactive modules for multiple target platforms.

ICT 4560 Web Graphics Production (4 Credits)
This course introduces the fundamental concepts and techniques of digital graphics creation and image processing for both online publication and website interface design. Students learn the basics of correcting and modifying images, bitmap painting tools, vector drawing tools, typography, masking, web production techniques, and advanced image compositing. Integration of images and generated code into a website layout employing CSS is also covered.

ICT 4561 Web Development with PHP (4 Credits)
This course introduces students to programming Web applications using PHP and MySQL. Topics include processing form data, file uploads, object-oriented programming and database access. Students leverage a PHP framework and learn to install and configure a local development environment to test and develop their Web applications. Prerequisite: ICT 4510 or previous programming experience.

ICT 4570 Web Scripting with JavaScript (4 Credits)
This course presents students with the principles necessary to design and develop client-side scripts used to build dynamic websites and applications. JavaScript concepts such as data types, control structures, functions and objects are discussed. Students learn how to write beginner and intermediate scripts. In addition, students are introduced to advanced JavaScript topics, including module development, distributed computing and security. Students are presented with real world examples of JavaScript and build an interactive and dynamic client-side application. Technologies covered in the course include JavaScript/ECMAScript, JQuery (a JavaScript library), JSON (a JavaScript-friendly data format), JavaScript as the J in AJAX, and JavaScript in HTML5 form interaction and validation. Prerequisite: Knowledge of HTLM, ICT 4505, or previous programming experience.

ICT 4576 Native Application Development with Adobe AIR on Mobile Devices (4 Credits)
During this course students learn how to use a set of languages and tools to build business and media-centric applications that run on mobile devices such as laptops, tablets, smartphones, and eReaders running on Windows, MAC OS, iOS, and Android. This course illustrates best practices for reusing code, structuring projects, and submitting applications to app stores. Throughout the course students utilize an IDE such as FDT or IntelleJ, MXML, and ActionScript to build cross-device native applications. Students also learn how to add functionality to their Adobe AIR native applications by leveraging third party Native Extensions to access native features. Prerequisite: ICT 4300 or previous programming experience.

ICT 4580 Mobile Application Development with Web Standards (4 Credits)
This course enables students to take advantage of web standards (HTML5, CSS3, JavaScript) along with various popular frameworks and tools in the generation of both mobile web applications for the browser and packaged mobile applications for devices. We examine the fundamentals behind good user and interaction design when targeting mobile devices and see what is appropriate for implementation on these platforms. We also employ a popular cross-compilation tool to perform distribution onto multiple platforms. Prerequisite: previous programming experience.

ICT 4585 Web Development with Ruby on Rails (4 Credits)
Ruby is a dynamic, general-purpose, object-oriented programming language that has an associated web application framework, Rails. The Ruby on Rails (RoR) web application paradigm is powerful and flexible, and has been widely adopted by other frameworks. It allows for the rapid and agile creation of dynamic web applications with little of the overhead associated with other approaches. The student learns how to quickly develop, test, and deploy dynamic web applications using RoR. The student also learns how to manage both the user experience and a backend database from within the RoR framework. Prerequisite: ICT 4510 or previous programming experience.

ICT 4605 IS Security Principles (4 Credits)
This is a comprehensive Information Systems Security management course covering the ten basic principles of Information Assurance and Information System Security. The course follows the Common Body of Knowledge (CBK) convention established by the International Information System Security Certification Consortium, Inc. (ISC)2. This course serves as an introduction to the ten domains of information systems security with the emphasis on management issues. It provides the foundation of information systems security and the methodologies that organizations apply to analyze and achieve their security goals. Students learn about significant computer security laws and regulations, the development of effective security policies, system access controls, network security, encryption and security models. The course also covers specific security measures to include, but not limited to, physical security controls, network security, telecommunications, and cryptography. Information covered includes contemporary issues of computer crime and contingency planning. A systems approach to security issues to analyze and develop solutions is emphasized. All topics are discussed in the context of a total enterprise-wide framework. Prerequisite: ICT 4300.
ICT 4610 TCP Networks (4 Credits)
This course explores the basic operation of the TCP/IP protocol stack including its history, development, current applications, and future implications. The full range of TCP/IP protocols from IP and TCP to basic RPC issues and application protocols such as SMTP, FTP, and HTTP are studied. Students also study TCP/IP capabilities, alternatives, and performance issues. Security-specific protocols including SSL and IPSec are examined along with the security aspects of all other protocols. Mechanisms for Internet connectivity for homes and businesses are also covered. Prerequisite: ICT 4005.

ICT 4615 Computer and Physical Security (4 Credits)
Controlling access to computers and controlling access to a building can no longer be viewed as two separate worlds. Today, IT access control and physical security need to be integrated if organizations are to be fully protected from threats. This course concentrates on seeing IT access control as integrated with physical security within an organization. Students investigate how various technologies and methodologies can work together to manage access to computer systems; how to manage elements of physical security; and the issues involved in creating a unified and complete enterprise security system. Security technologies to physically protect an organization’s people, facility and resources, access control techniques and administration, identification and authentication techniques and methods of attack are emphasized. Prerequisites: ICT 4300 and ICT 4605.

ICT 4670 Disaster Recovery and Operations Security (4 Credits)
This course focuses on the planning and operations security required to effectively recover from natural disasters and security attacks and to ensure the operations and integrity of computer systems and staff. Topics include defining continuity requirements, choosing appropriate recovery strategies and understanding the key elements of a continuity plan. Students create a Business Continuity Plan including business impact analysis, recovery strategies, and recovery plan implementation. The course also provides an understanding of controls over resources, facilities, hardware, systems, and the people who create, modify, and use them. Control mechanisms and operations security “best practices” are identified.

ICT 4675 Information Systems Security in Healthcare (4 Credits)
This course will introduce students to information security risks facing the healthcare industry. Students will learn how to better protect healthcare organizations and their patients’ data. Students will learn about recent security breaches, the impact of those breaches on healthcare organizations, and all of the key players involved. This course also covers the evolution of healthcare IT and the continuously evolving risk and regulatory landscape. Students will explore the regulations of HIPAA and how they relate to day-to-day operations in healthcare organizations. Additionally, this course will prepare students to support information security initiatives in order to protect the organization while furthering the advancement of healthcare IT capabilities. This is not a technical course, however we will be learning about how security is impacted by technology and what we must do across technology in order to secure our healthcare systems, our organizations, and our patients.

ICT 4680 Principles of Cryptography (4 Credits)
E-commerce has made cryptography a cornerstone of modern information systems security. Cryptology is one of the 10 domains required for the CISSP, and is a core component of all other recognized information security certifications. Surprisingly, it is the least understood of the information security disciplines. This course focuses on the terminology and concepts needed to understand how cryptographic techniques are used to protect sensitive information. Topics include: Advanced Encryption Standard (AES), the Secure Hash Algorithm (SHA), Digital Signatures and Message Authentication Codes, Diffie-Hellman Key Exchange, public key infrastructure (PKI), secure sockets layer (SSL), and IPSec among others. Lecture and reading materials are reinforced by hands-on experimentation with cryptographic software tools. Internet resources are used to tie the course material to current technology trends. No programming experience or advanced mathematical skills are required for this course. Prerequisite: ICT 4605.

ICT 4685 Cloud and Internet Law (4 Credits)
The legal ramifications of Cloud Computing, Cyber and Internet Law are effecting dynamic change in our country and all throughout the world. This course explores the laws of the new paradigm of Cloud Computing, Cyber and Internet Law and describes the types of issues and concerns that exist. Such issues include the civil and criminal laws, rules and regulation, privacy issues, contractual agreements between parties (on many levels from providers in numerous different states and countries), the impact of differing cultural standards and mores from all over the world, and legal methods of protecting companies from these issues and worries in the world of Cloud Computing, the Internet and Cyber Law.

ICT 4690 Computer Forensics with Lab (4 Credits)
This course is concerned with providing an overview of the methods and tools utilized for collecting and preserving electronic digital evidence for the computer forensic process; the forensic examination, analysis, and report writing; and preparing for courtroom testimony about the forensic results. The course is supplemented by hands-on exercises, case studies, and a moot court exercise in which each student will testify.

ICT 4695 Application Security (4 Credits)
In this course, students explore the security principles and practices that apply to application software development throughout the entire software development lifecycle (SDLC). Topics include characteristics of secure and resilient applications, proven best practices for secure software, and designing for security and resilience. The course also provides an overview of programming best practices. Other topics include testing custom application, testing off-the-shelf commercial applications, implementing development security methodologies, and evaluating the models used to measure the maturity of software development organizations. Prerequisites: ICT 4300 and ICT 4605.

ICT 4701 Topics in Information and Communication Technology (4 Credits)
From time to time a special topics course may be offered that addresses a new issue, a developing concept, industry trends, or new technology.
ICT 4800 Network Communications and the Internet (4 Credits)
This course focuses on the fundamental concepts and technologies of communications networks and the Internet, including the information theory that is the foundation of modern communication systems. It emphasizes application of these concepts to the analysis and design of network solutions to meet various service provider and IT business requirements. Topics include network media, communications protocols and standards, LAN and WAN network architectures, the Public Switched Telephone Network, and current trends in networking via the Internet. Network components, such as modems, routers, switches, and voice communications systems are analyzed. The various transport media of copper, fiber, and wireless infrastructures are compared. Critical thinking is emphasized via discussions of current and future trends in network technology, global regulatory and political issues in voice/data/video communications, and Internet governance. Prerequisite: ICT 3800 or equivalent experience.

ICT 4815 Managing Global Telecommunications Projects (4 Credits)
Set in the context of today’s convergence from the traditional telco/telephony world to next generation all-IP networks brought about by the Internet revolution, the course addresses managing across borders, cultures, time zones, and continents. In addition, the course explores managing conflicts of interest between carriers and over-the-top (OTT) players such as Apple, Google/Android and Skype. Related topics include the challenges and opportunities in vendor management between the old telco vendors of the West and their new competitors from the East. Finally, the course analyzes stakeholder management at the C- and SVP-level of the organization. A variety of assignments create opportunities for students to work in teams, and at other times to work individually on a set of real-world case studies derived from typical projects at leading global network operators and telecom vendors. This course applies project management best practices to the typical challenges faced by project managers in today’s fast-paced, complex and highly competitive global telecom industry. Case studies are used to exemplify core project management challenges at an advanced level. Prerequisites: two courses in any of the following areas: Project Management, Technology Management, Telecommunications Technology.

ICT 4830 Broadband Wireless Networks (4 Credits)
This course examines wireless telecommunication networks with an emphasis on key challenges and approaches to deal with the immense wireless data traffic explosion from devices such as the iPhone, iPad, Android smartphones and connected laptops, as well as services like VOIP and mobile video. The wireless telecom industry is studied from standards, carriers, and technology perspectives. The dominant wireless telecom technologies and protocols are presented, including OFDM, MIMO, mobile IP, WIMAX, LTE, and WPANs. The "triple play" convergence of voice, video, and data over wireless networks is analyzed. Voice over IP is also studied in reference to Quality of Service.

ICT 4835 Advanced Network Technologies (4 Credits)
Technological advancements in networking within the last few years are revolutionizing concepts of networking for both Enterprises and Service Providers. This course demystifies these latest advancements in network technologies. Topics include in-depth coverage of modern networking elements, network requirements, Network Virtualization Technologies, Software Defined Network (SDN), and Network Function Virtualization (NFV). Coverage of latest technology requirements includes elastic traffic, big data, mobility, QoS, QoE, and more. The course discusses SDN and NFV components, architecture, protocols, and use cases. Virtualization technologies include VLANs, OpenFlow, VPNs – IPSec and MPLS-based. The course emphasizes deep understanding, analyses, and evaluation of modern network architectures. Prerequisites: ICT 4800 (required), ICT 4830 (strongly recommended).

ICT 4840 Next Generation Wireless Networks and Services (4 Credits)
The rapid innovation in wireless networks that is at the center of today’s Information and Communication Technologies industry takes place in the three areas of broadband radio, core networks, and wireless services. This course focuses on the key next generation technologies at the core networks and service layers. First, the Internet Protocol Multimedia Subsystem (IMS) is examined, which is at the heart of many next generation deployments. Basic IMS architecture and important sample case studies are used to highlight core facets of modern network designs. At the service layer, this course explores wireless service architecture, including popular applications such as text (SMS), picture (MMS) and mobile instant messaging, consumer and enterprise mobile email, TV/video and mobile web services. Apple and Android mobile over-the-top (OTT) ecosystems are examined and a SWOT approach taken to analyze strengths, weaknesses, opportunities and threats of controlled vs. open application ecosystems. Finally, the conflict between OTT and network operator based deployment of wireless services is discussed, using pioneering applications such as Skype, FaceTime, and others as case studies. Prerequisite: ICT 4800 or departmental permission.

ICT 4845 Network Security with Lab (4 Credits)
This course examines the key broadband radio technologies at the center of today’s rapid innovation in wireless networks. Wireless telecommunications networks are studied with an emphasis on the challenges and the approaches to deal with the immense wireless data traffic explosion from devices such as the iPhone, iPad, Android smartphones and connected laptops, as well as broadband services like VOIP and mobile video. The dominant wireless telecom technologies and protocols are presented, including OFDM, MIMO, mobile IP, WIMAX, LTE, and WPANs. The “triple play” convergence of voice, video, and data over wireless networks is analyzed. The wireless telecom industry is studied from standards, carrier, and technology perspectives. Important radio network concepts are addressed, including network design, cell selections and traffic concepts, mobility handoff signaling, radio resources management, location updates, roaming, as well as authentication and encryption. Prerequisite: ICT 4800 or departmental permission.
ICT 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and who can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass.

ICT 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produce a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

ICT 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

ICT 4980 Internship (4 Credits)
The ICT internship is designed to offer students a practical educational experience in an industry-related setting. The internship is an individualized learning experience that is directly related to the knowledge and skills covered in the ICT master's degree program. Students are responsible for finding their own internship site and proposing their internship ideas. University College will send notification to all ICT students if they hear of internship possibilities. Students may also work through the DU career center to explore opportunities for internship experiences. The objectives, activities, responsibilities, and deliverables for the internship are defined in a training plan that is developed by the student jointly with the internship supervisor at the sponsoring organization. The training plan is approved by the academic director. Prerequisites: The student must be unconditionally accepted in the ICT degree program, have completed the Capstone Seminar in one quarter; no incomplete grades are assigned.

ICT 4991 Independent Study (1-4 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a for-credit basis.

ICT 4992 Directed Study (1-4 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Directed Study form and filed the form with all appropriate offices before registering for the directed study. Directed Study is offered only on a for-credit basis.

Transportation Institute at the University of Denver

Office: Transportation Institute at the University of Denver
Mail Code: 2400 S. Gaylord Street, Denver, CO 80208
Phone: 303-871-7449
Email: du-iti@du.edu
Web Site: http://www.du.edu/transportation/
Master of Science in Transportation Management

The University of Denver offers an MS in Transportation Management designed to prepare transportation professionals for leadership roles in the transportation, supply chain, and logistics industries, which are becoming increasingly intermodal, international, and interdependent. This professionally oriented degree combines a rigorous academic program delivered by highly qualified industry practitioners and faculty with insight from a board of directors composed of transportation industry leaders, thereby ensuring that course content remains relevant and current. Throughout the program, students learn to effectively address the wide-ranging management and business challenges facing today's global transportation industry while gaining an understanding of the broad range of transportation modes and options available to meet these challenges.

The program's unique format, a week-long, on-campus residency held each quarter for six consecutive quarters and a week-long international trip, allows students to continue working full-time while earning their graduate degree. It also affords students professional networking opportunities that offer significant professional advantages for the future. Upon earning a Master of Science in Transportation Management from the Transportation Institute at the University of Denver, program participants join a group of distinguished alumni who have gone on to play pivotal roles in the transportation industry.

Students will do the following as a part of the program:

- Create strategies to build and actively contribute to professional networks consisting of executive cohort members, board, and alumni
- Develop strategies to enhance professional and personal management skills in classroom and career settings
- Compare and contrast transportation, operational, and managerial processes in the United States and internationally to make informed process-related decisions
- Solve real-world problems by: applying principles from core management disciplines in transportation contexts; analyzing, evaluating, and responding to transportation challenges within and between modes; and measuring, theorizing, and assessing financial and operational management problems using quantitative methods

Master of Science in Transportation Management

Admission Criteria

Bachelor's degree from an accredited institution is required. Five to ten years mid- to senior-level management experience is preferred. The GMAT and GRE are NOT required.

Admission Process

- Fall Application Deadline: July 15, 2016
- International Fall Application Deadline: May 31, 2016

Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://www.du.edu/transportation/masters-transportation/admission.html).

- Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- One Official Transcript from each Post-Secondary Institution: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
- Three Letters of Recommendation: Three confidential letters of recommendation are required.
- Résumé/Curriculum Vitae (CV).
- Language Proficiency: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
- Proof of Permanent Residency: Permanent Residents must provide a copy of their Registration Alien Card (green card).
- Admission Interview: An interview may be required at the program director's request.
- International Applicants: Additional requirements are listed below for international applicants.
INTERNATIONAL ADMISSION

International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College’s International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.

Additional Admission Requirements for International Applicants

• English Proficiency: All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.

• TOEFL: A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.

• Academic IELTS: A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.

• Possible Exemptions: International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.

• English Conditional Acceptance (ECA): Master’s degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA requires an evaluation by the University of Denver’s English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.

• Official Transcripts and Translations: International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.

• Photocopy of Diploma/Degree Certification and Appropriate Translations: Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.

• A Photocopy of Current Passport: Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.

• The Supplemental Information Form (SEVIS Supplement): Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.

• Financial Verification Form: Applicants seeking an I-20 student visa must submit financial verification documents.

Master of Science in Transportation Management

Degree Requirements

Students must complete 60 quarter hours of coursework credit.

Core Management Courses

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<tr>
<th>Course</th>
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<td>TRAN 4410</td>
<td>Executive Management Practices in Organizations</td>
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<td>TRAN 4420</td>
<td>Leading with Integrity</td>
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<td>TRAN 4430</td>
<td>Applied Micro Economics &amp; Pricing</td>
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<td>TRAN 4440</td>
<td>Marketing &amp; Sales Management Strategies</td>
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<td>TRAN 4450</td>
<td>Legal Studies: Contracts &amp; Regulation</td>
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<td>TRAN 4460</td>
<td>Financial &amp; Managerial Accounting</td>
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<tr>
<td>TRAN 4490</td>
<td>Global Trade &amp; Economics</td>
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Advanced Transportation & Supply Chain Management Courses
TRAN 4010 Introduction to Freight and Passenger Transportation (2 Credits)
This course will provide an overview of the freight and passenger transportation sector of the North American economy, focusing on all of the modes. It will include a discussion of the vision of a transportation system for the future: one that moves people and goods efficiently, economically, safely and securely, and in an environmentally benign manner on an integrated, seamless, ethical transportation system that uses the strengths of all modes and minimizes their weaknesses. The course will discuss how such multi-modal systems for freight and intermodal systems for passengers operate in an impact the development and growth of the US and global economies.

TRAN 4020 Applied Micro Economics for Transportation (4 Credits)
This course will discuss basic microeconomic concepts used in the analysis of transportation with a focus on pricing for the firm relative to costs, market framework, and competitive issues both within the mode and between modes. In addition, the course will involve fieldwork observing and discussing the physical elements underlying the economics of the firm and its pricing.

TRAN 4030 Quantitative Tools for Transportation Management (4 Credits)
This course will introduce the quantitative transportation tools of GIS and statistics; GIS to help solve data management, modeling, and visualization challenges, and statistics for analysis of transportation data to support decisions. GIS addresses (1) the challenge of “big data” which is a current discussion topic in business, (2) modeling (including linear programming) of networks, routing/scheduling, and location analysis, and (3) the visualization output and how it is used for decision making. The statistics component would focus on the framing, tools, and appropriate applications of the statistical processes and how statistics can be correctly used in different data analysis situations in transportation.

TRAN 4040 Transportation Marketing and Sales Tools (4 Credits)
The marketing mix is presented as it relates to both freight and passenger transportation services. Demand forecasting and market analysis for transportation markets. Understanding capacity, marginal costs of capacity market segmentation, pricing capacity and revenue maximization within available capacity constraints will be addressed. Customer service is discussed fully in terms of understanding both the freight- and passenger-customer perspectives and relating this information to marketing and management decision making, especially with regard to the intermodal industry.

TRAN 4050 US and International Law (4 Credits)
This course will survey the main issues facing transportation professionals in managing and operating a safe and secure intermodal transportation system. Particular attention will be given to labor and management practices that have proven effective in addressing these issues and to their potential for intermodal transportation. Topical content will include the history of labor relations, fatigue in transportation, personnel safety, ergonomics, negotiation strategies, ethical issues, security issues, and others.

TRAN 4060 Transportation Law, Policy, and Regulation (4 Credits)
This course addresses the history of transportation and its regulation, constitutional law, regulatory agencies and administrative procedures, railroad regulation, motor carrier regulation, taxicab regulation, air carrier regulation, pipeline regulation, carrier liability (passengers and cargo), labor law, safety regulation, environmental law, antitrust law, and disabilities law as well as issues of intermodalism.

TRAN 4070 Transportation Executives Seminar (4 Credits)
Through the use of transportation executives in the classroom, this course will explore in depth some of the key concepts covered during the course of the program to include topics such as applied transportation finance, shipper transportation metrics/requirements, global freight flows to/from North America, government/military transportation, etc. In addition, in a case study, students will propose options for a real-world challenge using knowledge and data from current-event case material and guest executive presentations.
TRAN 4320 Transportation Management, Leadership and Values (4 Credits)
This course will address personal behavior; understanding yourself as a leader and organizational behavior issues such as organizational structures, motivation, power and politics, culture and change management. The course will focus on ways of dealing more effectively with the organizational upheaval that comes with change, including planning and information-sharing techniques to help keep your team focused on solutions. Developing leaders—creating a vision, gathering resources, motivating others, handling conflict—together with advice about how to create a climate that encourages others to take initiative and develop their own potential will be a vital part of the course. Strategies in human resource with a system level macro focus will be discussed.

TRAN 4330 Principles of Supply Chain: Management and Technologies (4 Credits)
This course will assist students in gaining awareness, knowledge, and understanding of the distribution patterns and relationships that play a key role in determining company success. We will view perspectives within the context of the global marketplace and across both freight and passenger transportation. We will address external value chains and internal value chains; stakeholder relationship management; the supply chain and the demand chain complexities; strategies of E-business; the strategic use of IT; strategic planning to gain a competitive advantage; end-to-end supply chain visibility and the strategis use of technologies in the enterprise-wide system.

TRAN 4340 Freight Transportation in Supply Chains (4 Credits)
As freight can be two-thirds of logistics costs, this course expands on a traditional Supply Chain course, providing detailed concepts and application for freight transportation in supply chains. This will include modal comparisons and contrasts of operational, financial, marketing, and information technology tools/software in the freight industry. Collaboration and competition between and among the modes will be explored to understand specific tactics to improve modal and supply-chain efficiencies in both the global and domestic arenas. Additionally, current trends in freight transportation and supply chain management across the globe will be studied and discussed for strategies and tactics to shape, manage, and respond to those trends.

TRAN 4400 Excellence in Leadership (2 Credits)
This course will provide an integrated exploration of current topics most important for leadership success within the transportation industry. Current best leadership practices will be reviewed, and common leadership challenges within transportation will be analyzed for successful resolution.

TRAN 4410 Executive Management Practices in Organizations (1 Credit)
This course will provide a comprehensive view of best practices for executive management in transportation workplaces. Organizational situations will be assessed from a variety of viewpoints and policies analyzed for optimal execution of strategy.

TRAN 4420 Leading with Integrity (1 Credit)
This course will explore ethical decision making and values-based leadership. Values, ethics and organizational philosophies will be assessed for best application in various corporate settings within the transportation industry.

TRAN 4430 Applied Micro Economics & Pricing (4 Credits)
The course will involve fieldwork and U.S. site visits observing and discussing the physical elements underlying the long-term and marginal economics of the firm and its pricing strategies and policies. In addition, the course will discuss basic microeconomic concepts used in the analysis of business services, including the concepts of market size; marginal, average, short-run, and long-run costs; and production levels as they relate to revenue and contribution with a focus on pricing for the firm relative to its fixed and variable costs, market share framework, and competitive issues both within the mode and between modes.

TRAN 4440 Marketing & Sales Management Strategies (4 Credits)
This course will examine the foundations of marketing as well as the process of developing, assessing and implementing marketing strategies in the transportation and supply chain industries. The foundations are grounded in an understanding of customers’ wants and needs and a commitment to satisfying those needs within the resources of the organization, the long-term benefits of society and the economy, and the highest ethical and moral standards in this global economy. Based on this foundation the students will learn the process of formulating marketing strategies, such as segmentation, targeting, positioning and the four P’s of marketing: product, price, place and promotion.

TRAN 4450 Legal Studies: Contracts & Regulation (2 Credits)
This course will focus on the fundamentals of creating and implementing effective contracts, whether with customers, suppliers, or labor. The contract discussion will be framed by regulatory and policy realities both in domestic and international contexts, including an understanding of federal and international laws, liability, regulations, policies, programs, and agencies impacting contracts.

TRAN 4460 Financial & Managerial Accounting (2 Credits)
This course will cover the basic theory, principles and practice of financial accounting and examine accounting statements including income and cash flow statements and balance sheets. Discussions include managerial use of accounting data useful in making investment and cost decisions, assessing cash flows, and the use of the organization resources to produce profit. Additional topics will include reading and understanding the 10-K, basic accounting standards and practices, and assessing the quality of financial information found in the accounting reports.

TRAN 4470 Financial Analysis & Capital Structures (2 Credits)
Complementing 4460, this course will use ratio analysis to determine relative performance of companies and the industry to enable management to assess operating efficiency, profitability and effective use of capital. Capital structure concepts, fixed and variable cost considerations, the use of operating and financial leverage, and the concepts of business and financial risk will be discussed. The course also includes a basic review of the principle of time value of money.
TRAN 4480 Capital Decision-Making & Capital Markets (2 Credits)
This course will examine the management decision process for making capital expenditures that enhance the value of the firm, cash flow estimation for capital budgeting purposes, decision models for capital budgeting, weighted average cost of capital, decisions in capital constrained situations, sensitivity analysis, and a review of the capital markets.

TRAN 4490 Global Trade & Economics (4 Credits)
This course will examine the World Trade Organization and the regional trade agreements, such as NAFTA, EU, and ASEAN, with regard to their impact on North American transportation, trade, and economy overall including their relationship to account deficits and their N2O; and their impact on disputes and how trade disputes are settled. In addition, the course will address the global economy and economics and its drivers, comparing and contrasting North America, China/Asia, the European Union and selected emerging economies to include impacts on global trade, such as trading patterns, outsourcing, and changing production areas.

TRAN 4610 Multimodal Passenger-Freight Transportation Systems (4 Credits)
The purpose of this course is to explore the multimodal characteristics of transportation systems with emphasis on the interactions between freight and passenger flows. The students will learn about how passenger transportation systems are planned and operated, and the potential impacts on freight movements. At the end of the course, students will have a better understanding of how both public and private sector transportation decisions affect one another.

TRAN 4700 Transportation Roles in Global Trade (4 Credits)
This course will examine the World Trade Organization and the regional trade agreements, such as NAFTA, EU, and ASEAN, with regard to their impact on North American transportation, trade, and economy overall including their relationship to account deficits and their significance; and their impact on disputes and how trade disputes are settled. In addition, the course will address the global economy and economics and its drivers, comparing and contrasting North America, China/Asia, the European Union, and selected emerging economies to include impacts on global trade, such as trading patterns, outsourcing, and changing production areas.

TRAN 4710 Transportation Finance (4 Credits)
This finance course focuses on the transportation managers ability to understand and analyze financial statements. Topics covered will be the basics of major accounting statements, income and balance sheets, use of operating leverage, ratio analysis to determine relative performance of companies and the industry individual modes and across modes. An emphasis will be placed on time value of money and capital expenditure analysis and decision models for capital budgeting. Exploring markets and the sources of financial capital, securities, public and private financing will be discussed.

TRAN 4800 Analysis of Freight & Passenger Transportation Business Segments (2 Credits)
This course will provide an overview of the freight and passenger transportation sectors of the North American economy, focusing on various modes and their financial profiles, including aggregate revenue, income, market share and investment. The course will include a discussion of the vision of a transportation system for the future—one that moves people and goods efficiently, economically, safely and securely, and in an environmentally benign manner on integrated, seamless, ethical transportation processes using the strengths of all modes and minimizing their weaknesses. The course will discuss how such multi-modal systems for freight and intermodal systems for passenger operate in and impact the development and growth of the U.S. and global economies.

TRAN 4810 Geographic Information Systems (GIS) & Statistics (4 Credits)
This course will introduce the quantitative transportation tools of GIS and statistics that support problem solving with data management, modeling, and visualization. GIS addresses (1) the challenge of “big data,” a significant discussion topic in business, (2) modeling (including linear programming) of networks, routing/scheduling, and location analysis, and (3) visualization output and how it is used for decision making. The statistics component focus is on the framing, tools, and appropriate applications of the statistical processes and how statistics can be correctly used in different data analysis situations in transportation.

TRAN 4820 Principles of Supply Chain Management (4 Credits)
This course will provide an overview of the basic principles of supply chain management, giving students an understanding of supply chain processes from sourcing to finished goods and customers to suppliers, identifying the five core supply chain processes and examining the role that transportation and logistics play in the supply chain. Students will learn the key operating and financial measures of supply chain management that impact the users and providers of services. Additionally, current trends in the technology of supply chain management, including applicable global trends, will be covered.

TRAN 4830 Advanced Transportation & Supply Chain (4 Credits)
Transportation costs and inventory considerations are significant drivers of total logistics and supply chain management costs. This course expands on the earlier Principles of Supply Chain Management course, providing detailed concepts and applications for freight transportation and inventory considerations in supply chains. This will include modal comparisons and contrasts of operational, financial, marketing, and information technology tools/software available in the freight and supply chain industries. Collaboration and competition between and among the modes will be explored to understand specific tactics to improve modal and supply chain efficiencies and competitive alternatives in both the global and domestic markets. Additionally, current trends in freight transportation and supply chain management across the globe will be studied and discussed to consider strategies and tactics to shape, manage, and respond to those trends.

TRAN 4840 Multimodal Passenger-Freight Transportation Systems (4 Credits)
The purpose of this course is to explore the multimodal characteristics of transportation systems with emphasis on shared assets and the interactions between freight and passenger flows. The students will learn how passenger transit and vehicular transportation systems are planned and operated, the concept of external benefits, and the potential impacts on freight movements. By the end of the course, students will have a better understanding of how public and private sector transportation management and investment decisions affect one another.
TRAN 4850 International Transportation & Supply Chain Management Analysis (4 Credits)
This course will survey and analyze at a macro level the international freight and passenger operations, policies, and other concepts covered in fundamental and advanced courses, as applied to the locations and facilities included in the planned International Transportation Travel Seminar. In addition, this course will explore specific passenger and freight transportation management structures and operations for transportation systems in important international locations and facilities.

TRAN 4860 Senior Management-Executives & Issues Seminar (4 Credits)
Through the use of transportation executives in the classroom, this course will explore in-depth some of the key concepts covered during the course of the degree program, to include topics such as applied transportation finance, merger and acquisition issues, shipper transportation metrics/requirements, global freight flows to/from North America, and government/military transportation. In addition, in case studies, students will propose options for real-world challenges using knowledge and data from current events, degree program courses, case material, and guest executive presentations.

TRAN 4870 Individual Leadership Development Project (4 Credits)
This course will guide students through the process of developing and executing individualized leadership development projects to enhance specific leadership skills and goals within their current management structure or an assigned organization. Through work over the six quarters of the program, the leadership projects will provide a unique opportunity for each student to hone critical aspects of her/his leadership, which, in turn, benefits the students, their organizations, and the larger transportation, logistics, and supply chain community.

TRAN 4880 Business Development & Productivity Improvement Planning Project (4 Credits)
This course will guide students through the creation of a comprehensive business development and/or productivity improvement-oriented business plan, with a preferred focus on the transportation industry, to develop a new revenue growth or new service opportunity for their organization or an assigned organization. Through work over the six quarters of the program, this project provides each student with important business planning and development skills to create an implementable business plan, which may provide tangible benefits to their sponsoring organization as well.

TRAN 4890 International Transportation Travel Seminar (2 Credits)
The Seminar will provide an onsite experience for students as they visit and study freight and passenger-related facilities and governmental agencies in major international locations. This international travel seminar will allow students to see new and emerging technologies in action that may provide significant productivity improvements. Students will also have the opportunity to examine the management and operation of transportation and supply chain operations in other countries. Students will meet with executives, government leaders and local managers of these systems to learn directly about the challenges of serving the global economy.

TRAN 4910 International Transportation Travel Seminar (2 Credits)
This course will provide exposure to real-world issues and problems in the intermodal transportation industry through an intensive four-to-seven-day onsite visit to a major transportation facility in North America. The course will include research and data gathering prior to the actual visit and will result in team projects with the final presentations being made during the final Quarter.

TRAN 4920 Leadership Development in Transportation Project (4 Credits)
This course will guide participants through the process of developing and executing an individualized leadership development plan to enhance specific leadership skills in the transportation or transportation-related industry. With work over the six quarters of the program, the leadership plan will provide a unique opportunity for each participant to hone critical aspects of his/her leadership, which, in turn, benefits the participant, the organization, and the larger transportation and supply chain community.

TRAN 4950 Transportation Business Planning Project (1-8 Credits)
This course will guide participants through the creation of a comprehensive transportation oriented business plan to develop a new or enhanced product or service for a transportation related organization. With work over the six quarters of the program, this project provides the participant with important business planning and development skills and an implementable transportation related business plan, which may provide a tangible benefit to the organization as well.

TRAN 4990 Independent Study (1-10 Credits)

Leadership and Organizations
Office: University College Student Support Center
Mail Code: 2211 S. Josephine St., Denver, CO 80208
Phone: 303-871-2291, 800-347-2042
Email: ucolsupport@du.edu
Web Site: www.universitycollege.du.edu

Master of Science in Leadership and Organizations with a concentration in Human Capital Organizations
The Human Capital in Organizations master’s degree concentration is offered entirely online to meet the needs of busy adults. Students will learn to determine, cultivate, and maintain the symbiotic relationship between individuals and the organizations for which they work. Strategic human capital can be the winning element of a successful organization; master the process of developing and retaining employees to engage and achieve
objectives, innovate, and maximize organizational and individual success. The master’s degree concentration in Human Capital in Organizations prepares students to ethically develop and maintain human capital while learning the best practices to do so.

Led by instructors who work in the fields in which they teach, classes introduce students to innovative and creative approaches to structuring and sustaining the development of human capital. Students explore knowledge and information management, communication tactics, vertical and horizontal partnerships, and organizational learning to promote the successful development of capital. Students will define the attributes, challenges, and advantages of human capital and strategies for leveraging each while integrating personal and organizational achievement. Customize your Leadership and Organizations master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Analyze organizational partnerships both vertically and horizontally
- Create a strategy for leveraging the attributes, challenges, and advantages of human capital
- Critique the theories and processes used for integrating knowledge management and organizational learning as a concept for enhancing personal and organizational success
- Evaluate the opportunities, challenges, and options to have employees participate in decision making through the use of various techniques
- Assess best practices in ethically developing and maintaining human capital

Master of Science in Leadership and Organizations with a concentration in Organizational Development

The Organizational Development master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Students learn about organizations. Successful organizations are dynamic entities—adjusting goals, structure, and strategies due to needs and influences. Sometimes these adjustments are large, but quite often there are a series of small to mid-size changes that affect employees and processes, resulting in the need for an organizational development (OD) intervention. Students will learn the history, challenges, and successes of OD and the different models and techniques to warrant a productive culture in a variety of organizational sizes, sectors, and types. An OD intervention strategy will be created by defining the role of the practitioner as an internal or external consultant and constructing a diagnosis plan, synthesizing data from interviews and observations, and effectively communicating the findings in various applicable formats. Finally, a personal philosophy regarding change will be developed and then examined through the context of analyzing organizational values and ethics, culture, and the human impact of change on employees.

The importance of culture and effective intervention strategies is discussed throughout the Organizational Development master’s degree concentration. Customize your Leadership and Organizations master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Articulate and define organizational development, history of OD, and challenges and possibilities using an intentional OD intervention.
- Develop and defend a personal philosophy of organizational change.
- Evaluate the impact of organizational culture and core values on OD interventions.
- Integrate the contract for a successful OD intervention with the organizational culture and determine the role of an OD practitioner in each stage of an OD intervention, distinguishing between an internal and external consultant.
- Assess, compare, and contrast different models of change and describe the impact of each model on an OD process.
- Define and organize OD strategies for different types of organizations (sectors, life cycle, size, industry, types of innovation, or other defining characteristics) for maximizing impacts of OD interventions.
- Summarize the importance and impact of the different organizational structures and design on OD strategy and interventions.
- Construct an organizational diagnosis plan by using interviewing, group facilitation, process observation, synthesis of data, and writing effective reports, with providing effective presentations of the findings.
- Analyze the human side of change and build strategies for successful implementation of an OD intervention that honor the loss, resistance and acceptance of changes.

Master of Science in Leadership and Organizations with a concentration in Philanthropic Leadership

The Philanthropic Leadership master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults seeking fundraising and philanthropic strategy and implantation techniques. Designed specifically for professionals who currently or aspire to manage a non-profit or charitable organization development function, the master’s in Leadership and Organizations with a concentration in Philanthropic Leadership prepares students to lead dynamic organizations. Students will learn
Leadership and Organizations

Leadership and Organizations

Leadership classes are led by faculty who work in the field in which they teach and provide students industry insight to help them thrive in the tight-knit field of development and fundraising. Students will learn strategies of fiscal responsibility and transparency that lead to community support, and identify the goals and plans necessary to uphold a successful organization. From budget planning to legal issues, useful technology to ethics, the practical guidance provided in the master’s concentration in Philanthropic Leadership at University College will prepare non-profit leaders with the knowledge and skills needed to succeed as professional development leaders in the philanthropic sector. Customize your Leadership and Organizations master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Analyze the processes and content of organizations that meet the description of philanthropic organizational excellence
- Develop an organizational policy as it relates to donor relationships and local, state, and federal requirements
- Summarize the steps identified to reach a greater level of personal and professional cultural competence in the field of philanthropic leadership
- Analyze donor support that aligns with the ethics, mission, vision, and values of the organization
- Compare and contrast different fundraising strategies, including grants, major gifts, planned giving, and annual campaigns
- Evaluate and select the most effective structure for an organization regarding fundraising
- Critique a plan for the roles of staff, board, and volunteers in a philanthropic organization against a best practices model

Master of Science in Leadership and Organizations with a concentration in Project Management

The Project Management master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Students receive hands-on, practical instruction from professional practitioners who work in the fields in which they teach on the tools and techniques of effective project management. Students will learn how to develop a clear plan that places a project in the context of an organization's strategic plan, while considering budgetary, scheduling, and human capital implications.

The content for the Project Management concentration has been developed to parallel the Project Management Institute’s (PMI® Project Management Body of Knowledge (PMBOK®) Guide. It covers all of the relevant areas and prepares the student to do well on the PMI® Project Management Professional (PMP) Certification Exam. In addition, the master’s degree concentration provides practical experience in using the tools and techniques of effective project management. You’ll learn the basic principles of project management and become proficient in the use of project management software and understand how to develop a plan that clearly places a project in the context of an organization’s strategic plan.

This degree prepares students to do the following:

- Summarize and apply the basic principles of project management and become proficient in the use of project management software
- Analyze and apply agile concepts and techniques
- Design a comprehensive risk management plan for a project
- Create strategies to manage the complexity inherent in large-scale projects
- Relate project scope to cost, time, and resource requirements
- Develop procurement plans and assess project contracts

Master of Science in Leadership and Organizations with a concentration in Strategic Innovation & Change

The Strategic Innovation and Change master’s degree concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Students will learn tactical innovation and change management using vision, values, and mission as an overall guide. Led by professional practitioners who work in the fields in which they teach, leadership classes provide professionals the skills to manage change, encourage innovation, and develop effective strategic initiatives while fulfilling an organization’s mission.

Students can expect to develop environmental scanning skills to identify and evaluate external factors that affect an organization on a micro or macro level and prepare them to be solution-oriented leaders. While learning to take advantage of current realities and seize opportunities for an organization through strategy, degree seekers will explore the change theories and concepts required for effective and ethical change leadership while understanding how the relationships within an organization are affected.

The importance of mission and vision is discussed throughout the Strategic Innovation and Change master’s degree concentration. Customize your Leadership and Organizations master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.
This degree prepares students to do the following:

- Analyze the roles of mission, vision, values, and goals as a start of strategic planning
- Summarize the advantages and limitations of the strategic planning process
- Create strategies to address organizational challenges when implementing innovation and change and assess how this plan relates to customers, competitors, suppliers, and technology
- Evaluate the change theories, concepts, and skills required for effective and ethical change leadership and how the relationships within an organization are affected
- Align financial management strategies and budget and planning requirements with the vision, values, and goals of an organization

Certificate in Leadership and Organizations with a concentration in Human Capital Organizations

The graduate certificate in Human Capital in Organizations concentration is offered entirely online to meet the needs of busy adults seeking to expand their skillset or credentials to include leadership knowledge on managing human capital. Certificate students will learn to lead, determine, cultivate, and maintain the symbiotic relationship between individuals and the organizations they work for. The graduate certificate in Human Capital in Organizations concentration prepares students to ethically develop and maintain human capital while learning the best practices to do so. Strategic human capital can be the winning element of a successful organization; master the process of developing and retaining employees to engage and achieve objectives, innovate, and maximize organizational and individual success.

Explore knowledge and information management, communication tactics, vertical and horizontal partnerships, and organizational learning to promote the successful development of capital. Led by instructors who work in the field they teach in, certificate classes introduce students to innovative and creative approaches to structuring and sustaining the development of human capital. Students will define the attributes, challenges, and advantages of human capital and strategies for leveraging each while integrating personal and organizational achievement. Credits earned through this graduate certificate may apply toward a master’s degree in Leadership and Organizations.

CERTIFICATE IN LEADERSHIP AND ORGANIZATIONS With a Concentration in Organizational Development

The graduate certificate in Organizational Development is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Students learn about organizations. Successful organizations are dynamic entities—adjusting goals, structure, and strategies due to needs and influences. Sometimes these adjustments are large, but quite often there are a series of small to mid-size changes that affect employees and processes resulting in the need for an organizational development (OD) intervention. Students will learn the history, challenges, and successes of OD and the different models and techniques to warrant a productive culture in a variety of organizational sizes, sectors, and types. An OD intervention strategy will be created by defining the role of the practitioner as an internal or external consultant and constructing a diagnosis plan, synthesizing data from interviews and observations, and effectively communicating the findings in various applicable formats. Finally, a personal philosophy regarding change will be developed and then examined through the context of analyzing organizational values and ethics, culture, and the human impact of change on employees.

The importance of culture and effective intervention strategies is discussed throughout the Organizational Development master’s degree concentration. Customize your Leadership and Organizations master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

CERTIFICATE IN LEADERSHIP AND ORGANIZATIONS With a Concentration in Philanthropic Leadership

The graduate certificate in Philanthropic Leadership concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Students will learn to develop fundraising and philanthropic strategy and implementation techniques as they learn to manage a non-profit or charitable organization development function. The certificate in Philanthropic Leadership concentration prepares students to lead dynamic organizations and strengthen an organization’s reputation, build vital support through strong and lasting leadership, and sustain donor relationships resulting in a robust development function.

Certificate students learn from faculty who work in the fields in which they teach as they provide students with industry insight to help them thrive in the tight-knit field of development and fundraising. From budget planning to legal issues, useful technology to ethics, the practical guidance provided in the certificate program will prepare non-profit leaders with the knowledge and skills needed to succeed as professional development leaders in the philanthropic sector. Credits earned through this graduate certificate may apply toward a master’s degree in Leadership and Organizations.

Certificate in Leadership and Organizations with a concentration in Strategic Innovation & Change

The graduate certificate in Strategic Innovation and Change concentration is offered online or on campus at the University of Denver in the evenings, or in a combination of both, to meet the needs of busy adults. Students will learn tactical innovation and change management using vision, values,
and mission as an overall guide. Led by professional practitioners who work in the fields in which they teach, leadership classes provide professionals the skills to manage change, encourage innovation, and develop effective strategic initiatives while fulfilling an organization’s mission.

Students will explore the change theories and concepts required for effective and ethical change leadership while understanding how the relationships within an organization are affected. Certificate students can expect to develop environmental scanning skills to identify and evaluate external factors that affect an organization on a micro or macro level and prepare them to be solution–oriented leaders. Organizations are analyzed from the viewpoint of strategic alignment of their critical frameworks of operation including financial management, budget, and planning. The concept of innovation not being a one−time event, but instead an organizational view and structure as part of an organizational strategy, will be explored. Credits earned through this graduate certificate may apply toward a master’s degree in Leadership and Organizations.

MASTER’S DEGREE ADMISSION

Admission Criteria
A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process
Master’s degree applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

- Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- Application Fee: A $75 non-refundable application fee is required for an application to be processed.
- One Official Transcript from each Post-Secondary Institution: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
- Two Letters of Recommendation: Two confidential letters of recommendation are required.
- Personal Statement: A personal statement (two pages double spaced) is required. The statement should include information on how the degree will enhance career plans and meet educational goals. Sharing personal experiences, abilities, achievements, and goals is encouraged. This document has considerable influence in the decision to admit applicants with attention given to written communication skills.
- Résumé/Curriculum Vitae (CV).
- Degree Plan: The degree plan, detailing courses for the academic program, is required to complete the admission process and can be completed through the University College online Degree Builder (http://universitycollege.du.edu/DegreeBuilder/Student/ChooseDegree.aspx) tool.
- Language Proficiency: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
- Proof of Permanent Residency: Permanent Residents must provide a copy of their Registration Alien Card (green card).
- Admission Interview: An interview may be required at the program director’s request.
- International Applicants: Additional requirements are listed below for international applicants.

CERTIFICATE ADMISSION

Admission Criteria
A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process
Certificate applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

- Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
Additional Admission Requirements for International Applicants

**English Conditional Admission.** Priority consideration will be given to those with a minimum of three year’s work experience.

baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for University of Denver Office of International Student Admission. Admission policy and procedures for applicants holding three-year school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees from 15-year education systems.

International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College’s International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.

INTERNATIONAL ADMISION

International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College’s International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.

**Additional Admission Requirements for International Applicants**

- **English Proficiency:** All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.

  1. **TOEFL:** A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.

  2. **Academic IELTS:** A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.

  3. **Possible Exemptions:** International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.

  4. **English Conditional Admission (ECA):** Master's degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA requires an evaluation by the University of Denver’s English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.

- **Official Transcripts and Translations:** International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.

- **Photocopy of Diploma/Degree Certification and Appropriate Translations:** Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.

- **A Photocopy of Current Passport:** Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.

- **The Supplemental Information Form (SEVIS Supplement):** Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.
• Financial Verification Form: Applicants seeking an I-20 student visa must submit financial verification documents.

Master of Science in Leadership and Organizations with a Concentration in Human Capital Organizations

Degree Requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORL 4500</td>
<td>Leadership Development</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4510</td>
<td>Building the 21st-Century Organization</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4520</td>
<td>Principles of Financing for Organizations</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4910</td>
<td>Research Practices and Applications</td>
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</tr>
<tr>
<td>ORL 4901</td>
<td>Capstone Project</td>
<td>4</td>
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<tr>
<td>or ORL 4902</td>
<td>Capstone Seminar</td>
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</tr>
<tr>
<td>or ORL 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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Concentration requirements

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<thead>
<tr>
<th>Course code</th>
<th>Course title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ORL 4160</td>
<td>Integrating Personal and Organizational Success</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4170</td>
<td>Developing Human Capital in Organizations</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4190</td>
<td>Value Driven Decision Making</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4550</td>
<td>Strategic Organizational Partnerships</td>
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Elective requirements (Choose three courses): 12

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course title</th>
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<tbody>
<tr>
<td>ORL 4420</td>
<td>Leading Change for Transformation</td>
</tr>
<tr>
<td>ORL 4530</td>
<td>Leading a Culture of Organizational Innovation</td>
</tr>
<tr>
<td>ORL 4980</td>
<td>Internship</td>
</tr>
</tbody>
</table>

Total Credits 48

Minimum number of credits required: 48

Students will work with their personal academic advisor to determine the best set of courses for their electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University's grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Science in Leadership and Organizations with a Concentration in Organizational Development

Degree Requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ORL 4500</td>
<td>Leadership Development</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4510</td>
<td>Building the 21st-Century Organization</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4520</td>
<td>Principles of Financing for Organizations</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4905</td>
<td>Graduate Social Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>or ORL 4902</td>
<td>Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>or ORL 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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Concentration requirements

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<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORL 4110</td>
<td>Fundamentals of Organizational Development</td>
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<tr>
<td>ORL 4115</td>
<td>Organizational Culture and Organizational Development Impacts</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4120</td>
<td>Team Interventions</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4125</td>
<td>Evaluate &amp; Sustain Change</td>
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Elective requirements (Choose three courses): 12

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course title</th>
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</thead>
<tbody>
<tr>
<td>ORL 4130</td>
<td>Individual Interventions</td>
</tr>
<tr>
<td>ORL 4135</td>
<td>Large Scale Interventions</td>
</tr>
</tbody>
</table>
Minimum number of credits required: 48

Students will work with their personal academic advisor to determine the best set of courses for their electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Science in Leadership and Organizations with a Concentration in Philanthropic Leadership

Degree Requirements

Core coursework requirements

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<tbody>
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<td>Principles of Strategic Fundraising</td>
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Elective requirements (Choose three courses): 12

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>ORL 4640</td>
<td>Research and Writing for Fundraising</td>
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<tr>
<td>ORL 4650</td>
<td>Advanced Board Development</td>
</tr>
<tr>
<td>ORL 4980</td>
<td>Internship</td>
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</table>

Total Credits 48

Minimum number of credits required: 48

Students will work with their personal academic advisor to determine the best set of courses for their electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Science in Leadership and Organizations with a Concentration in Project Management

Degree Requirements

Core coursework requirements

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ORL 4500</td>
<td>Leadership Development</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4510</td>
<td>Building the 21st-Century Organization</td>
<td>4</td>
</tr>
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<td>4</td>
</tr>
<tr>
<td>ORL 4905</td>
<td>Graduate Social Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4901</td>
<td>Capstone Project</td>
<td>4</td>
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<tr>
<td>or ORL 4902</td>
<td>Capstone Seminar</td>
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Concentration requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ICT 4100</td>
<td>Principles of Project Management</td>
<td>4</td>
</tr>
</tbody>
</table>
Leadership and Organizations

ICT 4105  Project Contracts and Procurement  4
ICT 4110  Project Management Tools and Techniques  4
ICT 4115  Project Management Dynamics  4

**Elective requirements (Choose three courses):**  12
ICT 4015  Managing Technology for Strategic Value
ICT 4155  Strategic Alliances in the Technology Sector
ICT 4160  Advanced Methods for Complex Projects

Total Credits  48

Minimum number of credits required: 48

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**Master of Science in Leadership and Organizations with a Concentration in Strategic Innovation and Change**

**Degree Requirements**

**Core coursework requirements**

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<tr>
<td>or ORL 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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**Elective requirements (Choose three courses):**  12

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<tr>
<th>Course</th>
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<tr>
<td>ORL 4170</td>
<td>Developing Human Capital in Organizations</td>
<td></td>
</tr>
<tr>
<td>ORL 4550</td>
<td>Strategic Organizational Partnerships</td>
<td></td>
</tr>
<tr>
<td>ORL 4980</td>
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Total Credits  48

Minimum number of credits required: 48

Students will work with their personal academic advisor to determine the best set of courses for their electives.

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**Certificate in Leadership and Organizations with a Concentration in Human Capital Organizations**

**Program Requirements**

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ORL 4160</td>
<td>Integrating Personal and Organizational Success</td>
<td>4</td>
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<tr>
<td>ORL 4170</td>
<td>Developing Human Capital in Organizations</td>
<td>4</td>
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<tr>
<td>Course Code</td>
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<tr>
<td>ORL 4190</td>
<td>Value Driven Decision Making</td>
<td>4</td>
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<td>ORL 4550</td>
<td>Strategic Organizational Partnerships</td>
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<td><strong>Elective requirements (Choose two courses):</strong></td>
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<td>8</td>
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<td><strong>Total Credits</strong></td>
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Minimum number of credits required: 24

**Certificate in Leadership and Organizations with a Concentration in Organizational Development**

**Program Requirements**

**Concentration requirements**

<table>
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<tr>
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<tbody>
<tr>
<td>ORL 4110</td>
<td>Fundamentals of Organizational Development</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4115</td>
<td>Organizational Culture and Organizational Development Impacts</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4120</td>
<td>Team Interventions</td>
<td>4</td>
</tr>
<tr>
<td>ORL 4125</td>
<td>Evaluate &amp; Sustain Change</td>
<td>4</td>
</tr>
<tr>
<td><strong>Elective requirements (Choose two courses):</strong></td>
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<td>8</td>
</tr>
<tr>
<td>ORL 4130</td>
<td>Individual Interventions</td>
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<tr>
<td>ORL 4135</td>
<td>Large Scale Interventions</td>
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<tr>
<td>ORL 4420</td>
<td>Leading Change for Transformation</td>
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<td><strong>Total Credits</strong></td>
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Minimum number of credits required: 24

**Certificate in Leadership and Organizations with a Concentration in Philanthropic Leadership**

**Program Requirements**

**Concentration requirements**

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Minimum number of credits required: 24

**Certificate in Leadership and Organizations with a Concentration in Strategic Innovation and Change**

**Program Requirements**

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854 Leadership and Organizations

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Total Credits: 24

Minimum number of credits required: 24

**Leadership Org Studies Courses**

**Organizational Leadership Courses**

**ORL 4110 Fundamentals of Organizational Development (4 Credits)**
This course explores the history of organizational development (OD), definitions, models, approaches, and how OD is and can be used in organizations today. An organizational development professional requires a multitude of skills to be effective. Students will assess their own skills and develop a plan to develop or increase required skills.

**ORL 4115 Organizational Culture and Organizational Development Impacts (4 Credits)**
Organizational culture encompasses the organization's vision, mission, values, systems, symbols, structures, language, beliefs, and norms. This course proposes organizational development strategies that match, support, or are synergetic with organizational cultures.

**ORL 4120 Team Interventions (4 Credits)**
This course explores the theory and practice of an organizational development process for an organizational team. This course examines the roles of the internal or external consultant, organizational structure, type of organization, and the depth and breadth of the organizational change affecting team strategy and interventions.

**ORL 4125 Evaluate & Sustain Change (4 Credits)**
Organizational Development is change. This course explores organization impacts and change processes that are inherent to organizational development in an organization.

**ORL 4130 Individual Interventions (4 Credits)**
This course explores the theory and practice of an organizational development process as part of an individual intervention, based on unique organizational considerations. This course examines the roles of organizational structure, type of organization, and the depth and breadth of the organizational change affecting individual development strategy and interventions.

**ORL 4135 Large Scale Interventions (4 Credits)**
This course explores the theory and practice of a large-scale or organization-wide organizational development process—including entering the organization, assessing a strategy for a unique organizational culture, and presenting results—while understanding the human side of change. There are many organizational development strategies that can be used based on unique organizational considerations. This course examines the roles of organizational structure, type of organization, and the depth and breadth of the organizational change affecting organizational development strategy and large-scale interventions.

**ORL 4140 Leading Chng for Transfrmation (4 Credits)**
Course Overview/Purpose: Change is occurring in every type of organization, but since all organizations are composed of people, it is the people who have to change for the organization to change. We’ll explore this relationship throughout the course, and give you the tools to become a change leader. Course Description: The only thing that is constant is change. Beginning with this premise, this class explores the exciting and opportunity filled world of change and transition. This course will explore the basic change theories and concepts and skills required for effective and ethical change leadership. Students will examine the notion of transformational change, the various stages of individual and organizational change, essential relationships between leadership and management, and assorted organizational models for leading change. The concept of an adaptive organization for producing extraordinary results will be discussed.

**ORL 4160 Integrating Personal and Organizational Success (4 Credits)**
This class explores the dynamics where the organization and the individual are successful and what is the role of the teacher. It analyzes options and opportunities, including the use of a systems thinking model, organizational learning, knowledge management, appreciative inquiry and building an ethical model for success at all levels of an organization; public, private or non-profit.

**ORL 4170 Developing Human Capital in Organizations (4 Credits)**
This course explores why, with the changes in the workforce, organizations; public, private, and nonprofit, are looking internally for innovation, creativity and strategic change. Based on the premise that organizations continue to evolve or they will become extinct, this course examines the reasons behind developing human capital and discusses concrete strategies for this development, in a sustaining and ethical manner. This course evaluates the advantage of a connected workforce; a shared mission, vision and information, knowledge, reward and communication structures. Stressing that people are an organization’s most important resource, this course identifies the role of the leader in developing and retaining human capital.

**ORL 4185 Enterprise Management (4 Credits)**
The enterprise management course provides a contextual basis for the application of effective cross-functional management methods within the enterprise. The topics taught in this course come from the traditional academic areas of business, industrial engineering, applied statistics, and project management. This course is designed to present and integrate these fundamental knowledge areas into a multi-dimensional enterprise management knowledge base and skill set.
O RL 4190 Value Driven Decision Making (4 Credits)
This course explores both objective and subjective decision making models. Emphasis is placed on decision making and risk assessment for organizational effectiveness in public, private and nonprofit organizations. The rational approach is taught via maximization of expected outcomes and decision tree analysis. The irrational side of decision-making is covered through demonstrations and discussion of decision bias and judgment heuristics. The role of the leader is discussed.

O RL 4320 Understanding Cities: Services (4 Credits)
The delivery of municipal services involves multifaceted operations. This course examines the models and frameworks used in the administration of various city and county services, such as law enforcement; fire and emergency services; schools; social services; medical and hospital services; public health; and cultural, sports, entertainment and recreation services. This course draws on experts from local governments to describe current issues, unresolved problems, and promising solutions.

O RL 4330 Political Environments (4 Credits)
This course provides an in-depth examination of the components of political environments, including grassroots activism, political campaigns, the election process, boards, public forums, etc. Current events and case studies providing key examples will be explored to develop an understanding of political exchange and social change. The effects of public decision-making on collaboration will also be examined, and negotiation skills for engaging in political interactions will be identified and cultivated.

O RL 4340 Business and Community Entrepreneurship (4 Credits)
This course explores how businesses, not-for-profit organizations, and municipal government work together to create an atmosphere that supports entrepreneurship. Topics include regulations, taxation, economic development, business incentives, manpower development, and encouragement of trade, tourism, and convention business. Coordinating bodies such as trade associations and chambers of commerce are also explored. Strategic planning, entrepreneurial, and project management skills are developed through a collaborative course project.

O RL 4350 Community Change Processes (4 Credits)
Community change is omnipresent and can impact organizations and municipalities at every level, as well as individual citizens. Changes can involve technological advances, demographic changes, community issues, special interests, and workplace pressures. This course explores organizational change theories including change process and then various models employed to effectively implement change. It examines the impact of change on municipalities and its citizenry and explores practical change management methodologies. Students will explore creative and innovative techniques to conceptualize and plan community development initiatives as well as enhance leadership skills for communication and implementation.

O RL 4370 Comparative Financial Systems (4 Credits)
The financial systems of business, government, and not-for-profit organizations are described, compared, and contrasted. The revenue sources, limitations, and legal structures regulating financial operations are described, and the methods of controlling and reporting expenditures are examined. Processes for strategic planning, budget building, and auditing are explored as are the interactions of the three sectors on such matters as taxation, fundraising, and economic development. Methods used for public and private collaborations, such as tax increment financing and Certificates of Participation, along with other emerging financial tools, will be explored.

O RL 4380 Social Marketing Communication (4 Credits)
Social marketing applies commercial marketing concepts and tools to influence the behavior of target audiences to improve the quality of their lives and/or the society of which they are a part. Although built on many of the same principles as commercial marketing, social marketing is distinctly different. This course explores the specialized practice of social marketing as an effective approach to promoting behavioral and social change. Using case studies and problem-based learning strategies, it examines relevant theories, concepts and practices considered by nonprofit organizations, government and corporations when seeking to effect behavioral changes that lead to measurable outcomes including community development, improved health, injury prevention and environmental protection.

O RL 4400 Leading Strategic Planning in Organizations (4 Credits)
Beginning with a clear mission, strategic planning is an iterative, dynamic process of translating the mission into a series of goals and outcomes in public, private, and nonprofit organizations. The organization's vision, values, mission and goals are the core of the process; strategic planning involves a series of options, understanding opportunities, evaluating risk, developing the plan and building in ethics, communication, implementation and evaluation. The strengths and limitations of rational planning processes are explored and strategies for coping with unintended consequences are developed. The role of the leader in this process is also discussed.

O RL 4410 Principles of Environmental Scanning (4 Credits)
Environmental scanning is the process of identifying and evaluating external factors that may affect an organization; public, private, or nonprofit; on either a micro or a macro level. The micro level includes the immediate and global competitive environment and the macro level encompasses external trends dealing with the economy, politics, social changes or technology. This course provides students the opportunity to develop a process for environmental scanning and learn to use tools to evaluate trends and the significance of a trend. Casual loop diagrams, systems archetypes and scenario planning are discussed. These tools are useful in all sectors.

O RL 4420 Leading Change for Transformation (4 Credits)
Change is occurring in every type of organization, but since all organizations are composed of people, it is the people who have to change for the organization to change. We'll explore this relationship throughout the course, and give you the tools to become a change leader. The only thing that is constant is change. Beginning with this premise, this class explores the exciting and opportunity-filled world of change and transition. This course will explore the basic change theories and concepts and skills required for effective and ethical change leadership. Students will examine the notion of transformational change, the various stages of individual and organizational change, essential relationships between leadership and management, and assorted organizational models for leading change. The concept of an adaptive organization for producing extraordinary results will be discussed.
Beginning with a clear mission, strategic fundraising is an iterative, dynamic process of translating the mission into a series of outcomes and support for the organization. With the organization's vision, values, mission and goals as the core of the process, the fundraising is done with high ethical standards, ensuring accountability to the donors and compliance with all applicable Federal, State and local Laws. Various fundraising strategies and vehicles are discussed, along with the role of the staff and the board in fundraising. Last, there is some discussion of the current larger issues in standards, ensuring accountability to the donors and compliance with all applicable Federal, State and local Laws. Various fundraising strategies for the organization. With the organization's vision, values, mission and goals as the core of the process, the fundraising is done with high ethical standards, ensuring accountability to the donors and compliance with all applicable Federal, State and local Laws. Various fundraising strategies and vehicles are discussed, along with the role of the staff and the board in fundraising. Last, there is some discussion of the current larger issues in fundraising.
ORL 4630 Organizing for Successful Fundraising (4 Credits)
Most organizations are unsuccessful with their fundraising efforts, not because their cause isn't worthy of support, but because they simply are not organized to fundraise. This course covers the basic elements of a mission statement, preparing the case for support by donors, the roles of staff, board, volunteers, and the legal and ethical issues involved. Organizational structures are discussed, with the balance between bureaucracy and innovation/creativity. The role of technology is illustrated. The local, state and federal laws that govern fundraising are discussed.

ORL 4640 Research and Writing for Fundraising (4 Credits)
This course is an in depth exploration of researching and writing effective proposals and grants. Principles of the Institutional Review Board (IRB) are studied and basic training completed. Funding sources are analyzed and the process of competing for a grant is discussed. At the conclusion, students have the knowledge to research, prepare, and present a grant proposal. Prerequisite: ORL 4620.

ORL 4650 Advanced Board Development (4 Credits)
This course explores the opportunities and challenges with a board of directors from a staff perspective. This course evaluates the value of a knowledgeable and effective board of directors in the success of the organization. The role of the board of directors and the role of a staff member, especially in fundraising, is often unclear and the need for clarity and differences in the roles are discussed. How to develop and maintain a working relationship with the board of directors member to move the organization forward is analyzed. Lastly, this course evaluates how to choose members for the board and how to design and implement a development plan for board of directors members are explored. Prerequisite: ORL 4600.

ORL 4660 Database Management and Technology for Fundraising (4 Credits)
This course explains why having reliable information with regular updates is essential in the development and sustaining of a donor base for nonprofits. All aspects of effective technology uses, including: research, email, electronic contributions, volunteer contact lists and mail generation are discussed. Legal, ethical and costs considerations are investigated. Prerequisites: ORL 4600, ORL 4615 and ORL 4620.

ORL 4670 Advanced Fundraising (4 Credits)
This course provides the opportunity for students to build on the knowledge gained in Principles of Strategic Fundraising. Topics include: current trends, legal concerns, professional development for fundraisers and alternative revenue sources. There is an emphasis on understanding and explaining the financial structure of the organization. Prerequisites: ORL 4600, ORL 4615 and ORL 4620.

ORL 4680 Advanced Volunteer Management (4 Credits)
This course focuses on the recruitment, training and retention of the organization's volunteers, be it public, private or nonprofit. Including a cost benefit analysis, this course is an in-depth analysis of a volunteer program. There is a discussion of the legal and ethical considerations, advantages and disadvantages, of using volunteers in an organization. Prerequisite: ORL 4600.

ORL 4701 Topics in Organizational Ldrsp (1-6 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues from the film industry, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

ORL 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass.

ORL 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produce a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students' research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.
O RL 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

O RL 4905 Graduate Social Research Methods (4 Credits)
Graduate Social Research Methods is an exploration of the methods and purposes of social science research from the perspective of the researcher as well as that of the informed professional and consumer of information. Students will learn about the process of research, including the development of research questions, the purpose of various social science research methods, the role of professional ethics, and general approaches to the analysis and interpretation of data. Students will develop the ability to read and critique basic social science research articles and to implement simple research designs. Students will develop and write a research proposal around a specific research question informed by a review of the literature. Technical requirements include the ability to read and modify Microsoft Excel documents. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

O RL 4910 Research Practices and Applications (4 Credits)
This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through comparing and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master's degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

O RL 4980 Internship (1-4 Credits)
The ORL internship is designed to offer students a practical educational experience in an industry related setting. The internship is an individualized learning experience that is directly related to the knowledge and skills covered in the ORL master's degree program. Students are responsible for finding their own internship site and proposing their internship ideas. University College sends notification to all ORL students if they hear of internship possibilities. Students may also work through the DU career center to explore opportunities for internship experiences. The objectives, activities, responsibilities, and deliverables for the internship are defined in a training plan that is developed by the student jointly with the internship supervisor at the sponsoring organization. The training plan is approved by the academic director. Prerequisites: The student must be unconditionally accepted in the ORL degree program, have completed a minimum of 28 hours of graduate coursework, including at least two core courses, and have earned a GPA of 3.0 or better. Enrollment must be approved by the academic director.

O RL 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted into a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent study is offered only on a for-credit basis.

O RL 4992 Directed Study (1-10 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted into a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Security Management
Office: University College Student Support Center
Mail Code: 2211 S. Josephine St., Denver, CO 80208
Phone: 303-871-2291, 800-347-2042
Email: ucolsupport@du.edu
Web Site: www.universitycollege.du.edu
Master of Science in Security Management with a concentration in Emergency Planning and Response

The Emergency Planning and Response master’s degree concentration is offered online at the University of Denver to meet the needs of busy adults and prepares current or aspiring emergency response professionals to effectively strategize and implement emergency plans. Graduates will learn to compare and contrast plans and responses to various events and disasters, as well as analyze leadership competence while plans are executed. As communication is key to effective emergency preparedness, degree-seekers will take away strategies for effective communication, as well as mitigation, preparedness, response, and recovery.

Whether an emergency is natural or man-made, emergency preparedness is vital to ensure the least possible impact on the welfare of those affected. The Emergency Planning and Response master’s degree concentration covers the strategic plan, the response, and the recovery process. Led by professional practitioners who work in the emergency planning and response field, classes focus on the integrated system at every stage of a disaster, examining the roles of emergency response teams, government agencies, businesses, and private citizens. Customize your Security Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Compare and contrast plans and responses to various types of events and disasters
• Analyze leadership competence and necessary leadership skills
• Develop and analyze strategies to implement team solutions
• Present a model of effective communication within an emergency response and planning structure
• Plan and report on strategies for mitigation, preparedness, response, and recovery regarding various types of incidents

Master of Science in Security Management with a concentration in Information Security

The Information Security master’s degree concentration is offered entirely online at the University of Denver to meet the needs of busy adults. Pursue an Information Security master’s degree concentration from University College and be prepared to analyze security needs, provide effective solutions, and fill a critical niche in organizations. Students will examine practical issues such as setting up a secure network, securing servers, and handling information security incidents. The practical labs give Information Security master’s degree students the hands-on experience they need using industry-current security tools, effectively training students to apply lessons to real-world challenges.

Graduates are prepared for the security challenges presented across a variety of sectors as they undergo rigorous instruction from professional practitioners who work in information security. Degree-seekers will learn to design secure applications, implement access controls, establish secure operations, and control physical security, all while using encryption, secure networks, and maintain business continuity. Become an indispensable expert in determining Return on Security Investment (ROSI) and develop security policies and procedures that protect your organization from internal and external threats. Customize your Security Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Design an information security plan to lead the strategic, planning, and management efforts of private and public sector organizations
• Evaluate and analyze emerging security issues, regulations, and threats
• Analyze financial implications of security programs and options
• Protect vital assets such as people, physical structures and equipment, intellectual property, and information, and maintain post-incident continuity of operations

Master of Science in Security Management with a concentration in Organizational Security

Earned entirely online, the Organizational Security master’s degree concentration examines emerging security issues, regulations, and threats. Current and aspiring security management professionals will benefit from the Organizational Security master’s degree concentration offered by University College, as students learn the key strategic, planning, and management skills needed to thrive in the security management industry through an examination of emerging security issues, regulations, and threats.

Classes are led by instructors who work in the fields in which they teach, offering security management degree-seekers valuable insight to the industry. Students will learn to implement strategies to protect vital assets such as people, physical structures and equipment, intellectual property, and information, as well as analyze financial implications of security programs and options. Organizational security professionals are fundamental cogs in the business world, as well as in the government, as they may function as a chief security officer, director of loss prevention, director of security, security consultant, investigator, firefighter, or police officer. Customize your Security Management master’s degree through the innovative
Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Design an organizational security plan to lead the strategic, planning, and management efforts of private and public sector organizations
- Evaluate and analyze emerging security issues, regulations, threats, and innovations
- Analyze financial implications of security programs and options
- Protect vital assets such as people, physical structures and equipment, intellectual property, and information, and maintain post-incident continuity of operations

**Certificate in Security Management with a concentration in Emergency Planning and Response**

The certificate in Emergency Planning and Response concentration is offered online at the University of Denver to meet the needs of busy adults and prepares current or aspiring emergency response professionals to effectively strategize and implement emergency plans. With an emergency preparedness certificate, graduates will learn to compare and contrast plans and responses to various events and disasters, as well as analyze leadership competence as plans are executed. As communication is key to effective emergency preparedness, graduate certificate students will take away strategies for effective communication, as well as mitigation, preparedness, recovery, and emergency response.

Certificate students will learn about the strategized plan, the response, and the recovery process of emergency management. Led by professional practitioners who work in the emergency planning and response field, emergency certificate classes focus on the integrated system at every stage of a disaster, examining the roles of emergency response teams, government agencies, businesses, and private citizens. Credits earned through this graduate certificate may apply toward a master’s degree in Security Management.

**Certificate in Security Management with a concentration in Information Security**

The certificate in Information Security concentration is offered entirely online to meet the needs of busy adults seeking to expand their current skillset in information security. An Information Security certificate prepares students to analyze security needs, provide effective solutions, and fill a critical niche in organizations. The certificate in Security Management with a concentration in Information Security is offered online or on campus in the evenings, or in a combination of both to meet the needs of busy adults seeking to expand their current skill-set in information security. Certificate students will examine practical issues such as setting up a secure network, securing servers, and handling information security incidents. The practical labs give Information Security graduate certificate students the hands-on experience they need using industry-current tools geared for security.

Certificate students will be prepared for real-world security challenges with a rigorous education from professional practitioners who work in information security. Certificate students will learn to design secure applications, implement access controls, establish secure operations, and control physical security, all while they use encryption, secure networks, and maintain business continuity. Become an indispensable expert in determining Return on Security Investment (ROSI) and develop security policies and procedures that protect your organization from internal and external threats. Credits earned through this graduate certificate may apply toward a master's degree in Security Management.

**Certificate in Security Management with a concentration in Organizational Security**

The certificate in Organizational Security concentration is offered online at the University of Denver to meet the needs of busy adults. Current and aspiring security management professionals will benefit from the certificate in Security Management with a concentration in Organizational Security offered by University College, as students learn the key strategic, planning, and management skills needed to succeed in security management. The certificate program is designed for busy adults seeking to advance their skills in organizational-level security.

The certificate program is ideal for security professionals who currently work in the field, or aspire to, as they will examine emerging security issues, regulations, and threats in classes led by instructors who work in the fields in which they teach, offering security management students valuable insight to the security. Certificate graduates will learn to implement strategies to protect vital assets such as people, physical structures and equipment, intellectual property, and information, as well as analyze financial implications of security programs and options. Credits earned through this graduate certificate may apply toward a master’s degree in Security Management.

**MASTER'S DEGREE ADMISSION**

**Admission Criteria**

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are **NOT** required.
Admission Process

Master’s degree applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

- **Application**: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- **Application Fee**: A $75 non-refundable application fee is required for an application to be processed.
- **One Official Transcript from each Post-Secondary Institution**: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
- **Two Letters of Recommendation**: Two confidential letters of recommendation are required.
- **Personal Statement**: A personal statement (two pages double spaced) is required. The statement should include information on how the degree will enhance career plans and meet educational goals. Sharing personal experiences, abilities, achievements, and goals is encouraged. This document has considerable influence in the decision to admit applicants with attention given to written communication skills.
- **Résumé/Curriculum Vitae (CV)**.
- **Degree Plan**: The degree plan, detailing courses for the academic program, is required to complete the admission process and can be completed through the University College online Degree Builder (http://universitycollege.du.edu/DegreeBuilder/Student/ChooseDegree.aspx) tool.
- **Language Proficiency**: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
- **Proof of Permanent Residency**: Permanent Residents must provide a copy of their Registration Alien Card (green card).
- **Admission Interview**: An interview may be required at the program director’s request.
- **International Applicants**: Additional requirements are listed below for international applicants.

**CERTIFICATE ADMISSION**

**Admission Criteria**

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are **NOT** required.

**Admission Process**

Certificate applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/certificate.cfm).

- **Application**: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- **Application Fee**: A $50 non-refundable application fee is required for an application to be processed.
- **One Official Transcript from each Post-Secondary Institution**: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
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- **Proof of Permanent Residency**: Permanent Residents must provide a copy of their Registration Alien Card (green card).
- **Admission Interview**: An interview may be required at the program director’s request.
- **International Applicants**: Additional requirements are listed below for international applicants.
INTERNATIONAL ADMISSION

International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College’s International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.

Additional Admission Requirements for International Applicants

- **English Proficiency:** All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.

  1. **TOEFL:** A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.

  2. **Academic IELTS:** A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.

  3. **Possible Exemptions:** International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.

  4. **English Conditional Acceptance (ECA):** Master’s degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA requires an evaluation by the University of Denver’s English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.

- **Official Transcripts and Translations:** International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.

- **Photocopy of Diploma/Degree Certification and Appropriate Translations:** Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.

- **A Photocopy of Current Passport:** Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.

- **The Supplemental Information Form (SEVIS Supplement):** Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.

- **Financial Verification Form:** Applicants seeking an I-20 student visa must submit financial verification documents.

Master of Science in Security Management with a Concentration in Emergency Planning and Response

**Degree Requirements**

<table>
<thead>
<tr>
<th>Core coursework requirements</th>
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</thead>
<tbody>
<tr>
<td>SMGT 4050</td>
<td>Security Concepts Overview</td>
</tr>
<tr>
<td>SMGT 4100</td>
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<td>SMGT 4350</td>
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<td>or SMGT 4902</td>
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</tr>
<tr>
<td>or SMGT 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
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**Concentration requirements**

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<table>
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<tr>
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<tbody>
<tr>
<td>SMGT 4210</td>
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</table>
SMGT 4220  Hazardous and Radiological Material Preparedness  4
SMGT 4230  Mitigation for Emergency Managers  4
SMGT 4400  Emergency Planning  4

Elective requirements (Choose three courses):  12
SMGT 4150  Risk Management  
SMGT 4300  Security Administration  
SMGT 4400  Emergency Planning  
SMGT 4500  Human Factors in Security  

Total Credits  48

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of “B” (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of “C” grade. A grade lower than “C” renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Science in Security Management with a Concentration in Information Security
Degree Requirements

Core coursework requirements
SMGT 4050  Security Concepts Overview  4
SMGT 4100  Business Function of Security  4
SMGT 4350  Business Assets Protection  4
SMGT 4910  Research Practices and Applications  4
SMGT 4901  Capstone Project  4 or SMGT 4902  Capstone Seminar  
or SMGT 4904  Interdisciplinary Capstone Seminar  

Concentration requirements
SMGT 4200  Integrated Security Systems  4
SMGT 4250  IS: Threats in Security  4
SMGT 4450  Legal & Ethical Issues in Security Management  4
SMGT 4500  Human Factors in Security  4

Elective requirements (Choose three courses):  12
SMGT 4150  Risk Management  
SMGT 4300  Security Administration  
SMGT 4400  Emergency Planning  

Total Credits  48

Minimum number of credits required: 48

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Master of Science in Security Management with a Concentration in Organizational Security
Degree Requirements
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**Elective requirements (Choose three courses)**

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**Total Credits**: 48

**Minimum number of credits required**: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of “C” grade. A grade lower than “C” renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

**Certificate in Security Management with a Concentration in Emergency Planning and Response**

**Program Requirements**

**Concentration requirements**

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**Elective requirements (Choose two courses):**

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</table>

**Total Credits**: 24

**Minimum number of credits required**: 24

**Certificate in Security Management with a Concentration in Information Security**

**Program Requirements**

**Concentration requirements**

<table>
<thead>
<tr>
<th>Course</th>
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<td>SMGT 4200</td>
<td>Integrated Security Systems</td>
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<tr>
<td>SMGT 4250</td>
<td>IS: Threats in Security</td>
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<tr>
<td>SMGT 4450</td>
<td>Legal &amp; Ethical Issues in Security Management</td>
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<tr>
<td>SMGT 4500</td>
<td>Human Factors in Security</td>
<td>4</td>
</tr>
</tbody>
</table>

**Elective requirements (Choose two courses):**

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<tr>
<td>SMGT 4300</td>
<td>Security Administration</td>
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</table>
SMGT 4400  Emergency Planning

Total Credits  24

Minimum number of credits required: 24

Certificate in Security Management with a Concentration in Organizational Security

Program Requirements

Concentration requirements

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Elective requirements (Choose two courses):  8

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</table>

Total Credits  24

Minimum number of credits required: 24

Courses

SMGT 4050  Security Concepts Overview (4 Credits)
This course provides an introduction to the main principles and issues in business and organizational security management. Topics include protection of, and assessing the loss potential of, personnel, facilities, and information, and continuity of operations. The course makes extensive use of case studies and analyses, field exercises and research.

SMGT 4100  Business Function of Security (4 Credits)
This course covers the role of security in an organization or business context. Topics include budgets, contracts, financial analyses, how the security functions support the overall mission of the organization, and the relationship of security to other essential business functions. Students will also learn how to defend the costs of the security systems and security operations to high-level executives.

SMGT 4150  Risk Management (4 Credits)
Students will learn to identify and manage risks, crises and disasters, and to prepare emergency and contingency plans. Students will learn how to prevent losses, mitigate losses and accelerate recovery from security events or natural disasters. This will be accomplished through case studies and practical exercises.

SMGT 4200  Integrated Security Systems (4 Credits)
This course covers the integration of physical, personnel, and information security, including the use of information technology to enhance physical and personnel security. Students will learn the essential elements of system design, development of procedures, testing and maintenance of integrated security systems. This will be accomplished through case studies and practical exercises.

SMGT 4210  Critical Incident Management (4 Credits)
All communities are vulnerable to a variety of hazards. Emergency management provides a structure for anticipating and dealing with emergency incidents. Emergency management involves participants at all governmental levels and in the private sector. Activities are geared according to phases before, during, and after emergency events. The effectiveness of emergency management rests on a network of relationships among partners in the system. The goal of this course is to introduce students to the fundamentals of emergency management as an integrated system, surveying how the resources and capabilities of all functions at all levels can be networked together in all phases for all hazards. Included is an in-depth look at the four phases of comprehensive emergency management: mitigation, preparedness, response, and recovery.

SMGT 4220  Hazardous and Radiological Material Preparedness (4 Credits)
Hazardous materials plan development is a difficult and challenging job that requires a high level of skill and knowledge from planners charged with these responsibilities. Due to local funding shortages and frequent staff turnover at the state and local levels in the planning arena, and because of the complexity of hazardous materials planning requirements, there continues to exist a significant performance problem and training requirement for hazardous materials planning. This course provides students the assistance and confidence needed to effectively plan for and respond to hazardous materials incidents, through sound emergency planning and with the highest level of safety for response personnel within the student’s jurisdiction. This course also addresses the fundamental principles of radiation as well as the nuclear threat.

SMGT 4230  Mitigation for Emergency Managers (4 Credits)
As the costs of disasters continue to rise, governments and ordinary citizens must find ways to reduce hazard risks to our communities and ourselves. Efforts made to reduce hazard risks are easily made compatible with other community goals; safer communities are more attractive to employers as well as residents. As communities plan for new development and improvements to existing infrastructure, mitigation can and should be an important component of the planning effort.
SMGT 4250 IS: Threats in Security (4 Credits)
This course explores emerging protection concepts for the information age. Students will identify threats to security systems, discover vulnerabilities, and suggest and design protection systems. Topics include management of information security and data processing facilities, data theft, misuses of information technologies, computer viruses and hacking, and network protection. The course also covers information technology laws, privacy issues, and information security planning.

SMGT 4300 Security Administration (4 Credits)
Students apply principles of management to security administration. Topics include personnel management, security planning, organizational leadership and communication, and recruitment and training.

SMGT 4350 Business Assets Protection (4 Credits)
Students examine the application of security knowledge and techniques to the protection of business assets. The security planning process is examined by the study of risk analysis, security surveys, and financial planning and decision making for development of security programs and countermeasures.

SMGT 4400 Emergency Planning (4 Credits)
Students discuss the role of the security manager in the identification, analysis, and response to a variety of human and natural crises. They examine threats resulting from riots, demonstrations, product tampering, work stoppage activities, terrorism, and natural disasters.

SMGT 4450 Legal & Ethical Issues in Security Management (4 Credits)
This course is an overview of important legal and ethical issues with which the business and organizational security management professional must deal. Students examine such issues as personnel law and obligations; negotiations; contract management; constitutional rights of individuals; legal liability of security professionals and organizations; legal compliance; and ethical standards.

SMGT 4500 Human Factors in Security (4 Credits)
This course focuses on historical and contemporary perspectives of human behavior. Theories of behavior in the context of threat-producing activities are discussed. Contemporary issues such as substance abuse, violence, ideologies, and similar themes are examined.

SMGT 4701 Topics in Security Management (1-6 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues from the film industry, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

SMGT 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass.

SMGT 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The seminar produces a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

SMGT 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.
This degree prepares students to do the following:

- allows you to select courses that cater to your specific career needs.
- Human Resources master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which degree program provides a comprehensive analysis of the HR profession and positions students for career advancement. Customize your Strategic learn, and HR professionals are required to be lifelong learners due to the constantly changing nature of HR. The Strategic Human Resources master’s while including human resources practices, ethical consideration, and global implications. Last, this program is designed teach the students how to align aspirations and talents of employees with the needs of the organization, in the important contexts of the organizational business strategy, skills needed to succeed in a 21st-century HR marketplace. Human Resources professionals have a unique role and responsibility in organizations. This program provides courses that provide the students tools for this alignment to align aspirations and talents of employees with the needs of the organization, in the important contexts of the organizational business strategy, skills needed to succeed in a 21st-century HR marketplace. Human Resources professionals have a unique role and responsibility in organizations.

SMGT 4910 Research Practices and Applications (4 Credits)

This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through comparing and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master’s degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

SMGT 4980 Internship (4 Credits)

The internship is designed to offer students a purposeful experience in a practical, industry related setting. The internship is an individualized learning experience and a training plan is created for each student in conjunction with the internship site to provide experiences related to the skills and knowledge covered in the certificate and master’s programs.

SMGT 4991 Independent Study (1-8 Credits)

This is an advanced course for students wishing to pursue an independent study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent study is offered only on a for-credit basis.

SMGT 4992 Directed Study (1-5 Credits)

This is an advanced course for students wishing to pursue a directed course of study, which is based on an existing course. However, the existing course is not offered in a reasonable time frame to accommodate the student. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the directed study. Directed study is offered only on a for-credit basis.

Strategic Human Resources

Office: University College Student Support Center  
Mail Code: 2211 S. Josephine St., Denver, CO 80208  
Phone: 303-871-2291, 800-347-2042  
Email: ucolsupport@du.edu  
Web Site: www.universitycollege.du.edu

Master of Science in Strategic Human Resources with a concentration in Human Resources Employment Relations

The Human Resource Employment Relations master’s degree concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults. Successful organizations often have respectful employee—employer relationships. Human Resources can enhance the relationship and employee retention with ethical treatment of employees in terms of compensation, total benefits, achievement of organizational goals, and realistic expectations of performance. All of these functions must operate under laws and regulations that are interpreted and applied appropriately to both employee and organization.

The Strategic Human Resources (SHR) program provides strategic skills in development, operations, and employment relations, and the integral skills needed to succeed in a 21st-century HR marketplace. Human Resources professionals have a unique role and responsibility in organizations to align aspirations and talents of employees with the needs of the organization, in the important contexts of the organizational business strategy, organizational culture, and within the life cycle of the organization. This program provides courses that provide the students tools for this alignment while including human resources practices, ethical consideration, and global implications. Last, this program is designed teach the students how to learn, and HR professionals are required to be lifelong learners due to the constantly changing nature of HR. The Strategic Human Resources master’s degree program provides a comprehensive analysis of the HR profession and positions students for career advancement. Customize your Strategic Human Resources master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Analyze the typical phases of an employee experience while employed by an organization.
- Evaluate the compensation considerations for employees based on productivity, current legal and ethical issues in HR and the organization’s domestic and global strategic goals.
- Analyze total benefits as a function of organizational goals, employee performance and retention, and budgeting.
- Identify, locate, and interpret laws and regulations relevant to the organization and the situation.
Master of Science in Strategic Human Resources with a concentration in Human Resources Management and Development

The Human Resource Management and Development master’s degree concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults.

Organizations experience various successes and challenges in staying competitive in terms of overseeing employees, dealing with change, and reacting to the various organizational needs. Students will create strategies and plans to examine the HR roles and responsibilities for different stages of change, manage the interventions, compensation, and benefits issues that accompany that change. Throughout the HR change process consulting methods can be used to ensure organizational objectives are met.

The Strategic Human Resources (SHR) program provides strategic skills in development, operations, and employment relations, and the integral skills needed to succeed in a 21st century HR marketplace. Human Resources professionals have a unique role and responsibility in organizations to align aspirations and talents of employees with the needs of the organization, in the important contexts of the organizational business strategy, organizational culture, and within the life cycle of the organization. This program provides courses that provide the students tools for this alignment while including human resources practices, ethical consideration, and global implications. Last, this program is designed teach the students how to learn, and HR professionals are required to be lifelong learners due to the constantly changing nature of HR. The Strategic Human Resources master’s degree program provides a comprehensive analysis of the HR profession and positions students for career advancement.

Customize your Strategic Human Resources master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Create a plan regarding organizational change that encompasses building teams, managing change and/or crisis, and communicating to the organization.
- Analyze consulting methods used by human resource departments to influence achievement of organizational objectives.
- Examine the business life cycle phases and provide analysis on interventions, compensation, and benefits within an organization.
- Compare and contrast stages of change in an organization to provide HR strategies for managing each of these stages.

Master of Science in Strategic Human Resources with a concentration in Human Resources Operations

The Human Resources Operations master’s degree concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults and prepare graduates to understand the current need for analytics and assessment as they relate to the human resources profession. The Human Resources Operations master’s degree concentration explores the impact of HR Analytics and measures as they relate to effective HR strategy.

Organizations operate differently depending on size, scope, mission, and sector. One common denominator, however, is the need for an organization to recruit, develop, utilize, and retain talented employees. Students will use a variety of models and tools including descriptive and predictive analysis, hiring needs, and compensation structures to inform human capital investments and organizational strategies. Local, national, and global implications and ethics are considered when determining the measures to develop employees with respect to diversity, inclusiveness, and accessibility for training and education.

The Strategic Human Resources (SHR) program provides strategic skills in development, operations, and employment relations, and the integral skills needed to succeed in a 21st-century HR marketplace. Human Resources professionals have a unique role and responsibility in organizations to align aspirations and talents of employees with the needs of the organization, in the important contexts of the organizational business strategy, organizational culture, and within the life cycle of the organization. This program provides courses that provide the students tools for this alignment while including human resources practices, ethical consideration, and global implications. Last, this program is designed teach the students how to learn, and HR professionals are required to be lifelong learners due to the constantly changing nature of HR. The Strategic Human Resources master’s degree program provides a comprehensive analysis of the HR profession and positions students for career advancement.

Customize your Strategic Human Resources master’s degree through the Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Evaluate the essential principles for developing, utilizing and retaining human resources.
- Analyze the ethical, diversity, and global implications for selected information and training.
- Utilize appropriate models to evaluate organizational functions, using descriptive and predictive analysis, for organizational decision-making.
- Compare and contrast organizational types and provide options supporting a variety of human capital investments to enhance each type of organization.
Master of Science in Strategic Human Resources with a concentration in Learning and Development

The Human Resource Learning and Development master's degree concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both. The Learning and Development concentration is designed for early and mid-career learning and development professionals looking to excel as internal or external consultants in a variety of organizational settings and across platforms. This program prepares students in three complementary areas: 1) a strong foundation in the distinct ways adults learn; 2) exposure to and utilization of diverse instructional technologies and strategies; and, 3) advanced facilitation and communication skills. Students acquire advanced knowledge of how adults process information and the specific skills required to meet adult learning needs. Blending traditional training strategies with the latest multi-media technologies and guided by practitioner-faculty, students learn through application by designing and executing projects from start to finish, including needs assessment, design, delivery, implementation, and evaluation. Additionally, students develop advanced communication skills to work with individuals and teams in increasingly global workplaces using multiple modalities.

The Strategic Human Resources (SHR) program provides strategic skills in development, operations, and employment relations, and the integral skills needed to succeed in a 21st-century HR marketplace. Human Resources professionals have a unique role and responsibility in organizations to align aspirations and talents of employees with the needs of the organization, in the important contexts of the organizational business strategy, organizational culture, and within the life cycle of the organization. This program provides courses that provide the students tools for this alignment while including human resources practices, ethical consideration, and global implications. Last, this program is designed teach the students how to learn, and HR professionals are required to be lifelong learners due to the constantly changing nature of HR. The Strategic Human Resources master’s degree program provides a comprehensive analysis of the HR profession and positions students for career advancement. Customize your Strategic Human Resources master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Design and execute projects from needs assessment through design, delivery, implementation, and evaluation;
- Analyze adult learning theories, including their key components, contributions, challenges, limits, and new directions in order to assess how to meet organizational needs;
- Identify, analyze, choose, and defend best instructional strategies and techniques to achieve learning objectives;
- Develop advanced facilitation and communication skills to demonstrate the ability to respond appropriately to varied audiences with diverse needs and across platforms;
- Evaluate and communicate impact of projects using most relevant metrics and analytics.

Certificate in Strategic Human Resources with a concentration in Human Resources Employment Relations

The graduate certificate in Human Resource Employment Relations concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults and will help HR professionals expand their skillset and provide transferrable knowledge they can apply today. Certificate students learn to create a respectful, productive, and lawful work environment.

Successful organizations often have a respectful employee – employer relationships. Human Resources can enhance the relationship and employee retention with ethical treatment of employees in terms of compensation, total benefits, achievement of organizational goals, and realistic expectations of performance. All of these functions must operate under laws and regulations that are interpreted and applied appropriately to both employee and organization.

The Strategic Human Resources program offers innovative, career relevant graduate certificate courses from compensation to information systems, decision-making to ethics as they each relate to HR. Certificate students can expect a challenging program of study, as they learn to implement strategy for organizational success. Credits earned through this graduate certificate may apply toward a master’s degree in Strategic Human Resources.

Certificate in Strategic Human Resources with a concentration in Human Resource Management and Development

The graduate certificate in Human Resource Management and Development concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults and will help HR professionals expand their skillset and provide transferrable knowledge they can apply today. Certificate students learn to apply business strategy through the development of talent management programs, in addition to how to evaluate, diagnose, and solve organizational change and issues in HR.

Organizations experience various successes and challenges in staying competitive in terms of overseeing employees, dealing with change, and reacting to the various organizational needs. Students will create strategies and plans to examine the HR roles and responsibilities for different stages of change, manage the interventions, compensation, and benefits issues that accompany that change. Throughout the HR change process consulting methods can be used to ensure organizational objectives are met.
Credits earned through this graduate certificate may apply toward a master’s degree in Strategic Human Resources.

Certificate in Strategic Human Resources with a concentration in Human Resources Operations

The graduate certificate in Human Resources Operations concentration is offered on campus at the University of Denver in the evenings, online, or in a combination of both, to meet the needs of busy adults. Organizations operate differently depending on size, scope, mission, and sector. One common denominator, however, is the need for an organization to recruit, develop, utilize, and retain talented employees. Students will use a variety of models and tools including descriptive and predictive analysis, hiring needs, and compensation structures to inform human capital investments and organizational strategies. Local, national, and global implications and ethics are considered when determining the measures to develop employees with respect to diversity, inclusiveness, and accessibility for training and education.

Certificate students are effectively prepared to face the advanced challenges of human resources with implementing descriptive and predictive analytics, while at the global level from a strategic, competent perspective with each election, world event, and restructuring. HR professionals with several years of experience who are looking to challenge themselves and become more marketable by learning about the international marketplace will benefit from this graduate certificate. HR analytics and the ability to assess return on investment of new programs is emerging in importance, and certificate students will learn about how all these relate to organizational and HR strategy. Credits earned through this graduate certificate may apply toward a master’s degree in Strategic Human Resources.

MASTER’S DEGREE ADMISSION

Admission Criteria

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom University College believes may successfully engage in graduate work, but who have not met the previously stated GPA requirement, may be admitted to a degree program on a provisional basis. The GMAT and GRE are NOT required.

Admission Process

Master’s degree applications are reviewed for admission on a quarterly basis. Applications and all supplemental materials must be submitted online; with the exception of transcripts, which must be received by the stated application deadline (requests for accommodation may be granted). Applicants will be notified of a decision via email and standard mail approximately two weeks following the application deadline. Detailed application information and application deadlines are located on the University College website (http://universitycollege.du.edu/answers/admission/masters.cfm).

- Application: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- Application Fee: A $75 non-refundable application fee is required for an application to be processed.
- One Official Transcript from each Post-Secondary Institution: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
- Two Letters of Recommendation: Two confidential letters of recommendation are required.
- Personal Statement: A personal statement (two pages double spaced) is required. The statement should include information on how the degree will enhance career plans and meet educational goals. Sharing personal experiences, abilities, achievements, and goals is encouraged. This document has considerable influence in the decision to admit applicants with attention given to written communication skills.
- Résumé/Curriculum Vitae (CV).
- Degree Plan: The degree plan, detailing courses for the academic program, is required to complete the admission process and can be completed through the University College online Degree Builder (http://universitycollege.du.edu/DegreeBuilder/Student/ChooseDegree.aspx) tool.
- Language Proficiency: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
- Proof of Permanent Residency: Permanent Residents must provide a copy of their Registration Alien Card (green card).
- Admission Interview: An interview may be required at the program director’s request.
- International Applicants: Additional requirements are listed below for international applicants.

CERTIFICATE ADMISSION

Admission Criteria

A regionally accredited baccalaureate degree is required for admission. Applicants must have a minimum grade point average (GPA) of 3.0 on a 4.0 scale (or equivalent) in their undergraduate work from a regionally accredited degree-granting institution for full admission. Applicants whom
Additional Admission Requirements for International Applicants

- **Admission**: Applicants must complete the application online (https://gradadmissions.du.edu/apply).
- **Application Fee**: A $50 non-refundable application fee is required for an application to be processed.
- **One Official Transcript from each Post-Secondary Institution**: Applicants are required to submit an official transcript from each post-secondary institution they have attended, or are presently attending, where 2 quarter hours (or one semester hour) or more were completed. This includes transcripts for credit earned as transfer work and study abroad.
- **Résumé/Curriculum Vitae (CV)**.
- **Certificate Plan**: The certificate plan, detailing courses for the academic program, is required to complete the admission process and can be completed through the University College online Degree Builder (http://universitycollege.du.edu/DegreeBuilder/Student/ChooseDegree.aspx) tool.
- **Language Proficiency**: Applicants whose native language is not English or who have been educated in countries where English is not the native language, regardless of citizenship, must provide official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The TOEFL and IELTS scores are valid for two years from the test date. Applicants may be exempt from English proficiency test requirements if they have earned a post-secondary degree from a recognized/accredited university where the language of instruction and examination is English.
- **Proof of Permanent Residency**: Permanent Residents must provide a copy of their Registration Alien Card (green card).
- **Admission Interview**: An interview may be required at the program director’s request.
- **International Applicants**: Additional requirements are listed below for international applicants.

**INTERNATIONAL ADMISSION**

International applicants must comply with all requirements set forth for domestic applicants and supplement their application with additional documentation. International applicant information, including admission deadlines and the International Applicant Checklist, is available on the University College website (http://universitycollege.du.edu/answers/admission/international.cfm).

Admitted international applicants whose native language is not English are required to attend University College’s International Preparation Week (http://universitycollege.du.edu/answers/admission/international.cfm) prior to attending courses at University College.

University College will consider graduate applicants who have earned three-year baccalaureate degrees from 15-year education systems. The school from which the applicant has earned the degree must be a formally recognized or regionally accredited institution of higher learning, as determined by the University Of Denver Office Of International Student Admission. Admission policy and procedures for applicants holding three-year baccalaureate degrees is the same as for other international applicants with one exception: applicants with a three-year degree are not eligible for English Conditional Admission. Priority consideration will be given to those with a minimum of three year’s work experience.

**Additional Admission Requirements for International Applicants**

- **English Proficiency**: All internationally educated applicants whose native language is not English are required to submit proof of English Language Proficiency regardless of citizenship and/or U.S. residency.

1. **TOEFL**: A minimum score of 550 (paper based), 213 (computer based), or 80 (Internet based) is required for admission consideration. Generally, applicants should achieve at least 20 in all TOEFL subscores on the internet-based exam. TOEFL score reports older than two years from the date of application are not acceptable for admission consideration.

2. **Academic IELTS**: A score of 6.5 or higher is required to be considered for admission. Each individual band score must be 6.0 or higher. IELTS score reports older than two years from the date of application are not acceptable for admission consideration.

3. **Possible Exemptions**: International applicants may be exempt from the TOEFL/Academic IELTS requirement if by the time of matriculation they have earned a post-secondary degree from a formally-recognized/accredited university where the entire language of instruction and examination is in English.

4. **English Conditional (Admission?) (ECA)**: Master’s degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, ECA requires an evaluation by the University of Denver’s English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. Graduate certificate students may not be admitted through ECA. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/Academic IELTS scores.
• **Official Transcripts and Translations**: International applicants should submit official transcripts printed in the official language of instruction of their institution. Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English.

• **Photocopy of Diploma/Degree Certification and Appropriate Translations**: Applicants who have earned a degree outside the U.S. must submit proof of graduation through a degree certificate or diploma along with all appropriate official translations.

• **A Photocopy of Current Passport**: Applicants must provide a copy of the photograph and legal name page of their passport. This is required before an I-20 can be issued by the University of Denver.

• **The Supplemental Information Form (SEVIS Supplement)**: Applicants who are not U.S. Citizens or permanent residents must complete the SEVIS form.

• **Financial Verification Form**: Applicants seeking an I-20 student visa must submit financial verification documents.

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### Master of Science in Strategic Human Resources with a Concentration in Human Resources Employment Relations

**Degree Requirements**

**Core coursework requirements**

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<tbody>
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<td>HRA 4140</td>
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**Total Credits**: 48

**Minimum number of credits required**: 48

Students will work with their personal academic advisor to determine the best set of courses for their electives.

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### Master of Science in Strategic Human Resources with a Concentration in Human Resources Management and Development

**Degree Requirements**

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Interdisciplinary Capstone Seminar  

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**Minimum number of credits required:** 48

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**Master of Science in Strategic Human Resources with a Concentration in Human Resources Operations**

**Degree Requirements**

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# Master of Science in Strategic Human Resources with a Concentration in Learning and development

## Degree Requirements

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<td>COMM 4002</td>
<td>Effective Facilitation and Presentation</td>
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<tr>
<td>COMM 4200</td>
<td>Instructional Design and Technology</td>
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<td>COMM 4203</td>
<td>Instructional Strategies for Adult Learners</td>
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<td>COMM 4206</td>
<td>Evaluating Learning and Development Effectiveness</td>
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**Total Credits:** 48

**Minimum number of credits required:** 48

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# Certificate in Strategic Human Resources with a Concentration in Human Resources Employment Relations

## Program Requirements

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**Total Credits:** 24

**Minimum number of credits required:** 24
Certificate in Strategic Human Resources with a Concentration in Human Resource Management and Development

Program Requirements
Concentration requirements

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Total Credits 24

Minimum number of credits required: 24

Certificate in Strategic Human Resources with a Concentration in Human Resources Operations

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Total Credits 24

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Courses

**HRA 4110 Human Resource: Foundations and Practice (4 Credits)**
This course provides a brief history and overview of the HR profession including career options. In-depth functional areas of HR including recruitment and selection, compensation and benefits, performance analysis and appraisal, employee and labor relations, HR technology, and professional development and organizational learning are researched and discussed. Foundational concepts of domestic and international workforce planning and talent management are also included.

**HRA 4120 Legal, Ethical and Employment Issues in Human Resource (4 Credits)**
This course provides students with a foundation of the major legal and ethical considerations impacting the functional areas of human resource management and its contribution to organizational growth and success. This course is designed to provide knowledge and practical application of employment, anti-discrimination, wage-hour and labor relation laws. The relationship between employment law and business ethics is a major focus of the course and both domestic and global perspectives are considered. Students are strongly encouraged to take HRA 4110, or be familiar with its content before taking this course.

**HRA 4130 Finance for HR Professionals (4 Credits)**
This course examines financial oversight and budget skills for organizations, including managerial financial, financial statements, cash flow, operating budget, cost-benefit analysis, and capital budgeting.
HRA 4140 Principles and Practice of Human Resources (4 Credits)
This course offers an introduction to HR as a professional field of study, and discusses how HR fits into the workplace. The course presents theories and issues in the HR field, and it defines the HR practitioner as a change agent. The course places HR management in the context of organizational strategy and policy. And it defines the core competencies of HR professionals including recruitment, selection, and placement; job classifications and wage and benefits; employee relations, supervision, counseling, and discipline, and employment law.

HRA 4150 Human Resources Across Organizations (4 Credits)
HR professionals may work in a number of organizational settings and sectors during their careers. This course provides an opportunity to explore how organizations may differ in legal structures, HR models, governmental oversight, records access, type and size, compensation processes, and benefits.

HRA 4160 Human Resources in a Global Economy (4 Credits)
This course explores the proprietorships, partnerships, corporations, nonprofits, multinational corporations, strategic alliances, regulatory agencies, and public organizations that cross sector and national boundaries from an HR-impact perspective.

HRA 4170 The Inclusive Organization (4 Credits)
Employees are coming to organizations with differences in race, ethnicity, gender, age, religion, sexual orientation, disability, and other aspects of diversity. How can organizations create a culture of respect, involvement, and positive outcomes for employers, employees, and other stakeholders with individual differences and group affiliations? This course examines these questions.

HRA 4180 Organizational Politics and the HR Professional (4 Credits)
Many programs developed by HR professionals may be impacted by politics, where decisions are made to further individual interests over the interests of other people. Despite the inclusion of best practices in the recommendations, decisions may be made for political reasons, agendas, or actions, and not always for the benefits of the employees. This course explores why and how politics may enter HR decision making, and identifies links between motivation and leadership.

HRA 4210 Strategic Workforce Planning & Talent Management (4 Credits)
This course explores the process of executing business strategy through the development of talent management programs that align the organization's talent needs with the specific competencies required to effectively execute corporate strategy. Successful execution of strategy requires a workforce that possesses the values, ethics, competencies, and behaviors needed to implement the strategy. The specific skills and professional competencies required will vary as a function of the roles and responsibilities performed, and the position held within the organization's hierarchy. Performance metrics, which focus primarily on operational efficiency or expense management rather than the effect that skills and competencies have on strategy implementation and execution may cause managers to make suboptimal decisions in achieving organizational goals. Workforce and HR scorecards should be based on performance that is tied directly to the achievement of the organization's unique strategy as opposed to standardized industry benchmarks. Effective talent management programs are essential to the maintenance of a firm's competitive advantage and the successful execution of organizational strategy. Students are encouraged to be familiar with HRA 4110 before taking this course.

HRA 4220 Learning: Development and Performance (4 Credits)
Organization, team, individual and management development are critical drivers for organizations succeeding in a global marketplace. Key steps in achieving development goals are: developing a firm understanding of the business needs, effectively engaging the workforce aligned with those needs, implementing effective learning and performance solutions and strategies, and measuring the return on investment (ROI). In this class, students research and examine effective development strategies as well as focus on various learning models, including adult learning. Differences between coaching and mentoring are addressed as they relate to employee or management development.

HRA 4230 Consulting and Human Resource Applications (4 Credits)
HR professionals must be able to turn strategy into action to benefit the organization. This course provides students with models, tools and concepts to effectively build relationships with key stakeholders, identify, analyze and diagnose organizational issues, develop and implement value-added solutions, effectively manage the change process and measure/monitor outcomes. Students apply a consulting model approach in all HR functions.

HRA 4240 HR Technology Solutions (4 Credits)
Technological advances have had a major impact on the use of information for managing human resource functions within both large and small organizations. The quantity of data being collected, stored, and manipulated on computers is growing at a rapid rate. The students in this course strengthen basic technology skills by examining how information is utilized in the functional areas of HR.

HRA 4250 HR Competencies and Talent Management (4 Credits)
In this course, students identify the political, economic and social systems that impact organizations and learn the essential principles for developing, utilizing and retaining human resources. Students will develop plans for staffing and forecasting, recruitment, career development, and succession planning, and they will understand the role of competencies.

HRA 4260 HR Analytics and Research (4 Credits)
This course covers a review of HR metrics, quantitative techniques and analysis. Students will examine HR research and consider a process to develop practical questions for HR use. Quantitative skills for modeling, spreadsheet analysis, process mapping, and workforce management reporting are developed. Human resource information systems (HRIS) and their role in supporting strategic decision making are examined and evaluated.

HRA 4270 Evaluating the Value and Impact of HR Interventions (4 Credits)
In this course, students will determine the long-term and short-term impact of interventions, especially looking at a cost-benefit analysis. The object is to have a practical strategy to provide decision makers the data for human capital investments support.
HRA 4310 Creating a Global Mindset (4 Credits)
Current writing suggests that leaders who develop a global perspective for change throughout their organizations will have a distinct advantage over those who do not. Models of effective global vs. domestic HR leadership skills and views are presented, discussed, and applied within the course setting. Common cultural, communication and diversity issues which can impede progress within organizations are addressed via surveys, assessment, suggestions and practice. Students strive to achieve a wide level of cultural competence.

HRA 4320 Global Human Resource Planning and Development (4 Credits)
Many organizations today are involved in international and intercultural interfaces with employees, customers, and owners. As business becomes more globalized, HR functions become more complex. This course explores global implications for policy development, HR planning, practices in HR functions, and processes that are necessary for effective global HR functioning. Through discussions, readings, research and projects students understand and apply global planning and development processes for human resources.

HRA 4330 Human Resource Challenges in the Global Marketplace (4 Credits)
Best practices within the domestic strategic HR management setting are a focal point for discussion while exploring and contrasting best practices in a global setting. Resulting HR challenges emerge which become the basis for course discussion, research and projects. Sample topics include acquiring, developing, engaging and retaining international talent, emerging markets, centralization vs. decentralization of functions, learning in a global era and international assignment management.

HRA 4340 Human Resource Case Studies and World Issues (4 Credits)
This course explores world events, laws, employment trends, international business topics and other significant issues which directly or indirectly affect the HR professional and the strategic positioning and preparation needed to function in a global HR environment.

HRA 4410 Problem Solving in Human Resource: Current Issues (4 Credits)
This is an advanced seminar covering various topics across the human resources (HR) function. It assumes a basic understanding of the key HR processes: recruiting, selection, on-boarding, training, rewards & recognition, and termination. Because the HR function does not operate separately from the rest of the business we will explore HR in the context of the broader business. This course examines HR issues through the use of case studies and reading of contemporary issues.

HRA 4420 Employee Relations (4 Credits)
The components of a comprehensive Employee Relations function are the focus of this course. Through research, small discussion groups, team presentations and case studies, students learn how the components of an Employee Relations function contribute as a strategic business partner within an organization. Topics include strategic partnering, policy interpretation, complaint resolution, leadership development, succession planning, inclusion, separation plans, business case development, coaching and counseling.

HRA 4430 Compensation and Benefits (4 Credits)
This course examines key issues and challenges facing compensation managers as they strive to attract and retain high performance talent in today's global economy. Such a task requires the implementation of an effective total rewards management system. A comprehensive view of compensation management concepts, models, strategies, incentives and practices are emphasized. Changes in legislation, behavioral science theories, social and human factors and economics are discussed. Investigation of the compensation management decision making process reveals the impact of decisions on stakeholders’ constituencies. Other specific topics include administration and compensation systems across public and private sectors, job evaluation, perceived equity, planning and budgeting, performance and satisfaction.

HRA 4440 Supervision and Managerial Decision Making (4 Credits)
As our economy becomes more complex with domestic and international ramifications, managers and supervisors are increasingly called upon to make crucial decisions leading to organizational effectiveness. Therefore, this course explores objective and subjective decision making models, and develops supervision skills for HR professionals. The rational approach is taught via maximization of expected outcomes and decision tree analysis. The irrational side of decision-making is covered through demonstrations and discussion of decision bias and judgment heuristics. Various supervision techniques are identified and defined (such as contracting, feedback, problem-solving, coaching, motivating others and managing conflict), and methods for modeling, teaching and transferring supervisory skills to others are explored and practiced.

HRA 4500 Organizational Leadership, Team Effectiveness, and Communications (4 Credits)
HR professionals are expected to be organizational leaders, build teams, and build strong internal communications. The course explores how to lead organizational change, manage organizational crisis, build effective teams, and develop strategic communications.

HRA 4510 Organizational Lifecycles and HR Implications (4 Credits)
This course examines the role of mission, vision, and values. Moving from start-up to mature organizations, the course asks what are HR responses to compensation, benefits, and HR structure? Matching HR structure and policies to organizational strategy is considered.

HRA 4520 HR Change Management (4 Credits)
Human Resources planning is an essential step when designing or implementing a change, small or large, within an organizational culture. The magnitude of change and the organizational culture will impact the change management communication, planning, and process. This course examines those factors.

HRA 4600 Human Relations in Organizations (4 Credits)
The purpose of this course is to explore the quality of work life, which leads to greater retention and employee satisfaction. Using the life cycle of a typical employee, effective communication and the role of interviews and exit interviews will be discussed. Additionally, job enrichment (vertical and horizontal), flexible work schedules, employee assistance programs, drug and alcohol rehabilitation, retirement planning, community service, and other programs will be analyzed.
HRA 4610 Employee Compensation (4 Credits)
This course examines the development and management of employee compensation systems, including motivational, productivity, job classification, and strategic considerations. It explores the history and purpose of a compensation system, today's issues, and key elements of compensation design.

HRA 4620 Employment Total Benefits (4 Credits)
This course develops historical context for employee benefits and the motivational implications. It reviews the wide range of potential benefits and discusses "total rewards" options. The course examines pension plans, social security, ERISA, major benefits legislation, health insurance, flex spending, and budget implications.

HRA 4630 Employment Law (4 Credits)
This course explores current legal issues that affect the HR function in organizations. These include EEO, sexual harassment, managing risk, discrimination, Wage and Hour, at-will employment, and current Supreme Court decisions. These legal issues will be examined from both the employee and the employer viewpoint.

HRA 4701 Topics in Human Resource (4 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues in the field of strategic human resource management, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

HRA 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass.

HRA 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in their degree field of study. The students produce a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students' research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

HRA 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.
HRA 4910 Research Practices and Applications (4 Credits)
This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through comparing and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master’s degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

HRA 4980 Internship (4 Credits)
The Strategic Human Resource Management Internship is designed to offer students a purposeful experience in a practical, industry related setting. The internship is an individualized learning experience. A training plan is created for each student in conjunction with the internship site supervisor to provide experiences related to the skills and knowledge covered in the certificate and master’s programs as well as professional goals. Students are responsible for finding their own internship site and proposing their internship ideas. University College will send notification to all SHRM students if they hear of internship possibilities. Students may also work through the DU career center to explore opportunities for internship experiences.

HRA 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a credit basis and only may be used by degree candidates. Prerequisite: Admitted degree candidate.

HRA 4992 Directed Study (1-8 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

General Information
Calendar and Term Definitions (p. 879)
Critical Notification System (p. 880)
Graduate Policy Scope, Adherence and Modifications (p. 880)
Graduate Program Definitions (p. 881)
University Grading System (p. 884)

Calendar and Term Definitions
Quarter Calendar
The academic calendar is divided into fall, winter and spring quarters and a summer session. Each quarter is approximately ten weeks long and summer session is nine weeks. There are four interterm sessions. Students may complete degree requirements through continuous enrollment, including summers, or may arrange the normal work of a three-quarter academic year in any desirable sequence of quarters and summer session.

Semester Calendar
The Sturm College of Law academic calendar is divided into autumn, spring and summer session. Each semester is approximately 15 weeks long. Students may complete requirements through continuous enrollment, including summers, or may arrange the normal work of a two-semester academic year in any desirable sequence of semesters.

University College Calendar
University College considers summer to be part of the academic year. The Summer Quarter is ten weeks long.

Summer Session
Summer session is an avenue for graduate students to accelerate their programs or complete necessary coursework. Elective and required courses are offered in a variety of time frames. Travel and other unique courses, including short, intensive workshops, are part of the summer program.
Visiting students, professionals and individuals from the community are admitted under an open enrollment policy.

**Note:** University College considers summer to be part of the academic year. The Summer Quarter is ten weeks long.

**Interterm**

Interterm is the time period prior to each academic quarter, during which short, on-campus and travel courses are offered. Hours completed in interterm are applied as credit toward graduation requirements. Students register for interterm classes through the Special Community Programs office.

**Note:** Some units may have specific requirements about the maximum number of interterm hours which may be applied toward the degree. Contact the unit for details.

**Critical Notification System**

**Registration Instructions**

The University can send voice or text messages to students in the event of an urgent situation. The system will call every contact number provided and leave a voicemail if the call is unanswered. Text messages are optional and sent to only one number. The owner assumes any costs associated with receiving text messages.

You may designate one number to receive text messages. If you have elected to receive a text message, you will receive a text message from the CINS vendor to confirm that you wish to opt in to receive future emergency text messages. You will be responsible for any costs associated with your text messages. Remember this is how we reach you in an emergency.

Students must provide valid contact information in order to receive a text message or voice mail alert. To update contact information, click the Notification Preferences link under Personal Information, which is found under the myWeb tab of PioneerWeb (https://PioneerWeb.du.edu).

**Emergency Contacts**

You may provide the University with contact information for individuals you wish us to contact in the event of an emergency. You may update emergency contact information in Personal Information, which is found under the myWeb tab of PioneerWeb (https://PioneerWeb.du.edu).

**Graduate Policy Scope, Adherence and Modifications**

The policy development mission of the Office of Graduate Studies (OGS) is to provide an authoritative, accessible and current repository for University and campus policies that impact the members of the University community across all graduate schools and programs. University policies have broad application throughout the University to help ensure coordinated compliance with applicable laws and regulations, promote operational efficiency, or reduce institutional risk. Individual schools and departments reserve the right to maintain policies particular to their units. However, unit-specific policies do not override university-wide policies. Policies duplicated on other websites or in print may not be the most current version. OGS recommends that graduate programs share content from the Graduate Policy Manual rather than creating their own pages with University policies. This will help ensure that everyone is referencing the most current versions of University policies.

**Student Responsibility for Bulletin Information**

Applicants to the University of Denver as well as admitted and enrolled students are held to the standards and procedures set forth in the University bulletin. Students are responsible for staying informed of the University’s policies and procedures.

**Modifications to the Policy in the Bulletin**

The University of Denver reserves the right to make changes in the regulations, rules, fees or other aspects of this University bulletin without advance notice.

Changes within academic units, the University, or applicable law (or other factors) may require modifications to this Graduate Policy Manual. Additionally, any unit or member of the Graduate Council may propose a change in policy by submitting a petition to the Associate Provost for Graduate Studies.
Graduate Academic Unit-level Adherence to and Implementation of University Policy

Each graduate unit must examine the Graduate Policy Manual and identify unit-specific policies or practices that conflict with the manual. Units shall adjust their practices to conform to University policy. If a unit believes it is necessary to maintain policies or practices that diverge from University policy, it shall petition the Associate Provost for Graduate Studies for an exception to policy.

Note: Student Services Offices

In the Graduate Policy and Procedures, the student services offices for each college, school and division are referenced the following:

- Office of Graduate Studies for Arts and Humanities & Social Sciences (AHSS), Morgridge College of Education (MCE), Graduate School of Professional Psychology (GSPP), Josef Korbel School of International Studies (JKSIS), Natural Sciences and Mathematics (NSM), Daniel Felix Ritchie School of Engineering and Computer Science (SECS), DU-Iliff Joint PhD Program (DU-Iliff)
- Student Affairs, Sturm College of Law for Sturm College of Law
- Office of Graduate Programs, Daniels College of Business for Daniels College of Business (DCB)
- Admission and Financial Aid Office and Registrar, Graduate School of Social Work for Graduate School of Social Work (GSSW)
- Student Affairs, Sturm College of Law for Graduate Tax Program
- Student Services Office, University College for University College (UColl)

Graduate Program Definitions

The University of Denver offers a range of graduate degree and certificate programs:

- Graduate Degree Program (p. 881)
- Formal Dual Degree Programs (p. 881)
- Flexible Dual Degree Programs (p. 882)
- Dual Undergraduate-Graduate Degree Programs (p. 883)
- DU-Iliff Joint PhD Program (p. 884)
- Certificate Programs (p. 884)
- Concurrent Candidacies (p. 884)

Graduate Degree Program

A graduate degree program is a combination of courses and related activities organized under the authority of a dean, the Associate Provost for Graduate Studies, Graduate Council, the Provost and the Board of Trustees for the attainment of broad educational objectives leading toward a post-baccalaureate degree.

In general, with the exception of students in the dual undergraduate-graduate program, graduate students must have earned a bachelor’s degree from a regionally accredited college or university before matriculation in a graduate program. However, with approval from the Associate Provost for Graduate Studies, students who have already earned a master’s degree, but not a bachelor’s degree, may in rare cases, matriculate without a bachelor’s degree.

Formal Dual Degree Program

FORMAL DUAL DEGREE PROGRAMS

A formal dual degree program links two master’s degrees or a master’s program with a JD program and leads to two degrees. The Graduate Council and the Associate Provost for Graduate Studies must approve all proposals for formal dual degree programs.

There are two types of formal dual degree programs. Type one incorporates two distinct disciplines where students complete two separate sets of core courses and cross-count electives. Type two incorporates two areas of study within one discipline where students can cross-count a common set of core courses and take separate sets of electives.

Dual degrees must be pursued concurrently, not consecutively. In order to meet this requirement, students interested in pursuing a dual degree must be matriculated, pursuing coursework, in both programs for one full academic year (three quarters or two semesters). Students in a one year program must matriculate into the second program no later than the first admission term following fifty percent (50%) coursework completion of the first program.
Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.

With fully developed and approved curricula, these programs are available to graduate students who are admitted to both schools and submit the Dual Degree Approval Form (http://www.du.edu/media/documents/graduates/dual_degree_form.pdf) during the program’s first term. For program details, please contact the school, college or department.

Flexible Dual Degree Program

FLEXIBLE DUAL DEGREE PROGRAMS

Students may propose a flexible dual degree program that links two master’s degrees or a master’s degree and a JD degree.

Students must submit the proposal for the flexible dual degree no later than one term prior to matriculation into the second degree.

Dual degrees must be pursued concurrently, not consecutively. In order to meet this requirement, students interested in pursuing a dual degree must be matriculated, pursuing coursework, in both programs for one full academic year (three quarters or two semesters). Students in a one year program must matriculate into the second program no later than the first admission term following fifty percent (50%) coursework completion of the first program.

Students should complete both degrees at the same time. However, students can receive the first degree as long as all original requirements and credits for the first degree have been met. They then have up to one year to complete the second degree (18 months for students admitted prior to winter 2017.) Students must apply for graduation for both programs.

Any significant changes to the approved program require the student to resubmit a revised proposal packet to the deans/chairs/directors and advisors of both programs and the Office of Graduate Studies.

Proposing a Flexible Dual Degree

To propose a flexible dual degree, the student must first apply to and be admitted by both programs, pay application fees and admissions deposits for both programs, and seek the counsel of an advisor in each program. Admission into each program does not take the place of filing a Flexible Dual Degree proposal (http://www.du.edu/media/documents/graduates/flexdual.pdf) nor guarantee approval of the proposal.

The dean, chair, or director of each degree program and both program advisors, must carefully compare the requirements for each program and approve the proposed curriculum. The student must then submit a copy of the original requirements for each degree (printout from the unit website or copy from the student handbook is acceptable), a detailed course plan showing all proposed courses, and the credit hours; a one to two-page statement of the educational/career objectives stating the reasons for the specific course selection and which courses most clearly serve the educational and career goals of the student; and current official/unofficial transcript(s) showing any work already completed towards the proposed program and degrees.

The student then submits the documents listed above to the Office of Graduate Studies, which reviews and decides on the proposals. Proposals with errors or course/program inconsistencies will be returned for revision.

Once the proposal is approved, the student will be entered into the University computer system as a flexible dual degree student.

Curriculum Structure

Students may propose any flexible dual degree program that seems reasonable to them and their advisors for academic and career objectives. Only elective courses may be counted among the hours used for reduction or cross-counting.

All the core requirements of each program must be preserved and cannot be overlapped or waived. Credit reduction due to cross counting of elective courses will be limited to the following for each program as determined by the original number of credit hours required for each degree.

Required credit hours for degrees and flexible dual degree reduction allowed:

- 45-60 quarter hour degree program: Reduce or cross-count a maximum of 10 quarter hours for the one degree without outside transfer credit. The traditional maximum outside transfer credit allowed in this case would be 10 quarter hours. A reduction of 15 quarter hours from the original degree will be the maximum allowed when combining outside transfer hours and the cross counting of degree hours.
- 61-75 quarter hour degree program: Reduce or cross-count a maximum of 12 quarter hours for the one degree without outside transfer credit. The traditional maximum outside transfer credit allowed in this case would be 22 quarter hours. A reduction of 25 quarter hours from the original degree will be the maximum allowed when combining outside transfer hours and the cross counting of degree hours.
- 76-90 quarter hour degree program: Reduce or cross-count a maximum of 15 quarter hours for the one degree without outside transfer credit. The traditional maximum outside transfer credit allowed in this case would be 45 quarter hours. A reduction of 45 quarter hours will be the maximum allowed from the original degree when combining outside transfer hours and the cross counting of degree hours.
The following must be followed consistently and accurately:

Dual Undergraduate-Graduate Admission and Records Procedures

For the graduate degree. The total number of credit hours required varies by department. All requirements of the graduate or professional program must be completed within the set time-frame. The amount of the credit hour reduction is variable across programs. To be admitted, a student's academic progress must demonstrate that the requirements of the program can be completed within the set time-frame.

Undergraduates still need to meet all normal core, major, minor and total credit hour requirements of their respective majors and minors before receiving the undergraduate degree. Graduate coursework is usually taken during the undergraduate “senior” year. Students should be admitted to the dual undergraduate-graduate program as early as practical for financial aid and other reasons. They must be admitted to the dual undergraduate-graduate program no later than the end of their tenth full-time quarter of the undergraduate degree (i.e., by the first quarter of the senior year).

The effective term for admission should be the term in which the student is permitted to take graduate courses. For example, if the student's senior year begins in the fall and the student meets admission criteria and may begin taking graduate courses in the subsequent spring term, the admission term should be that spring.

Non-Course Requirements

All non-course requirements must be fulfilled for both programs. If one of the non-course requirements of both intended programs is the writing and defense of a thesis, then (with prior approval from both departments) a combined thesis may be written as long as both departments are equally represented (from original proposal to completion) and so long as the most rigorous requirements are adhered to for completion and oral defense.

Students who decide to only complete one degree must inform the units, program advisors and the Office of Graduate Studies in writing of their intention to nullify the flexible dual degree proposal. Students must complete all the original requirements for the remaining degree in order to graduate.

Dual Undergraduate-Graduate Degree Program

DUAL UNDERGRADUATE-GRADUATE DEGREE PROGRAMS

A Dual Undergraduate-Graduate Degree Program is an institutionally approved program in which a DU undergraduate student begins taking classes toward a graduate degree program prior to earning a baccalaureate degree. Both degrees must be earned within five years of matriculation into the undergraduate degree program. Students pursuing a dual degree with a Juris Doctorate must earn both degrees within six years.

The programs may reduce a limited number of both undergraduate and graduate credit hours toward both degrees.

The amount of the credit hour reduction is variable across programs. To be admitted, a student’s academic progress must demonstrate that the requirements of the program can be completed within the set time-frame.

Undergraduates still need to meet all normal core, major, minor and total credit hour requirements of their respective majors and minors before receiving the undergraduate degree. Graduate coursework is usually taken during the undergraduate “senior” year. Students should be admitted to the dual undergraduate-graduate program as early as practical for financial aid and other reasons. They must be admitted to the dual undergraduate-graduate program no later than the end of their tenth full-time quarter of the undergraduate degree (i.e., by the first quarter of the senior year).

For students enrolled in a dual degree program, the University will award the undergraduate degree at the time it is earned.

As a dual-degree student, you are considered an undergraduate until you have fulfilled your undergraduate degree requirements, and should file your FAFSA (http://www.fafsa.ed.gov) and CSS PROFILE (https://profileonline.collegeboard.com/prf) as an undergrad. Once you complete your undergraduate degree requirements, you are considered a graduate student. Federal loan eligibility will increase for most students because of the higher student borrowing maximum and scholarship merit based aid will be decided and awarded by their graduate unit. If you have specific questions about how your financial aid may be affected, please contact the graduate academic program or the Office of Financial Aid for information. Dual undergraduate-graduate students who matriculated into the undergraduate degree 2012 and earlier will continue to receive the undergraduate financial aid award level in the 5th year. In addition, Boettcher and Daniels Fund scholars in a dual undergraduate-graduate degree will continue to receive the undergraduate financial aid award level in the 5th year.

Upon completion of the undergraduate degree federal loan eligibility will actually increase for most students because of the higher student borrowing maximum.

A student who chooses not to continue on for the graduate degree may count the graduate courses, if approved as relevant by the advisor, toward the undergraduate degree. (Students should visit the appropriate college or school for opt-out options and requirements).

Students enrolled in the dual undergraduate-graduate program who have been awarded the BA/BS degree, completed all required coursework and are working on a thesis may be eligible to enroll in graduate continuous enrollment.

Dual Undergraduate-Graduate Admission and Records Procedures

The following must be followed consistently and accurately:

• Students are admitted to dual undergraduate-graduate degree programs by the graduate admission unit. The graduate unit follows all normal admission procedures and the student must meet all admission criteria for the graduate program other than receipt of the baccalaureate degree. Students should be admitted to the dual undergraduate-graduate program as early as practical for financial aid and other reasons. They must be admitted to the dual undergraduate-graduate program no later than the end of their tenth full-time quarter of the undergraduate degree (i.e., by the first quarter of the senior year).

• The effective term for admission should be the term in which the student is permitted to take graduate courses. For example, if the student’s senior year begins in the fall and the student meets admission criteria and may begin taking graduate courses in the subsequent spring term, the admission term should be that spring.
Graduate units are responsible for assuring that the student information is accurate.

**Note:** A student who receives a bachelor’s degree and was not previously enrolled in a dual undergraduate-graduate program is **not** eligible to return and enroll in a graduate program and reduce the number of credit hours for the graduate degree.

## DU-Iliff Joint PhD Program

The University of Denver (Colorado Seminary) and the Iliff School of Theology jointly administer a program leading to the doctor of philosophy in religious and theological studies.

Joint PhD students maintain student status and have access to resources in both co-sponsoring institutions. Students in the Joint PhD program should be referred to as “DU/Iliff Joint PhD Students” and not primarily as either Iliff or DU students.

Students in the Joint PhD program are expected to know the specific policies, procedures, and requirements for both the University of Denver and the Iliff School of Theology.

## Certificate Program

A certificate program provides a set of learning experiences concentrated in a specific set of educational goals. At the discretion of the University, academic credit earned in certificate programs may be awarded at the graduate or undergraduate levels. Certificate programs may grant Continuing Education Units (CEUs), or they may include non-credit offerings.

**Certificates of Completion** may be awarded for completion of workshops, short courses and shorter sequences of credit courses. The certificate issued at the completion of the program does not indicate certification of attainment of any specific level of knowledge or competence. Admission requirements vary by program. Certificates of participation do not appear on transcripts. Certificates of participation may be produced by individual units and should not bear the University seal.

**Continuing Education Unit (CEU) Certificates** may be awarded for education programs that award CEUs. Continuing education units should be awarded based on standards developed by the International Association for Continuing Education and Training (IACET) or other recognized organization governing professional continuing education. Admission requirements vary by program. CEU certificates and courses appear on a distinct institutional CEU transcript. CEUs do not count toward academic degrees. CEU certificates may be produced by individual units but should be distinct in appearance from that of the academic certificate or institutional diploma.

**Certificates of Specialization** provide substantial education in an academic discipline and represent the achievement of competence in a well-defined area of study and they are embedded within degree programs. (Units are encouraged to use concentrations to officially denote a specialization within a student’s primary area of study.) Admission requires acceptance and enrollment into the degree program. Certificates of specialization appear on transcripts associated with an awarded degree. Certificates of specialization must be approved through the institutional curriculum approval mechanism.

**Academic or Credit Certificate Programs** provide substantial education in a specific academic discipline or may be interdisciplinary but center on a coherent and freestanding body of knowledge. The certificate issued at the completion of the program represents the achievement of competence in a well-defined area of study. Academic certificates require a minimum of 24 quarter hours or 16 semester hours of credit. At the discretion of academic units, credits earned in an academic certificate program may count toward a degree at the same level (i.e., graduate or undergraduate). While admission requirements and standards vary by program, applicants must meet minimum requirements for admission to the University. Academic certificates appear on transcripts. Academic certificates must be approved through the institutional curriculum approval procedures.

Credit hours that have already been counted for a previous degree that has been awarded cannot count towards granting a certificate. Contact the unit for details.

## Concurrent Candidacies

Concurrent candidacies occur when students are enrolled in two programs concurrently.

Admission and program requirements must be fulfilled for each program. There will be no reduction in the number of credit hours required for either degree.

At the time of admission, the student submits written approval from each unit allowing enrollment in two programs simultaneously.

## University Grading System

**Reporting Grades** (p. 885)

**Never Attended** (p. 885)

**Failing Grades** (p. 885)
Reporting Grades

Grades must be reported for all registered students by the grade submission deadline. For federal financial aid purposes, non-reported grades may be considered as failing. This can result in financial obligations for the student.

Never Attended

A Never Attended (NA) grade should be assigned to students who registered for a class (and appear on the roster) but never attended the class.

Failing Grades

If a student ceases attending class or submitting assignments (and has not earned a passing grade) and has not made arrangements for an incomplete (I), a failing (F) grade must be assigned.

Withdrawal (W)

For colleges, schools, and departments on the quarter system, official withdrawal during the second to sixth weeks of the term will automatically result in the recording of grades of Withdrawal (W) for all courses. In weeks six through eight W’s will be given with the instructor’s permission. If a student fails to complete a course and does not withdraw, a grade of (F) will be recorded on the transcript.

IP, NR and Incomplete Marks

Markers of IP (In Progress) or NR (Non-Reported) for courses on the transcript will turn to marks of Failing upon graduation if no grade has been assigned for the course.

Last Date of Attendance

Federal financial aid rules require institutions to record a student’s last date of attendance if the student ceases attending a class.

Last date of attendance appears on web and paper grade rosters. It is very important the university know that a student received a failing (F) grade because s/he ceased attending class. In cases where faculty do not have an exact date, an estimate should be provided (e.g., last assignment date).

Non-Passing Grades

Students who receive non-passing grades often have all non-passing grades for a term. By federal financial aid rules, the University must consider those students to have withdrawn from the University. If DU does not have accurate records, the University and the student may face financial obligations for federal financial aid.

Grade Reports

Students may view grades for courses on the web. Grades are available on the web as soon as they are validated in the Office of the Registrar. Privacy regulations do not permit the University to release grades over the telephone. It is the student’s responsibility to check his/her transcript to ensure that grades are recorded appropriately for completed courses.

For most programs at the University of Denver, grade reports are mailed upon request only. Requests to have grade reports mailed are valid through the summer term and must be renewed each academic year. Requests for mailed grade reports must be received by the last day of classes for the academic term. Grade Report Mailer forms are available in the Office of the Registrar.

Duplicate grade reports or reports requested after the end of the term may be obtained in the Transcript office for a fee.

Notes: Some units may have more specific grading guidelines and grade reporting procedures. Contact the unit for details.
Incomplete Grades

An Incomplete (I) is a temporary grade which may be given at the instructor’s discretion to a student when illness, necessary absence, or other reasons beyond the control of the student prevent completion of course requirements by the end of the academic term.

Incomplete (I) grades should be assigned only when all requirements for the course have not been completed because of circumstances beyond the student’s control. Incomplete (I) grades should be assigned only when the student has made specific arrangements with the instructor prior to the end of the term. An incomplete (I) grade should not be assigned in any other circumstances.

Incomplete grades may be given only in the following circumstances:

• The student’s work to date is passing; and
• attendance has been satisfactory through 60% of the term; and
• an illness or other extenuating circumstance legitimately prevents completion of required work by the due date; and
• required work may reasonably be completed in an agreed-upon time frame; and
• the Incomplete is not given as a substitute for a failing grade; and
• the Incomplete is not based solely on a student’s failure to complete work or as a means of raising his/her grade by doing additional work after the grade report time; and
• the student initiates the request for an Incomplete grade before the end of the academic term; and
• the instructor and student complete the Application for Incomplete Grade form before the end of the academic term.

Appropriate grades must be assigned in other circumstances. A failing grade and last date of attendance should be recorded for students who cease attending class without authorization. Students who are unable to complete a course and who do not meet these circumstances should consider dropping the course.

Once the coursework is completed and graded, the instructor must submit the grade using the University’s grade change process. It is in the student’s best interest that incomplete grades are made up by the end of the following academic term. Incomplete grades must be made up and final grades submitted within one calendar year. Only under the most extenuating circumstances may an Incomplete be made up more than one calendar year from the date it is recorded and only with approval of the dean of the unit in which the course was taken. The coursework may be completed while the student is not enrolled.

Incomplete grades will expire on the date selected by the professor when the grade of incomplete is entered. This date will be no more than one calendar year from the last day of classes of the quarter in which the incomplete was incurred. Faculty may enter a default grade that will appear on the transcripts should the expiration deadline lapse without further action on the part of the student. Incomplete grades may be replaced with letter grades prior to the expiration deadline with faculty approval through PioneerWeb.

Incomplete grades appear on the transcript for up to one year and they do not affect the grade point average at this stage. After one year, or at the time of graduation, incomplete grades will change to (F) and affect the GPA. (This policy affects incomplete grades given in fall 1995 and thereafter. Prior to 1995, unchanged incompletes remain on the permanent record as part of hours attempted and are calculated as a failing (F) grade in the GPA.) Notation of the original incomplete status of the grade remains on the student’s transcript along with the final grade.

An Incomplete grade may not be considered passing for purposes of determining academic standing, federal financial aid eligibility, athletic eligibility, or other purposes.

An Incomplete should not be assigned when it is necessary for the student to attend additional class meetings to complete the course requirements. Students who receive an incomplete grade in a course must not re-register for the course in order to remove the (I). An Incomplete should not be assigned where the normal practice requires extension of course requirements beyond the close of a term, e.g., thesis or project type courses.

Note: Some graduate units may have more restrictive policies.

Markers of Withdrawal, Incomplete or Failing grades on a student’s transcript may impact their satisfactory academic progress for determining federal aid eligibility. Contact the Financial Aid office for further information.
Admission and Enrollment Policies

Unit-specific admission requirements are set by individual academic programs and reviewed and published annually. Upon publication, the admission requirements are established for the annual admission cycle and may not be altered until the next admission cycle. Applicants must meet all published admission requirements.

Admission Status (p. 887)
Admission Process and Standards for All Applicants (p. 888)
Additional Standards for International Applicants (p. 891)
Additional Standards for Non-Native English Speakers (p. 893)

Admission Status

A student may be admitted to graduate study in one of the following classifications:

- regular degree student (p. 887)
- provisional admission (p. 887)
- certificate student (p. 887)
- special status student (p. 887)
- English Conditional Admission (ECA) (p. 888)
- lifelong learners (p. 888)
- visiting scholar (p. 888)

Regular Degree Student

Students unconditionally approved for graduate study in a master's, doctoral, or academic certificate program have regular status.

Regular status is required for advancement to degree candidacy and graduation. Qualified students may be recommended for admission to regular degree status provided they meet the minimum admission standards and the requirements set forth by the individual graduate degree program.

Provisional Admission

Students admitted with some deficiency in undergraduate training or incomplete credentials are admitted with provisions. Students may be accepted with provisions on a case-by-case basis. Students admitted with deficiencies in training (requiring coursework prerequisites) and/or incomplete credentials (still pursuing a baccalaureate degree) must complete requirements prior to matriculation. Those admitted with provisions must provide official documentation (e.g. official, final transcripts, proof of degree completion) no later than the sixth week of the first quarter of enrollment or a hold will be placed prohibiting registration.

Note: Some academic units may have more restrictive timelines for satisfying provisions. Contact the unit for details.

Certificate Student

A certificate student is one who is engaged in a program of study leading to a certificate. Only academic certificates will appear on the student’s transcript. Students must be admitted to a certificate program to be awarded the certificate.

Special Status Student

Students who do not intend to pursue a degree program may be admitted under special status. Proof of bachelor’s degree is required to enroll in graduate courses under special status. International applicants must demonstrate proof of English language proficiency and submit the International Special Status Supplement form. Special status students must secure the appropriate departmental administrator’s signature on the special status form prior to submitting it for registration. Admission as a special status student does not guarantee admission to any University of Denver graduate degree program. In the event that the student subsequently wishes to undertake a degree program at the University of Denver, the regular application procedures must be followed, including the submission of the required application fee. No more than 15-credit hours earned in special status may be applied to the degree.

Special status students must apply each term in the appropriate graduate unit. Special status students may not register during priority registration, but may register immediately prior to the beginning of each term. Some academic units do not allow special status enrollment.
English Conditional Admission (ECA)

In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, graduate units, at their discretion, may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through the University of Denver’s English Language Center to meet the English language requirement. English language training at centers outside of the University of Denver will not be counted toward meeting English language proficiency requirements.

Lifelong Learners

University College offers courses to non-degree seeking students and non-certificate seeking students. These students are designated as Lifelong Learners. Neither entrance examinations nor a baccalaureate degree are required in order to register for courses as a Lifelong Learner. Students must declare their status as Lifelong Learners during their first quarter of enrollment.

Lifelong Learners may take University College courses for non-credit (NC). The courses cannot be counted toward a degree.

Visiting Scholars

Faculty members of other institutions may pursue postdoctoral study for no credit as guests of the University, without paying tuition. Visiting faculty members should apply to the department in which they plan to study. If graduate credit is desired, they must register as special status students and pay the regular tuition rates.

Admission Process and Standards for All Applicants

The University of Denver requires the submission of specific items and documentation from students applying for admission to graduate study. All materials must be received in the Office of Graduate Studies, or appropriate admission unit, by the program’s stated deadline. All credentials submitted become property of the University of Denver and cannot be copied or returned to the applicant/student or any person(s). The information given on the application must be true and complete without evasion or misrepresentation. Applicants who willfully omit, falsify, or provide incomplete statements may be denied admission or dismissed.

University Admission Criteria

The University of Denver offers admission to applicants who demonstrate the highest potential for successful graduate study. Applicants are evaluated by the individual programs to which they apply on the basis of their prior performance and professional promise as evidenced by academic records, letters of reference, standardized test scores, and other pertinent data. Academic program admission requirements may be in addition to or more rigorous than University minimal standards. To be admitted as a regular graduate student, an applicant must meet the following requirements:

- **Baccalaureate Degree:** Applicants must hold an earned baccalaureate degree from a regionally accredited college or university.
- **The minimum undergraduate GPA for admission consideration for graduate study at the University of Denver is 2.5. For applicants with an earned master’s degree or higher from a regionally accredited institution, the GPA from the graduate degree may be used to meet the GPA requirement.**
- **Standardized Test Scores:** The University of Denver does not require graduate entrance examinations for admission. However, many graduate programs do require standardized exams such as the Law School Admission Test (LSAT), the Graduate Record Examination (GRE), the Graduate Management Admissions Test (GMAT), or the Miller Analogies Test (MAT) for admission. Some departments may require applicants to take the GRE Subject Test in a specific discipline as well. Please see the published admission requirements for specific academic program admission requirements.

Note: The minimum GPA requirement for the JD in the Sturm College of Law is set according to the standards of the American Bar Association.

Application

Applications for graduate study at the University of Denver must be submitted online (requests for accommodation may be granted).

Application Fee

A non-refundable application fee is required for each application.

The non-refundable application fee (bank draft, cash, money order, wire transfer, or personal check) drawn on U.S. funds, covers the cost of processing application materials. A credit card payment is accepted during online application submission only. Applications will not be processed until the application fee is paid. No waivers or deferrals are allowed with the exception of McNair Scholars and other national scholar programs with the approval of the Associate Provost for Graduate Studies. Certification of participation must be included with the application materials.
Transcripts and Proof of Degree

Applicants are required to submit one official transcript from each post-secondary institution they have attended, or are presently attending, where two quarter hours (or one semester hour) or more were completed including study abroad and college coursework completed in high school. Proof of a bachelor’s, and, if applicable, a master’s degree is required from a regionally accredited college or university.

Official transcripts must be received in the time-frame set by the admitting unit but no later than the sixth week of the first quarter of enrollment, or a hold will be placed on the student’s account prohibiting future registration.

The applicant is responsible for obtaining all transcripts. University of Denver students and alumni do not need to provide University of Denver transcripts.

Students with three-year baccalaureate degrees from 15-year educational systems from accredited institutions of higher learning are qualified to be considered for graduate admission to the University of Denver. Applicants with a three-year baccalaureate degree cannot be granted English Conditional Admission. For more information, see English Conditional Admission (ECA).

Applicants who have earned a degree outside the U.S. also must submit proof of graduation, typically through a degree certificate or diploma. Official study abroad transcripts are required unless the course titles, grades and credit earned abroad appear on another transcript. Applicants educated outside the United States are encouraged to contact the Office of Graduate Studies or the appropriate admission office for assistance regarding transcript-related materials.

Transcripts from outside of the U.S. are evaluated by the Office of International Student Admission (http://www.du.edu/apply/admission/apply/international). This process can take three to four weeks and must be complete by the program’s stated deadline. Therefore, applicants with a degree from outside of the U.S. are encouraged to apply early.

All official transcripts must include a statement of receipt of degrees earned (or separate degree/diploma certificate).

The University of Denver will consider paper transcripts official when delivered to the University of Denver in a sealed envelope from the issuing institution or a third-party agency acting on behalf of the institution provided the following criteria are met:

- The transcripts must have the original signature of the registrar and/or the seal of the issuing institution
- The transcripts must be enclosed in an envelope with the stamp or signature of the registrar across the sealed flap

The University of Denver will consider electronic transcripts official from a domestic institution provided the following criteria are met:

- The transcript is certified as official from the college or university using a third-party agency for the certification process. Approved agencies include Army/American Council on Education Registry Transcript System (AARTS), National Student Clearinghouse, Naviance, Royall and Company, and Scrip-Safe. The University of Denver reserves the right to rescind approval of the above-mentioned agencies based on changes in technology utilized by the agency. Upon request, the Office of the Registrar will take into consideration a third-party vendor other than the aforementioned agencies.
- The transcript must be received from the third-party agency by a University official.
- The transcript must be a certified PDF document with no evidence of tampering. The transcript must be retrieved from a secure server. Emailed transcripts will not be accepted.

Certified English translations must accompany all transcripts except for those provided by institutions that issue documents in English. Errors or omissions in English translations may be grounds for refusal or dismissal. Please consult the Office of Graduate Studies for specific details.

The University of Denver reserves the right to reject transcripts or request additional information if there is any question about the authenticity of the document. Transcripts with course work in progress will not be considered final and admission will be granted provisionally.

Notes: Some units may have more restrictive admissions requirements or guidelines. Consult the unit for more information.

The Office of International Student Admission evaluates international post-secondary transcripts.

Supplemental Documents

Letters of recommendation from professors, preferably in the student’s field of concentration or from employers, may be required. Some graduate units require an admissions essay, statement of purpose, or other supplemental application documents. Applicants should consult with the published admission requirements for specific guidelines for the letters of recommendation, essay, statement of purpose, or other supplemental documents.
Reuse of Supplemental Documents

Supplemental documents, including letters of recommendation, remain on file for 12 months from the date of application and may be reused within that time frame upon request by applicants who have not matriculated. Otherwise, new documents will be required. Supplemental documents are purged upon matriculation into a graduate program and will not be available for reuse.

Admissions Examinations

Some programs require standardized test scores such as the General Record Examination (GRE). Scores must be received directly from the appropriate testing agency by the program’s stated deadline date. The University of Denver’s ETS Institution Code is: 4842. Individual graduate programs reserve the right to set test score requirements.

If an exam is required for admission, it must be taken prior to acceptance unless the applicant was granted English Conditional Admission, in which case, it must be completed prior to matriculation, and the official test score must be received no later than the sixth week of the first quarter of enrollment or a hold will be placed prohibiting registration.

Pearson Vue and the Educational Testing Service policy are to report scores until September 30th following the fifth anniversary of the test date. Therefore, test scores are only valid for five years.

Note: Contact the graduate unit for details on required admission examinations.

Verification of Legal Permanent Residency

A copy of the Permanent Resident or Green Card is required for permanent residents. Applicants should provide a copy of Permanent Resident or Green Card at the time of application.

Admission Offer

The admission offer must be officially accepted or declined by the stated deposit deadline in the admission letter. If the offer is declined, the applicant will not be eligible to enroll in a future term without reapplying to the program.

The University of Denver is a signatory on the Council of Graduate Schools (CGS) Resolution Regarding Graduate Scholars, Fellows, Trainees, and Assistants that binds all departments to an agreement that students are under no obligation to respond to offers of financial support (admission) prior to April 15th; earlier deadlines for acceptance of such offers violate the intent of the Resolution.

Admission Deposit

A non-refundable deposit is required of all applicants newly admitted to each graduate program. The admission deposit must be submitted by the stated deposit deadline in the admission letter.

The deposit confirms the applicant’s intent to attend the University. Only those who have confirmed their attendance in the program by sending the proper deposit receive registration information. Applicants must deposit directly to the Office of Graduate Studies or the appropriate admission office. Deposit fees vary by program. Consult the individual graduate unit for information on the required deposit and deadline. The deposit is applied to the first term of tuition. However, fully funded graduate assistants and employees using a tuition waiver may request a refund of the deposit from the Bursar’s Office upon matriculation.

Reapplication

Applicants who wish to enter the same program within one year of a previously submitted application must reapply for admission by submitting a new online application and supporting documents and will be charged a reapplication fee. Official transcripts and supplemental documents remain on file for up to 12 months and may not need to be resubmitted. The student will be admitted under the degree requirements in effect at the time of reapplication.

Admission Term Changes

Deferral

Deposited students who would like to postpone enrollment for a term or up to a year can request to defer their admission. Requests for deferrals must be put in writing. Deferrals must be approved and processed prior to the first day of the accepted term. Only one deferral will be approved per admitted student.

In rare instances, a deferral may be granted up to the third week of the accepted term. If the deposited student does not request a deferral by the stated deadline, the student must apply and pay the application fee for admission into future terms. The deposit is non-refundable.
Note: Some units do not allow deferrals or may have more stringent deferral requirements. Contact the unit for details

Early Enrollment
Some graduate programs allow deposited students to request a one-time change of admit term to indicate an earlier start term. Requests for term changes must be put in writing. Term changes must be approved and processed prior to the first day of the intended matriculation term and may only be considered for an established admission term.

If the deposited student does not enroll in the term to which the admit term change was granted, the student must apply and pay the application fee for admission into future terms. The deposit is non-refundable.

Note: Some units do not allow term changes or may have more stringent term change requirements. Contact the unit for details

Change of Graduate Program
Post application submission and prior to an admission decision, applicants may request a one-time change to the academic program to which they applied. After an admission decision has been rendered, a new application and application fee are required to be considered for admission to a different program. Expected to matriculate (deposited) students should follow the University change of degree or program student policy which allows for a change of major or concentration, or to change to a lesser degree (doctoral to master’s level), within the same college/school.

Additional Standards for International Applicants
Per Student & Exchange Visitor Program (SEVP) regulation, international applicants must meet all standards for admission before an I-20 or DS-2019 is issued, [per U.S. Federal Register: 8 CFR § 214.3(k)] or is academically eligible for admission and is admitted [per 22 C.F.R. §62].

Student & Exchange Visitor Program (SEVP) regulation prohibits the issuance of a Form I-20 based on conditional admission (English Conditional Admission), or provisional admission with deficiencies totaling a quarter or more. To cure the admission requirement deficiencies the DSOs may be issued a non-degree I-20. When applicants have met all of the standards for admission the DSO may issue a Change of Level (COL) I-20 for the program of study.

Designated School Officials (DSOs) can only issue a Form I-20 when students have met all standards for admission for the program of study listed on the Form I-20. These standards for admission include any English proficiency requirements.

Required Documents for I-20/DS-2019 Issuance
When an international applicant has been admitted to the University of Denver, in order for an I-20 or DS-2019 to be issued, the student must submit the following:

- Passport copy
- DU Financial Verification form (http://www.du.edu/isss/media/documents/forms/financial-verification.pdf)
- Bank statement or Certificate of Deposit with sufficient funds for the estimated cost of attendance (http://www.du.edu/financialaid/graduate/cost) for the student’s program as listed by the Office of Financial Aid
  - Only liquid funds will be accepted
- If applicable, student financial guarantee (FGL) letter from the sponsoring agency/government office

Photocopies of the above documents are accepted. These requirements do not apply to U.S. permanent residents or students not in F-1 or J-1 immigration status. Financial verification is reviewed by International Student and Scholar Services.

SEVIS
Students who are not U.S. citizens or permanent residents must hold an immigration status granted by the U.S. federal government which allows study in the United States in order to maintain legal immigration status. Most students enroll at the University of Denver in F-1 or J-1 immigration status although other statuses may also permit students to study in the United States.

The Student and Exchange Visitor Information System (SEVIS) is used by government agencies and school officials to collect and maintain information on F and J students and their dependents. School officials use SEVIS to issue original certificates of eligibility to students (I-20 for F-1 students, DS-2019 for J-1 exchange visitors) to apply for a visa at a U.S. embassy, apply for a change of status in the U.S. or transfer status from another school.

Federal immigration regulations also require school officials to maintain students’ records in SEVIS from matriculation through the end of their program, which includes any post-completion training (Optional Practical Training for F-1 students and Academic Training for J-1 students) authorized by U.S. Citizenship and Immigration Services or the University.
Only a Designated School Official (F-1 program) or Responsible Officer (J-1 program) may access student records in SEVIS. DSOs and ROs may also issue a limited number of immigration benefits to students, including permission to drop below full-time status and authorization or recommendation for employment.

SEVIS requires school officials to enter certain biographical, financial and program details to generate an initial I-20 or DS-2019 for students and dependents. Federal immigration regulations specify the types of changes and reportable events that school officials must report in SEVIS after a student has matriculated. The primary reporting requirement is the enrollment status of students, which must be reported each academic term.

**Note:** The J-1 program is comprised of several different categories, including non-degree exchange, degree-seeking student, research/scholar, and intern. Enrollment requirements only apply to student categories.

### Mandated Event Related Reporting
- change in U.S. (physical) address-reported as mailing address in PioneerWeb
- change in foreign address-reported as home address in PioneerWeb
- change in legal name
- change in country of citizenship
- change in major field of study, secondary major
- change in education level
- completion of program
- extension of program duration
- authorization to drop below full-time status
- authorization to withdraw from program
- absence from the country for more than five months
- transfer to another school or program
- authorization for on-campus employment (J-1 students only)
- authorization for pre- or post-completion Academic Training (J-1 students only)
- authorization for Curricular Practical Training (F-1 students only)
- recommendation for pre- or post-completion Optional Practical Training (F-1 students only) and extensions permitted under STEM or “cap gap” regulations
- change in employment status or employment details during authorized periods of practical training

In addition to reporting the above changes or events, school officials must also respond to any formal request for information about a student made by the Department of Homeland Security or Immigration and Customs Enforcement.

### Session Related Reporting
- Enrollment status (including failure to enroll or unauthorized drop below full-time)
- Current U.S. (physical) address-reported as mailing address in PioneerWeb
- Current session end date
- Next session start date (or start of next period of required enrollment)

### Violations of Status
A violation of status occurs when a F-1 or J-1 student fails to abide by the requirements and restrictions of immigration status. A violation of status may result in the student’s loss of legal status in the United States and may jeopardize the student’s eligibility to be in the U.S. legally to study at the University.

Violations of status for F-1 and J-1 students include the following:
- failure to report arrival in the United States to the school or program
- failure to report reportable information by required deadline
- failure to enroll during a period of required enrollment
- failure to maintain health insurance coverage (J-1 students only)
- unauthorized drop below full-time
- unauthorized employment (including unauthorized off-campus employment or exceeding the maximum number of hours per week permitted for on-campus employment)
- academic suspension
- conviction of a crime
Note: The J-1 program is comprised of several different categories, including non-degree exchange, degree-seeking student, research/scholar, and intern. Enrollment requirements only apply to student categories.

Additional Standards for Non-Native English Speakers

English Language Proficiency (p. 893)

English Conditional Admission (ECA) (p. 893)

Required Tests for GTA Eligibility (p. 894)

English Language Proficiency

TOEFL/IELTS

Official scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. Applications will not be processed until the required TOEFL or IELTS score is received. The TOEFL and IELTS scores are valid for two years from the test date and are considered official only when received directly from the testing agency.

TOEFL

The minimum TOEFL score accepted by the University is 80 (iBT) or 550 (paper-based). The institution code for the University of Denver is 4842.

IELTS

The minimum IELTS score accepted by the University is 6.0.

English Language Proficiency Assessment

Students whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC).

• Students whose University of Denver assessment demonstrates they are proficient enough in English to be academically successful, regardless of TOEFL/IELTS scores, may enroll in graduate academic classes full-time.

• Students whose University of Denver assessment demonstrates minor deficiencies and indicates their opportunity for academic success would be enhanced by ELC support may enroll in academic classes full-time and will be placed in an ELC bridge course(s).

• Students whose University of Denver assessment indicates significant levels of deficiency will be placed in an ELC bridge course(s) but may elect to take an appropriate level of English language instruction at the ELC and may be required to reduce their academic course load accordingly.

Students who do not attend the English Language Assessment must contact the ELC to arrange for an assessment in order to be cleared for registration and will incur a $200.00 assessment charge.

English Language Exemption

Applicants may be exempted from English proficiency test requirements if by the time of matriculation they have earned a baccalaureate degree or higher from a formally-recognized/accredited university where the institution’s language of instruction and examination is English. Such applicants may be exempt from the TOEFL/IELTS and the English Language Proficiency Assessment requirement but not from other standardized graduate entrance examinations.

Note: Individual graduate programs reserve the right to set higher TOEFL or IELTS test score requirements. Graduate Teaching Assistants have a higher speaking test requirement.

English Conditional Admission (ECA)

In cases where minimum TOEFL/IELTS scores were not achieved or no English proficiency test was taken, graduate units, at their discretion, may offer English Conditional Admission (ECA) to academically qualified non-native English speakers. Such applicants must take training through the University of Denver’s English Language Center to meet the English language requirement. English language training at centers outside of the University of Denver will not be counted toward meeting English language proficiency requirements.

International applicants with a three-year baccalaureate degree cannot be granted English Conditional Admission.

Students who are admitted under the ECA option are not eligible for Graduate Teaching Assistantships until they have met the requirements of the ECA program, met the minimum requirement for GTAs on the speaking section of the TOEFL or IELTS exam, and have been changed to regular status students.
ECA students cannot enroll in any regular degree courses prior to meeting the University’s English requirement. In order to be granted regular status in their graduate degree programs and become eligible to take academic classes, ECA students must meet one of the following requirements:

- Present a departmental qualifying minimum TOEFL or IELTS score and take the English Language Proficiency Assessment or
- Successfully complete intensive English courses through level five at the University’s English Language Center (http://www.du.edu/intl/elc) (ELC) and take the English Language Proficiency Assessment.

Applicants must determine if the department they wish to apply to allows English Conditional Admission. If it does, applicants need to apply for admission to the degree program and indicate that they wish to be considered for ECA.

Students seeking ECA under F-1 or J-1 immigration status must prove their ability to pay for their first year of major/degree studies prior to matriculation even though they will attend the English Language Center (ELC) initially. It is expected that these financial resources will remain available for the duration of the degree program.

Financial aid awards for the degree program cannot be applied to the costs for English language training and additional proof of funding may be requested before the appropriate immigration document can be issued.

If admitted conditionally, the student’s English language proficiency will be tested by the ELC and the student will be placed in the appropriate class level (one through five). Testing for ELC class levels will take place after a student arrives on the University of Denver’s campus and prior to the beginning of ELC classes.

Notes: Some units may not accept students under English Conditional Admission and therefore, would not accept ELC completion to meet English language proficiency requirements. Graduate departments may require ELC graduates to submit a TOEFL/IELTS score for admission consideration. Additionally, graduate departments may, at their discretion, require any admitted non-native English speakers to take courses at the English Language Center regardless of his/her TOEFL/IELTS score.

Note: In general, ELC students may not take graduate classes concurrently with their enrollment in ELC. The exception to this is students who are fully admitted to the graduate program and are encouraged to take ELC classes.

**Required Tests for GTA Eligibility**

**TOEFL/IELTS**

Any graduate applicant whose native language is not English (including US citizens and permanent residents) and who is from a country where English is not the native language, regardless of his or her educational background or citizenship, who wishes to be considered for any Graduate Teaching Assistantship during any year of study in any graduate department at the University of Denver, must demonstrate fluency in spoken English by scoring a minimum of 26 on the Internet Based TOEFL (iBT) exam speaking section or an IELTS score of 8 on the speaking section.

**English Language Proficiency Assessment**

Students offered a Graduate Teaching Assistant (GTA) position whose native language is not English and who are required to submit TOEFL/IELTS scores will be assessed by the University of Denver English Language Center (ELC) and will need to complete a proficiency assessment designed specifically for GTAs.

Prospective GTAs who are awarded a GTA based on demonstrated fluency in spoken English by scoring a 26 on the TOEFL speaking section or an eight (8) on the IELTS speaking section whose University of Denver assessment demonstrates they are not sufficiently proficient may be permitted to hold a GTA position, but must be restricted to non-teaching GTA responsibilities and will be required to enroll in an ELC speaking bridge course for enrichment.

Students may contact the unit and/or the Office of Graduate Studies for additional details.

**Tuition, Fees and Financial Aid Policies and Procedures**

Financial Aid (p. 894)

Tuition and Fees (p. 898)

**Financial Aid**

Financial aid for graduate students is in large part provided by individual departments based on the mission and goals of the unit. The Office of Financial Aid does not award scholarships, grants, fellowships, or GTA/GRA waivers for graduate students. The student should contact the academic unit in which s/he is enrolled or plans to enroll. The Office of Financial Aid offers Federal Work-Study, Federal Perkins loans, Federal Direct loans and provides information on additional financing options, including Federal Direct Graduate PLUS loans and alternative (private) loans.

DU graduate students are eligible for two types of aid:
• Federal and state aid (available to U.S. citizens and permanent residents), which includes the Colorado Graduate Grant, Federal TEACH Grant, Federal Work Study, Federal Perkins Loans, Federal Direct loans, Federal Graduate PLUS loans, and
• Merit-based aid, which includes the Graduate Studies Doctoral Fellowship, Graduate Studies Doctoral Fellowship for Inclusive Engagement, divisional/departmental scholarships and awards and graduate teaching assistantships (GTA)/graduate research assistantships (GRA) awards.

To apply for federal aid and certain types of institutional need-based aid, a student must complete the Free Application for Federal Student Aid (https://fafsa.ed.gov) (FAFSA). Only U.S. citizens, permanent residents and eligible noncitizens can submit a FAFSA. International students are not eligible.

The FAFSA (https://fafsa.ed.gov) is available on January 1st each year (October 1st, starting in the 2017-18 academic year) and is submitted online. The University of Denver's school code is 001371. Applicants and students are encouraged to meet the University of Denver's priority deadline for FAFSA submission. The U.S. Department of Education Central Processing system receives and processes the FAFSA. Once the FAFSA is processed, the student receives an email that allows access to an electronic Student Aid Report (SAR). The SAR summarizes the FAFSA information and provides a dollar amount for the Expected Family Contribution (EFC). Students should review the SAR comments and make any necessary corrections. The University of Denver Office of Financial Aid will receive the SAR information electronically from the U.S. Department of Education. Students do not need to send the University of Denver a copy.

Each academic year approximately 30% of financial aid applications are selected by the U.S. Department of Education for review. This process of review is known as verification. If a student is selected for verification, a comment will appear on the SAR. In addition, the Office of Financial Aid will send an email to a new student’s FAFSA email address or a continuing student’s University of Denver account requesting verification documentation.

Deans Scholarship Hours

Contact the academic unit for information on availability and requirements.

Federal Direct Loans

To qualify for Federal Direct Loans, graduate students must be enrolled at least half-time in an eligible degree or certificate program (four credit hours or more per quarter/semester). To receive loans, a student must also make Satisfactory Academic Progress (SAP) in the program of study, not be in default on an educational loan and submit all required financial aid forms. Federal Direct Loans are the most common type of aid for graduate students. Eligibility is determined by information provided on the FAFSA. The Office of Financial Aid offers awards.

For students needing additional funding, other financing options are available including payment plans, Federal Direct Graduate/Professional PLUS Loans and private education loans. For information on these options, please visit the Office of Financial Aid (http://www.du.edu/financialaid/graduate) website.

Federal Perkins Loans

The Federal Perkins loan is a federally guaranteed, fixed-rate, low-interest loan for graduate students enrolled at least half-time (four credits per term). Federal Perkins loans are awarded by the Office of Financial Aid on a first-come, first-served basis to students who meet the financial aid priority date. To qualify, a graduate student must typically have an EFC of $0. Not all students who meet the eligibility requirements will receive the award. Funds are limited and awarded until exhausted. The typical annual award amount is $4,000 for the traditional academic year (fall, winter and spring quarters or fall and spring semesters). Students awarded a Perkins loan can find additional information about entrance counseling and the Master Promissory Note (MPN) on the Bursar’s (http://www.du.edu/bursar) website.

Students on Continuous Enrollment are not eligible for Federal Perkins Loans.

Important note for the 2016-17 academic year:
The U.S. Congress is ending the Federal Perkins Loan Program, and regulations prohibit us from offering this loan to new students beginning in the 2016-17 academic year. Only continuing students who borrowed a Perkins loan in 2015-16, and who are continuing in the same academic program for which the most recent Perkins loan was received, are eligible to receive it for 2016-17. For those students, the loan must disburse prior to October 1, 2017 in order to receive it for the rest of the academic year.

The Perkins loan will no longer be available to graduate students after the 2016-17 academic year.

Federal Work-Study/Student Employment Program

This work program, funded by the federal government, provides part-time employment at an hourly wage, which is determined by the demands of the job and the skill and experience of the student employee. The program encourages community service and work related to each student’s career goals.

To qualify for a graduate work-study award, students must be enrolled in an eligible degree program. Priority will be given to students enrolled full-time who meet the priority application deadline. Students enrolled half-time, in continuous enrollment, or are in a reduced rate academic program* will be offered work-study in the amount of $1500, without the option to increase their award. Work-study will be prorated for students that do not attend
full year; switch his/her academic program to a reduced tuition program; or change his/her enrollment from full-time to half-time or continuous enrollment.

* For the 2016-17 aid year, quarter students that have a tuition rate less than $1258 per credit, semester students that have a tuition rate less than $1547 per credit. Examples include but are not limited to the Women’s College, University College, and Certificate and Licensure programs.

Students in dual undergraduate-graduate degree programs who have received the bachelor’s degree and are officially enrolled as graduate students may be eligible for graduate work-study. Students must meet the need-based fund requirements listed above and demonstrate a calculated need.

Recipients of the graduate work-study award must be enrolled half-time (at least four credit hours per term). Awards are made through the financial aid awarding process through the Office of Financial Aid on a first-come, first-served basis.

Work-study handbooks are available from the Office of Student Employment for students and supervisors and provide further details regarding work-study policies and procedures.

**Background Checks**

All employees, including work-study students, must fill out background check paperwork and be cleared by Human Resources as eligible to hire prior to officially being offered a position. Background checks must be run if the student has never been an employee at the University of Denver or if they have not worked at the University of Denver for more than 120 days. Overseas addresses may require additional time for processing in order for the background check to be completed.

**Off-Campus Employment Website**

Financial Aid maintains an off-campus job website for currently enrolled students who want jobs regardless of their financial need. This enables them to earn money to help pay education expenses. Part-time jobs are available off campus with local businesses, non-profit organizations, government agencies, University of Denver alumni and families in the Denver community. Students will earn at least the current federal minimum wage, but the amount may be higher depending on the type of work and the skills required. Additional information about part-time employment can be found on the Office of Student Employment (http://www.du.edu/studentemployment) website.

**Merit-Based Funds**

Merit-based awards are competitive and limited in number. Early application is always advisable. Application dates vary. Check with the college, school, or department for specific requirements and deadlines.

**Graduate Studies Doctoral Fellowship**

The purpose of the Graduate Studies Doctoral Fellowship (GSDF) is to assist in the recruitment of new highly qualified domestic or international students to doctoral programs at the University of Denver. Awards will be made to excellent nominees as soon as they are received and approved. A small portion of the total GSDF funds will be reserved for rolling admissions. This is a one-time award for new students and must be used in the first year of attendance.

For each student recommended, the department submits a nomination form and detailed supporting letter for each student they are recommending to the Office of Graduate Studies. Please refer to the nomination guidelines available at: www.du.edu/grad/faculty.

**Graduate Studies Doctoral Fellowship for Inclusive Engagement**

The purpose of the Graduate Studies Doctoral Fellowship for Inclusive Engagement (DFIE) is to assist in the recruitment and retention of highly qualified students to doctoral programs at the University of Denver for the purpose of furthering the University’s mission of inclusive excellence specifically in regard to attributes such as race, ethnicity, class, gender, age, culture, religion, sexual orientation, or (dis)ability. Awards will be made to excellent nominees as soon as they are received and approved. A small portion of the total DFIE funds will be reserved for rolling admissions.

For each student recommended, the department submits a detailed nomination form and a letter from the student explaining current engagement in activities that contribute to an inclusive environment that benefits all students. Please refer to the Inclusive Engagement Fellowship Policies and Procedures (http://www.du.edu/media/documents/graduates/inclusiveengagementfp.pdf) for additional information.

**GSDF and DFIE Awards and Eligibility**

The maximum award that can be requested per student is $4,500 per year and $1,500 per quarter, spread evenly across the quarters of attendance. The award can be combined with other types of aid including GTA or GRA appointments in order to create a financial aid package that will assist the highest qualified students. Both fellowships are merit-based.

- Only doctoral students are eligible for these awards. Doctoral students may be domestic or international.
- The awarding of the GSDF is based on merit. While graduate units may set their own specific guidelines regarding the definition of merit, each nominee must possess high GPAs for all previous work, have attained exceptional scores on graduate entrance exams (GRE, etc.), an acceptable
TOEFL/IELTS score or equivalent if an international student and have a strong letter of support from the admitting unit. Only the very best applicants should be nominated.

- Students must be enrolled for at least eight quarter hour credits of coursework (i.e., not Continuous Enrollment) during each quarter in which they receive the GSDF. If the student drops below the minimum enrollment for the quarter, the award will be withdrawn for that quarter.
- The Associate Provost approves or denies the request and the department is notified of the decision.
- The department notifies the student of the status of the award. Students with approved awards must log in to PioneerWeb (https://PioneerWeb.du.edu) and go to Financial Aid Awards to accept the award.
- The GSDF award will then be dispersed through the Office of Financial Aid.

Satisfactory Academic Progress (SAP)

Satisfactory Academic Progress (SAP)

Federal regulations require the Office of Financial Aid at the University of Denver to monitor the academic progress of all students receiving financial aid toward the completion of their degree. To retain eligibility for student aid, students must meet the terms of the Satisfactory Academic Progress (SAP) policy described here. The SAP policy is enforced in conjunction with all other University policies and procedures, including the academic suspension policy. For masters, JD, and doctoral students, SAP is checked on a yearly basis, usually in mid to late summer, and any probation or suspension is effective the following fall term. Graduate certificate program students are an exception; SAP is monitored after each term, including summer.

SAP is monitored using the three following factors:

- cumulative grade point average
- cumulative completion rate
- maximum time frame limit

Cumulative Grade Point Average (CGPA)

Graduate students must maintain a cumulative GPA of 3.0 or better (2.30 for Graduate Tax and Law students). According to the policy of the Registrar, the grade point average is determined by multiplying the credit points (e.g., B+ = 3.3) by the number of credit hours for each course. Total the credit hours attempted, total the credit points and divide the latter by the former. Grades of I, NR and W are not included in the grade point average. Incompletes that are not resolved within one year are calculated as "F" in the GPA. All grades for repeated courses are included in determining the GPA. Undergraduates have separate GPA requirements and will be calculated separately. Official GPAs at the University of Denver are truncated at two decimal places (e.g., a mathematical result of 3.8766666 is reported as 3.87).

Cumulative Completion Rate (CCR)

In order to graduate within the maximum time frame (MTF) limit, students must complete and pass a minimum of 66.67% of all courses attempted. The courses used to calculate the CCR will be the courses the student was enrolled in at the end of week one of the academic term. Successful completion of a course of study requires a grade of Pass or D or above or a C for graduate students. Grades of W, NC, NP, WF, F, Audit, or Incomplete do not constitute successful completion of a course. All accepted transfer credits are counted as attempted, with the exception of transfer credits completed while a student is not meeting DU SAP requirements. Remedial coursework is accepted if the credit hours earned apply toward the degree or certificate program.

Maximum Time Frame Limit (MTF)

Students are required to complete all degree requirements within a percentage of the minimum credits required to graduate. The MTF for Graduate and Law students is 150%, thus a student may attempt a maximum of 135 credits in order to complete a degree that requires 90 credits. In the case of a class taken more than once, both grades will be counted toward MTF. The courses used to calculate the CCR as well as when the student has reached the MTF limit will be the courses the student was enrolled in at the end of week one. Once a student has reached the MTF limit, or at the point we determine they will go over it once they complete their required courses, the student is no longer eligible for federal or state financial aid.

Graduate students will be notified by the Office of Financial Aid by email and by mail at the current mailing address after SAP is determined if they do not meet the following criteria:

1. maintain a 3.00 CGPA (2.30 for Law students)
2. maintain an 66.67% CCR
3. complete all degree requirements within a 150% MTF limit

Financial Aid Suspension and Probation

Students failing to meet either the CGPA or CCR are placed on financial aid suspension and will not receive a disbursement of any financial aid until a SAP Probation Contract is completed. The SAP Probation Contract is not available online. Students are required to make an appointment with a financial
aid staff person to complete the contract. Students have one term to complete the SAP Probation Contract. This will always be the fall term or the term immediately following the failure to meet SAP for certificate students. If a SAP Probation Contract is not signed, the student is no longer eligible for financial aid (unless an appeal is submitted and approved as stated below).

Once a student completes the SAP Probation Contract, the student will be able to receive financial aid for a probationary period of three quarters (two semesters) to make up the deficit. Certificate students have a probationary period of one quarter to make of the deficit. Students must meet both the CGPA and CCR by the end of the probationary period for financial aid eligibility to continue. If a student fails to meet either the CGPA or CCR by the end of the probationary period, the student is no longer eligible for financial aid.

Students will be suspended from financial aid once they reach the MTF limit (student has attempted 150% of the minimum credits required to graduate), unless an appeal is submitted and approved (please see below).

**Appeal Process**

Students who are not meeting Satisfactory Academic Progress and have extenuating circumstances surrounding their failure to abide by the above criteria may appeal their status to the Office of Financial Aid.

Examples of possible appeals include:

- a student who exceeds the maximum time frame (MTF) limit due to a change in degree program
- a student who had extenuating personal/medical circumstances that have been resolved
- a student who was studying abroad and could not reasonably be expected to complete the SAP Probation Contract in the fall term

To appeal financial aid suspension, students are required to submit the following documentation to the Office of Financial Aid: a written statement from the student explaining the reason for appeal, including his/her program of study, anticipated completion date, a list of required courses left to complete the program, if appropriate; third party documentation surrounding the reason for the appeal. Appeal decisions will be emailed to students within three to five weeks of submission. If the Special Circumstances Committee needs more information regarding the SAP appeal to make a decision, a financial aid staff person will coordinate this effort and the time frame to make a decision will be delayed. Appeal decisions are final.

**Tuition and Fees**

Tuition Charges (p. 898)

Student Fees (p. 898)

Late Charges (p. 899)

Student Financial Liability (p. 899)

Refund Information (p. 899)

Tuition Refund Appeals (p. 899)

Informal Appeal/Automatic Refund (p. 899)

Formal Appeal (p. 900)

**Tuition Charges**

Tuition for most programs during the regular academic year (fall, winter, and spring quarters) is charged at a flat rate for students carrying 12 through 18 credit hours. Students in a flat rate program will be charged the hourly rate on each hour taken beyond 18 hours per quarter.

Other academic programs, such as Sturm College of Law, Daniels College of Business, University College and some distance education programs, may have a different tuition rate and students in those programs may not be eligible for the flat rate. Tuition charges for residents or non-residents of Colorado are the same. The University reserves the right to make changes in tuition charges or refund policies without advance notice.

**Student Fees**

In order to enhance opportunities for students’ use of technology in and out of the classroom and to provide multiple modalities of student learning, a student technology fee is charged each quarter to all students. This fee is charged per credit hour taken. The student activity fee is assessed of all registered graduate and professional students (both part- and full-time). Exclusions include students enrolled in degree programs in the Sturm College of Law or University College non-credit courses and non-degree programs.
Late Charges

Registration beginning on the first day of the quarter is considered late registration. All students (continuing, new, returning leaves of absences, and readmitted) who do not register before the first day of the quarter are assessed a late registration service charge that cannot be waived. Once registered, students may drop and add courses freely through the seventh day of the quarter without financial penalty.

Late Registration Service Charge

A service charge of $25 is assessed the first day of the quarter for all students who have not enrolled in at least one course prior to the first day of the quarter. A $50 service charge is assessed from the second through the fifth days of the quarter (business days, Monday–Friday). If registration is available over the weekend during or immediately following the first five business days, the $50 service charge is applied to first-time weekend enrollees (Saturday or Sunday). A $100 service charge is assessed beginning the sixth business day and continuing through the remainder of the quarter. Days are calculated based on the term’s academic calendar and not on the class meeting days of specific courses. Tuition, fees and any other charges are due as specified on the billing statement. The service charge is not assessed for adding classes to an existing schedule. The maximum fee assessed for late registration in a given term is $100.

Late Payment Fee

Registered students for a given term who have not paid, or made arrangements to pay, their tuition by the appropriate University deadlines may be assessed a late payment fee. Late fees are assessed every month until a balance is paid in full or payment arrangements are set up.

Student Financial Liability

It is the student’s responsibility to abide by the University’s payment and refund policies.

If, after completing the registration process, the student does not withdraw from registration by the last day for 100% refund for dropped classes’ date published on the Academic Calendar (http://www.du.edu/registrar/calendar) on the Office of the Registrar’s website, the student agrees to pay the total amount of tuition and other charges set forth. The student understands that if any payment is not made when due, or if the student withdraws, or is required to withdraw, from the University for any reason, then all remaining tuition and other charges are immediately due and payable. All amounts not paid when due may begin to accrue monthly late fees. In addition, the student agrees to pay all collection costs and amounts. If the student has any overdue charges outstanding, the University may recover those overdue amounts by reducing any payments owed by the University to the student.

Students are not removed from classes based only upon non-payment. Students who do not officially withdraw from classes and do not attend have “F” grades assigned and may owe tuition and charges as specified above.

Students with a past due balance for a given term are not allowed to enroll in classes for any subsequent term. Grades, transcripts, and other attendance certifications are withheld and a financial hold placed on the account until payment is received.

Refund Information

The date of withdrawal from a class at the University is the date that the Registrar’s Office receives a written notification of withdrawal or the date the student drops the class online.

In order for tuition charges to be reversed at 100% for complete withdrawals, programs on the quarter system (except University College) should refer to the Academic Calendar (http://www.du.edu/registrar/calendar) on the Office of the Registrar’s website, for specific refund dates. Refunds are first applied to any obligations owed to the University, including charges with future dates.

Note: Some units may have different policies regarding tuition, fees and payments. Contact the unit for details.

Tuition Refund Appeals

A student may appeal for an exception to the University refund policy if unusual circumstances exist that are beyond the student’s control. A student must officially withdraw from the course prior to beginning the appeals process. The statute of limitations for an appeal is 90 days from the end of the term in which the course for which the tuition being appealed was offered.

Informal Appeal/Automatic Refund

If a student drops all classes for a given term, an informal appeal for a full refund may be made to the Office of the Registrar. An informal appeal requires that the withdrawal is completed and the request for the tuition refund is made prior to the end of the sixth week of the term (defined by the deadline for automatic W). To be eligible for an automatic refund, the condition for withdrawal must meet one or more of the following criteria and must be accompanied by appropriate documentation as specified below:
Criteria and Documentation

Physical and/or mental illness that prevents the student from completing the course(s)
Documentation: A signed, dated, letter on letterhead from the physician for physical illness or psychiatrist or other licensed mental health professional for mental illness. The letter must specifically state that the student was advised to withdraw due to illness.

Death of a student (sixth week deadline for informal appeal waived)
If a student dies after enrolling and paying tuition but before the sixth week of the quarter, the tuition will be refunded without a formal tuition appeal.

After the sixth week of the quarter, a formal appeal must be submitted to the Bursar’s Office.

Documentation: Memorial Service folder, notice published in the newspaper, or copy of the death certificate.

Serious illness or death of immediate family member, which prevents the student from completing the course(s)
Documentation for illness: A signed, dated, letter on letterhead from the physician for physical illness or psychiatrist or other licensed mental health professional for mental illness.

Documentation for death: Memorial Service folder, notice published in the newspaper, or copy of the death certificate.

Job relocation or loss of employer reimbursement eligibility due to involuntary job loss
Documentation: A signed, dated, letter on letterhead from immediate supervisor or human resource administrator.

Unexpected increase in job responsibilities, required change in work schedule, or required travel that prevents completion of all courses
Documentation: A signed, dated, letter on letterhead from immediate supervisor or human resources administrator that specifies dates of increased workload or travel.

The documentation, as listed above, must be submitted to the Office of the Registrar prior to the end of the sixth week of the term. If the documentation is adequate and establishes a condition that prevents the student from completing the course(s), appropriate adjustments are made to the student’s account. If conditions do not merit an automatic refund, the student may make a formal appeal. The Office of the Registrar and the Bursar’s Office staff reserve the right to request that a formal appeal be made if in their judgment conditions or documentation are inappropriate or dubious.

Formal Appeal

In cases where circumstances do not fit the criteria for an informal appeal, the end of sixth week (automatic “W”) deadline has passed, or an informal appeal is not accepted, a formal appeal for full or partial refund may be filed. Petitions are filed through PioneerWeb. Select the Student tab, locate Documents/Requests in the upper right hand section of the page and select Request for Tuition Appeal. Completed forms and supporting documentation must be submitted by noon on the first Thursday of the month. Petitions are reviewed and decided by the Tuition Appeals Committee, which meets once per month. The decision of the Committee is final and is communicated to the student by letter.

Notes: In accordance with federal, state and institutional regulations, approval of an appeal may require forfeiture of any financial aid proceeds received, which may result in an outstanding balance being owed to the University.

Academic Requirements, Policies and Procedures

Academic Standards (p. 901)
Change of Degree or Program (p. 904)
Class Attendance (p. 904)
Doctoral Degree Requirements and Standards (p. 905)
Electronic Thesis and Dissertation (p. 909)
Enrollment Status (p. 911)
Graduation Requirements (p. 914)
Internships After Completion of Coursework (p. 916)
Master’s Degree Requirements (p. 916)
Readmission (p. 920)
Registration (p. 920)
Grade Point Average

The grade point average (GPA) is determined by multiplying the credit points (for example, B+ = 3.3) by the number of credit hours for each course. Add up the total credit hours attempted, total the credit points and divide the number of points by the number of hours.

Grades of I, IP, NC, NR, W, NP or P are not included in the grade point average. Incomplete grades that are not completed within one calendar year from the quarter the original course was taken are converted to grades of “F” in the GPA. All grades for repeated courses are included in determining the GPA.

Good Academic Standing

Graduate students must maintain a cumulative GPA of 3.0 or higher to be in good academic standing. Master’s students in the Sturm College of Law must maintain a cumulative GPA of 2.7. JD students in the Sturm College of Law must maintain a cumulative GPA of 2.3.

Below 3.0 Grade Point Average

Any student whose overall grade point average falls below a 3.0 (2.7 for Law Master’s, 2.3 for Law JD) is no longer in good academic standing and may be warned, put on probation, suspended or terminated, depending upon the grade point deficiency. Each quarter on probation, the student must contact his/her advisor to develop a plan to remedy the academic deficit.

If it is numerically impossible for the student to raise his/her GPA to 3.0 (2.7 for Law Master’s, 2.3 for Law JD), or if in the opinion of the student’s advisor, department chair and/or dean, the student is not making academic progress to finish the requirements of the degree the student will be terminated from the program.

Students whose GPA falls below a 3.0 may not be eligible for some types of financial aid. For more information, see Section 8.4 Financial Aid: Satisfactory Academic Progress (SAP) or contact the Office of Financial Aid for details. The student is ineligible to represent the University in intercollegiate activities.
Graded Work Accepted for the Degree

In no case may more than one-fourth of the hours accepted toward the degree be grades of "C." A grade lower than "C-" renders the credit unacceptable for meeting University degree requirements. Grades of "C-" or better qualify for graduate credit but may not count towards the degree. Students should consult with their program to understand unit-specific minimum grade requirements.

Students cannot take more than eight-quarter hours beyond the degree requirements in order to make up grade deficiencies. These additional credit hours should be relevant for the degree and approved by the student’s advisor. Students whose grades are still deficient after taking the additional eight hours are terminated from the degree program.

Note: Satisfactory grades for the Sturm College of Law may be different. Consult the unit for details.

Repeating Courses

Repeatable courses include independent research, independent study, topics courses and music performance courses. Unless it is specifically designated as repeatable, a course in which the student has received a qualifying grade may not be repeated for credit.

If a non-repeatable course is taken again, the regular tuition rate is charged, and the course is counted as part of the total credit load. All grades are counted in GPA calculations. The highest grade received in the repeated course fulfills the degree requirements, but hours earned toward degree requirements are counted only once.

All repeated courses appear on student transcripts. Automated advising tools (e.g. the Academic Progress Report) may show only first grade for the course.

Candidate Status and Completion of Coursework

Advanced degrees are not awarded automatically on completion of the required number of courses or hours of credit, and the candidate’s status is subject to review at any time.

Grade Changes

Grades submitted by instructors at the end of the term are final and are not subject to change by reason of revision of judgment on the part of the instructor. Grades cannot be changed on the basis of a second trial, such as a new examination or additional work undertaken or completed after the grade report has been recorded, or by retaking the course.

In the event of a grade error, the faculty member should change the grade using the University’s grade change process. Any correction or appeal of a grade must take place in the term following the one in which the grade was assigned.

The initial reporting of a grade does not require the grade change process; if the grade was not recorded or if the course is listed as IP (In Progress), a memo on departmental letterhead will suffice to report the grade.

Note: Some graduate units may have more restrictive policies. Contact the academic unit for details.

Probation

Any student whose overall grade point average falls below a 3.0 will be placed on probation. Requirements for probationary status for Sturm College of Law is 2.7 for master’s students and 2.3 for JD students.

Each quarter on probation, the student must contact his/her advisor to develop a plan to remedy the academic deficit.

If it is numerically impossible for the student to raise his/her GPA to 3.0 (2.7 for Law Master’s, 2.3 for Law JD), or if in the opinion of the student’s advisor, department chair and/or dean, the student is not making academic progress to finish the requirements of the degree, the student will be terminated from the program.

Suspension

Students may be suspended from the University for academic or behavioral misconduct and may not be permitted to enroll for a period specified as part of the terms of their suspension.

The University will not accept courses completed at another institution while the student is under suspension.

A suspended student who wishes to re-enroll must request readmission through his/her program’s admission office.
Termination

A student will be recommended for termination from his/her graduate program for the following reasons:

- the student maintains a GPA lower than 3.0 (2.7 for Law Master’s, 2.3 for Law JD) for three consecutive quarters (two semesters)
- if it is numerically impossible for the student to raise his/her GPA to 3.0 (2.7 for Law Master’s, 2.3 for Law JD), or if in the opinion of the student’s advisor, department chair and/or dean, the student is not making academic progress to finish the requirements of the degree
- a department can document that a student will not be returning
- the time limit for completing provisions has expired
- the time limit for completion for the degree has expired
- the request for an extension of time has been denied
- the student wishes to change to another degree program outside of the college, school, or department in which s/he is currently enrolled
- severe academic or behavioral misconduct
- violation of the Honor Code

If the student chooses to reapply to a program after being terminated, the time limit to complete the degree may not automatically be reset, and there is no guarantee a student will be readmitted, even if s/he reappears.

Notes: Some programs may have more stringent policies. Contact the unit for details.

Requirements and procedures for termination for Sturm College of Law students may be different. Students should consult the unit for appropriate procedures.

Mandatory Withdrawal Policy

A student will be subject to mandatory withdrawal if the Associate Provost for Graduate Studies or his/her designees, in consultation with appropriate university administrators, has probable cause to conclude that the student has engaged or threatens to engage in the following:

- poses a significant danger of causing imminent physical harm to others
- impedes the lawful activities of other members of the campus community,
- reasonably demonstrates an inability to maintain academic progress at the University
- fails to comply with a request for mental health evaluation after exhibiting behavior that poses imminent self-harm.

Except in emergencies (see Mandatory Interim Emergency Withdrawal Policy) at least seven days advance notice will be given to the student if s/he may be subject to mandatory withdrawal. The time and place of the informal hearing will be included in the notice.

The student may be asked to undergo a physical or psychological evaluation to assist the Associate Provost in his/her determination. A student who does not complete a requested evaluation may be withdrawn pursuant to the emergency policy.

After at least seven days, an informal hearing will be held, wherein

- The Associate Provost or his/her designee and the Director of Health and Counseling Services will review any physical or psychological evaluation that they may have and give the student the opportunity to review and discuss that evaluation.
- The student may be accompanied by medical or mental health professional, faculty member, or another person of his/her choice who may serve as an advocate.
- A decision regarding continuance or withdrawal from the University will be made by the Associate Provost or his/her designee.
- A statement of reasons will be made and filed with the student’s record for any decision requiring a student’s mandatory withdrawal from the University. This statement will include the requirements for re-admission to the University. These requirements may include a mandatory period of separation from the University to allow for treatment and recovery. Record of the withdrawal will be released only under circumstances described by the Federal Educational Rights and Privacy Act (FERPA)

Mandatory Interim Emergency Withdrawal

An interim emergency withdrawal may be implemented immediately by the Associate Provost for Graduate Studies or his/her designee if any of the following conditions are felt to be present:

- the student’s behavior poses a significant danger of causing imminent physical harm to others, or
- the student suffers an accident or illness that gravely disables him/her, or
- the student is impeding the lawful activities of other members of the campus community

A student withdrawn on an interim basis shall be given an opportunity to appear personally before the Associate Provost or his/her designee within 48 hours from the effective date of the interim withdrawal in order to discuss the following issues only:
• the reliability of the information concerning the student’s behavior, and
• whether or not the student’s behavior poses a significant danger of causing imminent physical harm to others, or of impeding the lawful activities of other members of the campus community.

A student subject to such an interim withdrawal may be asked by the Associate Provost or his/her designee to release and submit the following information prior to continuing his/her educational program and/or returning to campus:

• Written statement by an appropriate licensed health care provider, including:
  • A description of the problem(s) that led to the student’s interim withdrawal, including diagnoses, and indicating that the student, at the time of evaluation by the health care provider, is medically able to resume study at the University.
  • In addition, the health care provider must list any medications prescribed for the student, any side effects that may affect the student’s ability to attend and complete classes, whether any prescribed medications require monitoring, and the name of the treatment provider designated to monitor the medication.

• The student must sign a HIPAA-compliant consent form for release of the information by the provider.
• Submit a completed Treating Health Care Provider Questionnaire form provided by the University.
• The name of a health care provider who is providing continuing treatment and/or may be contacted in an emergency.
• Releases of information signed for DU’s Health and Counseling Center and the Associate Provost’s office to consult with each other and with the treatment provider.

After reviewing the information, the Associate Provost or his/her designee may decide:

• to readmit the student
• to readmit the student pending the informal hearing, or
• to continue the withdrawal pending the informal hearing.

Administrative Withdrawal

Students are administratively withdrawn from courses that are canceled by the University.

Canceled courses are deleted from the student’s record and tuition charges reversed, if appropriate. Students are notified of the cancellation by the college, school or department responsible for offering, and subsequently canceling, the course.

Change of Degree or Program

A student wishing to change major or concentration, or wishing to change to a lesser degree (doctoral to master’s level), within the same college/school must request that the graduate unit submit a completed change of major form to the appropriate student services office. Graduate units reserve the right to request that the student submit a full application for admission (which includes the application fee) to the appropriate admissions office, instead of a change of major form.

A student wishing to change to a major or degree outside of the current college/school, or wishing to change to a higher degree (master’s level to doctoral), must submit a full application for admission, including an application fee and supplemental admissions documents, to the appropriate admissions office.

A graduate student who wishes to change to another degree program must be terminated/withdrawn from the program of original admittance and accepted into the new degree program.

Note: Some units may have alternative procedures for changing degree programs. Contact the unit for details.

Class Attendance

Students must officially enroll for the courses they attend. A student cannot receive credit or a grade for a course without being enrolled in it.

Instructors have the right and responsibility to establish attendance policies for their courses.

Students are responsible for informing instructors about their absence from class and for completing assignments given during their absence.

Religious Accommodations and Class Attendance

Faculty, staff, student organizations and other programming groups are strongly urged to be mindful of major holy days in their scheduling. A list of the most-frequently observed religious holidays can be found at: http://portfolio.du.edu/religiouslife. Please note this list is meant to be inclusive of most major religious traditions (although certainly not comprehensive) and religious holidays have no official status at DU.
University policy grants students excused absences from class or other organized activities for observance of religious holy days, unless the accommodation would create an undue hardship. Faculty are asked to be responsive to requests when students contact them in advance to request such an excused absence. Students are responsible for completing assignments given during their absence, but should be given an opportunity to make up work missed because of religious observance.

Once a student has registered for a class, the student is expected to examine the course syllabus for potential conflicts with holy days and to notify the instructor by the end of the first week of classes of any conflicts that may require an absence (including any required additional preparation/travel time). The student is also expected to remind the faculty member in advance of the missed class, and to make arrangements in advance (with the faculty member) to make up any missed work or in-class material within a reasonable amount of time.

Examples of reasonable accommodations for student absences might include: rescheduling of an exam or giving a make-up exam for the student in question; altering the time of a student’s presentation; allowing extra-credit assignments to substitute for missed class work or arranging for an increased flexibility in assignment due dates; releasing a graduate assistant from teaching or research responsibilities, etc. The student must be given the opportunity to do appropriate make-up work that is equivalent and intrinsically no more difficult than the original exam or assignment. Faculty should keep in mind that religion is a deeply personal and private matter and should make every attempt to respect the privacy of the student when making accommodations (for example, it is not appropriate to announce to the class that a student is doing a presentation or making up an exam at a later date because of their religious observance).

If a student and course instructor cannot agree on an accommodation, the student may bring the matter to the Department Chair for a decision. Additional resources in resolving disagreements over accommodations include the University Chaplain, the Center for Multicultural Excellence, and the Office of Diversity and Equal Opportunity. If there is still no agreement, the student may bring the matter to the school or college dean’s office, where a final decision will be made. Students who believe they have been discriminated against on the basis of religion by the denial of a requested religious accommodation may contact the Office of Diversity and Equal Opportunity to learn about filing a discrimination complaint.

Final Exams

Any final exam for a course must be scheduled during the final exam period. Each quarter, the Office of the Registrar posts the final exam schedule on its website at www.du.edu/registrar. Students must attend all final exams as scheduled by faculty. Students are expected to let their instructors know when they have more than one exam being held at the same time. The Office of the Registrar will attempt to resolve conflicts whenever possible. Final exams are not changed to accommodate student travel plans, and students should only plan travel after the official end date of the term.

Campus Weather Closures

Sometimes severe storms may create such a hazard that the University makes a decision to close and cancel operations for a period of time. Students can receive information about campus weather closures by registering for the Critical Incident Notification System (http://bulletin.du.edu/graduate/academic-requirements-policies-and-procedures/class-attendance/campus-weather-closures/20/graduate/general-information/critical-notification-system). The University of Denver homepage will also be updated to reflect a closure due to severe weather.

Doctoral Degree Requirements and Standards

The doctorate is the highest degree offered by the University. It is conferred on students who successfully complete those requirements that the faculty of the college, school or department have prescribed as the criteria for determining the general proficiency and specialized competence of the candidate in his/her chosen field. Total achievement, within the framework of certain accepted standards and uniform course requirements, constitutes the major consideration in awarding the doctorate. Each candidate’s program is planned and carried out under the supervision of the program advisor and committee in accordance with requirements approved by departments, and with regard for the individual nature of the student’s objectives.

Requirements (p. 905)

The Doctoral Dissertation (p. 906)

Doctoral Dissertation Oral Defense (p. 907)

Completing the Degree (p. 908)

Requirements

Credit Requirements

The approved range of graduate credit for the doctoral degree is 90-142 quarter credit hours beyond the bachelor’s degree. However, some colleges, schools and departments may have different requirements; consult the specific graduate program for details.

Students enrolled in a graduate program should not take courses towards another degree program unless s/he has been accepted into the second program, and no more than 15 quarter hours of credit may be earned at the University of Denver and applied towards a degree program before
acceptance into that degree program. Advanced degrees are not awarded automatically on completion of the required number of courses or hours of credit.

**Residency Requirements**
Enrollment in at least six quarters (four semesters), minimally 45 credit hours, including at least two consecutive quarters (one semester) of full-time attendance is required for graduation.

**Advising**
Responsibility for securing approval of a proposed program of study rests with the student. Consultation with the advisor at regular intervals is essential to satisfactory planning and progress toward a degree. The requirements outlined in the college, school, or departmental summaries serve as a guide to program planning and are subject to specific determination in consultation with program advisors, and the student must assume full responsibility for meeting basic requirements and deadlines, as well as the specific requirements outlined by the program advisor.

**Research Tool Requirements**
Candidates may be required to demonstrate proficiency in the required tools for research and advanced study.

Where required, tool requirements are determined by the candidate’s advisor and committee, and may include one or more languages, statistical methods, laboratory or other research skills. Consult the college, school or department for requirement details.

**Advancement to Preliminary Candidacy**
The minimum requirements for advancement to preliminary candidacy include: formulation and approval of candidate’s general plan of study, achievement of regular status, a minimum grade point average of 3.0 in all work completed to that point, posting of any transfer credit to the candidate’s record and planning of tool requirements.

During or immediately after the first full quarter of doctoral study (normally the first post-Master’s quarter), students should arrange with their college, school, or department for an evaluation of status so they may be recommended for advancement to preliminary candidacy.

**Note:** Advancement to preliminary candidacy may also require satisfactory completion of entrance qualifying examination, if required by the program. Consult the college, school or department for more details.

**Comprehensive/Competency Examination**
This examination is either a written or an oral test designed to evaluate the student’s work in the major and related fields. The examination is scheduled at least three quarters (two semesters) prior to graduation. A candidate who fails one or all parts of the examination may petition the college, school or department for re-examination. If granted, a re-examination may not be scheduled until the following quarter.

It is generally expected that students will complete the comprehensive exam prior to defending the dissertation proposal. Students should consult with their unit regarding the timing of the comprehensive exams and the proposal defense.

**The Doctoral Dissertation**
The dissertation represents the culminating research experience for doctorate of philosophy students through which degree candidates are expected to complete quality original scholarship that contributes to the theoretical/research knowledge base of the candidate’s field of study. The college, school or department determines the amount of credit allowed for research and work on the dissertation.

The Graduate School of Professional Psychology requires their doctorate of psychology candidates to complete a doctoral paper instead of a dissertation.

The Morgridge College of Education requires their doctorate of education candidates to complete a doctoral paper instead of a dissertation.

**Program-Level Dissertation Proposal Committee**
All candidates for the doctorate of philosophy degree must have a dissertation director who is a tenured or tenure-track faculty member in the student’s graduate program. Programs may require that dissertation proposals be approved by or defended before a committee within the department. Programs reserve the right to determine the composition of the dissertation proposal committee. However, only those who meet the following University requirements may serve as voting members of the oral defense committee.

**Doctoral Dissertation Oral Defense Committee**
The doctoral candidate’s dissertation oral defense committee is recommended by the school or department and approved by the Associate Provost for Graduate Studies. The Thesis/Dissertation Oral Defense Committee Recommendation form should be submitted to the Office of Graduate Studies.
as soon as the dissertation proposal has been approved or defended but no later than the first day of the quarter in which the student expects to complete the degree.

**Composition**

The committee is composed of a minimum of four and a maximum of seven members. Minimally three are voting members, including the dissertation director. The chair of the oral defense committee is a non-voting member and must be from a department, school, or college other than that of the candidate. All voting members of the committee must be full-time appointed faculty at DU and have research records appropriate to the student’s area of specialization.

Faculty from appropriately related programs who hold the terminal degree in their field may serve on the committee as long as the candidate’s graduate program has the majority representation and a two-thirds majority of the members, excluding the director, hold the earned doctorate.

When a doctoral degree is interdisciplinary, faculty representation from all disciplines must be reflected on the committee.

**Oral Defense Committee Chair**

The committee member from outside the student’s graduate department represents the Associate Provost for Graduate Studies and serves as chair of the oral defense committee. The oral defense committee chair must be a tenured member of the DU faculty and must hold an earned doctorate from an accredited institution.

It is the responsibility of the student to find an appropriate oral defense committee chair to serve who meets these requirements.

*Note:* Students in the DU-Iliff Joint PhD Program may have an Outside Chair from the Iliff School of Theology, but that faculty member must be outside of the Iliff concentration field in which the student is enrolled.

**Dissertation Director**

The dissertation director must be a tenured or tenure-track member of the candidate’s graduate program. It is the dissertation director’s responsibility to ensure that the student’s research meets appropriate academic standards for the discipline in which the degree is being conferred.

**Special Members**

In rare occasions, students may request to add an adjunct faculty member, post-doctoral appointee, a professor from another institution, or another qualified person—including someone without a doctorate but with other appropriate qualifications—as a special committee member. A special member may not be considered a substitute for one who meets the University requirements; rather, the special member should be considered as an addition to the core committee.

Students also may request that a non-tenure track, full-time appointed DU faculty member serve as committee chair.

These requests must be supported by a strong rationale, have the support of the student’s program and be approved by the Associate Provost for Graduate Studies. The request must include: a statement of rationale, the proposed special member’s CV and *Thesis/Dissertation Oral Defense Committee Recommendation* form.

**Unit-Specific Requirements**

Schools and departments reserve the right to establish requirements that are stricter than the minimal University standards. It is the student’s responsibility to determine whether or not the unit has requirements in addition to University policy and the unit’s responsibility to ensure that those requirements have been met before submitting the committee proposal form to the Office of Graduate Studies.

**Doctoral Dissertation Oral Defense**

An oral defense of the dissertation is required and is conducted by the candidate’s oral defense committee. The defense is concerned primarily with the dissertation or research project but also may include such other information in the major field as the committee deems pertinent. The defense must be held at least three weeks before the end of the quarter in which the degree is to be granted. All members of the defense committee must receive a copy of the candidate’s dissertation at least two weeks prior to the scheduled defense.

The defense is expected to be held with the student present in person at DU unless emergency circumstances make it impossible for the student to be physically present. Permission to hold a defense with the student participating by conference call, webcast or other medium should be obtained by petitioning the Associate Provost for Graduate Studies. Petitions for faculty members to participate by conference call or other medium are not required.

**Scheduling and Verification of the Oral Defense**

The student must make arrangements for appointing the defense committee and for the date and time of the oral defense with the college, school or departmental director. Students must submit a completed *Schedule of Oral Defense* form to the appropriate student services office and their academic unit no later than four weeks prior to the date of the defense.
Completing the Degree

Time Limit for Completion of the Degree

The candidate for the doctorate who holds a master’s degree on entering the doctoral program is expected to complete all requirements for the degree no later than seven years after beginning the program, as measured by matriculation into the degree program. Candidates who hold only a bachelor’s degree on entering the doctoral program are expected to meet all degree requirements no later than eight years after doctoral studies begin. Failure to complete the degree within the established time limits will result in termination unless the student successfully petitions for an extension to the Associate Provost for Graduate Studies. The college, school, or department chair and advisor must recommend this extension in writing. If it is not approved, the student will be terminated from the program. Students may petition for an extension of time for a minimum of one quarter up to a maximum of one year per request. For more information, see Exceptions regarding extensions of time.
Final Procedures for Earning the Doctorate of Philosophy

The student must assume full responsibility for meeting all requirements for the degree. Before becoming a candidate for graduation, the student must complete the following:

- The candidate must apply for graduation in the by the deadline. Failure to do so will automatically delay graduation to a subsequent quarter. Failure to complete the degree during the expected quarter will require a new application and payment of a fee for additional evaluation and services.
- Arrange for an oral defense. The Office of Graduate Studies should approve the oral defense committee as soon as the dissertation proposal has been approved or defended but no later than the first day of the quarter in which the student expects to complete his/her degree. Formal notification of the oral defense should be filed in the Office of Graduate Studies no later than four weeks before the defense date and in accordance with the University schedule of deadlines when graduation candidacy is in the same quarter as the defense.
- Submit the dissertation to the oral defense committee at least two weeks before the date of the defense.
- Satisfactorily complete the oral defense at least three weeks before the end of the quarter in which the degree is to be awarded.
- All Incomplete grades must be removed at least three weeks before the end of the quarter in which the degree is to be awarded.
- Submit electronic copy of dissertation to ProQuest and have faculty approval page submitted to the Office of Graduate Studies two weeks prior to the end of the quarter. The student should contact the Office of Graduate Studies for the schedule of deadlines and obtain specific instructions for the preparation of the dissertation format.
- If revisions are such that the dissertation in its final form cannot be filed at least two weeks before the end of the quarter, the awarding of degrees will be postponed.
- Students who are working on a doctoral paper must submit their paper no later than two weeks before the end of the quarter.

Electronic Thesis and Dissertation

As of spring quarter 2008, all theses and dissertations must be submitted electronically to ProQuest (UMI) unless an exemption is granted using the "opt out" procedure. ProQuest/UMI is widely known and respected as the main searchable database for scholarly work; the University of Denver strongly encourages students to submit their dissertations and theses to ProQuest.

If the student and the dissertation/thesis chair believe submitting the work to ProQuest will create serious ethical, publishing or other issues, the student should request an exception to this process by submitting a memo to the Associate Provost for Graduate Studies that explains the concerns.

The electronic submission instructions can be found on the Graduate Oral Defense Information (http://www.du.edu/currentstudents/graduates/graduationinformation.html) web page.

Faculty should review the instructions before advising a student about submitting the thesis or dissertation.

Criteria for a Master's Thesis or Doctoral Dissertation

- Requires an oral defense committee chair and oral defense.
- The scheduling of the oral defense and formatting of the thesis/dissertation must be coordinated through the Office of Graduate Studies (http://www.du.edu/learn/graduates/studentresources.html) in accordance with the University schedule of deadlines and graduate policy.
- All copyright issues must be cleared before the thesis or dissertation is submitted. The student is responsible for obtaining proper permissions for all material used within the work. Evidence of copyright permission may be required with the student’s submission to ProQuest (UMI) (http://www.proquest.com/products-services/dissertations). For additional information about copyright permission and the copyright process, visit ProQuest (http://www.proquest.com/products-services/dissertations).
- Electronic submission of “publishable” quality scholarly work.

Thesis and Dissertation Publication Options

Embargoes and Restrictions on Accessing Theses and Dissertations

Students should be advised that a thesis or dissertation may be considered to be “previously published” by some publishers if it is put into a searchable digital/electronic repository (e.g. ProQuest). However, it should be noted that then student, not ProQuest (UMI), retains the copyright.

Students should discuss their future thesis/dissertation publication goals with their advisor. Students planning to publish from their thesis or dissertation should consider requesting an embargo of their work.

The student and the thesis or dissertation chair director submit a memo to the Associate Provost for Graduate Studies explaining the issue and stating that access to the work needs to be restricted. The Associate Provost must approve the final decision for permission to embargo the work.
During an embargo, ProQuest will completely restrict access to the document for a specified time period. The thesis or dissertation will be held in the ProQuest repository with no access until the embargo expires.

**Reasons for Embargo**

- The student is interested in pursuing the option of an academic or commercial press acquiring the rights to publish the dissertation or thesis as a book.
- The student is interested in submitting work from the thesis/dissertation to a peer-reviewed journal.
- There are patentable rights in the work for which disclosure may be detrimental to the rights or interests of the author.
- There is an ethical need to prevent disclosure of sensitive or classified information about persons, institutions, technologies, etc. for a time-limited period.

If a student believes that they will need to restrict access for a limited time period they can request a six month, one year, or two year embargo.

When an embargo expires, the thesis or dissertation will be automatically made available electronically by ProQuest.

**Renewing an Embargo**

If a student wishes to continue to restrict access for a limited time period, the student can request a six month, one year, or two year renewal on the embargo. The student and the thesis or dissertation chair director will submit a memo to the Associate Provost for Graduate Studies explaining the issue and stating that access to the work stills needs to be temporarily restricted. The Associate Provost must approve the final decision for permission to renewal embargo. A student may only request two embargo renewals for a maximum of six year embargo period. Students with extenuating circumstances should consult the Associate Provost for Graduate Studies.

If the embargo extension is approved, the student should contact ProQuest directly at 1-800-521-0600 x77020 or via email at disspub@proquest.com.

**University Libraries**

ProQuest makes the thesis/dissertation available electronically to the University Libraries. The level of access to the student’s work through the University Libraries depends upon embargo choices as described below.

- If the student does not embargo the work, the library will make the work available through the library’s online catalog, with links to both ProQuest and the library’s digital repository.

If the student embargoes the work for one of the following two reasons, University Libraries will make the work available only to the DU Community and through Inter-Library Loan in a PDF format. The work will not be made available outside the DU Community or over the internet:

- The student is interested in pursuing the option of an academic or commercial press acquiring the rights to publish the dissertation or thesis as a book.
- The student is interested in submitting work from the thesis/dissertation to a peer-reviewed journal.

If the student embargoes the work for one of the following two reasons, University Libraries will restrict access to the work until such time that they are notified by ProQuest that the embargo has been released, or when the author provides written permission directly to University Libraries:

- There are patentable rights in the work or other issues in which disclosure may be detrimental to the rights or interests of the author.
- There is an ethical need to prevent disclosure of sensitive or classified information about persons, institutions, technologies, etc. for a time-limited period.

After the embargo period, the work will be made available through University Libraries online catalog with links to ProQuest and the library’s digital repository.

**Opt Out Procedure**

In some instances a student may wish to use only University Libraries as the repository of their work. In such cases the student will submit their work digitally to Penrose and it will be made available only to the DU Community and through Inter-Library Loan in a PDF format.

The student and the thesis or dissertation chair director will submit a memo to the Associate Provost for Graduate Studies explaining the issue and stating that access to the work needs to be restricted. The Associate Provost must approve the final decision for permission to restrict access to the work.

**Permanently Suppress**

In rare cases, where the work includes proprietary information such as company data and records or confidential information that should never be made public, such as client records or interviews or some other serious condition that justifies such an action it may be appropriate for a student to permanently suppress work. In such cases the student will submit their work electronically to University Libraries. The work will be retained by the library and listed in catalog system, but will not be accessible without permission from the author.
The student and the thesis or dissertation chair director submit a memo to the Associate Provost for Graduate Studies explaining the issue and stating that access to the work needs to be restricted. The Associate Provost must approve the final decision for permission to restrict access to the work.

**Enrollment Status**

Regular Enrollment (p. 911)

Concurrent Enrollment (p. 911)

Consecutive Term Enrollment (p. 911)

Student Status Definitions (p. 911)

Continuous Enrollment (p. 912)

**Regular Enrollment**

The University's definition of full-time graduate study is eight credit hours or more of coursework or research credit per quarter. Half-time students are enrolled in four to seven credit hours. Less than half-time students are enrolled in one to three credit hours.

Some graduate programs and fellowship awards may require more than eight credit hours of enrollment per quarter to be considered full-time. Contact the individual graduate unit regarding specific enrollment requirements.

**Concurrent Enrollment**

Students may enroll concurrently at another college, school, or university only if they are pursuing a requirement not currently offered at DU and if the concurrent enrollment does not result in an unacceptable credit overload.

The total study load includes all courses taken at the University of Denver and at other institutions concurrently. Courses taken for no-credit (NC) are also applied toward the total study load. The maximum enrollment for any quarter is 20 credit hours.

**Consecutive Term Enrollment**

All graduate degree-seeking students must be in active status and enrolled for consecutive terms fall through spring.

Enrollment may consist of registration for courses, thesis or dissertation credits, or Continuous Enrollment registration. The minimum thesis or dissertation credit requirements are determined by the individual graduate programs which may require students to register for additional thesis or dissertation credits to maintain degree candidacy. A graduate student who is not in active status and not consecutively enrolled must apply for readmission and pay any continuous enrollment fees owed for previous quarters, if applicable.

Unless a student is on an official leave of absence, a student's status is rendered inactive after one quarter of non-enrollment. The student will not be able to register for courses and will need to submit a Readmission form to the program.

Students not planning to be consecutively enrolled must apply for a leave of absence from the university.

*Note: Academic units and programs may have additional registration and/or enrollment requirements. Contact the unit for more information.*

**Student Status Definitions**

**Active Status**

Active status (AS) means a student who:

- is eligible to register or registered for the current term
- is on an approved leave of absence (medical or personal)

**Inactive Status**

Inactive status (IS) means a student who:

- is neither active nor terminated
- has been awarded a degree

**Inactive Withdraw (IW)**

Inactive withdraw is when a student initiated termination and means a student who:
Continuous Enrollment

- has officially withdrawn from the University with no plans to complete degree
- has withdrawn from one degree program to change to another degree program outside of the college, school, or department.

**Dismissed Academic (DA)**
Dismissed academic is when a graduate unit initiated termination for academic reasons and means a student who has been institutionally withdrawn from the University in accordance with University policy.

**Dismissed Conduct (DC)**
Dismissed conduct is when a graduate unit initiated termination for conduct reasons and means a student who has been institutionally withdrawn from the University in accordance with University policy.

**Suspended Academic (SA)**
Suspended academic is when the institution initiated suspension for academic reasons and means a student who has been institutionally suspended from the University in accordance with University policy.

**Suspended Conduct (SC)**
Suspended conduct is when the institution initiated suspension for conduct reasons and means a student who has been institutionally suspended from the University in accordance with University policy.

**Continuous Enrollment**

Registration for Continuous Enrollment (CE) is limited to students who have completed all required coursework (with the exception of independent research hours 4995/5995) and are pursuing academic work/research necessary to complete a degree. CE is designed primarily for students who are working on a thesis, dissertation, or research paper/capstone.

Students who have completed all their coursework and are working on non-thesis research papers, capstones, performance, or other creative work enroll for four credit hours. Students who have completed all their coursework and are working full time on a thesis or dissertation enroll for eight credit hours. Doctoral students who have completed all coursework are eligible for continuous enrollment during the preparation of the doctoral comprehensive examinations. CE hours will not appear on student transcripts.

Students enrolled in the dual undergraduate-graduate program who have earned the baccalaureate degree and have completed all required graduate coursework and are working on a thesis are eligible for graduate CE.

CE is not to be used for students who are only engaged in required internships and practicums. Students should register for internship and practicum courses through their department.

Students should be enrolled in CE by the end of the 100% reimbursement/drop-add period to be eligible for the university health insurance and health fee, plus loan deferment. Students who do not enroll prior to the first day of classes of a given quarter will be charged late registration fees as determined by the Registrar.

CE enables students to maintain active status with the University and access to university resources including library, email, lab access, participation in the DU Student Health Insurance Plan and Health & Counseling fee services, and part-time student rates at the Coors Fitness Center. Students who are appointed DU employees must pay the Coors Fitness Center faculty/staff rate.

CE is not to be used for enrollment purposes while making up an incomplete grade. An exception is if all other coursework is completed and the student is working on the thesis, dissertation or research paper/capstone while completing the work required for the incomplete grade. It is the responsibility of the student and graduate college, school, or department to make this determination prior to approving eligibility for CE credit.

**Registration in Continuous Enrollment**

CE requires annual approval by the student’s faculty advisor, the Dean and/or the Associate Provost. Students are responsible for registering themselves in CE each quarter by the appropriate registration deadlines.

*Continuous Enrollment Approval* forms must be returned to the Office of Graduate Studies.

Approval by the Associate Provost’s office is required for all divisions, schools, and colleges.

Permission to enroll in CE is granted for up to one academic year beginning in the fall quarter. Students requiring CE after fall quarter registration must complete and submit the form prior to the beginning of the subsequent quarter (winter, spring and summer) in order to be enrolled in CE. To avoid late fees, the student must submit a new form for fall quarter of the following academic year.

After permission to enroll is granted, students are responsible for registering themselves online for CE each quarter. Registration for CE must follow the Registrar’s deadlines. To avoid late registration charges, students must register for CE prior to the first day of classes. To be eligible for health
insurance and loan deferment, students must be registered by the end of the 100% refund period. Hours added after that time will not count towards financial aid eligibility.

There are five course codes for CE. Students register for the appropriate type of CE depending on their thesis/dissertation requirements and financial eligibility status.

- **CENR 4500 Non-Thesis (4 credits)**
  
  Master’s level students working on non-thesis research papers, capstones, performance, or other creative work.

- **CENR 4600 Thesis (8 credits)**
  
  Master’s level students working on a thesis

- **CENR 5600 Doctoral (8 credits)**
  
  Doctoral level students working on a dissertation

Students with an approved time extension for completion of their degree program, but who are no longer eligible for financial aid because they are past the aid eligibility time limit (seven years master’s level, six years for MSW, or ten years doctoral) register for

- **CENR 4700 Master’s Level, Non-Financial Aid Eligible (0 credits)**
- **CENR 5700 Doctoral Level, Non-Financial Aid Eligible (0 credits)**

1 These courses do not confer loan eligibility or loan deferment.

**Notes:** Students in University College, the Sturm College of Law, Graduate Tax and the Daniels College of Business are not eligible for continuous enrollment. Peace Corps students are NOT to be put on continuous enrollment for the duration of their Peace Corps assignments. These students must follow the Peace Corps’ procedures for maintaining appropriate loan deferment status.

Morgridge College of Education doctoral students and students in the DU-Iliff Joint PhD program are required to register for dissertation hours in addition to continuous enrollment. Contact the unit for details.

Some units may have more stringent policies. Contact the unit for details.

**Fees and Readmission**

Students must register and pay for CE on a quarter-by-quarter basis. In addition to the standard CE fee, technology fees will be assessed based on part/full-time status (four/eight quarter hours).

Students who have finished their coursework but who have become inactive because they were not registered for CE or on an approved leave of absence from the program must complete the Continuous Enrollment Application for Re-Admission. The student must submit transcripts from any institution(s) s/he may have attended during his/her absence from DU.

The student will owe CE and technology fees for the quarters s/he was not enrolled from winter quarter 2005 forward. In addition, a late fee may be assessed at the time of readmission. Paying fees for previous quarters will not make the student eligible for retroactive enrollment, financial aid, or retroactive loan deferment.

**International Students**

Federal immigration regulations require F-1 and J-1 students to enroll full-time for at least three quarters (or fall and spring semesters for law students) each academic year in order to maintain their immigration status. Exceptions to this requirement may only be authorized by an international student advisor or the program sponsor under very limited criteria.

Federal immigration regulations permit the host institution to define full-time enrollment for F-1 and J-1 students studying at the graduate level. The University defines full-time enrollment for graduate students as eight or more credit hours. To comply with the full-time enrollment requirement, F-1 and J-1 students must enroll in continuous enrollment after all coursework is completed or during the final quarter of coursework, if registered for less than eight credits, while working on the thesis or dissertation.

International students must also maintain acceptable levels of health insurance coverage during their academic program, as required of all students by the University. In addition, the U.S. Department of State requires J-1 students to maintain health insurance coverage throughout their exchange program in order to maintain their J-1 immigration status.
Students should submit the graduation application two quarters in advance of the intended graduation date. Applications are accepted up to the seventh calendar day of the intended graduation date. For example, to graduate in the spring quarter (June), the graduation application is due by the seventh calendar day of winter quarter (January).

Financial Aid Loan Eligibility and Loan Deferment

United States citizens and permanent residents participating in CE may be eligible for student loans and loan deferment as long as they are within the maximum time frame allotted for their program.

Students enrolled in CE are eligible for Federal Direct Loans and Federal Work-Study only. The maximum work-study award may be awarded in the amount of $1500, without the option to increase the award.

Students registered in CE are not eligible for waivers, scholarships, or some forms of financial aid that requires the student to be enrolled on a full-time basis (eight credit hours or more). These include the Graduate Studies Doctoral Fellowship and the Graduate Studies Doctoral Fellowship for Inclusive Engagement. Students are also not eligible for Perkins Loans, which require the student to be enrolled on a half-time basis (four credit hours or more).

However, students on CE may receive a GTA or GRA, as long as they are not required to be enrolled on a full-time basis (eight credit hours or more) according to departmental guidelines.

Registration in CE does not guarantee eligibility for financial aid.

Students must follow the loan procedures established by the Office of Financial Aid (http://www.du.edu/financialaid), and must contact the Office of Financial Aid for details on eligibility for loans and loan deferment. Satisfactory progress towards the degree must be verified.

Eligibility for loans and in school loan deferment ends after seven years in a master’s program (six years for the MSW), and after ten years in a doctoral program. Time away from the program (e.g., Leave of Absence, Medical Leave of Absence, or other non-enrollment periods) will count against the loan and loan deferment eligibility time limit. There are alternatives to the in school loan repayment deferment that may be applicable. To find out more information about a forbearance or economic hardship deferment, please contact the Office of Financial Aid, or your lender. Students are responsible for submitting lender-required loan deferment forms to the Office of the Registrar (http://www.du.edu/registrar).

Health Insurance and Continuous Enrollment

Students who are on CE are not automatically assessed the Student Health Insurance Plan (SHIP) or health and counseling fee each quarter. SHIP enrollment is available twice a year, in the fall and spring. The Health & Counseling Fee enrollment is available every quarter. Please contact the Health and Counseling Center to discuss enrollment deadlines and payment options, 303-871-2205.

Graduation Requirements

Student Responsibility for Graduation Requirements

Students may not receive a University of Denver degree without completing all degree requirements. Students may not receive a degree with fewer than the published number of credits or with a cumulative GPA below the minimum required for their degree program (2.30 for JD students in Sturm College of Law, 2.7 for master’s students in the Sturm College of Law, 3.0 for all other graduate programs).

Students must apply no later than the first day of the term at least two quarters prior to the intended quarter of graduation. Law students planning on graduating spring or summer semester may apply as of November 1st of that academic year. For those planning on graduating fall semester, the application will be available the first day of that semester.

Prior to applying to graduate, students need to verify that their curriculum records are accurate and up-to-date. Students who did not apply for graduation by the deadline should review the Graduate Request to Participate in Commencement Ceremony for Students Not Graduating (http://www.du.edu/media/documents/graduates/walking.pdf) policy. All requests for walking in commencement and late petitions for graduation must be approved by the Associate Provost or a designee appointed by the Associate Provost.

Application for Graduation

Students may not receive a University of Denver degree without completing all degree requirements. Students may not receive a degree with fewer than the published number of credits or with a cumulative GPA below the minimum required for their degree program (2.30 for JD students in Sturm College of Law, 2.7 for master’s students in the Sturm College of Law, 3.0 for all other graduate programs).

Students should submit the graduation application two quarters in advance of the intended graduation date. Applications are accepted up to the seventh calendar day of that term. For example, to graduate in the spring quarter (June), the graduation application is due by the seventh calendar day of winter quarter (January).
Prior to applying to graduate, students need to verify that their curriculum record is accurate and up-to-date. Students who did not apply for graduation by the deadline should review the Graduate Request to Participate in Commencement Ceremony for Students Not Graduating policy. All requests for walking in commencement or late petitions for graduation must be approved by the Associate Provost or his/her designee.

Commencement Ceremonies

Formal Commencement ceremonies are held at the University of Denver at the end of the spring and summer terms.

Participating in commencement does not constitute official graduation. It is a celebration that signifies the completion of the appropriate degree requirements and has no academic or legal implications.

Commencement Program

The Commencement program lists the names of all graduation candidates who applied at the appropriate time to receive degrees at that specific commencement ceremony. The appearance of a name in the program does not guarantee a student’s graduation at that time unless all degree requirements have been completed.

Spring Commencement

Spring Semester

The Sturm College of Law’s Spring Commencement occurs at the end of the spring semester, normally in mid-May. Students who have completed all graduation requirements during autumn or spring semester of the current academic year are invited to participate in the ceremony.

Spring Quarter

Commencement occurs at the end of the spring quarter, normally in early June. Students who have completed all graduation requirements during autumn, winter, or spring quarters of the current academic year are invited to participate in the ceremony.

Summer Commencement

Summer Commencement occurs at the end of summer session, normally in mid-August. Students who have completed all graduation requirements during summer session are invited to participate in the ceremony.

Request to Participate in Commencement Ceremony for Students not Graduating

Students who have not completed their degrees may request to participate in the Graduate Commencement Ceremony only if the following parameters have been met for each eligible term:

Requirements for Walking in Spring Ceremony

- Submit the Graduate Request to Participate in Commencement Ceremony for Students Not Graduating (http://www.du.edu/media/documents/graduates/walking.pdf) form to the Associate Provost or the Associate Provost’s designee no later than two weeks prior to the graduation date.
- File for graduation within the required time frame.
- Eligibility as a candidate for graduation for the subsequent summer quarter.
- Candidate is within five-credit hours of degree completion, including resolving any incomplete grades.
- Registration for final program requirements in the summer interterm or in summer quarter.
- Complete all non-course degree requirements (e.g., internships, practicum, major research paper) two weeks prior to the end of spring quarter.
- If a thesis or dissertation is required for the degree, complete the defense within the first six weeks of the subsequent summer quarter. The defense date must be on file with the Office of Graduate Studies.

Requirements for Walking in Summer Ceremony

- Submit the Graduate Request to Participate in Commencement Ceremony for Students Not Graduating (http://www.du.edu/media/documents/graduates/walking.pdf) form to the Associate Provost or the Associate Provost’s designee no later than two weeks prior to the graduation date.
- File for graduation within the required time frame.
- Eligibility as a candidate for graduation for the subsequent fall quarter.
- Candidate is within five-credit hours of completing the degree, including resolving any incomplete grades.
- Registration for final requirements in or before the subsequent fall quarter.
- Complete all non-course degree requirements (e.g., internships, practicum, major research paper) two weeks prior to the end of summer quarter.
- If a thesis or dissertation is required for the degree, the defense must be complete within the first six weeks of the subsequent fall quarter. The defense date must be on file with the Office of Graduate Studies.

Forms requesting to walk in either the Spring or Summer commencement ceremonies should be returned to the appropriate student services office for approval from the unit and the Associate Provost for Graduate Studies. Students may be approved to walk in commencement up until two weeks
before of the end of the term, but a student’s name may not appear in the commencement program if requests are received only one month prior to the commencement ceremony.

**Diplomas**

A diploma is a ceremonial University document which verifies the University has granted a degree to the student.

Diplomas are not issued until all degree requirements are complete, grades are posted, outstanding accounts with the University are paid and any holds are cleared. Students may check for any holds and posting of grades on their student record online.

**Diploma Name Policy**

The student name listed on a diploma or certificate must match the official name on file at the University (first name, middle name, last name) with the following exceptions:

- Option of first name or initial
- Option of diminutive or alternate form for the first name
- Omission of the first name when the middle name is used as a salutary name
- Option of middle name or initial
- Omission of the middle name
- Inclusion of former or maiden name
- Inclusion of proper capitalization and accentuation of name
- Inclusion of Hispanic maternal surnames

Neither titles nor degrees previously earned will be included as part of a graduate’s name on a diploma.

**Internships After Completion of Coursework**

Some students are required to do an internship as part of the degree requirements, but do not receive course credit while on internship status. These students, who have completed all other coursework, must register for internship credits.

Students should consult the Office of Financial Aid (http://www.du.edu/financialaid/graduate) to see if they are eligible for loans and loan deferment. Students who are not required to participate in an internship are not eligible.

*Note: There are internship programs available to DU students for credit. General regulations governing loans and loan deferments apply. Contact the Office of Financial Aid (http://www.du.edu/financialaid/graduate) for further information.*

**Master's Degree Requirements**

Requirements (p. 916)

Master’s Thesis (p. 917)

Master’s Thesis Oral Defense (p. 918)

Completing the Degree (p. 919)

**Requirements**

**Credit Requirements**

The range of approved graduate credits required for a master’s degree is 45-92 quarter hours. A minimum of 35 hours of graduate credit must be earned at the University of Denver.

Advanced degrees are not awarded automatically on completion of the required number of courses or hours of credit.

Students enrolled in a graduate program should not take courses towards another degree program unless they have been accepted into the second program, and no more than 15 quarter hours of credit may be earned at the University of Denver and applied towards a degree program before acceptance into that degree program. Advanced degrees are not awarded automatically on completion of the required number of courses or hours of credit.

**Residency Requirements**

Enrollment as a graduate student in the University of Denver for at least three quarters (two semesters) is required for graduation.
Tool Requirements
Candidates may be required to demonstrate proficiency in the required tools for research and advanced study.

Where required, tool requirements are determined by the candidate’s advisor and program and may include one or more languages, statistical methods, laboratory or other research skills. Consult the college, school or department for requirement details.

Advancement to Candidacy
A review of a candidate’s plan of study and progress must be conducted as soon as all the minimum requirements have been met and no later than the first day of the term in which the student expects to complete his/her degree.

Minimum requirements for the review include completion of any provisional admission requirements, an approved plan of study that will lead to meeting the degree requirements, posting of any transfer work to the student’s record, completion of tool (if required) and a grade point average of “B” or better in all work completed to that point. Successful completion of the review and approval by the appropriate student services office constitutes Advancement to Candidacy.

Notes: Some units may require satisfactory completion of a qualifying examination for Advancement to Candidacy. Consult the academic unit for information regarding requirements.

Final Examination
The requirement of a final examination for the master’s degree is in accordance with the requirements of the candidate’s college, school or department. Where required, the examination may be oral or written or both. The examination may focus on overall course content or it may be the final step in the defense of a thesis.

Additional Master's Degree Requirements
In addition to coursework, most master’s degree programs require a creative project, internship or practicum, oral comprehensive examination and/or major paper or thesis. Typically such projects are managed within the unit or program. In units requiring a thesis, a master’s thesis oral defense committee must be established and a Thesis/Dissertation Oral Defense Committee Recommendation form must be submitted to the Office of Graduate Studies after the proposal has been approved and no later than the first day of the term in which the student expects to complete his/her degree.

Master's Thesis
The master’s thesis represents the culminating research of the master’s degree program. It is a scholarly presentation of original research that is defended as partial fulfillment of requirements for the master’s degree. Students should consult the Office of Graduate Studies for instruction regarding how to prepare and format the thesis.

Program-Level Thesis Proposal Committee
All candidates for the master’s degree must have a thesis director who is a tenured or tenure-track faculty member in the student’s graduate program. The program may require that thesis proposals be approved by or defended before a committee within the department or program, which may reserve the right to determine the composition of the thesis proposal committee. However, only those faculty who meet the following University requirements may serve as voting members of the oral defense committee.

Master's Thesis Oral Defense Committee
The master’s candidate’s thesis oral defense committee is recommended by the school or program and approved by the Associate Provost for Graduate Studies. The Thesis/Dissertation Oral Defense Committee Recommendation form should be submitted to the Office of Graduate Studies as soon as the thesis proposal has been approved or defended but no later than the first day of the quarter in which the student expects to complete his/her degree.

Composition
The committee is composed of a minimum of three and a maximum of five members. Minimally two are voting members, including the thesis director. The chair of the committee is a non-voting member and must be from a department, school or college other than that of the candidate. All voting members of the committee must be full-time appointed faculty at DU and have research records appropriate to the student’s area of specialization.

Faculty from appropriately related programs who hold the terminal degree in their field may serve on the committee as long as the candidate’s graduate program has the majority representation and a majority of the members hold the earned doctorate. When a master’s degree is interdisciplinary, faculty representation from all disciplines must be reflected on the committee.
Oral Defense Committee Chair
The committee member from outside of the student’s graduate department represents the Associate Provost for Graduate Studies and serves as chair of the oral defense committee. The oral defense committee chair must hold an earned doctorate from an accredited institution and be a tenured or tenure-track member of the DU faculty.

It is the responsibility of the student to find an appropriate oral defense committee chair to serve who meets these requirements.

Thesis Director
The thesis director must be a tenured or tenure-track member of the candidate’s graduate program. It is the thesis director’s responsibility to ensure that the student’s research meets appropriate academic standards for the discipline in which the degree is being conferred.

Special Members
In rare occasions, students may request to add an adjunct faculty member, post-doctoral appointee, a professor from another institution, or another qualified person—including someone without a doctorate but with other appropriate qualifications—as a special committee member. A special member may not be considered a substitute for one who meets the University requirements; rather, the special member should be considered as an addition to the core committee.

Students also may request that a non-tenure track, full-time appointed DU faculty member serve as committee chair.

These requests must be supported by a strong rationale, have the support of the student’s program and be approved by the Associate Provost for Graduate Studies. The request must include a statement of rationale, the proposed special member’s CV, and the Thesis/Dissertation Oral Defense Committee Recommendation form.

Program-specific Requirements
Schools and departments reserve the right to establish requirements that are more restrictive than the minimal University standards. It is the student’s responsibility to determine whether or not the unit has requirements in addition to University policy and the program’s responsibility to ensure that those requirements have been met before submitting the committee recommendation form to the Office of Graduate Studies.

Master’s Thesis Oral Defense
The candidate’s oral defense committee conducts the oral defense of the master’s thesis. The defense must be held at least three weeks before the end of the quarter in which the degree is to be granted.

All members of the defense committee must receive a copy of the candidate’s thesis at least two weeks prior to the scheduled defense.

The defense is expected to be held with the student present in person at DU, unless emergency circumstances make it impossible for the student to be physically present. Permission to hold a defense with the student participating by conference call, webcast or other medium should be obtained by petitioning the Associate Provost for Graduate Studies. Petitions for faculty members to participate by conference call or other medium are not required.

Scheduling and Verification of the Oral Defense
The student must make arrangements for appointing the defense committee and for the date and time of the oral defense with the thesis director. Students must submit a completed Schedule of Oral Defense form to the appropriate student services office and their academic program no later than four weeks prior to the date of the defense.

On the form, the candidate will designate the oral defense committee chair, the thesis director and all other members of the oral defense committee. After the form has been submitted, the Office of Graduate Studies will verify that all members meet the minimum University requirements.

Responsibilities of the Oral Defense Committee Chair
As a representative of the Associate Provost for Graduate Studies, the chair of the oral defense committee must be a tenured or tenure-track faculty member of the University of Denver from a different department or discipline than that of the candidate and hold an earned doctorate from an accredited institution.

The role of the chair is to provide a non-specialist’s perspective on the quality of the thesis. The chair must be familiar with the standards for doctoral research and should have some general knowledge of the topic of the student’s thesis. The chair is expected to have read the thesis prior to the examination and to participate in the examination as the individual’s academic expertise permits, but the chair does not vote on the committee.

Conducting the Defense
The oral defense committee chair will preside over and manage the defense process. The chair is responsible for making certain that the defense is conducted in a professional manner and that the student has a fair opportunity to defend the thesis. The chair is expected to provide opportunities for each voting member of the oral defense committee to participate in the defense and to ensure that the examination is of high quality while remaining
within proper limits of inquiry. Interested faculty members, and in accordance with departmental policy, currently enrolled graduate students also may attend the oral defense. After the oral defense committee has conducted the essential examination of the candidate, questions may be asked by others present if pertinent and appropriate as determined by the defense committee.

When the defense is completed, the chair will request that the candidate and all other persons not on the defense committee leave the room and will call for a motion to pass or fail the candidate. A recommendation to pass can have no more than one negative vote from members of the committee. If the motion is a recommendation to pass, the committee must then agree on the conditions of the recommendation as follows:

- **Pass with no revisions** means that only grammatical, labeling or numbering changes are required. Only a limited number of sentence additions or deletions should be necessary.
- **Pass with minor revisions** indicates that the candidate will be required to reorganize portions of the manuscript and change some of the content.
- **Pass with major revisions** means that a complete chapter or chapters must be rewritten, additional tables are required and interpreted, or the general format must be changed. Responsibility for seeing that needed revisions are made rests with the thesis director, but committee members also may require their approval before final submission.
- **Fail** indicates that the thesis content is not of acceptable quality or that the candidate cannot defend the research. In most cases, failing the defense results in the rejection of the student's thesis and a new or related study usually will need to be undertaken.

A candidate who fails the oral defense may petition to the oral defense committee for a maximum of one re-defense. If granted, the re-defense must be scheduled through the Office of Graduate Studies and must occur within normal timelines.

The *Result of Oral Defense* form must be signed by all committee members and returned immediately to the Office of Graduate Studies. All signatures must be original. In rare occasions, when a committee member participates remotely, a faxed or scanned signature will be accepted.

**Note:** Other units may have more specific requirements regarding the committee. Contact the unit for details.

**Completing the Degree**

**Time Limit for Completion of the Degree**

Master's degree candidates are expected to complete degree requirements within five years of beginning their programs, as measured by the matriculation into the degree program.

Failure to complete the degree within the established time limits will result in termination unless the student successfully petitions for an extension to the Associate Provost for Graduate Studies. The college, school, or department and the student’s advisor must recommend this extension. If it is not approved, the student will be terminated from the program. Students may petition for an extension of time for a minimum of one quarter and up to a maximum of one year per request. For more information, see *Exceptions regarding extensions of time.*

**Note:** GSSW: The MSW must be completed in four years. The Ed.S. must be completed in six years.

**Final Procedures for Earning the Master's Degree**

The student must assume full responsibility for meeting all basic requirements for the degree as well as the specific requirements outlined by the college, school or department. The student must complete the following:

- **Apply for graduation by the deadline.** Failure to complete the degree during the expected graduation term may require a new application and payment of a fee for additional evaluation and services.
- **If the graduate program requires one,** arrange for an oral defense of the thesis. The Office of Graduate Studies should approve the oral defense committee as soon as the thesis proposal has been approved or defended but no later than the first day of the quarter in which the student expects to complete the degree. Formal notification of the oral defense should be filed in the Office of Graduate Studies no later than four weeks before the defense date and in accordance with the University schedule of deadlines when graduation candidacy is in the same quarter as the defense.
- **Complete any required final defense,** oral or written or both, at least three weeks before the end of the quarter in which the degree is awarded.
- **All Incomplete grades must be removed at least three weeks before the end of the term in which the degree is to be awarded.**
- **Submit electronic copy of thesis to ProQuest and have faculty approval page turned in to the Office of Graduate Studies two weeks prior to the end of the quarter.** The student should contact the Office of Graduate Studies for the schedule of deadlines and obtain specific instructions for the preparation of the thesis format.
- **If revisions are such that the thesis in its final form cannot be filed at least two weeks before the end of the quarter,** the awarding of degrees will be postponed.

**Notes:** Students in Dual or Flexible Dual Degree programs must file an application for graduation for both degree programs.

*Individual academic units may have more stringent policies. Contact the unit for details.*
Readmission

Readmission for Inactive Students

Students who are within their time limits for completion of their degrees, but have interrupted their graduate programs by not registering for one or more consecutive terms (excluding summer) without properly withdrawing by requesting a leave of absence, must submit a readmission form to the program.

Students who still have coursework to complete must submit an application for readmission and indicate the last term attended and the expected term of re-entry. The department must approve the request for readmission and the student must submit transcripts from any institution(s) attended during absence from DU. Once readmission is complete, students may register during the regular registration period, including priority registration, according to the Registrar’s deadlines.

Readmission for Terminated students

Students who have been terminated from a program or have an expired time limit for degree that wish to be readmitted need to complete the following:

1. Submit a new application to the program and meet the current admissions criteria.
2. If admission is granted, the most current program bulletin must be followed, including all curriculum and program requirements.
3. All previous coursework older than five years must be reviewed by the department to determine if it is still relevant for current term of admittance.

Final approval for admission and consideration of coursework from a program in which a student was previously terminated must be approved by the Associate Provost for Graduate Studies.

Note: Per “Section 484C of the Higher Education Act (HEA) provides that an institution of higher education may not deny readmission to a service member of the uniformed services for reasons relating to that service.”

Please visit the U.S. Department of Education (http://www2.ed.gov/policy/highered/guid/readmission.html) website for full text version of policy and requirements.

Registration

Student Responsibility for Registration Procedures (p. 920)

Registration Offices (p. 921)

Course Registration (p. 921)

Course Information (p. 922)

Student Responsibility for Registration Procedures

Students must register by the appropriate deadlines for all courses they wish to attend.

Students may register for courses through PioneerWeb (https://PioneerWeb.du.edu), in the registration office located in the Office of the Registrar (http://www.du.edu/registrar), or as designated by the college or school the student is attending. Courses requiring special permissions or forms, such as independent study, restricted enrollment, those with unmet prerequisites, or those resulting in a credit-hour overload may require students to register in the Office of the Registrar. Students are expected to check with academic advisors and/or the program requirements in the academic bulletin to identify prerequisites and course restrictions prior to attempting to register for courses.

After priority registration, students may drop or add courses without approval or penalty (except for the late registration fee) through the first seven days of a quarter (summer session excluded) through PioneerWeb (https://PioneerWeb.du.edu) or during regular office hours in the registration office. All students in the following categories who do not register before the first day of the quarter are assessed a late registration service charge: continuing students, new students, students returning from leave of absence and readmitted students. The late registration service charge cannot be waived. Registrations are not processed after the designated registration period of the quarter.

Students may drop or add courses without approval or penalty (except for the late registration fee) through the first seven days of a quarter (summer session excluded) through PioneerWeb (https://PioneerWeb.du.edu) or during regular office hours in the registration office.

Please refer to the Important Dates Calendar for more information regarding registration deadlines.
Registration Offices

Registration is overseen by different offices depending upon the student’s program. Questions about registration dates, deadlines or procedures should be directed toward the appropriate registration office.

Graduate students, other than University College, Law, and Social Work, may contact the Office of the Registrar (http://www.du.edu/registrar) at 303-871-4095.

The University College S (http://www.universitycollege.du.edu) Student Services (http://universitycollege.du.edu) can be reached at 303-871-2291.

The Sturm College of Law Registrar (http://www.law.du.edu) can be reached at 303-871-6132.

The Graduate School of Social Work Registrar (http://www.du.edu/socialwork) can be reached at 303-871-3463.

Course Registration

Section Changes

Students may change from one section of a course to another with the instructor’s approval for the section being added. The section being dropped is deleted from the student’s record.

Adding Courses

Generally, courses may be added from the second to eighth week of a ten-week quarter with an instructor’s signature. Courses may not be added after the eighth week of the quarter. Deadlines for adding courses may differ for semester and interterm periods.

Waitlists

Contact the individual academic units for their policies on waitlisted courses.

Credit Load

A full-time graduate student may enroll for 8 to 18 credit hours each quarter.

A credit-hour load of more than 18 hours requires instructor and advisor approval and the signature of the dean of the unit. Each credit hour taken in excess of 18 hours is charged at the current hourly tuition rate.

Note: The total study load includes all courses taken at the University of Denver and at other institutions concurrently. Courses taken for no-credit (NC) are also applied toward the total study load. The maximum enrollment for any quarter is 20 credit hours.

Dropping Courses

Notification by Student of Intent to Withdraw

Students may notify the Registrar of their intent to withdraw by completing the Withdrawal Form (http://www.du.edu/registrar/forms/WithdrawalForm.pdf) or, if registered for classes, by making notification via the web, in person, by fax or by phone. The completed Withdrawal Form (http://www.du.edu/registrar/forms/WithdrawalForm.pdf) should be submitted to the Office of the Registrar (http://www.du.edu/registrar) (fax: 303-871-4300). The withdrawal date is the date that the student notifies the Office of the Registrar. It will be noted on the form. If the request to withdraw is received by another unit with registration authority, the effective date is the date that office is notified. Students who request a withdrawal via the phone are expected to read the information on the Withdrawal Form as well as that on the Withdrawal Information Sheet and Checklist (http://www.du.edu/learn/graduates/studentresources.html). During the automatic withdrawal period classes will be dropped on the date of notification.

A student must officially drop a course or a failing (F) grade is assigned. The only exception is in the case of an administrative withdrawal.

When a student ceases to attend a course, the student remains enrolled in the course unless the course is officially dropped through the appropriate registration office. A course may be dropped without instructor’s approval through the published date for automatic withdrawal (generally the end of the sixth week of a quarter). A student cannot drop a course after the automatic withdrawal (W) deadline without the instructor’s signature and advisor’s signature. All required signatures submitted to the appropriate registration office. If the drop is not requested and approved, the student remains enrolled in the course and will receive a failing (F) grade for the course. The student is liable for payment of all tuition and charges related to the course.

Students may not withdraw from courses after the eighth week of the quarter (or after the fourth week of a five- or six-week course).

In cases where the grade report indicates the student never attended, the Registrar may process the withdrawal request without referral to the Associate Provost’s office or the Graduate Academic Concerns Committee. Section and level corrections are also delegated to the Registrar’s Office.

In some cases, the student may need to submit a formal petition for an exception to academic policy to withdraw from a course.
Notes: Some programs may have more stringent policies regarding withdrawal from courses. Contact the unit for details.

Contact the Sturm College of Law for semester system withdrawal procedures.

International students who are considering withdrawing from the University should also contact the Office of International Student and Scholar Services (ISSS) in addition to following the Office of Graduate Studies procedures.

Official Drop Periods

Courses dropped through the first seven days of a quarter (Monday–Sunday, summer session excluded) are deleted from the student’s record. Tuition will be reversed through this time period (first 10 percent of the term), if applicable.

A notation designating a withdrawal (“W”) is assigned for courses officially dropped after the first week of the quarter. The course appears on the student’s record with a withdrawal (“W”) grade notation. Credit hours for the withdrawn course are not earned and the “W” grade notation is not calculated in the GPA. A course may be dropped without instructor approval through the published date for automatic withdrawal (generally the end of the sixth week of a quarter, 60 percent of the term). Withdrawal deadlines and tuition refund schedules are available at www.du.edu/registrar.

Academic Dishonesty

A student can be prevented from dropping a course in cases of suspected academic dishonesty, even during the automatic withdrawal (W) period.

In cases of suspected academic dishonesty, the Office of the Registrar (http://www.du.edu/registrar) can reinstate a course that has been dropped without notification to the student. Once the case is heard by the Office of Student Conduct (http://www.du.edu/studentlife/studentconduct) or reviewed by the unit in which the case originated, and if academic dishonesty is determined, an instructor may assign a student a failing (F) grade for the course. A withdrawal (W) for the course is not honored. If the accused student is found innocent of academic dishonesty and there has been an attempt to drop during the automatic withdrawal period, the drop is processed and a notation of withdrawn (W) assigned.

Requesting Drop when Student is Failing

An instructor may refuse to give permission to drop a course to a student who is failing the course.

Drops with Approval

After the sixth week of a ten-week quarter the instructor’s signature and advisor’s signature are required to drop a course.

Drop Deadlines

Withdrawals during the two weeks (ten class days, Monday through Friday) prior to the scheduled final examination period are not allowed.

The Office of the Registrar (http://www.du.edu/registrar) will maintain these and other important registration activity deadlines.

Notes: Some units may have different policies regarding registration processes, deadlines and procedures for adding/dropping of courses and academic dishonesty. Contact the Office of the Registrar for more details.

Registration deadlines may differ for interterm periods.

University College, Graduate Tax and the Sturm College of Law may have different policies regarding registration processes, deadlines and procedures for adding/dropping of courses. Contact their registration offices for more details.

Repeating Courses

Repeatable courses include independent research, independent study, topics courses and music performance courses. Unless it is specifically designated as repeatable, a course in which the student has received a qualifying grade may not be repeated for credit.

If a non-repeatable course is taken again, the regular tuition rate is paid and the course is counted as part of the total credit load. All grades are counted in GPA calculations. The highest grade received in the repeated course fulfills the degree requirements, but hours earned toward degree requirements are counted only once.

All repeated courses appear on student transcripts. Automated advising tools (e.g. the Academic Progress Report) may show only first grade for the course.

Course Information

Enrollment in any course implies the permission of the instructor and the department. Courses are subject to the prerequisites identified in the course description unless the instructor approves appropriate equivalent experience or study.

Graduate courses to be applied in a cognate area are subject to the approval of the major department or program.

In general, an appropriate undergraduate major as determined by the graduate program must precede a graduate major or program.
Course Number Designation

Graduate credit cannot be earned in courses numbered below 3000.

Not all 3000-level courses may be offered for graduate credit. Students should consult the course description in their unit, program, and course schedule prior to enrolling in any 3000-level course to verify it is listed at the graduate level and may count as credit for the graduate degree. 3000-level courses that are not designated as graduate level are not approved to count toward graduate degrees.

The course number consists of a three or four letter subject code that identifies the academic unit offering the course, followed by four numbers that indicate the level of the course.

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<tr>
<th>Course Category</th>
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<tr>
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</tbody>
</table>

Schedule Type

Independent Study

Independent study provides opportunities for the capable student to do special work under individual supervision in areas not covered by class offerings.

Projects must be undertaken within the academic term in which they are registered. Independent study may not be taken instead of, or to modify, a regular course offered by a department. In addition, independent study cannot be used to account for study taken at another university or at the undergraduate level. The study must be conducted with DU faculty at the graduate level.

The department may limit the maximum number of Independent Study credit hours a student may apply towards their degree.

The students should demonstrate qualities necessary for interested and intensive inquiry. The student, with the approval of the instructor and department concerned, must agree upon the topic and outline.

Graduate students must obtain applications for independent study projects from the Office of the Registrar (http://www.du.edu/registrar). Partial applications will not be processed and registration after published registration dates is not permitted. To be eligible for independent study, the student must be in academic good standing (i.e., 3.0 GPA for graduate students). Independent studies must be at least one credit hour and generally not to exceed five hours. Independent study projects appear on the student’s transcript with the specific topic as the course title and academic grades (A-F) are assigned.

The responsibilities of the instructor of record are to establish specific requirements for the course of study, see that the grades are submitted, approve the credentials of other faculty involved and agree to assume responsibility if problems arise.

Independent Research

Independent research opportunities are available to students primarily for thesis and dissertation research or other independent research. The department may limit the maximum number of Independent Research credit hours a student may apply towards the degree.

Projects must be undertaken within the academic term in which they are registered and registration after published registration dates is not permitted.

Students obtain applications from their academic department. Incomplete or partial applications will not be processed. Upon successful completion of the project or on its termination by request of the department, the research advisor will record a final grade. The department may use the A-F grading system in evaluating the research or record "P" (pass) or "F" (fail) for the course.

The responsibilities of the instructor of record are to establish specific requirements for the course of study, see that the grades are submitted, approve the credentials of other faculty involved and agree to assume responsibility if problems arise.

Directed Study

A directed study course is a permanent catalog course delivered on an individual basis when the course is not offered that term. Directed studies are approved under extenuating circumstances to provide an opportunity to complete a required course.

Directed studies use the same forms and processes as independent studies. Partial applications will not be processed. Directed study courses appear on the student’s transcript with the specific course title and must be approved by the instructor and department concerned. There can be no change in the basic content of the course. In particular, this means the level, subject code, description, title, grading policy (A-F, P/NP), credits and course content cannot differ from the permanent course. Projects must be undertaken within the academic term in which they are registered. Registration after published registration dates is not permitted.
The responsibilities of the instructor of record are to establish specific requirements for the course of study, see that the grades are submitted, approve the credentials of other faculty involved, and agree to assume responsibility if problems arise.

**Experiential Learning/Internship Credit**

**Courses for no credit**

A student may register for no credit (NC) in any course with approval of the course instructor and only where space is available. A no credit registration cannot be changed to a credit registration after the deadline for registration has passed. Furthermore, a student enrolled for credit cannot change to no credit after the end of the sixth week of the quarter. Such courses count as full credit value in determining the total study load allowed. Courses taken on a no credit basis do not apply as part of the minimum credit-hour requirements for any graduate degree. The tuition charge for no credit courses is the same as for credit courses.

If adding the no-credit course creates a course overload, it requires approval from the instructor, advisor and dean of the unit.

No credit courses are listed on the student's permanent record with a grade of No Credit (NC). Students receiving any type of financial aid, scholarship, grants or tuition waiver should check with the Office of Financial Aid (http://www.du.edu/registrar) before registering for NC as financial aid or waiver may not cover courses taken for no credit.

*Note: Some units may have more stringent policies regarding no credit courses. Students should consult their registration office for information.*

**Auditing Classes**

Auditing privileges are extended only to full-time students who have approval of the course instructor and only where space is available. Students do not officially register for courses that are being audited; therefore, no tuition is charged and no record of the course is made. Students enrolled in a course may change to audit only if the course is dropped within the first seven days of the term.

*Note: Auditing privileges are not available for Daniels College of Business, Graduate School of Professional Psychology or University College courses.*

**Permission for undergraduates to register for graduate course**

Undergraduates may request to enroll in graduate courses that are well suited to their programs of study. This opportunity is available to seniors whose academic achievement makes graduate-level work appropriate. This policy applies to graduate courses with course numbers of 4000 and above. Some 3000-level courses are approved for either undergraduate or graduate credit. Undergraduate courses may not be taken for graduate credit.

**Graduate Courses for Undergraduate Credit**

Students must be classified as a senior and have an overall cumulative GPA of at least 3.0. The student must obtain approval of the course instructor; chair or program director of the graduate program; Office of Graduate Studies; and the student's major advisor. Graduate courses taken for undergraduate credit may not be subsequently used to satisfy graduate requirements unless the student is in an approved dual undergraduate/graduate degree program.

The request must be approved and filed in the Office of the Registrar (http://www.du.edu/registrar) before the student registers for the graduate course and registration must be completed before the deadline of the last day for registration with credit.

**Graduate Credit for Undergraduate Students**

Students who have been admitted to a DU graduate program do not require permission to register for a graduate course for graduate credit. Otherwise, undergraduate students must be classified as a senior and have an overall cumulative GPA of at least 3.0. The student must obtain approval of the course instructor; chair or program director of the graduate program; and Office of Graduate Studies. Courses taken for graduate credit may not be used to satisfy undergraduate requirements unless the student is in an approved dual undergraduate/graduate degree program.

The request must be approved and filed in the Registrar’s office before the student registers for the graduate course. Registration must be completed before the deadline of the last day for registration with credit.

**Student Responsibility for Policies and Procedures**

Students may have questions on a range of topics from academic standards to graduation requirements. To successfully navigate the policies and practices of the institution, we invite you to take some time to read the Graduate Policy Manual.

Individual schools and departments may have additional policies particular to their graduate programs. Please make sure you understand both; however, it is important to know that unit-specific policies do not override university-wide policies. Please consider contacting the Office of Graduate Studies for questions about the university’s policies and procedures.
Student Withdrawal from the University

Withdrawing (Temporary or Permanent) (p. 925)

Things to Consider Prior to Withdrawing (p. 925)

Personal Leave of Absence (p. 926)

Medical Leave of Absence (p. 927)

Withdrawing (Temporary or Permanent)

Students considering time away from graduate study must communicate with the University prior to taking time off from the graduate program and fill out the appropriate paperwork. There are two types of withdrawals, temporary and permanent. Regardless of withdrawal type, the first step for students enrolled in courses is to officially drop courses.

Temporary Withdrawal

This is for students planning to resume studies at the University of Denver. This type of withdrawal includes personal and medical leaves. The approved Leave of Absence form must be submitted to the Office of Graduate Studies (students in Law, Business, Social Work, UCOL and International Studies return the form to the college’s student service office instead of the Office of Graduate Studies) prior to any leave.

Permanent Withdrawal

Students wishing to discontinue graduate study must communicate the decision to permanently withdraw from the graduate program in writing to the University.

Things to Consider Prior to Withdrawing

Students who wish to drop all courses in a term and take a leave of absence or withdraw permanently from their programs are advised to consider the impact on the following items:

Timeline for Degree Completion, Cohort Placement and Degree Requirements

While on an approved leave of absence, students are guaranteed a place in their current program when they return to the University, provided all deadlines and rules are observed. Some units may have more restrictive guidelines for a leave of absence. Students should consult with their unit and program for more information before deciding to take leave. Students returning from leave have the same registration priority as continuing students. It is important to note that students are still held to the original timeline for completion of the degree, unless a student is on an approved medical leave of absence. Special Status, or non-degree seeking, students or students who are beyond the time limit to complete their degrees are not eligible for a leaves of absence.

Students who permanently withdraw may not re-enter the program without applying for and being re-admitted to the academic program. They are accepted under the newest bulletin requirements.

Tuition and Fee Payment and Refund Schedule

Outstanding debts must be cleared with the Bursar's Office. A student’s leave application will be accepted even if they owe money to the University. However, students will not be allowed to register for future terms if they have any outstanding debts to the University. In the case of extenuating circumstances that are beyond the student’s control, a student may appeal for an exception to the University’s refund policy.

Withdrawal Deadlines

Enrolled students should review the academic calendar (http://www.du.edu/registrar/calendar) and be aware of the important dates and term specific withdrawal deadlines.

Health Insurance Coverage

University of Denver Health Insurance coverage may be interrupted or discontinued. To learn more about the coverage, students should consult with the staff in the Health and Counseling Center (http://www.du.edu/health-and-counseling-center) at 303-871-2205.

Financial Aid, Scholarships, Work-Study, GTA/GRA and Loan Repayment Terms

Students should be clear about the impact of withdrawal on loan repayment requirements as well as scholarships, teaching assistantships and other forms of University aid. While on a leave of absence, students are not eligible to receive financial aid, including work-study. Some forms of University aid (i.e. GRA and GTA positions and other scholarships or fellowships) are not guaranteed to be reinstated if a student takes a leave of absence. In addition, student loan repayment terms may be impacted and in some cases repayment may begin when a student goes on Leave. It is the students’ responsibility to notify their lender they are taking a leave of absence and will not be enrolled in school.
Students should apply for financial aid well in advance of the term they expect to return to school so their disbursement is available at the beginning of the term. Contact the Office of Financial Aid (http://www.du.edu/financialaid) for additional information.

**F-1 or J-1 Visa Immigration Status for International students**

International students who are interested in withdrawing should be aware of certain restrictions in the immigration laws. Nonimmigrant students may not remain in the United States in F-1 or J-1 immigration status if they are not enrolled full-time in school unless they meet certain criteria and have approval from International Student and Scholar Services (ISSS). In order to take a Leave, international students may need to either leave the United States while out of school or change to another non-immigrant status. Before withdrawing and applying for a Leave, international students should consult with an adviser in the ISSS office.

**University Housing Contract**

Housing contracts are for the entire academic year; please see housing policy to understand approved reasons for checking out during the academic year. Students must check out of the apartment within 24 to 48 hours of withdrawing.

**Benefits for Veterans**

For students receiving veterans’ benefits, Veteran Services in the Office of the Registrar should be notified of withdrawal plans.

**Parking Permits and Unpaid Citations**

Unpaid citations must be cleared with Parking Services and parking permits should be returned to avoid additional costs.

**University Libraries Books and Overdue Book Fines**

All library books should be returned and overdue book fines should be paid prior to withdrawing.

**Contact Information**

It is university policy that students maintain a preferred off-campus address and email account. It is each student’s responsibility to keep both a current mailing address and email address updated while on leave. If a student’s address changes while on Leave, the address should be updated through PioneerWeb (https://PioneerWeb.du.edu).

**Personal Leave of Absence**

A graduate student may withdraw from the University temporarily or permanently for non-medical reasons. For medical circumstances, see medical leave of absence. Students who wish to withdraw permanently from their programs should notify the University in writing. A graduate student who wants to take time off from the University must fill out the Application for Leave of Absence for Graduate Students. The form must be signed by the student's advisor and turned into the Office of Graduate Studies by the Registrar's published deadline to drop classes. Students who are currently enrolled for the quarter during which they wish to begin a leave of absence must first withdraw from courses for the quarter during which they apply for Leave. Students who fail to withdraw will be liable for full tuition and fee charges, and a failing grade may be recorded for every course for which the student is registered.

In general, Leaves of Absence are for students who want to take a period of time away from the University (excluding summer) with the intent to return. The maximum period of time for a single leave of absence is three consecutive quarters, excluding summers. Students who need an additional leave of absence should file a new application for a leave of absence. While on an approved leave of absence, students are guaranteed a place in their current program when they return to the University, provided all deadlines and rules are observed. Some units may have more restrictive guidelines for a leave of absence. Students should consult with their unit and program for more information before making a decision about whether to take a leave.

Returning students have the same registration priority as continuing students. It is important to note that students are still held to the original timeline for completion of the degree.

Students who are called to active military duty while enrolled should apply for a leave of absence. Active Peace Corps volunteers may apply for a leave of absence for the term of their Peace Corps service.

Students on a formal internship, cooperative education, or clinical placement program as part of an academic program at DU should not apply for a leave of absence as they may need to be enrolled for internship or practicum credits. Instead, students should work with their graduate unit to be sure they are in compliance with program requirements.

Students who have outstanding judicial sanctions or actions due to violations of the Honor Code will not be considered in good standing with the University of Denver and must first be cleared by Student Conduct before they may be readmitted to DU. Please contact Student Conduct (http://www.du.edu/studentlife/studentconduct) with any questions before applying for a leave of absence.

Prior to returning to the University, students should contact their advisers for information on choosing courses appropriate for each academic program. Please contact the appropriate student services office with questions about returning to the university and registering for courses. International students must contact ISSS (http://www.du.edu/intl/isss/about.html) to obtain proper immigration documents before returning.
Medical Leave of Absence

A medical leave of absence may be requested for serious mental and/or physical conditions that prevent a student from functioning successfully or safely as a member of the University community. A medical leave of absence provides students up to one year of relief from coursework and time-to-degree requirements (except for the Sturm College of Law students). Generally, a student may request a medical leave of absence a total of two times while enrolled in an educational program at DU. Students may apply up to the last published day of classes. In addition, if the medical leave is approved, tuition for the quarter in which the student begins the leave may be refunded. Medical withdrawal is not intended as a strategy to shield a student from unsatisfactory progress or any other academic irregularity. Any student on a medical leave of absence may not enroll for any courses at any institution unless required as a part of the health care plan.

Transfer of credit toward a DU degree for courses taken while on leave is not guaranteed. A medical leave of absence is only allowed for students who are dealing with their own personal health circumstances. Students seeking a leave of absence for other reasons may apply for a personal leave of absence and refer to the forms and policies for a leave of absence.

Processing a Medical Leave of Absence

- The complete Application for Medical Leave of Absence for Graduate Students (http://www.du.edu/media/documents/graduates/medical.pdf) and all relevant medical documentation must be submitted within two weeks of the last date the student attended classes and no later than the published last day of classes.
- If the documents (Application for Medical Leave of Absence for Graduate Students (http://www.du.edu/media/documents/graduates/medical.pdf) and official medical documentation) are completed and submitted before the end of the sixth week of the term, all courses will be dropped, the relevant departments will be notified on the student's behalf, and tuition refunded.
- If the completed application and supporting medical documentation are submitted after the sixth week of the regular academic term and before the published last day of classes, the student may be required to petition separately for a late withdrawal from courses and file a formal appeal for a tuition refund. For summer, interterm or intensive short courses, please refer to the Academic Calendar (http://www.du.edu/registrar/calendar) on the Office of the Registrar’s (http://www.du.edu/registrar) website for current add/drop dates.
- Students may not apply for a Medical Leave of Absence for a term which has ended. Please contact the Office of the Graduate Studies (http://www.du.edu/learn/graduates/studentresources.html) to discuss what options might be available for future terms.

Medical Documentation

Appropriate medical documentation must be submitted with the Application for Medical Leave of Absence for Graduate Students (http://www.du.edu/media/documents/graduates/medical.pdf) and must include the following:

- a signed and dated letter, on clinic letterhead, from a medical care provider appropriate for the medical condition indicated
- diagnosis of the condition and how the condition prohibits the student from attending classes and/or completing coursework and indicating confirmation of significant functional impairments that warrant withdrawing from all courses for the term

Returning from a Medical Leave of Absence

As a condition of accepting a medical leave of absence or a tuition refund for medical reasons, students agree to obtain appropriate medical treatment before returning to the University. To be eligible to return, students must submit documentation from an appropriate health care provider. At least two weeks before the start of the term a student plans to return to classes, the following items must be submitted:

- a signed and dated letter, on clinic letterhead, from a medical care provider appropriate for the medical condition indicating the student, at the time of the evaluation by the health care provider, is medically able to resume study at the University
- the health care provider must also submit a completed Health Care Provider Questionnaire (http://www.du.edu/media/documents/graduates/medical.pdf), available from the Office of Graduate Studies (http://www.du.edu/learn/graduates/studentresources.html).

The Associate Provost for Graduate Studies, or the Associate Provost’s designee, has final determination as to whether the documentation the student has submitted is sufficient.

It is the student’s responsibility to submit medical documentation and necessary letters/forms with sufficient time to allow for processing and priority registration if approved to return. All other provisions for returning to the University apply (e.g., registration holds, etc.).

If a graduate student has not been approved to return to study within one calendar year of taking the Leave, the degree time limit is reinstated, and the student will be placed on inactive status until the time to degree expires and/or the appropriate documentation is submitted to the Office of Graduate Studies required to return from a medical leave of absence. Students may be eligible to reapply.

All other provisions and procedures for non-medical Leaves of Absence apply. Please review the general (personal) leave of absence policies for more information.

Students may also seek grades of “Incomplete” in their course(s), if eligible.
Students Called for Military Duty

Introduction
The University of Denver supports students called to active duty in the armed services by providing academic support, tuition relief and refunds, and for reinstatement of students whose documented service in the uniformed services has required their sudden withdrawal or prolonged absence from their enrollment at the institution. Included is service in the uniformed services whether voluntary or involuntary on active duty in the Armed Forces, including such service by a member of the National Guard or Reserve. When a University of Denver student is under call or ordered to active duty, the following provisions will apply.

Purpose
This guideline offers suggestions for ways in which academic and administrative units and faculty may assist students who are called to active military duty.

Student Responsibility
A University of Denver student who receives orders calling him/her to report for active military duty should provide a copy of those orders (including the date in which the orders were made and the “reporting date”) to the Coordinator of Military Programs in the Office of the Registrar. The Coordinator of Military Programs will provide a copy of the orders and written official leave of absence request (if applicable) to the Office of Graduate Studies or Office of Undergraduate Academic Resources and the Office of Financial Aid, if the student has a scholarship or other financial aid. The Coordinator of Military Programs will notify the faculty members in all courses in which the student is enrolled and will assist with arrangement of course completion options and a written official leave of absence (if needed). It is generally the student’s responsibility to work directly with faculty members to determine appropriate course completion options.

Note: Should the student not be capable of providing a copy of such orders to the Coordinator of Military Programs due to the immediacy of the military assignment, s/he must submit official orders, 1) upon return to school, or 2) while on duty. The University can only consider request for changes to grades or tuition charges with official military orders. The University will make appropriate changes to the student’s records once the official orders are submitted.

Course Completion Options
• Faculty are urged to work with a student who has received military orders to enable the student to complete the course work whenever it is reasonably feasible for the student to do so.
• If a student receives military orders for an extended period of time and it is highly likely that the student will miss most of the class sessions in the course, the student would be well advised to drop the course.
• If the student receives military orders late in the term, faculty members may offer the student the option of an incomplete if such an option is academically appropriate.

Other Academic Matters
• Service members and reservists who are temporarily unable to attend class or have to suspend their studies due to service requirements are allowed to re-enter a program provided that satisfactory academic progress is being made by the service members prior to suspending their studies. Students’ re-entry or readmission to the University shall be governed by existing policies for re-entry or readmission.
• While graduate students are on a leave of absence due to military deployment, their time away from the University will not count as part of the time limit set for degree completion.

Administrative Matters
• A student who is forced by virtue of military orders to drop selected courses or withdraw from a term should receive a 100% refund of any tuition the student has paid for the courses dropped or withdrawn. Refunds of tuition and fees paid by financial aid or other third parties will be handled by the Bursar and the Office of Financial Aid so as not to disadvantage the student, but in accordance with applicable regulations.
• A student on financial aid who is forced by virtue of military orders to drop selected courses or withdraw from a term should not be penalized in terms of financial aid eligibility, making academic progress, or other financial aid criteria.
• If a student has arranged to attempt to complete a course and finds that the nature of the military service prevents the student from completing the course work, the student should notify the faculty member and the Coordinator of Military Programs and request their assistance in determining and implementing an appropriate course of action (e.g., requesting an incomplete, dropping the course, and written official leave of absence if needed).
• Room and board charges will be pro-rated based on the student’s official check-out date.
• For new students, an enrollment deposit is required to confirm their acceptance of the offer of admission. If a student is deployed to active duty military service before the beginning of the planned term of enrollment, the deposit will be refunded.
• A student can appeal any administrative decisions that result in his/her required participation in military orders by requesting the procedures for doing so from the Coordinator of Military Programs.
Transfer of Credit

Transfer of Credit Criteria

• The student must initiate in writing the request for transfer of credit through the program of study and is responsible for seeing that the transfer of credit is requested prior to the beginning of the first term but not later than the end of the first term. Transfer of credit requests for course work taken from another institution during the University of Denver’s program of study needs to be submitted in the returning quarter and no later than the preceding term in which the student wishes to graduate.

• The student is responsible for seeing that the transfer of credit is posted on the DU transcript and that the department, appropriate student services office of the college, school, or department and the Office of Graduate Studies have approved the request.

• Graduate coursework and credit hours already applied toward a degree received from the University of Denver or another institution cannot be accepted as transfer credit towards another graduate degree of the same level or less. Graduate credit earned and not applied towards a degree may be eligible for transfer of credit to a University of Denver degree.

• An official transcript must be on file in the Office of the Registrar and must demonstrate that the student earned a “B” average or better in the master’s degree by up to 45 hours with an earned master’s degree from a regionally accredited university.

• With approval from the student’s advisor and the chairperson of the department, doctoral students may reduce the required hours for a doctoral program of study.

• Transfer of credit for a Doctoral Program

• The student must initiate in writing the request for posting the master’s degree through the program of study. The student is responsible for seeing that the department, appropriate student services office of the college, school, or department and the Office of Graduate Studies have approved the request.

• An official transcript must be on file in the Office of the Registrar.

• The transfer credit must have been earned as graduate credit at a regionally accredited institution offering a graduate degree program in a similar field for which the student is currently seeking a degree. Transfer credit is approved on a course-by-course basis, unless it is a blanket transfer of credit hours for a doctoral program from a previously earned master’s degree.

• The credit must have been earned within a five-year period preceding the request for transfer of individual courses. Exceptions to this regulation may be made only by petition with specific justification by the college, school or department to the Associate Provost for Graduate Studies.

• Coursework with a “B+” grade may be requested to be transferred, providing the average of all graduate transfer coursework is “B” or better. If only one course is to be transferred, the grade must be “B” or better (a grade of “B-” or lower is unacceptable).

• Courses taken on a pass/fail basis are not acceptable for transfer, unless the instructor provides a class syllabus and the student provides proof from the institution that a “Pass” is equivalent to a “B” or better.

• Transfer credit is not included in the computation of the grade point average for the current degree.

Coursework Taken Prior to Enrollment at the University of Denver

Credits earned prior to enrollment in a degree program at the University of Denver may be transferred to meet degree requirements at the University of Denver in accordance with the transfer of credit policy and for students entering the University without a previous graduate degree or students entering a University of Denver doctoral program with a master’s degree. The request for the transfer must be made prior to or during the first quarter of attendance as a University of Denver degree-seeking student.

Coursework Taken After Enrollment at the University of Denver

If the credit to be transferred is earned while the student is already enrolled in a degree program at the University of Denver, the student must transfer graduate credit earned from a regionally accredited institution to meet degree requirements at the University of Denver in accordance with the transfer of credit policy.

• The student must initiate in writing a request for approval of outside coursework prior to enrolling in the course. The written request, which is submitted to the college, school or department, should include the name of the institution where the course will be taken, the course title, number of credit hours, course description, and the student’s reasons for requesting outside credit.

• The student is responsible for seeing that the Office of Graduate Studies has given preliminary approval for the request prior to enrollment. A final review and approval may be granted upon the receipt of the student’s final, official transcript from the transfer institution and/or study abroad institution. Retroactive transfer credit requests may not be approved.

Transfer of Credit for a Master’s Programs

Transfer of credit toward a 45 credit hour master’s degree is generally limited to 10 quarter hours, but some programs may have more restrictive limits. Some master’s degree programs that require more than 45 credits may allow more than 10 credits to be transferred toward the degree. Contact the unit for details.

Transfer of Credit for a Doctoral Programs

With approval from the student’s advisor and the chairperson of the department, doctoral students may reduce the required hours for a doctoral degree by up to 45 hours with an earned master’s degree from a regionally accredited university.

The student must initiate in writing the request for posting the master’s degree through the program of study. The student is responsible for seeing that the department, appropriate student services office of the college, school, or department and the Office of Graduate Studies have approved the request.

An official transcript must be on file in the Office of the Registrar and must demonstrate that the student earned a “B” average or better in the master’s degree program.

The student’s University of Denver academic department must fill out the Transfer of Credit form and provide a statement stating that the student’s master’s degree is appropriate and that the student possesses an adequate background for the doctoral degree being sought.
Fifteen additional quarter hours may be allowed to be transferred provided the credits have been earned after the master’s degree was awarded and it does not conflict with the doctoral residency requirement that requires enrollment at the University of Denver in at least six quarters (four semesters), including at least two consecutive quarters (one semester) of full-time attendance.

**Note:** Some graduate programs may have more stringent policies regarding transfer credit. Contact the unit for details.

**Exceptions:**

- **Morgridge College of Education:** Students must complete 90-quarter hours in addition to a master’s degree for the PhD program, excluding the PhD in Counseling Psychology and the PhD in Child, Family and School Psychology.
- **English:** Students must complete 90-quarter hours in addition to a master’s degree for the doctoral program.
- **GSSW:** An MSW (or equivalent) plus 75 credits are required for completion of the PhD program in Social Work. The MSSW and MSSA are equivalent to the MSW.

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**Academic Exceptions, Complaints, Grievances and Appeals**

**Exceptions (p. 930)**

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**Exceptions**

**Graduate Academic Concerns Committee**

Academic policies define institutional standards and ensure equitable treatment of all students. All students are expected to observe the academic policies and practices of the University. However, in instances of documented extraordinary circumstances, a student may request an exception to a policy or practice.

The Graduate Academic Concerns Committee is a standing subcommittee of the Graduate Council which represents the Graduate Council’s interests as advisory to the Associate Provost. As chair of the Committee, the Associate Provost appoints its members and ensures that the committee is representative of appropriate academic and administrative units. This committee also may serve as the review body for graduate academic appeals and grievances as referred to them by the Provost and Associate Provost for Graduate Studies.

Decisions of the Committee are final. The Committee re-considers its decisions only on the basis of new information not previously available for the initial review.

**Purview**

The Graduate Academic Concerns Committee considers requests for exceptions to University-wide policy affecting graduate students. Permission to deviate from University policies is not granted automatically or perfunctorily. Each request is considered on its merits. Decisions are made on the academic basis of the petition and requests granted when approval does not weaken the integrity of the academic program. While the committee is cognizant of the hardships that students may face, petitions based primarily on cost or convenience considerations will not be approved.
Prohibited Exceptions
Exceptions to University policies will be considered only if there is no University prohibition against deviating from regulations. The University prohibits exceptions regarding the following:

- Late registration for courses students have sat in on, but were not enrolled. Students may not be permitted to attend courses for which they have not registered.
- Removal of markers of Withdrawal "W" from the student's record. Notations of Withdrawal "W" do not impact the student's GPA and are official markers of University registration transactions.
- Waivers of graduation requirements. Students may not receive a University of Denver degree without completing all degree and credit hour requirements or with a cumulative GPA below the minimum required for their degree program.
- To count undergraduate courses, courses numbered below 3000 level or 3000 level courses that are offered for undergraduate credit only, for the graduate degree. Students should consult with their academic advisors to enroll for appropriate graduate level courses.

Items for Committee Review
The Graduate Academic Concerns Committee will review the following requests in addition to any issues referred to the Committee by the Associate Provost.

Changing Course Registration after the Close of a Term
The Committee will consider retroactive adds or drops only in the event of extenuating circumstances beyond the student's control:

- An error on the part of the University in registration.

  **Documentation**: Letter(s) on institutional letterhead from an appropriate University authority.

- Registration for the wrong course or course level. (e.g. registered for 4991 Master's level, should have been 5991 doctoral level)

  **Documentation**: Letters(s) on institutional letterhead from an appropriate University authority.

- The student registered for but never attended the course.

  **Documentation**: Letter(s) on institutional letterhead from an appropriate University authority.

- Erroneous re-registration for the same course for which a student already received an Incomplete "I" grade.

  **Documentation**: Letter(s) on institutional letterhead from an appropriate University authority.

- Physical injury/illness and/or mental illness that prevents the student from completing course(s).

  **Documentation**: Letter(s) on letterhead from the physician for physical injury/illness or psychiatrist or other licensed mental health professional for mental illness. The letter(s) must specifically state that the student was advised to withdraw due to injury/illness.

- Serious illness or death of immediate family member that prevents the student from completing the course(s).

  **Documentation (for illness)**: Letter on business letterhead from the attending physician for the physical illness or psychiatrist or other licensed mental health professional for mental illness.

  **Documentation (for death)**: Memorial service folder, obituary, or copy of death certificate

- Job relocation or loss of employer reimbursement eligibility due to involuntary job loss.

  **Documentation**: Letter on business letterhead from immediate supervisor or human resources administrator.

- Unexpected increase in job responsibilities, required change in work schedule, or required travel that prevents completion of course(s).

  **Documentation**: Letter on business letterhead from immediate supervisor or human resources administrator that specifies the dates of increased workload and/or travel.

**Note**: The Graduate Academic Concerns Committee does not handle registration for the wrong section of a course.

Extensions of Time to Complete Degree
The Committee will consider petitions for extensions of time to complete the degree with the following minimum documentation required:

- letter of input from the student,
- student submission of a detailed outline plan with milestones and goal dates leading to completion of the degree, and
• letter(s) of input from the student’s faculty and/or departmental advisor.

Petition Process

Students must initiate petitions online using PioneerWeb (see instructions below). Required documentation may be submitted to

Office of Graduate Studies
2199 S. University Blvd
Mary Reed Building, Room 5
Denver, CO 80208-4802

Email: graduatestudies@du.edu (gradstudies@du.edu) (preferred)
Fax: 303-871-4566.

Instructions for Online Submission

Navigate to PioneerWeb (https://PioneerWeb.du.edu). Log in using the DU ID and Passcode, select the “Student” tab, go to “myWeb (Banner Self-Service),” select “Student,” select “Student Records,” go to “Request Academic Exception.”

Required Documentation

A valid petition includes, at minimum, the official online request submission, written documentation from the student, the student’s advisor and, if the request is in regards to a class, the instructor of the course being petitioned. Additional documentation may be required before the petition can be reviewed.

Petitions for students in the Morgridge College of Education, University College, Graduate School of Social Work and Josef Korbel School of International Studies must also include unit input. Once the student’s electronic petition and faculty input for that petition have been received, the information will be sent to the unit for review. The unit will then email input to graduatestudies@du.edu (gradstudies@du.edu).

It is the responsibility of the student to ensure that all documents, including faculty and unit input, are submitted in a timely fashion. Documentation must be received at least one week prior to the monthly Graduate Academic Concerns Committee meeting.

The Associate Provost for Graduate Studies, or the Associate Provost’s designee, has final determination as to whether the documentation the student has submitted is sufficient.

Petition Review and Status

Petitions are reviewed and decided by the Associate Provost for Graduate Studies and the Graduate Academic Concerns Committee, which meets once per month during the regular academic session. The Committee does not meet during the summer or interterm periods. Petitions submitted during interterm periods are reviewed at the discretion of the Associate Provost for Graduate Studies.

It is the responsibility of the student to check the status of their petitions and respond to requests by the Committee representative.

The student will be notified (via PioneerWeb) of the decision of the Associate Provost and/or the Graduate Academic Exceptions Committee within one week of when the request was reviewed. The decision report will be emailed to the instructor and department.

Statute of Limitations

The Committee will not consider petitions for policy exceptions more than one calendar year after the completion of the quarter in question or once a student’s degree has been certified and posted to the transcript.

A student has two weeks from the initial submission to complete their petition. If, at the end of two weeks there are still outstanding documents, the petition will be archived and no further actions will be taken.

Items for Associate Provost Review

Transfer of Credit Policy and Credit Hours to Count for the Degree

• Transfer hours from another institution older than five years do not count for the graduate degree.
• Students cannot take more than eight credits beyond degree requirements in order to make up grade deficiencies.

English Language Proficiency Assessment for Students with a Low TOEFL/IELTS Speaking Test Score

If the student earns minimally a score of 24 on the speaking section of the TOEFL or a 7.5 on the speaking section of the IELTS and performs high on the DU speaking assessment, the academic unit may submit a petition to the Associate Provost for Graduate Studies requesting that the student be awarded the GTA but must enroll in and successfully complete the ELC Bridge Course in his/her first academic term of enrollment. Petitions must provide a compelling case for the exception. Petitions are submitted at the discretion of and by academic units. The Office of Graduate Studies will not accept requests and petitions from students.
Unit-specific Admission Requirements set by Individual Academic Programs
The Associate Provost will consider petitions for applicants that are requesting waivers from unit-specific admission requirements (i.e. letter of recommendation or essay). These petitions need to be supported by the departmental admission committee and have a strong rationale.

Note: The dean of the graduate unit reviews requests for waivers regarding entrance exams.

Concurrent Enrollment and Residency Requirements
Students may enroll elsewhere concurrently only if they are pursuing a requirement not currently offered at DU and if the concurrent enrollment doesn’t result in an unacceptable overload.

Students may be allowed an exception to the residency requirement if extenuating circumstances (e.g. medical or personal issues) require that they be away from the University of Denver campus. Any off-campus study request must be consistent with the student’s graduate program and must have appropriate departmental approvals.

The residency requirement will not be waived if a student’s time out-of-residence results in too substantial a proportion of their graduate work being taken outside the University of Denver.

Permission for concurrent enrollment or waivers of residency will never be allowed for financial reasons.

Petition for Unit-Level Exceptions
- Graduate units that wish to be considered for an exception to University policy must provide a request to the Associate Provost for Graduate Studies that includes a rationale for the variance.
- The Associate Provost will consider the petition and will notify the unit of the decision. A unit whose petition is denied by the Associate Provost has the right to request that the matter be referred to the Graduate Council for review.
- Graduate Council may recommend that the Associate Provost reconsider the request in consultation with the Provost. The Associate Provost will make a final determination and report to the Graduate Council on all petitions and outcomes.

Discrimination or Harassment Complaint Procedures
The Equal Opportunity and Title IX Offices establishes these procedures to assist it in carrying out its responsibilities in the administration and enforcement of the University of Denver’s policies related to nondiscrimination and assuring the University’s compliance with applicable laws including Executive Order 11246; Title VII of the Civil Rights Act of 1964; the Age Discrimination in Employment Act; Title IX of the Education Amendments of 1972; the Age Discrimination Act of 1975; the Americans with Disabilities Act (ADA) of 1990 and as amended by ADA Amendments Act of 2008; the Rehabilitation Act of 1973; the Vietnam Era Readjustment Assistance Act; the Genetic Information Nondiscrimination Act of 2008; Title 24, Article 34 of the Colorado Revised Statute; and Denver Municipal Ordinances. University Policy and these Procedures are intended to comply with the prohibitions of these laws as amended as well as other applicable federal, state, and local anti-discrimination laws.

The Equal Opportunity and Title IX Offices accepts and investigates complaints alleging discrimination, harassment or retaliation in violation of University of Denver policy and applicable laws. Consistent with federal, state and local law and University policies related to non-discrimination, the Office conducts neutral investigations of complaints of discrimination (including harassment) on the basis of race, color, national origin, age, religion, disability, sex, sexual orientation, gender identity, gender expression, marital status, veteran status or genetic information; complaints of retaliation; and complaints alleging failure to provide reasonable accommodations for disability and religion.


Complaints for External Agencies
Several external agencies are available to students who have exhausted all other opportunities for resolution within the University.

Colorado Department of Higher Education
The Colorado Department of Higher Education regulates Colorado institutions of higher education. Their complaint policy may be found on the Colorado Department of Higher Education (http://highered.colorado.gov/Academics/Complaints) website.

U.S. State Education Regulatory Agencies
Through distance learning and other programs, the University of Denver provides instruction throughout the world. Students may direct concerns or complaints to regulatory agencies in their state. A list of U.S. state education regulatory agencies can be found on the State Contacts (http://www.du.edu/currentstudents/statecontact.html) page.
Higher Learning Commission

Complaints regarding the institution's ongoing ability to meet the criteria of institutional accreditation may be directed to the Higher Learning Commission. Individuals interested in bringing an appropriate complaint to the attention of the Commission should take some time to compile a complete submission, as outlined below. There is no complaint form.

1. Write a cover letter directed to the Commission containing a brief narrative of the facts of the complaint. In most cases, such a narrative need be no longer than a few pages.

2. Indicate in your complaint why you believe the issues raised in your complaint are accrediting issues. If possible, please review the Commission’s Criteria for Accreditation (http://policy.ncahlc.org/Policies/criteria-for-accreditation.html) on the Commission’s (http://policy.ncahlc.org) website prior to writing this section.

You should also indicate how you believe the Commission can assist you with this matter. Remember that the Commission cannot assist you in understanding your tuition bill, arranging for a refund of tuition, obtaining a higher grade for a course, seeking reinstatement to an academic program, etc.

3. Attach documentation to support your narrative wherever possible. (For example, if you make reference in your complaint to an institutional policy, include a copy of the policy with your complaint.) Helpful documentation might include relevant portions of the catalog, letters or email exchanged between you and the institution, learning agreements, etc.

4. A few reminders:
   • Please type your complaint or print very neatly.
   • Please do not use abbreviations or nicknames (e.g., NMS or USC or U of N).
   • Sign and date the cover letter.
   • Include contact information for future correspondence. Include a street address.
   • If you are writing on behalf of someone else (son/daughter or client), be sure to provide that person’s consent in writing to allow you to communicate with the Commission on the student’s behalf.

5. Mail the letter and its attachments to the Commission’s office at 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413. The Commission does not have an online complaint system and does not accept complaints via email.

Please note that the Commission will not consider those complaints that are not in writing and do not contain the elements noted here. The Commission’s complaint policy precludes it from considering matters more than 5 years old.

The Commission will acknowledge your complaint within thirty days of receiving it and let you know whether your complaint is complete and whether it raises issues that are related to accrediting requirements or whether it is an individual dispute outside the jurisdiction of the Commission’s complaint policy.

Email questions to complaints@hlcommission.org

Procedures for Academic Grievances and Appeals

Active students may appeal academic and student status related decisions and/ or seek resolution of complaints or grievances through the Academic Grievance and Appeal Procedure during their enrollment at the University of Denver.

Graduate units may have additional requirements specific to their accreditation or professional standards. It is the responsibility of the student to determine whether the graduate unit has specific requirements and the responsibility of the unit to ensure that those requirements are addressed prior to advancing the grievance to the Office of the Provost. In the event of conflict between any grievance process published in unit manuals or websites, the process outlined in the Graduate Policy Manual will govern.

Eligible and Ineligible Concerns

Eligible Concerns

These procedures may be used only by active students with the following concerns:

• A grievance or appeal regarding academic standing during their enrollment at DU.

• An academic decision made by a faculty or staff member, administrator or committee of the University of Denver that directly and adversely affects the student—e.g., program termination, academic suspension, removal from a course, termination of GTA or GRA appointment.

• The grievance or appeal must be based on problems of process or concerns of bias, retaliation, or other impropriety and not on differences in judgment or opinion concerning academic performance.

Note: Students who wish to appeal a termination from a program must do so within 45 days of the term following their last term as an active student. For concerns of bias and retaliation based upon a protected class, the grievance will be referred to the Equal Opportunity Office, which may alter the timeline and process.
Ineligible Concerns
These procedures may \textbf{not} be used to resolve the following concerns:

- appeals related to disciplinary actions taken by the Conduct Review Board
- grade appeals
- admission decisions
- appeals or grievances submitted beyond the published timeline

Formal Grievance and Appeal Process
\textbf{First Level: Informal Resolution}
Students are expected to attempt to resolve complaints informally with the faculty or staff member, administrator or committee responsible for the academic decision. This attempt must include discussion of the complaint with the involved party or parties. \textit{If all reasonable informal efforts to resolve a complaint fail, the student may file a formal grievance or appeal.}

If the complaint involves a charge of unlawful discrimination, the student may report the situation to the Office of Equal Opportunity or an appropriate supervisor who must immediately notify the Office of Equal Opportunity.

\textbf{Second Level: Submission of the Formal Grievance or Appeal to Program Director/Chair}
If a student elects to file a formal grievance or appeal, it must be filed within 45 calendar days into the next quarter after the contested decision or grade was officially recorded and during which the student is enrolled at DU. All grievances and appeals must be filed in writing, signed and dated by the student and include supporting documentation at the time it is filed. The grievant/appellant must minimally provide the following:

- a clear description of the decision being grieved or appealed,
- the basis or bases for challenging the decision,
- the identity of the party or parties who made the decision,
- the specific remedy or remedies requested, and
- a description of all informal resolution attempted.

The decision of the program director or department chair must be issued in writing within 30 days of receiving the grievance and shall include all of the following:

- a copy of the student’s formal grievance,
- relevant findings of fact,
- decision and the reasons for the decision reached, and
- the remedy which is either granted or denied and/or any alternative remedies suggested.

\textbf{Third Level: Submission of the Formal Grievance or Appeal to Dean}
The party who finds the resolution unsatisfactory may appeal the decision in writing to the dean of the academic unit within five working days of receiving the program director or department chair’s written decision.

The dean may render a decision on the matter or may refer the grievance or appeal to a standing grievance/appeal committee or establish an ad hoc committee to hear the matter. When an ad hoc committee is established, the student who lodges the appeal may designate one of the faculty members who will serve on this committee. This member must be tenured or tenure-track faculty from the University of Denver. Members of the unit involved in the grievance may not serve on the ad hoc committee and must recuse themselves if they are members of the standing committee.

The committee may, at its discretion, receive from the student, relevant faculty or staff members or other individuals, any additional evidence or argument that it deems necessary to resolve the grievance or appeal.

The appeals committee will begin deliberations as soon as possible and provide the dean a written recommendation no later than 30 days after the date that the dean’s office received the written, dated request for appeal at this level. The dean will make a final decision and distribute it to all affected parties within five working days after receiving the committee’s recommendation.

\textbf{Fourth Level: Submission of the Formal Grievance or Appeal to Provost}
The party who finds the resolution unsatisfactory may appeal the decision to the Provost within five working days of receiving the dean’s decision. The Provost will hear only those grievances and appeals based on problems of process or concerns of bias, retaliation, or other improprieties unrelated to protected class status and not on differences in judgment or opinion concerning academic performance. Within five working days after receiving the appeal, the Provost may refer grievances or appeals to appropriate bodies or personnel. If the issue is referred to the Graduate Council, its chair will appoint three members of the Council as a Grievance Committee to hear the case and shall designate one of the committee members to serve as chair.
Anyone called upon by the Provost or the Provost’s designee shall submit a written recommendation within 30 days of receiving the case. The Provost is the final authority in the matter and will report the disposition of the case to all involved parties within 30 days of receiving a recommendation from the designee.

Scope of Review
Any University agent charged with reviewing a formal grievance or appeal may gather additional relevant facts if necessary and/or meet with involved parties. The reviewer will base his/her decision on documented evidence.

Deviation from Procedures
These guidelines provide basic steps for resolving appeals and grievances. The steps may vary based upon the structure of the academic unit or the particularities of the situation. The provost or his/her designee may choose to approve or may direct a deviation from these procedures, for example, postponement of a time limit or elimination or addition of a step in the process, in order to ensure an effective and timely resolution.

Grievance or Appeal Record
Documentation in support of a grievance or appeal will be held by the person responsible for considering the grievance or appeal at that stage and passed along to the person responsible for the next step, if any. A record of meetings or interviews must be made and kept as part of the grievance or appeal record as well. The complete grievance or appeal record will consist of the original grievance or appeal, all documentary evidence and all formal decisions made at each step of the process.

Failure to Meet Deadlines
If after a formal grievance or appeal is filed, the University agent charged with review of the grievance or appeal fails to meet any deadline at any stage of the process, the grievant/appellant may proceed directly to appeal to the next higher University administrator in the manner prescribed by these Procedures, subject to the relevant time limitation calculated from the date of the missed deadline. The failure of any University administrator to meet any deadline shall not entitle the grievant/appellant to any relief requested, nor shall such a failure be construed as tantamount to a decision in the grievant/appellant’s favor. Any grievant who fails to meet the deadlines imposed by these Procedures will be bound by the decisions previously made.

* The Provost may refer grievance appeals to appropriate bodies or personnel.

Procedures for Grade Appeals
Scope of Review: Grade appeals must be based on problems of process and not on differences in judgment or opinion concerning academic performance. The burden of proof rests on the student to demonstrate that one or more of the following occurred:

- The grading decision was made on some basis other than academic performance and other than as a penalty for academic misconduct.
- The grading decision was based upon standards unreasonably different from those which were applied to other students in the same course and section.
- The grading decision was based on an unreasonable departure from previously articulated standards.

The chairperson, grade appeal committee or dean may recommend grade changes but shall have the power to alter grades only in cases of clearly established procedural error or substantial capriciousness or arbitrariness in evaluation.

Timeline
The formal procedure must be started within 45 calendar days after the contested decision or grade was officially recorded. The grade appeal process officially begins on the date the Academic Appeal document is received by the faculty member.

Appeal Record
Any appeal must be in writing, dated and headed with the words “Academic Appeal.” Once a formal appeal is presented to a faculty member, it must be presented in its original form at all later levels of appeal, although new statements may be added at any time.

Any evidence and all direct and supporting statements once made, become part of the permanent record of the appeal and must be produced at each level of appeal.

At each level of appeal, a written, dated decision and written reasons for the decision must be provided to the affected party or parties—the student, the faculty member and any person who has rendered a decision at an earlier level of appeal.

Students are permitted to submit evidence in writing. At the discretion of the University, students may be invited to present their appeal in person.

Grade Appeal Process
First Level: Appeal to the Faculty Member
A student will, where possible, attempt to resolve the issue informally with the professor before filing a written grievance. Should attempts at informal resolution fail, the student may wish to file a formal grade appeal. After receiving a formal appeal, the faculty member shall assure that a written
decision with express reasons is available or delivered to the student within 30 calendar days. Should the student fail to take further action within seven calendar days after receiving the faculty member’s decision, that decision shall stand. If the student is dissatisfied with the decision or does not receive a response from the faculty member within 30 calendar days, the appeal may proceed to the second level.

Second Level: Appeal to the Department Chair/Program Director
If the student elects to continue the appeal, the appeal goes to the chair of the department or program director if there is no chair. The chair or director shall assure that a written decision or recommendation about the appeal is available or delivered with express reasons within 30 calendar days after receiving the appeal.

If the student is dissatisfied with the decision or does not receive a response from the chair or director within 30 calendar days, the appeal may proceed to the third level. Should the student or faculty member fail to take action on the chair’s decision or recommendation within seven calendar days following its receipt, the accepted recommendation of the faculty member or new decision by the department chair shall be final.

Third Level: Appeal to Dean
If the student elects to continue the appeal after the chair’s decision or recommendation has been received, the appeal may be taken to the dean of the appropriate academic unit (or the dean’s designee) within seven calendar days.

The dean shall ascertain within 30 calendar days whether the appeal procedures at the first and second levels have been duly followed; if they have not, the dean will require that they be followed before taking further action.

The appeals committee shall consist of three faculty members chosen by the dean or the dean’s designee. The dean or designee shall serve on the appeals committee as chairperson without vote. All deliberations of the committee will be closed and confidential.

Faculty from the same department as the faculty member involved in the case may not serve on the appeals committee.

The appeals committee should meet as soon as possible, but no later than 30 calendar days after a written, dated request for appeal at this level has been received and the Dean has ascertained that appeal procedures at the first and second levels have been duly followed. The presence of all eligible committee members (the three faculty members and the dean or designee) shall constitute the quorum.

A written recommendation shall be furnished by the appeals committee and transmitted through the office of the dean to all affected parties within seven calendar days after the conclusion of the committee’s deliberations.

The decision of the appeals committee is final.

Note: There is a separate grade appeal procedure for courses taught in the College of Law. Students with grade appeals in College of Law courses should consult the specific guidelines for academic grade procedures for that unit.

Disability Services Program

Academic Accommodations for Students with Disabilities
Graduate students who need accommodations for a disability in order to fully participate in University classes and programs should call the Disability Services Program (http://www.du.edu/disability/dsp) (DSP). This contact should be made as far in advance as possible. DSP will work collaboratively with students, graduate department faculty and other University personnel to facilitate appropriate, individualized accommodations. Documentation of disability is required.

Examples of documentation may include, but are not limited to, medical reports, psycho-educational reports (for students with learning disabilities) and/or verification of psychological disabilities. Documentation is used to assist with the determination of appropriate accommodations and is kept confidential.

The Handbook for Students with Disabilities (policies and procedures) is available on the Disability Services Program (http://www.du.edu/studentlife/disability/dsp) website. Select “publications” or call the office 303-871-2278. The website also has links to DSP and other information including documentation guidelines. DSP is located on the 4th floor of Ruffatto Hall (Morgridge College of Education; corner of Evans and High streets).

Immunizations and Health Requirements

Immunization Requirements
Colorado State Law and University of Denver policy requires all students to receive two (2) doses of vaccine against measles, mumps, and rubella (MMR) and a review of information regarding Meningococcal disease (meningitis) prior to registration. Additionally, students living in University of Denver on campus housing (Dormitories and Apartments) must show proof of vaccination for Meningococcal disease within the past five years.
If proof of immunity and acknowledgement of meningitis information (or proof of vaccination if living on campus) is not submitted to the University of Denver Health & Counseling Center, you will not be registered for classes. Immunization record information must be submitted to the DU Health and Counseling Center by your program’s registration date.

(Colorado Revised Statutes §25-4-901 to 909)

Prior to the start of classes, students must submit the completed Certificate of Immunization form to the Health & Counseling Center. Students must submit proof of immunization before coming to campus. Students that fail to submit proof will not be allowed to register for classes.

A downloadable form and instructions can be found on the Health & Counseling Center (http://www.du.edu/duhealth) website. Alternative records, such as a childhood records, may be acceptable upon review of the Health and Counseling Center staff. Please call 303-871-2205 for more information.

Note: University College students are exempt from this requirement.

Health Insurance Requirements

DU requires that all traditional students carry adequate health insurance. The University defines adequate health insurance as having a $500,000 minimum coverage per condition or illness, an affordable deductible, co-pay and co-insurance, a prescription benefit and coverage as required by Federal and Colorado State laws including Affordable Care Act mandates.

In light of recent healthcare law changes, the Health and Counseling Center verifies health insurance policy information from students who waive the Student Health Insurance Plan.

Participation in DU’s health care program (which consists of paying the Health/Counseling Fee and purchasing Student Health Insurance Plan) allows students to receive medical and mental health care at our Health & Counseling Center for little or no out-of-pocket costs.

There are two procedures for enrolling in the student health insurance plan and the health and counseling fee:

1. For students registered for six or more quarter hours (eight or more if you are a Law student), the Student Health Insurance Plan and Health/ Counseling fees are added to the tuition bill. An informational hold is automatically placed on the student’s account. To remove the hold students should visit Pioneerweb (https://myweb.du.edu/mbdb/twbkwibis.P_GenMenu?name=homepage) and accept or decline coverage. Students who will be receiving the GTA/GRA Health Insurance Scholarship should not decline coverage.

2. Degree seeking students carrying less than six credit hours (less than eight credit hours for Law students), enrolled in University College, or on Continuous Enrollment, will need to enroll for the Student Health Insurance Plan (SHIP) at the Health and Counseling Center. SHIP enrollment is available twice a year, once in the Fall and once in the Spring. The Health & Counseling Fee enrollment is available every quarter.

For more information regarding eligibility or enrollment in the Student Health Insurance Plan, please call 303-871-2205 or go to the Health and Counseling Center (http://www.du.edu/health-and-counseling-center) website.

Professional and Academic Conduct

Honor Code (p. 938)

Academic Misconduct (p. 939)

Disruptive Classroom Behavior (p. 939)

Sexual Relationships and the Classroom Environment (p. 940)

Smoke-Free Policy (p. 940)

Honor Code

All members of the University of Denver are expected to uphold the values of integrity, respect and responsibility. These values embody the Honor Code for students, faculty, staff and administrators as members of the University community. Our values are defined in the following ways:

• Integrity: acting in an honest and ethical manner;
• Respect: honoring differences in people, ideas and opinions;
• Responsibility: accepting ownership for one’s own conduct.

The complete text of the Honor Code and honor code violation procedures relating to students is maintained by Student Conduct (http://www.du.edu/studentlife/studentconduct) (SC).

Note: Some units may have additional or more stringent ethical guidelines. Students should contact the department for details.
Academic Misconduct

Faculty have the authority to set standards of academic integrity and define academic misconduct. The faculty member in conjunction with the academic unit determines the appropriate academic sanctions for academic misconduct. Academic sanctions are assessed by an individual faculty member and/or an academic unit and relate to the student’s standing within that course and/or unit. These may include, but are not limited to failure of an assignment, failure of a course and/or termination from a graduate program. When academic misconduct is suspected, the faculty member and/or representative of the academic unit should discuss these suspicions with the student and then come to a determination regarding appropriate academic sanctions. The exact process by which this is done is left to the faculty member in conjunction with the academic unit. Academic dishonesty is both an academic and behavioral issue. Students who violate the Honor Code are subject to dual consequences, academic sanctions and disciplinary actions.

Appeals

Academic sanctions are not subject to the appellate process outlined in the Honor Code but are instead governed by the Procedure for Academic Grievances and Appeals for Graduate Students (http://www.du.edu/media/documents/graduates/grievance.pdf). Decisions made by faculty members or academic units regarding academic sanctions may be appealed according to the Procedure for Academic Grievances and Appeals for Graduate Students (http://www.du.edu/media/documents/graduates/grievance.pdf). Appeals will only be reviewed in the following circumstances:

- The existence of procedural errors is so substantial that the accused was denied a fair hearing
- A finding of fact made in the original hearing clearly not supported by the facts presented
- New and significant evidence is presented that was not reasonably available at the time of the initial hearing
- The imposition of a sanction that is arbitrary and capricious

Disruptive Classroom Behavior

In case of emergency, please call 911, then 303.871.3000.

Individual instructors have the right to determine whether specific student classroom behavior is disruptive. In extenuating circumstances, instructors may require a student to leave an individual class meeting for disruptive behavior; however, instructors are not authorized to remove a student from the course without process. Should such removal be deemed necessary, instructors must follow the procedure outlined below as soon as possible.

To begin the process, all faculty members must file a Pioneers Care Report: https://publicdocs.maxient.com/reportingform.php?UnivofDenver&layout_id=99

All concerns regarding community safety will be evaluated by Campus Safety. All other concerns will be directed through the Disruptive Classroom Behavior procedure. Upon receiving the Pioneers Care report, a representative from both Campus Life and the Office of the Provost will determine whether to proceed through the student conduct process, through the disruptive classroom behavior process, or jointly through both. If appropriate, the Office of Equal Opportunity/Title IX may be involved.

Additionally, student members of a class may approach the instructor to discuss behavior of other classmates that they consider disruptive. The instructor may file a Pioneers Care Report on the behalf of the student, or the student may file a report independently.

Disruptive Classroom Behavior

If the student’s presence in the class represents a significant impediment to the educational process, that student may be officially withdrawn from the class. The withdrawal procedure will be followed if attempts at informal resolution between the instructor and the student have failed or are not possible.

1. The instructor, student, and the appropriate dean or dean’s designee will meet to attempt to resolve the concern. Every effort should be made to ensure that this meeting takes place as soon as possible after the faculty member files the report, and ideally before the next class session. Another faculty or staff member (including Student Conduct, dean’s office staff, or Campus Safety staff) may be asked to attend this meeting. The student may bring a support person to this meeting. The support person may not speak on behalf of or actively participate in this meeting. This meeting will not be rescheduled to accommodate a support person. Unless there are extenuating circumstances warranted by a concern for safety, this step is preferred. The instructor need not lead the meeting but should be present at this initial meeting with the student.
2. If the student fails to attend the meeting, the instructor may proceed with a request to the relevant dean’s office for an involuntary removal of the student from the class.
3. As soon as possible, and no later than 5 business days of the initial meeting, the dean or dean’s designee will determine whether or not to move forward with removing the student from the class. The student is not permitted to return to class during this review. The decision shall be communicated to the student by the dean or dean’s designee.
4. If the dean or dean’s designee determines that the request to remove the student from the class is warranted, the student will be provided the opportunity to drop the class voluntarily. If the student does not drop the class voluntarily, the student will be dropped from the class by the Office of the Registrar.
5. If it is determined that removal is not warranted, the student shall be allowed to return to the class immediately. Both the student and faculty may be required to sign a Student Life Behavioral Contract which will be kept on file with Student Conduct. This contract will outline the appropriate and inappropriate conduct and expectations for behavior for the remainder of the class as well as the consequences for violating the contract.

6. The student may appeal the decision to the Office of the Provost. This appeal must be submitted in writing no later than 5 business days from the dean’s (or designee’s) decision. Appeals will only be considered by the Provost or Provost’s designee in the following circumstances:
   • The existence of procedural errors so substantial that it greatly impacted the decision,
   • the original decision is clearly not supported by the information presented,
   • the presentation of new and significant evidence which was not reasonably available at the time of the initial review and would likely alter the hearing decision, and/or
   • the imposition of an arbitrary outcome.

The appeal will be considered, and a decision rendered to the student, no later than 5 business days from its receipt by the Office of the Provost. This decision is final.

During the appeal process, the student is not permitted to attend class sessions or activities. The instructor shall provide the student with materials, assignments, and other course information the instructor deems essential to assist the student with remaining current in the course.

Copies of all withdrawal requests will be reviewed under the Student Conduct Process. Student Conduct will generally defer to the recommendation of the course instructor; however, if the student has a previous student conduct record, Student Conduct may take additional appropriate action regardless of the instructor’s recommendation.

The course withdrawal will be effective from the date of the original decision, and for all administrative purposes (e.g., transcripts, tuition refunds, etc.) will be considered the same as if the withdrawal had been voluntary.

Sexual Relationships and the Classroom Environment

The University strongly discourages sexual relationships between a teacher and student or between a supervisor and staff member because such relationships tend to create compromising conflicts of interest or the appearance of such conflicts.

As used in this section, the term teacher includes a faculty member, graduate student, administrator, coach, advisor, residence staff or program director having supervisory responsibilities for students.

Sexual exploitation or sexual harassment of any kind as described in University policy is a violation and will be subject to severe sanctions up to and including termination or dismissal. Please read the complete University of Denver Equal Opportunity/ Sexual Harassment Policy (http://www.du.edu/bfa/media/documents/policy/Equal_Opp.pdf) for more information on consensual sexual relationships and sexual harassment.

Smoke-Free Policy

On January 1, 2010, the University became a smoke-free campus to encourage healthy lifestyles and wellness among our community members. We ask that all University community members help with a renewed support of the smoke-free policy on campus.

All indoor and outdoor (all areas with red brick sidewalk, parking lots, etc.) University spaces are smoke-free. All forms of smoke producing products are prohibited on campus including, but not limited to the following items:

• Cigarettes
• Bidis
• Kreteks
• Cigars
• Pipes
• Hookahs

The only exceptions are designated areas around the Newman Performing Arts Center and the Ritchie Center. These areas are only to be used by the public during public events.

If you choose to smoke, you can do so any place off campus. This includes the City of Denver owned sidewalks that surround campus.

Student Death Response and Notification Guidelines

Life Threatening Injury or Death of a Community Member Student and Employee Guidelines for Non-Emergency Situations

The life threatening injury or death of a student or employee is a tragedy not only for family members and friends but also for the University community. The University of Denver strives to ensure that our responses are thoughtful, caring, professional, coordinated, and consistent. The notification of a tragic event sets in motion a range of protocols by Campus Safety, administrators, medical and mental health professionals, Student
Life personnel, faculty, students, and others, depending on the circumstances. In case of an immediate or continuing threat, call 911 and Campus Safety at 13000.

**NOTIFICATION—Campus Safety** - 12334 Any member of the university community who receives information regarding a life threatening injury or death of a DU community member should notify Campus Safety.

**Student Records**

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**Disclosure of Student Information**

The Family Educational Rights and Privacy Act (FERPA) affords eligible students certain rights with respect to their education records. (An "eligible student" under FERPA is a student who is 18 years of age or older or who attends a postsecondary institution.) These rights include the following:

1. The right to inspect and review the student’s education records within 45 days after the day the University receives a request for access. A student should submit to the registrar a written request that identifies the record(s) the student wishes to inspect. Request forms are available from the registrar. The registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the registrar, the registrar shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student’s education records that the student believes is inaccurate, misleading or otherwise in violation of the student’s privacy rights under FERPA. A student who wishes to ask the University to amend a record should write the University official responsible for the record, clearly identify the part of the record the student wants changed and specify why it should be changed. If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and the student’s right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the University discloses personally identifiable information (PII) from the student’s education records, except to the extent that FERPA authorizes disclosure without consent. The University discloses education records without a student’s prior written consent under the FERPA exception for disclosure to University officials with legitimate educational interests. A University official is a person employed by the University in an administrative, supervisory, academic, research or staff position (including law enforcement unit personnel and health staff); a person serving on the board of trustees; or a student, volunteer or employee of a partner organization serving on an official committee, such as an admission, disciplinary or grievance committee, or assisting another University official in performing his or her tasks. A University official also may include a contractor outside of the University who performs an institutional service or function for which the University would otherwise use its own employees and who is under the direct control of the University with respect to the use and maintenance of PII from education records, such as an attorney, auditor or collection agent or a student volunteering to assist another University official in performing his or her tasks. A University official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her institutional duties.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-4605

**Directory Information**

The law provides that “directory information” may be released without the consent of the student. The University of Denver designates the following student information as "directory information."

The student’s name, addresses, telephone numbers, electronic mail and webpage addresses, employer, job title, photographic images, date and place of birth, field of study, full-time or part-time status, class (e.g., graduate, sophomore, junior), participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, anticipated date of graduation, degrees and awards received, thesis and dissertation titles and the most recent previous educational agency or institution attended by the student.

Students may prevent the University from disclosing directory information by submitting a "Request to Prevent Disclosure of Directory Information" form (available from the Office of the Registrar) to the Office of the Registrar, University Hall, G33.
Disclosure

Students may authorize the University to share information from education records with third parties such as parents. Authorizations may be completed online or by completing an authorization form available in the Office of the Registrar.

FERPA permits the disclosure of PII from students’ education records, without consent of the student, if the disclosure meets certain conditions found in §99.31 of the FERPA regulations. Except for disclosures to University officials, disclosures related to some judicial orders or lawfully issued subpoenas, disclosures of directory information and disclosures to the student, §99.32 of FERPA regulations requires the institution to record the disclosure. Eligible students have a right to inspect and review the record of disclosures. A postsecondary institution may disclose PII from the education records without obtaining prior written consent of the student —

- To University officials, including faculty, within the University whom the University has determined to have legitimate educational interests. This includes contractors, consultants, volunteers or other parties to whom the University has outsourced institutional services or functions, provided that the conditions listed in §99.31(a)(1)(i)(B)(1)-(a)(1)(i)(B)(2) are met. (§99.31(a)(1))
- To authorized representatives of the U. S. Comptroller General, the U. S. Attorney General, the U.S. Secretary of Education or State and local educational authorities, such as a State postsecondary authority that is responsible for supervising the University’s State-supported education programs. Disclosures under this provision may be made, subject to the requirements of §99.35, in connection with an audit or evaluation of Federal- or State-supported education programs or for the enforcement of or compliance with Federal legal requirements that relate to those programs. These entities may make further disclosures of PII to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation or enforcement or compliance activity on their behalf. (§§99.31(a)(3) and 99.35)
- In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, determine the conditions of the aid or enforce the terms and conditions of the aid. (§99.31(a)(4))
- To organizations conducting studies for, or on behalf of, the University, in order to (a) develop, validate or administer predictive tests; (b) administer student aid programs; or (c) improve instruction. (§99.31(a)(6))
- To accrediting organizations to carry out their accrediting functions. (§99.31(a)(7))
- To parents of an eligible student if the student is a dependent for IRS tax purposes. (§99.31(a)(8))
- To comply with a judicial order or lawfully issued subpoena. (§99.31(a)(9))
- To appropriate officials in connection with a health or safety emergency, subject to §99.36. (§99.31(a)(10))
- Information the University has designated as “directory information” under §99.37. (§99.31(a)(11))
- To a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of §99.39. The disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding. (§99.31(a)(13))
- To the general public, the final results of a disciplinary proceeding, subject to the requirements of §99.39, if the University determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the University’s rules or policies with respect to the allegation made against him or her. (§99.31(a)(14))
- To parents of a student regarding the student’s violation of any Federal, State or local law, or of any rule or policy of the University, governing the use or possession of alcohol or a controlled substance if the University determines the student committed a disciplinary violation and the student is under the age of 21. (§99.31(a)(15))

As of January 3, 2012, the U.S. Department of Education’s FERPA regulations expand the circumstances under which a student’s education records and PII contained in such records—including Social Security Number, grades, or other private information—may be accessed without the student’s consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education or state and local education authorities (“Federal and State authorities”) may allow access to student records and PII without consent to any third party designated by a Federal or State authority to evaluate a Federal- or State-supported education program. The evaluation may relate to any program that is “principally engaged in the provision of education,” such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to a student’s education records and PII without the student’s consent to researchers performing certain types of studies, in certain cases even when the University objects to or does not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State authorities may collect, compile, permanently retain and share without the student’s consent PII from education records, and they may track participation in education and other programs by linking such PII to other personal information about the student that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service and migrant student records systems.

Additional Information

Questions about these policies and procedures may be directed to the Office of the Registrar at 303.871.3897. Request forms and additional information are available on the web at www.du.edu/registrar or in the Office of the Registrar at 2197 South University Blvd., Room G33, Denver, Colorado 80208.
Maintaining Contact Information

E-Mail

You will receive an @du.edu email address to use while enrolled at the University of Denver. All emails sent to you by the University will be delivered to your @du.edu email address. Information on accessing your @du.edu email address can be found at http://go.du.edu/office365. Upon graduation, you will have the option to move your email account to an @alumni.du.edu address.

The UTS Computer HelpDesk can assist with logging into PioneerWeb (https://PioneerWeb.du.edu) and answer questions on a variety of other technical topics. To contact the HelpDesk call 303-871-4700, send email to support@du.edu or access support through the UTS website (http://www.du.edu/uts/helpdesk).

The University sends much of its correspondence solely through email. This includes policy announcements, emergency notices, meeting and event notifications, course syllabi and requirements, and correspondence between faculty, staff, and students. Such correspondence is mailed only to the official university email address. Faculty, staff, and students are expected to check their email on a frequent and consistent basis in order to stay current with University-related communications. Faculty, staff, and students have the responsibility to recognize that certain communications may be time-critical. This policy applies to all members of the University of Denver community; faculty, staff, and students.

The @du.edu Computer Account

The official email address will appear in the University’s Banner administrative system within 24 hours after a person is officially entered into the Banner administrative system and will also appear in the University’s online directory. Students may request confidentiality.

Procedures for Approval for Access to Electronic Communications of Others

Individuals needing to access the electronic communications of others, to use information gained from such access, or to disclose information from such access must obtain approval in advance from the Vice Chancellor of University Technology Services. Requests must be in writing and minimally include the following:

- name and title of the person whose communications will be accessed
- name and title of the person who will access the communications
- purpose of access
- what forms of communication will be accessed (e.g., voice mail, email, fax)
- required duration of access
- what will be done with accessed messages, including to whom they will be disclosed

Address Information

Enrolled students must provide the University with a valid mailing address and are responsible for communications sent to that address. If correct address information is not maintained, students may not receive grades, bills or graduation mailings. The University is not responsible if payment of tuition and fees is not made because a student did not receive a billing notice. Students may be assessed a late fee if payment is not received by the due date printed on the bill. Additionally, the University must know how to contact students in case of an emergency.

Students unable to make address changes online can pursue the following options:

- Visit the registrar’s office on the garden level of University Hall or download the Address/Phone/E-mail Change Request form from http://www.du.edu/registrar.
- Send an email to registrar@du.edu; include student number and indicate which address or addresses are to be changed. (See following address types.)
- Call 303-871-4095. (For security reasons, students are asked to give identifying information.)
- Send a fax to 303-871-4300. (Include student number, month and date of birth, and indicate which address types are to be changed.)

Types of Addresses

- Mailing: This is the default address used by DU. All constituents should have a correct mailing address.
- Billing: Used to send the tuition bill to a different address from the mailing address.
- Business: Your place of work. For DU employees, this will be your office address.
- Grades: Used to send grades to a different address than the mailing address.
- Home: Used to distinguish a permanent (family) address for students from out of the area, or a home address for alumni. International students and employees (visa classes F, M and J) must maintain a valid foreign address in this field.
- Onshy;_Campus: Used only for University housing addresses. It is populated automatically each term.
- Parents: DU can maintain up to two addresses for parents.
• **Seasonal**: Used to override your permanent mailing address for certain times each year—e.g., a summer house.
• **Temporary**: Used to override your permanent mailing address for a single specified period.

### Telephone Numbers
Students can enter several different types of telephone numbers in their student account: permanent home, business, cell, fax and local (if different from permanent home). Indicate the type and whether the number should be added or deleted on the front of the form. If checked as “unlisted,” the telephone number will only be released to University officials.

### Transcripts
A transcript is a copy of a student’s academic record showing the academic status of the student at the time it is issued. The official transcript includes the complete academic record of courses taken at the University of Denver.

Transcripts are available from the Office of the Registrar (http://www.du.edu/registrar). However, transcripts and diplomas are not issued until all outstanding accounts with the University are paid. Students may check for current holds in PioneerWeb (https://PioneerWeb.du.edu). The Office of the Registrar (http://www.du.edu/registrar) does not hold transcripts pending a change of grade.

Issued to Student is stamped on official transcripts sent to or picked up by students.

Unofficial transcripts can be obtained in PioneerWeb (https://PioneerWeb.du.edu).

Transcripts from Colorado Women’s College/Temple Buell are also available through the Office of the Registrar (http://www.du.edu/registrar).

### Support Services and Resources

#### Pioneers CARE
Faculty, staff, or students who have a concern about a graduate student at DU can find useful information and/or report their concerns via the Pioneers CARE (http://www.du.edu/studentlife/studentsupport/pioneers_care/team.html) website.

If you have concerns about a student, submit a Pioneers CARE (https://publicdocs.maxient.com/reportingform.php?UnivofDenver&layout_id=99) report.

The Office of Graduate Studies works with University representatives and the academic unit to address concerns reported.

#### Campus Safety (http://www.du.edu/campussafety)

#### Career Services (http://www.du.edu/career)

#### Center for Advocacy, Prevention, and Empowerment (http://www.du.edu/health-and-counseling-center/cape)

#### Center for Multicultural Excellence (http://www.du.edu/cme)

#### English Language Center (http://www.du.edu/intl/elc)

#### Health and Counseling Center (http://www.du.edu/health-and-counseling-center)

#### Ombuds Office (http://www.du.edu/ombuds)

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Accounting (ACTG)

Courses

ACTG 4155 Accounting Information Technology Systems and Business Environment (4 Credits)
The course will give students a basic understanding of how to develop a beginning-to-intermediate AIS system. Process flowcharts and entity-relationship diagrams will be used to document the system in Microsoft Visio. The course will explore the database structure used in various accounting IT systems. Students will be Microsoft Access certified by the end of the course. The course will also cover the IT topics contained in the BEC portion of the CPA exam.

ACTG 4176 Accounting Data Analytics (4 Credits)
In this course, students explore overarching trends in big data and the impact to accounting and auditing fields while also gaining hands on experience working with business data sets. In today’s information world, accountants must be well equipped to understand and utilize the vast and varying data systems that feed a company’s decision making process. This course allows students to develop big data skills by learning the SQL language to query data from mock clients. Students execute Computer Assisted Auditing Techniques (CAATs) using both the SQL language as well as the audit data mining tool, IDEA. Students simulate the process to request client data files, load complex data sets, design and execute query procedures and summarize results for management.
ACTG 4201 Financial Accounting for Management (2 Credits)
This course introduces the student to the fundamentals of financial accounting and reporting with an emphasis on the needs of the user, both internal and external. The goal is to enable the student to become a knowledgeable reader and user of financial statements.

ACTG 4220 Financial Actg & Analysis (4 Credits)
Cross-listed with ACTG 3230.

ACTG 4222 Understanding Financial Statements (4 Credits)
At the conclusion of this course the student should understand: (1) management decisions that impact published financial statements, (2) the fundamentals of interpretation and analysis of financial statements, (3) economic and ethical issues relating to financial reporting, and (4) management attempts to enhance reported operating results. The course addresses the needs of managers and analysts, hence does not cover promulgated financial reporting rules in depth. The financial reporting topics expand on material presented in introductory Accounting and Finance courses. The focus is on the substance of the reported information. This course is not an approved elective for the MACC degree. Cross listed with ACTG 3220.

ACTG 4240 Topics & Cases in Financial Accounting (4 Credits)
This course develops a greater awareness of contemporary accounting issues, focusing on financial reporting. The course is designed to enhance each student’s ability to identify, discuss, and resolve open-ended problems (i.e., those having no single “correct” answer) faced by accounting professionals. Each student must commit to being an active participant in the class discussions. Through the use of numerous cases involving all aspects of financial reporting, students identify issues, conduct authoritative research, then present and defend their conclusions using both oral and written presentation formats. Students also write an original research paper on a topic of their choice.

ACTG 4281 Intermediate Financial Accounting I (4 Credits)
The focus of this course is the foundation and content of published financial statements. Specifically it covers the following broad topics: (1) Conceptual Framework of Financial Reporting; (2) Financial Statements and Related Disclosures; (3) Assets: Recognition and Measurement; and (4) Liabilities: Recognition and Measurement. Common to each of the topics is an emphasis on reading GAAP and applying GAAP guidance to fact patterns. At the conclusion of the course, students should be aware of the proper accounting treatment for many common situations; moreover, students should be fully comfortable interpreting GAAP literature to address scenarios involving assets, liabilities, and income that were not specifically covered in the class.

ACTG 4282 Intermediate Financial Accounting II (4 Credits)
This course is a continuation of Intermediate Financial Accounting. The focus of this course is the application of Generally Accepted Accounting Principles to complex business transactions. In this final course of the sequence, we finish our examination of the balance sheet by exploring the issues involved with stockholders’ equity, followed by in-depth study of some of the most complex accounting issues, including revenue recognition, accounting for income taxes, pensions and post-employment benefits, leases, and accounting changes and errors.

ACTG 4284 Consolidated Financial Statements (2 Credits)
This course introduces the student to the preparation of financial statements in compliance with GAAP when the reporting entity has investments in other entities that are other than passive investments. This module explores the financial reporting issues relating to partial or full ownership of one business entity by another. It includes use of the equity method as well as issues involved in reporting the financial results of consolidated entities, both at and subsequent to acquisition or formation.

ACTG 4285 Accounting for Foreign Operations (2 Credits)
Topics covered in this course include the financial statement impact of doing business in a foreign currency, having foreign subsidiaries or operations, and certain hedging activities.

ACTG 4340 Topics & Cases in Managerial Accounting (4 Credits)
This course focuses upon innovative forensic, management control, productivity and business valuation approaches used by forensic and managerial accountants. Such strategies and techniques are evaluated through classroom discussion of cases and related articles.

ACTG 4354 Cost Accounting (4 Credits)
Accounting information in manufacturing enterprises, standard costs, and budgets. Open to students not having ACTG 3354 or equivalent. Prerequisite: MBA 4110, MBA 4111, or equivalent.

ACTG 4400 Taxation for Business and Investment Planning (4 Credits)
Social awareness & ethics uses a fresh integrated approach to applying the basic fundamentals of marketing to complex and evolving scenarios involving social change and insight, cultural trends and topics, and tricky, often emotional, ethical situations. This course also helps students learn skills in a safe environment and leverage their experience and knowledge to investigate business situations and opportunities in a thoughtful and sophisticated manner. This course develops a student’s ability to make sound business planning decisions using real information from the external environment. This course will combine business ethics’ overarching intent to protect employees, the environment, and their customers with marketing ethics’ principles of honesty, fairness, responsibility, and respect. As part of this, students will learn about and apply Daniels Fund Initiative Principles: http://www.danielsfund.org/Assets/files/Ethics%20Initiative%20Principles.pdf.

ACTG 4410 Federal Income Taxation (4 Credits)
The course is designed for graduate accounting students that wish to study federal income taxation. This is the first course in taxation, which introduces the federal taxation system, the importance of tax authorities, the concepts of gross income and tax deductions and the tax implications of common property transactions. The course generally focuses on property transactions, but the taxation of individuals is emphasized with an objective of students being able to properly prepare complex individual tax returns.
ACTG 4462 Corporate and Partnership Taxation (4 Credits)
The course is designed for graduate accounting, finance or other business students in their study of advanced topics in federal income taxation. This is the second course in taxation which concentrates on taxation of corporations, limited liability corporations, S corporations and partnerships.

ACTG 4520 Forensic Accounting and Auditing (4 Credits)
Students will have an opportunity to learn, study, and discuss practical aspects of accounting as it is used to detect and prosecute fraud. Students will be exposed to improprieties, common fraud schemes, illegalities, and harassments.

ACTG 4551 Auditing (4 Credits)
This course is designed to provide you with a thorough understanding of auditing and related attest services. This includes gaining requisite knowledge about AICPA (U.S. GAAS) and PCAOB auditing standards and how they are applied in conducting a financial statement audit. Application of these standards applies to planning an audit, the risk assessment process including gaining an understanding of internal control, gathering and evaluating evidence, sampling, and issuing an audit report.

ACTG 4552 Advanced Auditing (4 Credits)
This course is designed to build on the foundation of auditing knowledge developed in ACTG 4551 and apply that knowledge to specific accounts and assertions in a financial statement audit. Students also examine selected SEC enforcement actions and discuss what audit procedures may have been beneficial to prevent the misstatement. Prerequisite: ACTG 4551 or ACTG 3551.

ACTG 4557 Fair Value Auditing (4 Credits)
The purpose of this course is to expose students to the accounting, economic and valuation concepts and challenges that are relevant to auditing fair value measurements and disclosures in financial statements. The role of the FASB, PCAOB, SEC and other standards setters on fair value accounting and measurements are explored. Prerequisite: ACTG 4551 or ACTG 3551.

ACTG 4575 Accounting Information System Risk, Control and Audit (4 Credits)
The purpose of this course is to engage students in topics covering the risk, audit and control of Accounting Information Systems. It is no longer possible to “audit around” an IT system. Today’s accounting professionals must possess a strong understanding of accounting information system risks and controls. This course will cover both 1) auditing of the IT controls that support an accounting information system and 2) using auditing and data mining tools to assist in financial statement audit techniques.

ACTG 4607 Not-for-Profit & Governmental Accounting (4 Credits)
The course will focus on Not-for-Profit (NFP) and Governmental (Govt) financial accounting standards and practices employed by governmental and nonprofit organizations. Upon successful completion of the course, students will master the fundamentals of financial reporting of various kinds of governmental accounting and nonprofit organizations. Social, environmental, and ethical issues are addressed in this course. The content of Governmental and Nonprofit Accounting will be linked to sustainability, leadership and governance.

ACTG 4610 Financial Accounting and Reporting (4 Credits)
The purpose of this course is to provide students with an understanding of the financial statements issued by companies to external parties, such as shareholders and creditors. The course covers the fundamentals of accounting, from recording economic events in the accounting records to the preparation of the company’s financial statements. In addition, the course examines major transaction categories, accounting policy choices of business firms and their financial statement implications, as well as the content of publicly-traded companies’ Form 10-K annual reports.

ACTG 4620 Accounting Ethics (4 Credits)
This course focuses on the idea of community and the ethical and social relationships of accounting leaders and business organizations in their communities. The course focus is on the role of the accounting professional and the unique and special responsibilities associated with that role. This is examined by analyzing a variety of issues that students will face during their careers. The goal is to provide students with generalized understanding and skills that can be employed in dealing with other issues that emerge directly relate to the state Code of Professional Conduct applicable to CPAs, the Code provisions are discussed and analyzed.

ACTG 4660 Strategic Cost Management (4 Credits)
Strategic cost management methods and practices focus on how to help the firm succeed in contemporary business. Topics in the course include balanced scorecard, cost-volume-profit analysis, target costing, standard costing, and management control. The course will enable students to apply strategic thinking to management planning, decision-making, and management reporting.
ACTG 4700 Graduate Seminar in Accounting (1-17 Credits)
ACTG 4701 Special Topics in Accounting (1-5 Credits)
ACTG 4702 Special Topics in Accounting (1-5 Credits)
ACTG 4703 Special Topics in Accounting (1-5 Credits)
ACTG 4704 Special Topics in Accounting (1-5 Credits)
ACTG 4705 Topics in Accounting (1-4 Credits)
ACTG 4710 Managing the Family Business (4 Credits)
   Family enterprises have a tremendous impact on our local, national and global economies. Today, the definition of the family enterprise extends beyond just the business entity. It includes family offices, family "banks," family councils, trusts, and family foundations, just to name a few. Further, what happens in, and how decisions are made by, family enterprise affects not only the active family members but other key stakeholders such as inactive family members, in-laws, non-family managers and employees, professional advisors, customers, suppliers and competitors. This course gives students insight into the universe of possibilities that families, enterprises and their advisors face when engaged in systemic transition planning. This highly interdisciplinary course is appropriate for anyone who intends to work in or with family enterprises. This includes family members, accountants, attorneys, estate planners, financial or wealth managers, family office professionals, insurance consultants, business advisors, management consultants, organizational and leadership development experts, international business professionals, psychologists, social workers, and family therapists.
ACTG 4740 Valuation and Modeling (4 Credits)
   The ultimate purpose of the course is to improve professional decision-making skills. Professional decisions are made using a combination of judgment and analysis. Even skilled professionals (in any field) will make incorrect decisions when working with incorrect or insufficient information. Thus, one key to improving decision-making is improving analytical insights and skills. This course emphasizes the definition, construction, uses and limitations of popular financial models and instruments. Further, the class focuses on how the instruments are used, why they are used and how decisions to use such instruments and tools/techniques to value them are made.
ACTG 4750 Valuing a Business (4 Credits)
   This course explores all major aspects of business valuation. Students not only study valuation theory, they appraise an actual business and draft a valuation report in compliance with the American Institute of Certified Public Accountants Statement on Standards for Valuation Services (SSVS) and Reporting Standards of the National Association of Certified Valuation Analysts (NACVA). Prerequisite: ACTG 3068 or ACTG 4282.
ACTG 4760 CEOs and Corporate Governance (4 Credits)
   This course examines the current and pressing issue of corporate governance, in its ethical, legal, and social dimensions. Students read the latest views of scholars and experts and gain the perspectives of corporate CEOs and other organization leaders. Topics explored include the history of various governance models, public policy on corporate governance, corporate board functions and responsibilities, the dynamics between CEOs and boards, ethical leadership and corporate culture, ethics and compliance programs, executive liability, nonprofit corporate governance, board and audit committee responsibilities, restructuring and governance, executive compensation problems and solutions, shareholder activism, and corporate governance reforms. Cross-listed with LGST 4760.
ACTG 4795 Graduate Research Seminar (1-17 Credits)
ACTG 4880 Internship - Graduate (0-4 Credits)
   Hours and times arranged by student.
ACTG 4991 Independent Study (1-10 Credits)
   Hours and times arranged by student.
ACTG 4992 Directed Study (1-10 Credits)

Air Force ROTC (RTC2)

Courses

Alternative Dispute Resolution (ADR)

Anthropology (ANTH)

Courses

ANTH 3000 Anthropology of Tourism (4 Credits)
   Considers the interaction of host and visitor cultures in foreign tourism. Explores the effects of tourism on the host culture and the expectations of the visitors. Discusses tourism's relationship to development and the various levels of needs of the tourists.
ANTH 3020 Native Religions (4 Credits)
A cross-cultural survey of concepts used to understand and talk about "religion," "the supernatural," and associated behavior among Native peoples of Turtle Island. Topics include healing and techniques of controlling and channeling supernatural power; sacred places and their significance; myths and symbols in their cultural contexts; initiation rites; conceptualizations of male and female deities; and responses of indigenous people to attempted missionization.

ANTH 3030 Digital Anthropology (4 Credits)
Digital Anthropology introduces students to computer technology used in anthropological research. Students study and then produce a number of digital products useful in the analysis and interpretation of museum collections, for archaeological mapping and research, and for the dissemination of anthropological knowledge online. This process covers the use of Geographic Information Systems (GIS) for spatial analysis, three-dimensional imaging programs ranging in scale from broad landscape mapping to detailed digital artifact analysis. In addition, the use of geophysical methods for imaging what is below the surface allows students to produce images of what lies below the ground in archaeological contexts.

ANTH 3040 Anthropologies of Place (4 Credits)
This class is an exploration of the relationship between people and places from an anthropological viewpoint. We concern ourselves with a variety of ideas about place, emphasizing not just how places are used, but how they infuse themselves into the lives, histories and ethics of those who interact with them. The course readings include book-length anthropological case studies interspersed with interdisciplinary readings about place and landscape. The course involves seminar-style discussions of readings, workshops and observations in the field. On several occasions, we take our class on the road, working together to think about how people and place interact. By the end of the class, each student creates his or her own anthropology of a place. Must be junior standing or above.

ANTH 3060 Cultural Narratives (4 Credits)
Human beings are natural storytellers. Whether reciting oral traditions or recounting personal experience, people everywhere use narratives as a way to express and to understand themselves. This course approaches cultural narratives from two angles. First, it explores the ways that anthropologists, usually trained in the social sciences, make use of and study narratives, whether through ethno graphic observation, conducting an interview, gathering folklore or archaeological interpretation. Second, the class investigates narratives that, although produced by non-anthropologists, engage with anthropological issues such as kinship, gender, work, tradition and identity. The narratives range broadly from fiction, to poetry, to film. These two approaches are framed by theoretically informed readings about narrativity, both from the social sciences and the humanities. The class involves intensive reading and writing, as it makes use of both discussion and workshop formats. Each student in the course completes a research and writing project culminating in his or her own cultural narrative. Must be junior standing or above.

ANTH 3070 Folklore and Cultural Heritage (4 Credits)
Folklore and Cultural Heritage is the study of the expressive behaviors and practices that constitute the ordinary, everyday life of communities. Folklore includes the intangible cultural heritages of all peoples, for example, the artistic expression reflected in stories and storytelling, music, dance, legends, oral history, proverbs, jokes, popular beliefs, customs, dialects and ways of speaking. Everyone has folklore and participates in the "folklore process." Prerequisite: introductory social science course. Cross-listed with ANTH 4070.

ANTH 3080 Memory and Memorialization (4 Credits)
The course focuses on how social groups represent, experience and commemorate the remembered past; it explores issues of construction of memory, particularly how representations of the past- and its materialization through monuments, ruins, and landscapes- are connected with issues of institutionalized perceptions of national, ethnic, racial and religious identity. Furthermore, it discusses concepts such as "authenticity," "tradition," and "modernity" in the interpretation of cultural heritage and how the interpretation of the past and of culture depend on context (political and historical), experience and point of view. The course aims to develop an interdisciplinary approach to memory and to methodologies and empirical research.

ANTH 3130 The Archaeology of Gender (4 Credits)
This course examines the ways archaeology can contribute to the study of gender through investigations of the deep through recent past. The class will include readings on gender theory, the uses of archaeological data and specific case studies of engendered lives in the past. Cross listed with GWST 3130.

ANTH 3135 Feasting, Fasting and Food: The Anthropology of Food (4 Credits)
Feasting, Fasting and Food focuses on foodways and food culture. Food and its acquisition and preparation are tied to the historical, social and cultural lives of all peoples. By drawing on historical sources, ethnography and a number of anthropological perspectives, we look at foodways as symbols of identity, culinary tourism, food work as trade or profession, the study of food as art and theater, and food and memory. Prerequisite: ANTH 2010.

ANTH 3170 Applied Heritage Management (4 Credits)
Considers the role of archaeology in preservation and the management of cultural resources in terms of legislation, ethics and practical application, with emphasis of the utility, necessity and reality of doing archaeology today in the public sector. Site report writing, governmental regulations and the business side of archaeology are stressed. Archaeological information from site reports and artifact analysis are compiled and presented in a digital format. Prerequisite: ANTH 2310.

ANTH 3200 Human Origins and Evolution (4 Credits)
Examines the fossil record for human evolution from 6 million years ago to the origin of modern Homo sapiens, including current theories, evidence and controversies. Considers the historical and sociological contexts of human evolutionary studies, popular myths and misconceptions, and alternative scenarios for the future evolution of the human species.
ANTH 3225 Human Rights in Latin America (4 Credits)
This course aims to provide students with an overview of human rights issues and how they have evolved in recent Latin American history, from the military dictatorships of the authoritarian period to contemporary challenges faced in the region's democracies. It also aims to place human rights concerns in a broader sociopolitical context. Many of today's human rights issues are rooted in the past, but others respond to new and emerging challenges. In this class, we will explore the roots and contemporary realities of human rights movements in Latin America. The examination of these topics should allow us to pose broader questions about the meaning of human rights in a globalized world, the efficacy of international instruments for rights enforcement, and the complex challenges that linger in the aftermath of authoritarianism and state-sponsored terror.

ANTH 3255 Ancient North America (4 Credits)
This course examines the history of American Indian cultures from their earliest archaeological traces on this continent up to and including contact with European explorers and colonists.

ANTH 3290 Art and Anthropology (4 Credits)
Study of the concept of art and its multiple roles in society from a cross-cultural and historical perspective. Commodification of culture through tourism and the global art market; arts of resistance and survival; and cultural expression and community development.

ANTH 3310 Indigenous Environment (4 Credits)
The purpose of this course is to introduce students to particular environmental issues that affect indigenous peoples, including subsistence and economic issues; sacred lands; cultural property dilemmas; and the impact that use of traditional cultural properties by others—including nation-state governments, corporations and tourists—have on indigenous peoples' cultural and social integrity. Particular focus is on one of these issues—travel and particularly "ecotravel" and "ecotourism."

ANTH 3320 Medical Anthropology (4 Credits)
This course is an introduction to medical anthropology. As a professional and academic field, medical anthropology provides conceptual and analytical tools for a comprehensive understanding of health, illness and healing. It is concerned with the ways in which individual experience is inserted in social and historical contexts and it explores ideas and behaviors related to health in different societies and social groups, as well as the ways in which different groups organize their resources to face health-related needs in the context of their social and economic realities.

ANTH 3330 Human Rights of Indg Peoples (4 Credits)
This course introduces students to the concept and definition of "indigenous peoples." It covers the history of resistance, revitalization, and assertion of sovereignty by Indigenous peoples, and why the United Nations felt it necessary to adopt a "Declaration on the Rights of Indigenous Peoples" in 2007. It covers how indigenous identities and indigenous rights issues do or do not "fit" with internationally accepted definitions of human rights. The course will concentrate on the intersection of indigenous autonomy with globalization, neo-liberal ideologies, and nation-state policies. Case studies focus on Iroquois, Crees, Mayans, Mapuche, Zapatistas, Maoris, and Sami.

ANTH 3350 Latin American Archaeology (4 Credits)
Covers the prehistory of the Western Hemisphere south of the Mexico-U.S. border, from initial colonization of the hemisphere by Paleo-Indian people, to the origins of agriculture and the rise of civilization. Olmec, Mayan, Aztec, Chavin, Moche and Inca cultures are covered in detail.

ANTH 3360 Cross-Cultural Perspective: Women (4 Credits)
Confronts question about women's lives and women's status in a global perspective. It addresses issues such as why women have been subordinate to men in so many cultures, how one actually measures dominance and subordination, and whether there is some biological basis for gender inequality. Broad theoretical questions on the status of women are discussed and form the basis for the analytical inquiry which follows. Cross-listed with ANTH 4360.

ANTH 3370 Sex, Class and Race in Latin America (4 Credits)
This course uses an intersectional approach to the study of sex, class and race in Latin America. Intersectionality aims at understanding the interlocking relation between sex, class, race and other aspects, and how these are rooted in historical and social structures, and are reproduced and resisted through individual and collective experience. In this course we will aim at understanding such history, culture and peoples with a special emphasis on examining their heterogeneity, and aiming at understanding how such heterogeneity is also related with social inequality. We will also examine some contemporary issues such as women's rights, indigenous movements, human rights, migrations, and economy with an emphasis on their manifestations at the intersections of sex, class, and race.

ANTH 3380 Women and Development (4 Credits)
A case study approach to understanding women's status and the problems of combining productive and reproductive responsibilities in developing countries. Cross-listed with ANTH 4380, INTS 3990.

ANTH 3390 Geoarchaeology (4 Credits)
Use of geological methods to interpret archaeological sites, ancient landscape reconstruction, study of environmental change and habitation.

ANTH 3430 Visions, Utopias and Messiahs (4 Credits)
Ghost dance, peyote religion, cargo cults, peasant revolution, charismatic leaders, messianic movements in cross-cultural perspectives; roles played by cultural systems, historical circumstances and social conditions in generating social movements.

ANTH 3470 Applied Anthropology (4 Credits)
The practical application of cross-cultural knowledge and awareness to the solution of social and cultural problems. Ethnographic methodologies, a review of the history of applied anthropology and a consideration of the ideological and ethical components of applied anthropology are covered.
ANTH 3485 Anthropology and Underdevelopment (4 Credits)
Anthropological approach to some of the developing world’s most pressing social problems and how anthropologists can make a relevant contribution in confronting, studying and changing the nature of underdevelopment.

ANTH 3500 Culture and The City (4 Credits)
Examines the past and future of the city as a human built environment that reflects and reproduces social, political, economic, and cultural forces and ideals. Begins with the origin of cities in antiquity and ends with contemporary urban landscapes. Analysis is sensitive to both the technologies and aesthetics of urban form. Emphasis is on the possibilities for urban redesign to meet the problems of 21st century city life.

ANTH 3510 The Ancient City (4 Credits)
The archaeological study of ancient cities around the world is a booming and controversial area of research. This course investigates what we know about the nature of the earliest cities in the great original cradles of civilization: Mesopotamia, Asia, Africa, and the Americas. Our focus is on how the first cities were planned, built, and experienced by citizens.

ANTH 3540 The Nature of Language (4 Credits)
Language as social, psychological, cultural phenomenon; relationship between cultures, semantics; language as medium of cultural unification; relationship between dialects, social structure.

ANTH 3550 Africa: Peoples and Cultures (4 Credits)
Survey course in the anthropology of Africa designed to explore the diversity of African people and cultures. The course examines issues of contemporary life in the continent as well as the way it has been portrayed by the media, anthropologists, historians, and writers. Topics such as geography, history, society, politics, religion, ethnicities, and material culture of different regions are central to the discussion.

ANTH 3560 Ethnoarchaeology (4 Credits)
Ethnography has often been used as an illustrative device to animate archaeological remains, or to develop models of human behavior, regardless of the geographic and chronological distance between the ethnographic and the archaeological data. This course addresses different perspectives and theories concerning the use of ethnoarchaeology to complement archaeological information. It aims to define the role of ethnoarchaeology in the study of human past; to establish an agenda of issues to which their use is relevant; and to provide a critical overview of major approaches to the use of ethnographic analogies and historical information in archaeology.

ANTH 3563 Archaeological Method and Theory (4 Credits)
This class presents methods for gathering archaeological data in the laboratory and then using a variety of theoretical approaches in its interpretation. Students gather archaeological data using museum collections from a variety of sites. Those artifacts include stone tools and ceramics as well as other environmental data and architectural information in a variety of environmental and landscape contexts. For each site studied students are presented with a body of theoretical literature from which to interpret these data. A variety of interpretative methods can potentially be chosen for each site, and in most cases there is no right answer, only answers that can be supported by the data collected and interpreted using the theoretical constructs read. All students are required to write up complete site reports for each project including all raw data collected in the analysis and theoretical approaches used in interpretation.

ANTH 3564 Dynamics of Culture Change (4 Credits)
Considers culture change and the agents of change. Focuses on changes in indigenous cultures around the world resulting from colonialism 1850-1950, forced acculturation, the tension between worldwide economic development and human rights, and the changing nature of the post-colonial world.

ANTH 3566 Anthropological Theory, Method and Context (4 Credits)
History and development of particular schools of thought, paradigms, methods and methodologies that characterize contemporary anthropology. Intellectual, artistic developments, world-wide sociopolitical and economic processes that shaped much of anthropological thinking of the times. Research methods in reconstruction of human history and qualitative ethnolographical research.

ANTH 3567 Museums and their Visitors (4 Credits)
This course is designed to be a comprehensive introduction to museums and their approaches to serving visitors, primarily through exhibitions and education. It examines current research and museum practice as it relates to the museum as an environment for meaningful visitor experiences and learning. The course is organized around the following core issues: (1) What do visitor experiences look like in a museum context? (2) How do museums design for different audience types? (3) What do we learn from assessing visitors’ experiences? (4) How do objects, ideas and spaces affect visitor learning and experiences? Cross listed with ARTH 3661.

ANTH 3568 Quantitative Methods-Anthropology (4 Credits)
The use of statistics in all branches of anthropology; data screening; parametric and nonparametric statistics. Prerequisite: any course in basic statistics.

ANTH 3701 Topics in Anthropology (4 Credits)
Specialized topics in anthropology. Check with the Department of Anthropology or the Schedule of Classes for further information; open to students who are non-majors; may be repeated for credit.

ANTH 3702 Topics in Anthropology (4 Credits)
Specialized topics in anthropology. Check with the Department of Anthropology or the Schedule of Classes for further information; open to students who are non-majors; may be repeated for credit. Prerequisite: ANTH 1010.
ANTH 3703 Topics in Anthropology (4 Credits)
Specialized topics in anthropology. Check with the Department of Anthropology or the Schedule of Classes for further information; open to students who are non-majors; may be repeated for credit. Prerequisite: ANTH 1010.

ANTH 3741 Introduction to Conservation (4 Credits)
Introduction to physical properties of materials found in museum artifacts and specimens. Discusses preventative conservation principles and methods.

ANTH 3742 Museum Exhibit Development (4 Credits)
Introduces general principles of planning, development, production and evaluation of museum exhibits. Explores design elements and methods of evaluation. Students have the opportunity to do exhibit mockups and exhibit evaluation.

ANTH 3743 Managing Collections (4 Credits)
Principles and methods regarding acquisition, documentation, conservation and accessibility of collections. Law, registration methods, computerization, policy, development, ethics and preventive conservation are also discussed.

ANTH 3750 Ethnographic Methods (4 Credits)
In this course, students study the art and science of ethnographic research methods, conduct quarter-long field research projects, and write practice ethnographies. The course requires students to apply the American Anthropological Association's Code of Ethics in their research and to write Institutional Review Board applications for their projects. Course readings include texts on ethnographic methods as well as controversial and exemplary ethnographic publications for student dissection and debate.

ANTH 3790 Field Methods in Archaeology (4 Credits)
Introduces basic methods of archaeological survey, excavation, artifact collection strategies and field interpretation. Students learn to create field maps and cross-sectional drawings of archaeological phenomena. Cross-listed with ANTH 1790. Prerequisite: ANTH 2310.

ANTH 3791 Critical Perspectives in Museum Studies (4 Credits)
This course critically explores museums and heritage complexes as sites of cultural production and consumption at different historical moments and in diverse cultural and national settings. Special attention is given to contemporary issues, debates, and approaches in the context of museum anthropology and heritage studies. The term museum is used to include a wide range of heritage projects that do not rely only on the traditional institution established to collect, conserve and exhibit material culture, but includes intangible heritage, historic built environment and event natural environment that was used and marked by human action.

ANTH 3800 Capstone Seminar Anthropology (4 Credits)
This seminar brings anthropology to bear on a topic of special significance. It assesses grasp of the key concepts, theories and insights of anthropology, and critically reflects on the nature and history of the discipline. Prerequisite: Senior standing.

ANTH 3875 Research Methods in Anthropology (4 Credits)
This course offers an in-depth introduction to anthropological research methods with the aim of providing students with the tools necessary to design a coherent research proposal. Starting with the notion that anthropological research is a scientific endeavor, the course offers knowledge and skills that allow for a systematic application of qualitative and quantitative methods to respond to research questions. Students will learn when and how to use one method, as well as the implications of doing it. Students will also learn how to critically read research reports that use qualitative, quantitative, or mixed methods. The course is organized in two portions. The qualitative portion will focus on a detailed exploration of the continuum that goes from posing a research question, choosing a methodology, carrying it on, and reporting the results. The quantitative portion is concentrated on collecting numerical data, methods of which are often based on a qualitative understanding of people. Quantitative analysis will present tools used to take readings, acquire data, observations, and other information necessary to test hypotheses about people, cultures and how we can understand them from their material remains. The purpose of the quantitative part of the class is to determine what is statistically significant and what ideas about people are supportable using the scientific method. This course is required for all anthropology graduate students, and suggested for advanced undergraduates who are working on senior theses, and have an interest in anthropological research. The course is also open to non-anthropology students interested in anthropological research.

ANTH 3880 Culture, Ecology, Adaptation (4 Credits)
This course is organized around these concepts: "ecology," "adaptation," "landscape," "technology," "artifact," and "architecture." The course focuses on defining and examining adaptation and the role of culture and technology in achieving adaptations, or in not achieving them. This focus will be especially pursued with respect to the concept of landscape—that is, culturally defined physical space—and the cultural artifacts that interpret and modify it in the course of human adaptation to its ecological components.

ANTH 3890 Context of Material Culture (4 Credits)
Examines how material culture both reflects and actively structures political, economic and cultural life. Considers the relationship between people and their material culture (portable objects, non-portable objects, buildings, socially-created landscapes) in Western, non-Western, ancient, and contemporary cultural contexts. Reading materials draw from the fields of ethnoLOGY, archaeology, folklore, geography, history, art and architecture.

ANTH 3981 Museum Internship (1-6 Credits)
INTRODUCTION TO PHYSICAL PROPERTIES OF MATERIALS FOUND IN MUSEUM ARTIFACTS AND SPECIMENS. DISCUSSES PREVENTATIVE CONSERVATION PRINCIPLES AND METHODS.

ANTH 3990 Summer Field School-Archaeology (4-6 Credits)
Archaeological excavation, survey and recordings; analysis and conservation of artifacts in the field.
ANTH 3991 Independent Study (1-15 Credits)
ANTH 3992 Directed Study (1-10 Credits)
ANTH 3995 Independent Research (1-10 Credits)
ANTH 4000 Advanced Anthropology (4 Credits)

ANTH 4040 Historical Archaeology: Theory and Method (4 Credits)
Because it is the archaeology of periods for which there is also written history, historical archaeology is a dynamic and interdisciplinary field. It also has a distinct set of concerns and methods that builds upon, but does not replicate, those of prehistoric archaeology. This course is designed to engage students in the practice of historical archaeology through readings, discussions, and the hands-on analysis of archaeological materials. The first class of each week is a discussion of readings in historical archaeology. The readings introduce students to theoretical and methodological issues in the discipline, as well as important case studies. Many of the readings have a North American focus, but address international practice. The second class of each week has a hands-on focus. Backed by readings on historic materials analysis, we discuss and practice the types of research historical archaeologists perform on actual materials, focusing on different material types each week. Students in the course each process and analyze a set of materials excavated from a historic site. Cross-listed with ANTH 2040.

ANTH 4070 Folklore and Cultural Heritage (4 Credits)
Folklore and Cultural Heritage is the study of the expressive behaviors and practices that constitute the ordinary, everyday life of communities. Folklore includes the intangible cultural heritages of all peoples, for example, the artistic expression reflected in stories and storytelling, music, dance, legends, oral history, proverbs, jokes, popular beliefs, customs, dialects and ways of speaking. Everyone has folklore and participates in the "folklore process." Cross-listed with ANTH 3070.

ANTH 4200 Native North America (4 Credits)
Native American cultures north of Mexico. Cross-listed with ANTH 2200.

ANTH 4220 Human Rights in Latin America (4 Credits)
This course aims to provide students with an overview of human rights issues and how they have evolved in recent Latin American history, from the military dictatorships of the authoritarian period to contemporary challenges faced in the region’s democracies. It also aims to place human rights concerns in a broader sociopolitical context. Many of today's human rights issues are rooted in the past, but others respond to new and emerging challenges. In this class, we explore the roots and contemporary realities of human rights movements in Latin America. The examination of these topics should allow us to pose broader questions about the meaning of human rights in a globalized world, the efficacy of international instruments for rights enforcement, and the complex challenges that linger in the aftermath of authoritarianism and state-sponsored terror.

ANTH 4290 Art and Anthropology (4 Credits)
This class introduces students to anthropological approaches to the study of art and visual culture. The first part of the course covers foundational work in the field, introducing key concepts as well as methods for viewing and understanding art from a cross-cultural/comparative and interdisciplinary perspective. We examine the relationships among art, technology and the environment, as well as the importance of form, function, style, meaning, and aesthetics in the study of art. The second part addresses issues of contemporary concern in art and anthropology, such as the influence of market forces and tourism on artistic traditions and cultural expressions; the intersection of art and identity; the politics of cultural representation. The course also explores the ethnographic turn in some forms of contemporary art as well as doing ethnography as art.

ANTH 4320 Medical Anthropology (4 Credits)
This course is an introduction to medical anthropology. As a professional and academic field, medical anthropology provides conceptual and analytical tools for a comprehensive understanding of health, illness and healing. It is concerned with the ways in which individual experience is inserted in social and historical contexts and it explores ideas and behaviors related to health in different societies and social groups, as well as the ways in which different groups organize their resources to face health-related needs in the context of their social and economic realities.

ANTH 4360 Cross-Cultural Perspectives of Women (4 Credits)
Cross-listed with ANTH 3360.

ANTH 4370 Sex, Class and Race in Latin America (4 Credits)
This course uses an intersectional approach to the study of sex, class and race in Latin America. Intersectionality aims at understanding the interlocking relation between sex, class, race and other aspects, and how these are rooted in historical and social structures, and are reproduced and resisted through individual and collective experience. In this course we will aim at understanding such history, culture and peoples with a special emphasis on examining their heterogeneity, and aiming at understanding how such heterogeneity is also related with social inequality. We will also examine some contemporary issues such as women's rights, indigenous movements, human rights, migrations, and economy with an emphasis on their manifestations at the intersections of sex, class, and race.

ANTH 4380 Women and Development (4 Credits)
Case study approach to understanding women’s status; problems of combining productive/reproductive responsibilities in developing countries. Cross-listed with ANTH 3380, INTS 3390.

ANTH 4700 Readings in Anthropology (1-5 Credits)
Directed readings in anthropology under faculty supervision. May be repeated for credit.
ANTH 4701 Special Topics in Anthropology (1-5 Credits)
ANTH 4702 Special Topics in Anthropology (1-5 Credits)
ANTH 4703 Special Topics in Anthropology (1-5 Credits)
ANTH 4704 Special Topics in Anthropology (1-5 Credits)
ANTH 4744 Museum Anthropology (4 Credits)
This course introduces students to museum anthropology and the ethnography of museums as well as the theoretical and practical sides of museum studies. The course is based on the following premises: Museum anthropology is a form of applied anthropology in which museums are a venue for making anthropological insights and knowledge accessible and relevant to the public; Museums, as institutions of public culture, are a forum for exploring contemporary social issues and concerns; The role of museums in society and civic engagement is at the core of contemporary museum anthropology and Museology.

ANTH 4745 Museum Practicum (2 Credits)
Individually designed practicum in student’s area of interest.

ANTH 4750 Masters Museum Exhibit (4 Credits)
Required for MA with museum studies concentration. Type of exhibit and placement planned with student’s committee.

ANTH 4981 Museum Internship (1-6 Credits)
ANTH 4991 Independent Study (1-17 Credits)
ANTH 4992 Directed Study (1-10 Credits)
ANTH 4995 Independent Research (1-17 Credits)

Applied Communication (COMM)

Courses
COMM 4002 Effective Facilitation and Presentation (4 Credits)
The evolution and increasing presence of technology in the workplace has changed the way we conduct meetings, present information, and facilitate in-person and virtual group conversations. In this course students hone their presentation and facilitation skills by assessing their audience, purpose, and the desired outcomes of the engagement. Students learn to use appropriate and memorable visual aids, maximize audience and/or participant engagement, and employ communication competencies to increase sensitivity to group dynamics and verbal and nonverbal cues. Whether facilitating high-level face-to-face meetings, conducting virtual interactions, or presenting to groups, students will gain the skills and confidence needed for effective synchronous communication across varied delivery methods.

COMM 4006 Communicating Effectively in Groups and Teams (4 Credits)
Effective group and team processes are invaluable to every organization. Ensuring productive and satisfying group interactional outcomes in organizational, professional and personal settings can be difficult. Focusing upon theory, application, and the practice of working together as a team—including development of group dynamics, leadership, and assessment—students gain knowledge about their strengths and weaknesses in teams, incorporate new skills, enhance productivity, and reduce barriers to effective communication in groups and teams.

COMM 4016 Persuasion Methods and Techniques (4 Credits)
The ability to write and speak in a persuasive manner is often the difference between success and failure. This course looks at a variety of concepts, techniques, and tools designed to improve the persuasiveness of written and spoken interactions. Differences between persuasion, negotiation and mediation are discussed and applied to case presentations. This course requires participation and presentations, readings, discussions and projects. This course is highly interactive, and attendance is mandatory.

COMM 4020 Communication in Professions and Organizations (4 Credits)
Communication professionals play a variety of roles within organizations, but what the best all have in common is mastery of foundational communication skills. In this course, students hone their writing, editing, presenting, and personal-branding skills, while learning how factors such as perception, inference, verbal and nonverbal communication, organizational culture, change, and conflict impact how people interact within the context of large and small organizations.

COMM 4030 Managing Learning in Organizations (4 Credits)
In today’s highly competitive information society, there is a tremendous need for continuous learning and employee development at all levels of an organization. New knowledge is the foundational resource for the creation and implementation of new visions, structures, and outcomes leading to organizational success. The learning organization, when effectively managed, is engaged in continuous improvement, and grows beyond its current state to widen its creative capacity for the future. In this course, students explore concepts, processes, models, and tools to cultivate a learning organization, and to manage the learning and development function within an organization. The focus of this course is on preparing students to be able to identify major business challenges and the competencies needed to support them from a learning and development perspective.
COMM 4032 Communication for Change Management (4 Credits)
This course prepares students to be change leaders in their organizations. The course begins with a focus on understanding critical change dynamics, including organizational structure, phases and roles. The students study and practice competencies which allow organizational members to direct change dynamics in effective ways. The development of competencies are accomplished through discussion, lecture, video, case studies, and change assessment inventories. Concepts and practices of coaching, mentoring and facilitation are explored as methods of supporting change leaders with intergenerational knowledge transfer, or employee development.

COMM 4035 Intercultural Communication (4 Credits)
There is a growing need to communicate effectively across cultural differences. Culture–defined as an accumulated pattern of values, beliefs, and behaviors shared by an identifiable group of people with a common history and verbal and nonverbal code system–pervades every aspect of the communicative process (Neuliep, 2015, p. xvi). This course uses a contextual approach to examine the ways culture, communication, context, and power intersect in intercultural communication interactions. We will identify and analyze obstacles and barriers to effective intercultural communication. Finally, we will examine strategies and skills needed to become a competent and effective intercultural communicator.

COMM 4045 Applied Critical Thinking in Communication (4 Credits)
This course provides an examination of the critical thinking processes and models of decision making and problem solving. The suitability, usage, and effectiveness of critical thinking models in achieving positive organizational outcomes are emphasized. Faculty and student perspectives and experiences, along with case studies, demonstrate applications of the critical thinking and problem solving processes within various communication settings and specialties.

COMM 4050 Communication and Society: Theories and Applications (4 Credits)
Expert communication professionals excel in their craft and their careers by applying foundational communication theories and principles to their practice. While practitioners benefit from an understanding of seminal, theoretical approaches, it is imperative that professionals are able to confidently navigate the contemporary, evolving environment of cultural and commercial communication. This foundational course provides an overview of seminal interpersonal, mass and mediated communications theories and applies them to today’s workplace in order to situate praxis as a meaningful pathway to enhance impact. The theories included in this course have been carefully selected based on their ability to be practiced in the field; examples include Attribution Theory, Social Exchange Theory, Mass Society Theory, Political Economy of Communication, and Encoding/Decoding. Additionally, students develop a command of digital communication frameworks using emerging approaches to digitization, convergence, and networked culture. Readings and assessments are geared toward active comprehension of communication theories so that students are able to recall and implement analytical concepts in their approach to decision-making, effective communication and creative-thinking skills in their professional environments.

COMM 4070 Understanding Human Communication (4 Credits)
This course provides an examination of the critical thinking processes and models of decision making and problem solving. The suitability, usage, and effectiveness of critical thinking models in achieving positive organizational outcomes are emphasized. Faculty and student perspectives and experiences, along with case studies, demonstrate applications of the critical thinking and problem solving processes within various communication settings and specialties.

COMM 4117 International Technical Comm (3 Credits)
This course focuses on communication and technical writing skills needed to address today’s international business environment. Students will develop the foundational skills necessary to write for translation, as well as develop an understanding of, and sensitivity to, the challenges inherent in intercultural technical communication. Additionally, international standards organizations and the role they play in international communication will be discussed.

COMM 4140 Marketing Strategy and Process (4 Credits)
COMM 4140 Marketing Strategy and Process is an application-oriented course to help students examine the fundamentals of marketing, and develop the insights and skills to formulate and implement sound, ethical marketing strategies and processes. The weekly topics covered in this course are divided into three main content areas: 1) foundations, 2) marketing mix elements with an emphasis on communications, and 3) strategy and planning. Each content area helps students apply strategic concepts through discussion and teamwork. Throughout the quarter, students explore marketing decisions by examining how information and research are used to inform marketing management decisions. Because marketing communication plays such a critical role in marketing success, special emphasis is placed on message and media factors. All of the course material culminates in the development of a marketing plan.

COMM 4144 Public Relations Principles and Process (4 Credits)
In a complex global environment, business, government, nonprofit, and other organizations require professional public relations practitioners who can effectively develop two-way relationships with constituents/publics to enable strategic and effective communication processes. This course explores the essential components of public relations through an examination of the profession, its publics, and effective processes. Areas studied include the nature and history of public relations; applying theories; use of strategy; the value of relationship development; an overview of the range of communication tactics; the evolving role of digital communications and social media; and the importance of ethics and transparency.
COMM 4145 Public Relations Writing and Tactics (4 Credits)
Leveraging effective and persuasive writing to develop relationships with media and other target audiences is an integral part of public relations. This course deepens students' knowledge of the strategic use of public relations tactics, while ensuring they become effective, creative, clear, and concise architects and translators of the written word. To assist in this development, public relations practitioners have a number of communication tools at their disposal. Determining the correct tool to use is based on a strategic approach to all public relations efforts. Professionals must consider their objectives, publics, and key messages in choosing tactics to effectively influence the intended audience. In this course, students examine the purposes, style, format, content, and distribution of tactics used to support public relations programs and the concepts behind generating effective public relations copy. Tactics such as news releases, fact sheets, media alerts/advisories, feature articles, newsletters, emails, pitches, brochures, and social media will enable the creation of a public relations writing portfolio by the end of class.

COMM 4150 Dimensions of Reputation Management (4 Credits)
Reputation management is the process of tracking, maintaining, and defending a consistent message and positive image across all media. It applies to corporations and individuals, to billion-dollar brands and grassroots causes. Today's reputation management integrates public relations, search engine optimization (SEO), content marketing, and social media management. It requires constant monitoring and participation in the dialogues that comprise modern media as the traditional roles of sender and receiver merge and evolve. Awareness of the ethical and global considerations surrounding the digital landscape is imperative. As digital presence has become the front lines of reputation management, systems use various predefined criteria for processing complex data to report behavior and activity surrounding a reputation, thereby automating the process of determining positive sentiment, influence, and trustworthiness. This course will present the history of managing reputations in the mass media era, from the dawn of the 20th century to present day. Through the study of proactive and reactive programs, students will learn how to apply reputation management principles in times of quiet and crisis, monitoring, positioning, and measuring a brand's presence online.

COMM 4155 Public Relations Research and Measurement (4 Credits)
Public relations practitioners leverage research at the formative stage of every campaign: during the campaign to measure effectiveness, and at the conclusion of a campaign, to show results. This requires strategic processes to guide organizations toward the best possible actions in creating and sustaining relationships with target publics. This course introduces students to research methods available to public relations professionals, which are dependent on writing measurable objectives to drive accurate evaluation during and following a campaign. Students will explore how to creatively, effectively, efficiently, and ethically adapt research methods to practical application based on available budget, time constraints, and other resources. They then justify these methods to potential clients.

COMM 4200 Instructional Design and Technology (4 Credits)
Designing training that maximizes results is a central concern in organizations. Students in this course identify the elements of effective training, they identify and discuss how learning occurs both formally and informally in organizations, and how trainers must plan for learning in order to meet organizational needs and objectives. The stages of systematic instructional design are presented, and students are given an opportunity to create an instructional design project that might be applied in their work settings. Students involved in training are provided with a fundamental understanding of technology uses for skill and professional development.

COMM 4203 Instructional Strategies for Adult Learners (4 Credits)
Adult learning is very different from the learning processes in children. Adults bring a great deal of experience to the learning situation and are intent on the application of their newfound knowledge and skills. The factors that determine how adults learn, as well as appropriate instructional strategies to best reach these learners, are discussed. Students in this course focus on using adult learning principles to strategically design training materials and facilitate adult learning in various workplace settings.

COMM 4206 Evaluating Learning and Development Effectiveness (4 Credits)
Assessment and evaluation enable learning and development professionals to determine if the benefits of the training endeavors are worth the costs, whether training has met organizational goals, and if further training is necessary. Through case studies, practice exercises, and the development of an authentic assessment plan, students learn how to design, interpret, and apply different types of learning and development evaluation concepts and methods to their respective or intended work settings.

COMM 4216 Performance Consulting (4 Credits)
This course develops the competencies necessary to become a skilled internal consultant. Human Resources professionals, training professionals, and any student interested in organizational consultation should enroll. Topics include the role of the performance consultant, the performance consulting process, forming a data collection strategy for needs assessment, contracting and client intervention. Students also learn how to plan for an initial project meeting and differentiate between business, performance, learning, and work environment needs. This course also helps students establish a framework for leadership coaching to help leaders develop clarity and effectively communicate a vision for moving into a desired future. The principles of coaching are explored from the vantage point of leadership and communication theories including transformational leadership, conflict management, and the use of effective dialogue to coordinate management of meaning (how individuals organize and manage meanings and how they coordinate their meanings with one another).

COMM 4220 Conflict Theory (4 Credits)
The focus of this course is an overview of communication theory as it relates to conflict management. Students study various theories in order to explain and predict the course of conflict interactions. The theories are used to analyze case studies and select the most appropriate method of conflict management from the methods of negotiation, facilitation, mediation, arbitration, and litigation.
COMM 4221 Mediation Principles and Practices (4 Credits)
This course presents students with an overview of a variety of mediation models, basic principles, procedural steps, and benefits of mediation. Students examine various stages of mediation, including preparation, the mediation session(s), caucusing and settlement. Teaching methods include mini-lectures, discussions, and hands-on experience through role-playing and case studies. Recommended Prerequisite: COMM 4222 Negotiation Principles & Practice is strongly encouraged prior to this course.

COMM 4222 Negotiation Principles and Practice (4 Credits)
Negotiation is at the core of alternative dispute resolution. This course presents the theoretical groundwork for interest-based dispute resolution upon which principled negotiation and other alternative dispute resolution methods are founded. Topics include the definition of the negotiation process, different types of negotiation, and negotiation strategies. Students have an opportunity to practice and compare different negotiation techniques. Teaching methods are experiential in nature and include mini-lectures, discussions, and role-plays. Students also develop strategies for managing challenging negotiations and breakdowns.

COMM 4224 Conflict and Culture (4 Credits)
Diversity and multiculturalism are ever present in our global community. Inherent in this diversity is a network of cultural traditions, values and communication styles. This course addresses dispute resolution in multicultural settings and broadens students’ understanding of how to assess and resolve conflicts in which ethnicity and other dimensions of cultural diversity are integral components. Only after understanding one’s own biases and cultural perspectives can people work to understand others’ cultural differences.

COMM 4225 Restorative Practices (4 Credits)
Students in this course explore theories and practice of Restorative Practices within alternative dispute resolution models. Restorative practice is a philosophical approach to be used in conjunction with traditional justice and conflict resolution systems. This concept is increasingly used when an offense has occurred, as a method of healing individuals and communities who have been harmed/impacted by that action. With beginnings in indigenous societies, the basic principle is to bring those harmed together with the community in a dialogue aimed at reestablishing personal and relational balance for all involved. Restorative practice’s initial practitioners were often within the traditional justice system, yet this method of conflict resolution has expanded to a wide range of applications including education, non-profit, government, human resources, classroom management, and healthcare.

COMM 4226 Managing Organizational Conflict (4 Credits)
Conflict is a part of all businesses, government, and nonprofit organizations. It is a product of human existence and diversity in an interrelated society. Though many people fear conflict as a threat to a productive work environment, it is not conflict itself that jeopardizes harmony but unresolved conflict, and the associated costs are well documented. Organizations increasingly recognize that conflict need not carry costly financial and interpersonal burdens and can, in fact, serve as a productive change agent. Students in this course explore the nature and sources of organizational conflict and facilitate development of practical skills to recognize and manage conflict using case studies, exercises, speakers, and field research. Students are introduced to the concept of various conflict resolution methods, including individual initiative, negotiation, mediation, restorative justice, and arbitration. This course is well suited for leaders and aspiring leaders in any profession who want to increase their interpersonal capability and enhance their value in organizations.

COMM 4230 21st Century Learning (4 Credits)
Workplace changes over the past decade include how organizational expertise is used, decreased time for formal training, globally distributed workforces, and the use of technologies as drivers of change in the roles and functions of trainers. The current trajectory magnifies the need for skill sets and mindsets that position a workforce for jobs not yet created. This course challenges participants to research changes related to the use of technologies in various fields, analyze and develop their own preparedness for the future, practice environmental scanning, use various online tools and strategies for learning management and communication, facilitation, and performance support. Participants can expect to engage in active-learning strategies including the use of online tools, webliography development, case-based learning, directed discussion, and learner presentations.

COMM 4270 Forty-Hour Mediation (4 Credits)
This course is designed specifically for individuals interested in becoming mediators or integrating mediation skills into their current positions within (but not limited to) human resources, public service, healthcare, law, non-profit management, etc. The course satisfies the initial training requirements for professional mediators in accordance with the Mediation Association of Colorado (the MAC) and the Association for Conflict Resolution (ACR). The DU mediation training is distinctive for several reasons, including: small class size (limited to 24 people) and the opportunity to network with accomplished mediators and mediation coaches.

COMM 4301 Branding and Market Positioning (4 Credits)
The American Marketing Association (AMA) defines a brand as a "name, term, sign, symbol or design, or a combination of the intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of other sellers." Organizations of all types – private, public, and nonprofit – increasingly recognize the importance of their brand and its role in strategic marketing, particularly market positioning. An in-depth examination of branding includes: brand messaging, the process of brand development, fundamentals and theories of consumer behavior and related environmental, cognitive or behavioral influences. Students have the opportunity to research consumer behavioral strategies and explore issues related to brand creation and maintenance, as well as how to leverage, manage, and evaluate their brand.
COMM 4318 Mobile Marketing (4 Credits)
Mobile technologies can be found in your pocket, on your coffee table, at your workplace, and even on your wrist. If a business’s marketing plan doesn’t include mobile, that business plan simply isn’t complete. The growing field of mobile marketing has created a new set of communication imperatives and business opportunities. This course is designed to familiarize students to the tools used to implement a robust mobile marketing strategy. Current and future organization and business leaders will learn mobile marketing best practices and gain the knowledge to implement and analyze the results of their mobil marketing efforts.

COMM 4320 Integrating Social Media (4 Credits)
Social media, including blogs, social platforms, online video, and paid advertising on social networking sites are accelerating the velocity of communications. Content is now created, published, accessed, consumed and shared in real time. Organizations must evaluate social media techniques and determine how best to incorporate them to achieve their marketing communication objectives. This course focuses on integrating social media elements into the enterprise-wide marketing strategy. Students gain first-hand knowledge of various social media techniques and best practices through hands-on, practical exercises. Students not only learn the current technologies, but will gain the skills needed to successfully communicate on behalf of an organization using any social, real-time platform. Through online research, case studies, and interaction with industry experts, students experience the strategic application of social media in communication.

COMM 4321 Digital Marketing Communication (4 Credits)
Digital Marketing enables business to reach a vast audience at a fraction of the cost of traditional marketing media and enables organizations to connect and engage with specific user groups to promote their objectives. The focus of this course is to provide a fundamental understanding of digital marketing communications techniques and how to integrate them into the traditional marketing mix. Digital strategies, tactics, and measurement will be explored. Through discussion, research, online searches, and evaluation of case studies and projects, students learn about the essential elements of digital marketing and strategic integrated marketing communication.

COMM 4322 Email Marketing (4 Credits)
Today’s consumer expectations for relevant, engaging, and timely messages have made email marketing an essential component of the multichannel marketing mix. The creation and delivery of personalized, targeted messages to subscribers can drive both engagement and ROI. This class examines the development and integration of email marketing (including tools, copy, design, service providers, tracking and measurement) to enhance business relationships, encourage customer loyalty and acquire new customers.

COMM 4323 Web Analytics (4 Credits)
Web analytics is the collection, analysis, and reporting of digital traffic in order to measure and optimize internet marketing programs. The practice of web analytics includes tools for measuring website traffic, conducting business/market research, estimating usage patterns for digital campaigns, and providing insights into visitor behavior. The focus of this class is on developing a performance measurement system for the digital channel, incorporating both on-site and off-site analytics. Key performance indicators are tied to internet marketing goals and tactical campaigns. Students conduct a review of online metrics, compare analytics vendors, and develop a performance tracking system and a management dashboard report.

COMM 4324 Essentials of Search Marketing (4 Credits)
Search marketing is a communicator’s medium and a vital part of any marketing mix. This type of digital marketing specifically focuses on increasing a website’s visibility in the search engine results pages (SERPs) through organic Search Engine Optimization (SEO) and pay-per-click (PPC) while also drawing attention to quality website content or well-crafted paid ad messaging. This class will provide deep insight into the tools and tactics of search marketing. Students will learn what makes search marketing demanding and how to overcome the challenges presented by regular search engine algorithm updates, increasing mobile device usage, and the influence of social media. Two key techniques of SEM will be explored: search engine optimization (SEO) to improve results from the natural or organic listings, and paid search marketing, or pay-per-click (PPC), to deliver results from the sponsored listings within search engines. A variety of search practices, including mobile and local, will be explored.

COMM 4325 Digital Campaign Management (4 Credits)
Any successful marketing or communication campaign — digital or traditional — is dependent on many factors, from its strategic beginnings through its final readout. However, perhaps the most critical factors driving the success of a digital campaign are rooted within the human, technical, and business processes through which that campaign comes to life. Assuming a foundational understanding of digital marketing techniques (i.e., web, search marketing, social media, etc.), this course will focus on the practical management of digital marketing and communication campaign efforts, including planning, management, and measurement.

COMM 4326 Writing for Digital Media (4 Credits)
Much of communicators’ and marketers’ messaging is conveyed through digital media. This course examines how the behavior of on-screen readers fundamentally differs from that of print readers and how that difference informs the process of creating and editing effective copy for a wide range of digital media, including traditional websites, mobile sites, online advertising, social media, and more. The course utilizes essential principles of content strategy and content marketing and applies them to the content creation process.

COMM 4327 Topics in Applied Comm (4 Credits)
The content of this course varies each time it is offered. Topics may include time-sensitive issues in the field of communication, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects, such as ethics, human communication theory, or interpersonal communication. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.
COMM 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass.

COMM 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produces a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

COMM 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

COMM 4905 Graduate Social Research Methods (4 Credits)
Graduate Social Research Methods is an exploration of the methods and purposes of social science research from the perspective of the researcher as well as that of the informed professional and consumer of information. Students will learn about the process of research, including the development of research questions, the purpose of various social science research methods, the role of professional ethics, and general approaches to the analysis and interpretation of data. Students will develop the ability to read and critique basic social science research articles and to implement simple research designs. Students will develop and write a research proposal around a specific research question informed by a review of the literature. Technical requirements include the ability to read and modify Microsoft Excel documents. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

COMM 4920 Portfolio Capstone (4 Credits)
The Portfolio Capstone course provides students the opportunity to reflect upon the work they have done throughout their graduate studies at University College and synthesize their learning. Students in the seminar produce deliverables that include: (1) a thorough annotation of their portfolio, a process requiring critical and creative thinking about their educational experience, and (2) a pinnacle project that identifies, analyzes, and elaborates significant themes in their program experience, evaluates their accomplishments, connects their coursework to their professional goals, and assesses those goals in the context of their chosen field. Students must complete the Portfolio Capstone with a grade of B or better.

COMM 4980 Internship (4 Credits)
The Organizational and Professional Communication Internship is designed to offer students a purposeful experience in a practical, industry related setting. The internship is an individualized learning experience. A training plan is created for each student in conjunction with the internship site supervisor to provide experiences related to the skills and knowledge covered in the certificate and master’s programs as well as professional goals. Students are responsible for finding their own internship site and proposing their internship ideas. University College will send notification to all COMM students if they hear of internship possibilities. Students may also work through the DU career center, to explore opportunities for internship experiences. To be eligible for an internship, completion of a minimum of 28 hours of graduate coursework in the field of specialty is required OR Academic Director approval for students with previous work experience in the field.

COMM 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. Before registering for the independent study, the student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices. Independent Study is offered only on a for-credit basis.
COMM 4992 Directed Study (1-5 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Art - Electr Media Arts Design (ARTD)

Art - Studio (ARTS)

Courses
ARTS 3055 Advanced Drawing (4 Credits)
Working with a variety of materials and techniques, students hone their drawing skill and at the same time create finished drawings defined by content. Problems posed encourage independent thinking, experimentation and the development of a personal technical base. Lab Fee. Prerequisite: ARTS 2045 or ARTS 3065 or permission of instructor.

ARTS 3065 Life Drawing (4 Credits)
An intensive course in drawing the human figure, clothed and unclothed, to explore the human form in terms of proportion, movement, light and shadow, composition, color and personal expression. Students experiment with a range of materials. Lab Fee. Prerequisite: ARTS 1250 or permission of instructor.

ARTS 3125 Figure Painting (4 Credits)
An intensive course in painting the human body—the most timeless subject of art. Students work mainly in oils and experiment with a variety of surfaces and techniques. Students also investigate line, proportion, light and shadow, composition and color. Final project: life-size painting of two figures. Lab fee. Prerequisite: ARTS 2115 or ARTS 3065 or permission of instructor.

ARTS 3145 Painting Workshop (4 Credits)
Concentration on selected techniques and approaches to painting. Topics change. Course may be repeated to a maximum of 12 credits. Lab Fee.

ARTS 3555 Ceramic Workshop (4 Credits)
Concentration on selected techniques and experimental approaches to ceramics. Topics change. Course may be repeated to a maximum of 12 credits. Lab fee. Prerequisite: ARTS 2515 or approval of instructor.

ARTS 3635 Advanced Sculpture (4 Credits)
Students work at an individual pace in production of sculptural ideas and objects. Lab fee. Prerequisite: ARTS 2625.

ARTS 3655 Sculpture Workshop (4 Credits)
Concentration on selected techniques and experimental approaches to sculpture. Topics change. Course may be repeated to a maximum of 12 credits. Lab fee.

ARTS 3701 Photography, Light and Adobe Lightroom, Santa Fe, New Mexico (4 Credits)
Selected topics in advanced studio art research. Course may be repeated to a maximum of 12 credits. Lab fee. Prerequisite: instructor's permission.

ARTS 3966 Studio Art Travel (1-4 Credits)
A travel course to selected locations to visit galleries, museums and artists' studios. Location and content of course change. Variable credit. May be repeated to a maximum of 12 credits. Lab fee.

ARTS 3980 Studio Art Internship (1-4 Credits)
The student is responsible for locating the internship and gaining approval for it, using the internship guidelines and contract form in the art office. Typical internships have been located in commercial galleries, fine art printmaking houses, professional artists' studios and non-profit arts organizations.

ARTS 3991 Independent Study (1-6 Credits)
Supervised studies not addressed in this catalog of classes. Advanced projects must be faculty approved. Permission/registration form is available from the Office of the Registrar.

ARTS 3992 Directed Study (4 Credits)
This class should only be used when a required ARTS 3000-level course listed in this catalog is not offered in the quarter in which the student must take it. Permission of an instructor and the Director of the School of Art and Art History are required. Permission/registration form is available from the Office of the Registrar.

ARTS 4910 Grad Advanced Problems in Art (1-12 Credits)
This course is for MFA candidates who wish to pursue graduate-level independent work under the guidance of a studio art faculty member. Permission of the student's graduate advisor and the studio art instructor must be obtained before enrolling. May be repeated to a maximum of 12 credits.

ARTS 4991 Graduate Independent Study (1-12 Credits)
This course is for MFA candidates who wish to pursue graduate-level independent work under the guidance of a studio art faculty member. Permission of the student's graduate advisor and the studio art instructor must be obtained before enrolling. May be repeated to a maximum of 12 credits.
ARTS 4992 Directed Study (1-10 Credits)
This class should only be used when a required ARTS 4000-level course listed in this catalog is not offered in the quarter in which the student must take it. Permission of an instructor and the Director of the School of Art and Art History are required. Permission/registration form is available from the Office of the Registrar.

Art History (ARTH)

Courses
ARTH 3656 Curatorial Practicum (4 Credits)
Students will work in curatorial teams to plan and execute an effective exhibition of contemporary art. This process may include choosing a theme and selecting works of art, researching artists and themes, budgets, scheduling, developing an exhibition checklist, modeling the gallery, visual exhibition design, conservation and collections management factors, shipping, installation, educational outreach to the public, publicity and other issues related to exhibition planning.

ARTH 3661 Learning in Museums (4 Credits)

ARTH 3701 Topics in Art History (1-4 Credits)
Selected themes and topics from the history of art. Content changes and course may be repeated to a maximum of 12 credits.

ARTH 3812 From New Republic to the Gilded Age: 19th Century American Art (4 Credits)
This is a thematic study of American art and architecture, 1790-1910, including national identity, domesticity, nature, industrialization, death and mourning, westward expansion, Civil War, spirituality, and internationalism. Lectures, discussions and field trips.

ARTH 3813 Arts of the American West (4 Credits)
This course covers a wide range of art objects and styles from the 17th century to the present in the West of the United States, from buffalo robe paintings and baskets to cowboy art and contemporary abstract landscapes. Particular attention is paid to the diversity of art traditions—Native American, Spanish and Mexican, European, Asian and Latin American—as they converge in this geographic space.

ARTH 3815 American Art and Religion (4 Credits)
This course examines sacred art forms, as well as art that documented or commented upon religious experience in the U.S., from the 17th century to the present. In includes fine, decorative, and popular arts as well as architecture, in slide-lecture-discussions and field trips. The diversity of religious experience and spirituality in American art is emphasized.

ARTH 3817 Gothic Art (4 Credits)
This course examines the art of the Late Middle Ages in Europe, from roughly 1140 to 1400. Gothic architecture, sculpture, painting, stained glass and the sumptuous arts (metal, textiles) are examined within their broader social, political and religious contexts. Particular attention is paid to the Gothic Cathedral—its quintessential window into the medieval world—its beliefs, aspirations, social and political realities.

ARTH 3818 Art of Renaissance Europe (4 Credits)
This course provides an examination of the artistic cultures in Europe during the Renaissance (15th and 16th centuries). Depending upon the quarter, this course will be a general survey of European art during the Renaissance or a more focused exploration of a sub-period, such as painting in fifteenth-century Italy. Chronological and geographic factors determine the overall theme and structure of the course. Students gain both a sound knowledge of key artistic monuments of the period, as well as a conceptual framework according to which they may organize their knowledge. This class may be repeated for a maximum of 8 credits.

ARTH 3822 Northern Renaissance Art (4 Credits)
This course explores the dramatic developments in the arts (particularly panel painting, manuscript illumination and sculpture) in Northern Europe from around 1350 to 1550. From lavishly decorated Books of Hours and the development of stunningly naturalistic oil paintings on panel in the early 15th century through the development of printing and the rise of self-portraiture, genre and landscape depictions, this course traces the important role played by Dutch, Flemish, German and French artists in the transition from late medieval to early modern artistic forms and practices. The role of art in shaping and expressing religious, civic, political and economic concepts are explored, as well as the rise of the social and intellectual standing of the artist. Among the artists examined include Jan van Eyck, Rogier van der Weyden, Albrecht Dürer, Hieronymus Bosch and Pieter Bruegel the Elder.

ARTH 3823 17th-Century European Art (4 Credits)
This course considers European arts of the 17th century. Depending upon the quarter it may be a general survey of European art during the seventeenth century or a more focused exploration of a sub-period, such as Italian Baroque or the Old Dutch Masters: Rembrandt, Vermeer and Frans Hals. This class may be repeated for a maximum of 8 credits.

ARTH 3832 19th-Century Art (4 Credits)
This course surveys the major art movements in Europe from the late 18th century to the end of the 19th century. Major painters, sculptors, printmakers and architects of the following movements will be presented: Neo-classicism, Romanticism, Academic Painting, Realism, the Pre-Raphaelites, Impressionism, Post-Impressionism, Symbolism and Art Nouveau. Their works will be studied in light of the social, political and cultural milieu in which they appeared. Special attention will be paid to representations of race, class, gender and colonialism.
ARTH 3833 20th-Century Art (4 Credits)
This class studies the development of early 20th-century art in Europe and the U.S., as the center of the avant-garde shifted to America around World War II. The class follows the development of modernism and its theories from 1900 to around 1960. Artists and movements will be considered according to stylistic and theoretical development, and also in relation to social, political and cultural developments of their time.

ARTH 3834 Contemporary Art (4 Credits)
This course surveys the development of contemporary art, focusing primarily on recent decades, but making connections to earlier movements from 1970 to the present. This includes painting, sculpture, performance art, installations and new media art. Students become familiar with various issues of recent art theory and criticism to put these works into a theoretical perspective. In addition to an in-depth look at the broad stylistic movements of the past forty years, this course also examines those figures whose work has come to define the major approaches and concerns for the art of our time.

ARTH 3838 Connoisseurship (4 Credits)
In this class the historical roots, theoretical and philosophical underpinnings, and actual practice of connoisseurship are studied using objects from the museum's collection.

ARTH 3839 Topics in Modern Art (4 Credits)
Selected themes and topics from the 18th century to the present. Topics change, and the course may be repeated to a maximum of 12 credits.

ARTH 3841 Topics in Chinese Art (4 Credits)
Selected topics in Chinese art. Content changes. This class may be used to fulfill the non-Western requirement for majors in the School of Art and Art History. Course may be repeated to a maximum of 12 credits. Cross listed with ASIA 2102.

ARTH 3842 Topics in Japanese Art (4 Credits)
Selected topics in Japanese art. Content changes. This class may be used to fulfill the non-Western requirement for majors in the School of Art and Art History. Course may be repeated to a maximum of 12 credits. Cross listed with ASIA 2105.

ARTH 3845 Chinese Painting: Masters and Masterpieces (4 Credits)
This course explores pictorial art in China from the third century BCE to the present. Cross listed with ASIA 2106.

ARTH 3846 Dada and Surrealism (4 Credits)
This course will survey the development of Dada and Surrealist art from 1916 through 1939, focusing on the painting, sculpture, graphics, photography and films of these movements. The relationships between Dada and Surrealist artists and literary figures will be discussed as well as their shared interests in psychoanalysis, dreams, sexuality and automatic methods of creativity. Cross listed with ASIA 2106.

ARTH 3850 Art and the History of Science (4 Credits)
This class explores the connections between art and the history of science, using a broad span of visual material, mainly European art from the Middle Ages to the present. Coverage of the material is thematic, focusing on three major categories: Art and the Natural World; Art and the Human Body; and Art and the Human Mind. We read a wide variety of art historical articles and selected chapters that examine works of art related in the first section to astrology, astronomy and alchemy; botanical, zoological and geological illustration; and color theory, perspective, optics, maps, contemporary earthworks and ecology. In the second section, we explore the evolution of anatomic illustration, as well as mythic, religious and genre images related to medicine, pharmacy and healing as well as works by contemporary artists who are concerned with genetic codes, hybridization and cloning. In the third section, we examine depictions of human temperaments, emotions and madness through the images of selected artists.

ARTH 3862 Mesoamerican Art (4 Credits)
This course is an introduction to the art and archaeology of the native peoples of Mesoamerica in Pre-Columbian times, or from about 2000 BC to AD 1521. Cultures covered include the Olmec, Teotihuacan, Mixtec, Zapotec, Aztec and others. This class presents the cultural sequence of Pre-Columbian Mesoamerica and explores how the various civilizations of Mesoamerica shared aspects of world-view, cosmology and daily life. Students will be able to identify and discuss how these elements manifested in the art and architecture of Mesoamerican cultures. Furthermore, the course investigates issues of shamanism, kingship and power, warfare, and human sacrifice. This class may be used to fulfill the non-Western requirement for majors in the School of Art and Art History.

ARTH 3863 Art of the Maya (4 Credits)
This course is an introduction to the art and archaeology of the Maya from about 300 BC to the present. The Maya are perhaps the most famous of the several cultures comprising what is known as Mesoamerica. A highly advanced culture, they built soaring temples, carved elaborate portraits of their kings and developed a complex writing system including a calendar. The course explores these things with a constant eye to understanding the Maya worldview, cosmology and daily life. By the conclusion of the class, students should be able to read their intricate pictures, discuss the strategies of powerful Maya rulers and understand how Maya art and architecture reflect their concepts of time and the cosmos. This class may be used to fulfill the non-Western requirement for majors in the School of Art and Art History.

ARTH 3864 Buddhism and the Fine Arts (4 Credits)
This survey examines the history, practices, ritual contexts, aesthetics and artistic traditions of Buddhism including architecture, calligraphy, sculpture and painting, in terms of its social and historical context, political and religious functions, as well as issues including artistic production, changing techniques and symbols, and the market/audience. The primary goal is to understand Buddhism as reflected in art and culture.
ARTH 3867 Native American Art (4 Credits)
This course is designed as an introduction to the art and architecture of the native peoples of North America from the earliest signs of humans in North America to the present. Cultures covered include those from the Southwest, the Northwest, the Southeast Ceremonial Complex, the Plains and contemporary Native American artists. By the conclusion of the class, students will understand the cultural sequence and geographic dispersion of native North America. Students will also understand how the various civilizations of North America shared aspects of world-view, cosmology and daily life, and be able to identify and discuss how these elements manifested in the art and architecture of native North American cultures. This class may be used to fulfill the non-Western requirement for majors in the School of Art and Art History.

ARTH 3868 Art of the Andes (4 Credits)
This course is designed as an introduction to the art and architecture of the native Pre-Columbian peoples of the Andes. Cultures covered include Chavin, Nasca, Wari and the Inca.

ARTH 3869 Twentieth-Century Art in Latin America (4 Credits)
This course explores twentieth-century art movements in Latin America. Topics include modernism, indigenism, surrealism, neo-concretism, conceptualism, censorship under dictatorships, and issues in exile and displacement. We also analyze the cultural production of Latinos in the United States and its representation in cultural institutions. Organized both chronologically and geographically, the material has been structured to provide a basic understanding of the methods of art history in relation to Latin American art and to familiarize students with the significant artistic movements and styles that emerged from Latin America in the Twentieth Century.

ARTH 3870 Women in Art (4 Credits)
This course considers the roles of women in art and explores the impact of race, class and gender on art produced from the Middle Ages to the present with discussions of women artists, women patrons and images of women. Cross listed with GWST 3871.

ARTH 3871 Women in Art (4 Credits)
This course considers the roles of women in art and explores the impact of race, class and gender on art produced from the Middle Ages to the present with discussions of women artists, women patrons and images of women. Cross listed with GWST 3871.

ARTH 3872 Introduction to Conservation (4 Credits)
This lecture course familiarizes the student with the concepts and challenges of conservation, its role in museums and the care of collections. Specific emphasis is given to the materials, structure, deterioration and preservation of material culture. Field trips to various museums and/or workshops to make appropriate display mounts and storage containers enhance the understanding gained from readings and lectures.

ARTH 3873 History of Collections (4 Credits)
This course surveys the image of the goddess in art from prehistoric times until the present day from a feminist perspective. Beginning with anthropological and art historical theories about the numerous female figurines of Paleolithic and Neolithic times, the course continues to explore representations of female goddesses from ancient Mesopotamia, Egypt, Crete, Greece, and Rome. Polarized images of Eve, the Virgin Mary and several female saints during the Middle Ages will be examined. From the Renaissance through the Baroque periods, classical goddesses, especially Venus/Aphrodite, are revived and adapted to both Christian and secular contexts. Images of the sexualized female body will be explored, along with its counterpart, the witch, who was persecuted during the 16th and 17th centuries. This course is interspersed with examples of contemporary art inspired by the "Great Goddess," especially by feminist artists of the 1970s and 1980s. Some discussion of the goddess as she appears in contemporary popular culture concludes the class. Cross listed with GWST 3873.

ARTH 3910 Art History Travel (4 Credits)
A travel course to selected locations to study major monuments and collections of art and architecture. Location and content change. This class may be repeated for a maximum of 8 credits. Prerequisite: instructor's permission.

ARTH 3991 Independent Study (1-10 Credits)
This class should be used for individual study of a special topic that is not offered in the art history curriculum described in this catalog. Permission/registration form is available from the Office of the Registrar.

ARTH 3992 Directed Study (1-5 Credits)
This class should only be used when a required ARTH course listed in this catalog is not offered in the quarter in which the student must take it. Permission of an instructor and the Director of the School of Art and Art History are required. Permission/registration form is available from the Office of the Registrar.

ARTH 4301 Seminar in Art History Methods (4 Credits)
This seminar considers the history of art history and the development of various methods that art historians use to interpret and understand art. Required of all MA candidates in art history.

ARTH 4302 Research Practicum (4 Credits)
The goal in this course is to learn professional methods and resources for original research in areas of American art where little or no published research exists. Students learn through short exercises in biographical, object-oriented, internet, and archival research; by tackling a 10-week research project of their choice within the topic for the quarter; and by networking with each other to share resources and progress. Required of all MA candidates in art history.
ARTH 4312 Seminar in Precolumbian Art (4 Credits)
Selected topics in Precolumbian Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTH 4314 Seminar in Medieval Art (4 Credits)
Selected topics in Medieval Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTH 4321 Seminar in Renaissance Art (4 Credits)
Selected topics in Renaissance Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTH 4331 Seminar in 18th Century Art (4 Credits)
Selected topics in 18th century Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTH 4332 Seminar in 19th Century Art (4 Credits)
Selected topics in 19th century Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTH 4333 Seminar in 20th Century Art (4 Credits)
Selected topics in 20th century Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTH 4334 Selected Topics in Contemporary Art: Public Art (4 Credits)
Selected topics in contemporary art. Advanced research papers and presentations. Content changes. May be repeated for a maximum of 8 credits.

ARTH 4336 Seminar in American Art (4 Credits)
Selected topics in American Art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTH 4345 Selected Topics in Latin American Art: Mexican Modernism (4 Credits)
Selected topics in Latin American art. Advanced research papers and presentations. Content changes. May be repeated to a maximum of 8 credits.

ARTH 4651 Museum Methods and Principles (4 Credits)
This class surveys the major activities, goals, and organization of the art museum within today's world. Students meet with a variety of museum professionals to discuss the changing dynamics within art museums, as well as ethical and practical issues of museum work. The class reads both classic and current literature on museum issues and practice, and participates in research, collection, and exhibition projects. Required of all M.A. art history students pursuing the Museum Studies option.

ARTH 4652 Museum Internship (3-10 Credits)
Arranged internship in student's area of specialization. Students should take ARTH 4651 Museum Methods and Principles first. Prerequisite: instructor's permission.

ARTH 4656 Writing for Exhibitions (4 Credits)
This class focuses on the special skills required to create and articulate a compelling exhibit concept, drawing artworks primarily from contemporary art collections. This seminar offers an opportunity to take part in a major exhibition project. The major work products of the seminar are extended essays for a catalog to accompany an exhibition that will open the following year at the Victoria H. Myhren Gallery.

ARTH 4991 Independent Study (1-10 Credits)
This class should be used for individual study of a special topic that is not offered in the art history curriculum described in this catalog. Permission/registration form is available from the Office of the Registrar.

ARTH 4992 Directed Study (1-5 Credits)
This class should only be used when a required ARTH 4000-level course listed in this catalog is not offered in the quarter in which the student must take it. Permission of an instructor and the Director of the School of Art and Art History are required. Permission/registration form is available from the Office of the Registrar.

ARTH 4995 Master's Research Paper (1-5 Credits)
Students should see their advisor for guidelines regarding the Master's Research Paper class.

### Arts and Humanities (AH)

#### Courses

#### Asian Studies (ASIA)

#### Courses

ASIA 3991 Independent Study (1-4 Credits)

#### Biology (BIOL)

#### Courses

BIOL 3010 Evolution and Speciation (4 Credits)
Theories and supporting evidence explaining evolution from origin of universe to complex interrelationships of species. Prerequisites: BIOL 1010, BIOL 1011 and BIOL 2510.
BIOL 3020 Aquatic Ecology (4 Credits)
An introduction to the ecology of fresh-water and marine organisms including aquatic adaptations, community organization, food chains, nutrient cycling and man's impact on aquatic ecosystems. Prerequisite: BIOL 2010 or instructor's permission.

BIOL 3030 Alpine Ecology (4 Credits)
Ecology of alpine and subalpine regions of Colorado; organization and distribution of communities and populations, succession, energy flow, nutrient cycling, population adaptations in life-history physiology, behavior and morphology. Prerequisite: BIOL 2010.

BIOL 3035 Invasive Species Ecology (4 Credits)
This course investigates those plants and animal species that have dramatically expanded their ranges and cause ecological harm. Topics covered include the mechanisms of ecological impacts across the globe, how invasive species are used to test basic ecological theory, the application of this research for managing real species, and related issues such as the debate within the scientific community about the term "invasive." We use a case-study approach, and students have the opportunity to go into the field as a class to observe the real invasions and learn sampling methods.

BIOL 3044 Coral Reef Ecology (3 Credits)
Ecology of coral reefs; organization and distribution of reefs; review of reef organisms and their interactions with each other and their physical environment; threats to coral reef reef conservation. Prerequisite: BIOL 2010 or BIOL 2050.

BIOL 3045 Coral Reef Ecology Lab (1 Credit)
Ecology of coral reefs laboratory to supplement lecture material; travel to the Caribbean over spring break to observe coral reefs firsthand; introduction to research methods. SCUBA certification and permission of instructor required. A travel and dive fee is associated with this course.

BIOL 3055 Ecology of the Rockies (4 Credits)
A week in residence at the Mt. Evans Field Station prior to the start of fall quarter includes field projects dealing with ecology and environmental issues. On campus classes involve data analysis and interpretation and formal scientific communication. Themes include terrestrial and aquatic ecosystems, taxonomic groups ranging from conifer stands to aquatic insects and mountain goats. Lab fee associated with this course. Prerequisite: BIOL 2010 or permission of instructor.

BIOL 3060 Tropical Ecology (3 Credits)
Biological composition of tropical ecosystems; biodiversity, biogeochemistry; causes and biological consequences of tropical deforestation; ecologically based approaches toward sustainable tropical forest use. Includes laboratory. Prerequisite: BIOL 2010.

BIOL 3070 Ecological Field Methods (4 Credits)
Series of field exercises for students to learn principles and procedures of field methodology, data analysis and technical writing in ecology; problems drawn from population, community and ecosystem ecology. Lab fee associated with this course. Prerequisite: BIOL 2010.

BIOL 3090 Microbial Ecology (4 Credits)
Interactions among microorganisms and their environment. Impact of ecological principles on microbial diseases, pollutant degradation, nutrient cycles and global change. Prerequisites: BIOL 1010, BIOL 1011.

BIOL 3100 Histology: Medical Microanatomy (4 Credits)
Microscopic organization of tissues and organs; correlation of organization of organs with functions and pathologies; emphasis on mammalian systems. Includes laboratory. Lab fee associated with this course. Prerequisite: BIOL 2120.

BIOL 3110 Special Topics: Biology (1-5 Credits)
Topics of special interest to teaching/research faculty of department presented as needed to complement and expand existing curriculum. May be repeated for credit.

BIOL 3120 General Microbiology (4 Credits)
Fundamental principles of microorganisms in the world and in disease; role of bacteria in biological phenomena. Includes laboratory. Lab fee associated with this course. Prerequisite: BIOL 2120.

BIOL 3130 Molecular Evolution (4 Credits)
Evolution of macromolecules and reconstruction of evolutionary history of genes and organisms. Prerequisite: BIOL 2510.

BIOL 3135 Topics in Cell Motility (4 Credits)
Fibrous elements of the cytoskeleton and associated proteins and their role in cellular motility is examined in detail. The physical forces involved in cellular motile function is applied in understanding cellular motile behavior. Prerequisite: BIOL 2120.

BIOL 3150 Intracellular Dynamics (4 Credits)
Focuses on spatial and temporal control of intracellular processes with an emphasis on neuronal and endocrine cells. Topics include vesicular traffic, protein targeting, dynamics and spatial organization of signaling complexes. Emphasis on modern techniques of cell and molecular biology with examples from primary literature. Prerequisite: BIOL 2120.

BIOL 3160 Biophysics: Ion Channels & Disease (4 Credits)
Examines ion channel structure and function and the ways in which this information provides insight into human disease. The focus is on the use of biophysical techniques in combination with molecular and genetic analysis of channel genes. General Physics recommended. Prerequisite: BIOL 2120.

BIOL 3200 Invertebrate Evolution (4 Credits)
Introduction to remarkable diversity of invertebrate life, both in terms of numbers of species, novel body plan and physiological adaptations. Includes laboratory. Prerequisites: BIOL 1010, BIOL 1011.
BIOL 3230 Nutrition (3 Credits)
Investigation of metabolism, all nutrients and various applications of nutrition to sports and healthy living. Prerequisite: BIOL 3250.

BIOL 3250 Human Physiology (5 Credits)
Functional relationships of human organ systems with coordinated laboratory activities and experiments that demonstrate and test physiological principles. Lab fee associated with this course. Prerequisites: BIOL 1010, BIOL 1011.

BIOL 3260 Nutrition (3 Credits)
From physiological and biochemical perspectives, this course explores the relationships of energy metabolism, nutrients, vitamins and minerals to human health. Prerequisite: BIOL 3250.

BIOL 3300 Biodiversity-Flowering Plants (4 Credits)
Basic techniques and principles of systematics with application to the origin, evolution, radiation, classification and biodiversity of flowering plants (angiosperms). Lab fee associated with this course. Prerequisites: BIOL 1010, BIOL 1011 or GEOG 1201, GEOG 1202, GEOG 1203 or instructor’s permission.

BIOL 3400 Ornithology (4 Credits)
Biology of birds with emphasis on ecology and behavior; field and laboratory work to stress bird identification and ecological relationships of birds. Lab fee associated with this course. Prerequisites: BIOL 1010, BIOL 1011.

BIOL 3410 Animal Behavior (4 Credits)
This class examines animal behavior from an evolutionary and ecological perspective. The course provides the background needed to understand behavioral evolution, including a focus on the inheritance of behavior, natural selection, sexual selection, and kin selection. This class studies the evolution of a variety of behaviors, including communication and displays, mate choice, parental care, cooperation, mating systems, social behavior, habitat selection, foraging, and anti-predator behavior. The emphasis is on theoretical principles, design of experiments, and interpretation of data. Prerequisites: BIOL 1010 and BIOL 1011.

BIOL 3560 Molecular Biology Laboratory (4 Credits)
Laboratory based course that covers techniques in gene excision, cloning and reinsertion and gene sequencing. Lab fee associated with this course. Prerequisite: BIOL 2510.

BIOL 3570 Proteins in Biological Systems (3 Credits)
Proteins considered in their biological setting; protein synthesis and degradation; survey of protein functions in vivo; evolution of proteins; introduction to protein biotechnology. Prerequisites: BIOL 2120, CHEM 2451, CHEM 2452 and CHEM 2453.

BIOL 3610 Developmental Biology (4 Credits)
Processes and mechanisms of development, exemplified by higher animal embryogenesis, with consideration of microbial model systems. Prerequisite: BIOL 2120.

BIOL 3620 Vertebrate Embryology (4 Credits)
Development processes in placental mammals; analysis of vertebrate cyto-differentiation and morphogenesis. Laboratory on embryonic anatomy of amphibians, birds and mammals. Prerequisites: BIOL 1010, BIOL 1011 and BIOL 2120.

BIOL 3630 Cell Biology of Development (4 Credits)
Every organism has a stereotypical shape, but how does this shape arise? This course examines the cellular and molecular mechanisms that direct the forming of body and tissue shape. Prerequisite: BIOL 2120.

BIOL 3640 Introductory Neurobiology (4 Credits)
Organization and function of vertebrate central nervous system; nature of action potential, biochemistry of neurotransmitters, neuropeptides, functional anatomy of nervous system, phylogeny of nervous system. Prerequisite: BIOL 2120.

BIOL 3641 Systems Neuroscience (4 Credits)
Structure and function of the brain and spinal cord, emphasis on functional systems including sensory perception, motor control and consciousness. Prerequisite: BIOL 3640.

BIOL 3642 Neuropharmacology (4 Credits)
How psychoactive drugs exert their effects on the nervous system; drugs of abuse and drugs used in the treatment of psychotic and neurodegenerative disorders. Prerequisite: BIOL 2120.

BIOL 3643 Developmental Neurobiology (4 Credits)
This course investigates the mechanisms involved in the maturation of neurons, and signals that direct neurons to their proper position in the central nervous system. Prerequisite: BIOL 3640.

BIOL 3644 Neuromuscular Pathophysiology (4 Credits)
Cellular and molecular basis for normal nerve and muscle functions and the alteration of these functions by toxins, trauma and diseases of the brain, nerves and muscles; how specific insults produce clinical symptoms and pathology. Prerequisite: BIOL 2120. Recommended Prerequisite: BIOL 3640 or BIOL 3250.

BIOL 3646 Seminar: Cognitive Neuroscience (2 Credits)
This seminar is the capstone course for the neuroscience portion of the cognitive neuroscience program. Seminar topics include but are not limited to neurological disorders, model systems in neuroscience and sensory systems.
BIOL 3650 Endocrinology (4 Credits)
Mechanisms of hormone action, evolution of vertebrate endocrine systems, analysis of function integration of hormonal responses in maintenance of homeostasis. Prerequisite: BIOL 2120.

BIOL 3655 Molecular Neuroendocrinology (4 Credits)
Advanced laboratory course that uses anatomical/immunological, biochemical and molecular approaches to analyze neuroendocrine pathways in the hypothalamus/pituitary system. Lab fee associated with this course. Prerequisites: BIOL 3650 and instructor's permission.

BIOL 3670 Molecular Immunology (4 Credits)
The ability to distinguish self from non-self is crucial to all organisms. In humans, organs, cells and other higher animals, this task fall to the immune system. Suppression of this system is key to numerous pathogenic viruses including Ebola and human immunodeficiency virus. The failure to adequately regulate immune response underlies allergic reactions, arthritis and diabetes. This course will introduce students to the organs, cells and molecules that underlie mammalian immune response; immunogenetics and the fundamental mechanisms of cell mediated and humoral immune response; and the relationship of immune system to human disease. Prerequisite: BIOL 2510.

BIOL 3680 Advanced Techniques in Cell Biology (4 Credits)
Advanced laboratory course that covers current techniques used in cell biology research. Lab fee associated with this course. Prerequisite: BIOL 2120.

BIOL 3700 Topics in Ecology (1-4 Credits)
Topics vary; may include plant, animal, biochemical, alpine or aquatic; one topic per quarter. May be repeated for credit. Taught from original literature. Prerequisite: one quarter of undergraduate ecology and/or instructor's permission.

BIOL 3701 Topics in Genetics (1-4 Credits)
Topics vary; may include genetic methods, molecular genetics, human genetics, chromosomes or population genetics; one topic per quarter. May be repeated for credit. Taught from original literature. Prerequisite: BIOL 2510 and/or instructor's permission.

BIOL 3702 Advanced Topics in Regulatory Biology (1-4 Credits)
Topics vary; may include endocrinology, physiology or immunology; one topic per quarter. May be repeated for credit. Taught from original literature. Prerequisite: varies with topic and instructor; instructor's permission usually required.

BIOL 3703 Advanced Topics in Developmental Biology (1-4 Credits)
Topics vary; may include gene expression in development, developmental immunogenetics, developmental biochemistry or aging; one topic per quarter. May be repeated for credit. Taught from original literature. Prerequisite: instructor's permission.

BIOL 3704 Advanced Topics in Cell Biology (1-4 Credits)
Topics vary; may include supramolecular structure, microscopy, membranes and techniques. May be repeated for credit. Taught from original literature. Prerequisites: varies with course and instructor; instructor's permission usually required.

BIOL 3705 Advanced Topics in Molecular Biology (1-4 Credits)
Topics vary, but may include biochemistry, supramolecular structure and function, molecular genetics, membrane biology. May be taken more than once for credit. Taught from original literature. Prerequisite: varies with course and instructor; instructor's permission usually required.

BIOL 3706 Topics in Evolution (1-4 Credits)
Topics vary, but may include molecular evolution, plant evolution and animal evolution. Prerequisite: instructor's permission.

BIOL 3707 Advanced Topics in Conservation Biology (1-4 Credits)

BIOL 3800 Human Molecular Biology (4 Credits)
Medical Genetics is the 24th member of the American Board of Medical Specialties. This course will introduce students to the fundamentals of molecular biology with an emphasis on understanding of how the field is applied in the context of medical diagnostics, personalized/precision medicine and other commercial applications. Students will be introduced to published research reports and provided with opportunities to critically examine the application of molecular biology to central questions in such areas as oncology, inherited diseases and genetically engineered organisms. Prerequisite: BIOL 2510.

BIOL 3910 Viruses & Infectious Human Diseases (4 Credits)
From sexually transmitted viruses to bacterial pneumonia, infectious pathogens are the number one threat to human health. This course will introduce students to prions, viruses and bacterial pathogens with an emphasis on those commonly encountered in clinical medical practice. Through the use of technical/scientific research journals students will be encouraged to investigate the etiology, pathogenesis and treatment of human infectious disease with an emphasis on the clinical, molecular diagnostic and therapeutic aspects of the disease. Prerequisite: BIOL 2510. Recommended prerequisite: BIOL 3800.

BIOL 3950 Undergraduate Research (1-10 Credits)
Participation in faculty research programs by agreement between student and faculty member. Maximum of 5 quarter hours of BIOL 3950 and/or BIOL 3991 may be applied to the 45-quarter-hour requirement for a major in biological sciences.

BIOL 3991 Independent Study (1-10 Credits)
Topic in biology studied under faculty supervision. Student's responsibility to identify faculty supervisor before registering for class. Maximum of 5 quarter hours of BIOL 3991 and/or BIOL 3950 may be applied toward the 45-quarter-hour requirement for a major in biological sciences.
BIOL 3992 Directed Study (1-10 Credits)
BIOL 3995 Independent Research (1-10 Credits)
BIOL 4010 Cellular Motile Function (2 Credits)
Current literature in area of cell motility; role of cytoskeletal elements as motile agents.
BIOL 4020 Microbial Genetic Model Syst (2 Credits)
BIOL 4030 Current Concepts in Evolution (2 Credits)
New ideas and theories in field of evolutionary biology.
BIOL 4040 Current Concepts-Animal Phys (2 Credits)
Selected topics in animal physiology.

BIOL 4050 Topics in Plant Biology (2 Credits)
Varying topics; areas of plant-animal interactions, co-evolution, plant ecology, plant biochemistry/physiology.

BIOL 4060 Gene Expression-Development (2 Credits)
Varying aspects of gene control in developing systems, a different aspect each time course is offered.

BIOL 4070 Hormone-Receptor Interaction (2 Credits)
Series of lectures; understanding molecular, cellular basis of hormone action; experimental analysis of binding of hormones with their receptors; structure-function relationships of hormone-receptor interactions; nature and action of mediators generated by hormone-receptor interaction.

BIOL 4080 Biological Membranes (2 Credits)

BIOL 4085 Accelerated Biostatistics (2 Credits)
This is an accelerated online statistics course for graduate students in Biology. Basic probability and hypothesis testing is the foundation of teaching applied statistics, including simple statistics (t-tests, F-tests, and chi square) and more advanced procedures (regression, correlation, analysis of variance). In addition, students learn more complex tools (multiple regression, multi-classification ANOVA, Student-Newman-Keuls tests), including non-parametric Tests (Mann-Whitney U, Sign test, Wilcoxon Rank Sum).

BIOL 4090 Biostatistics (4 Credits)
Statistic on biological research; emphasis on procedures, applications of regression, correlation, analysis of variance, and nonparametric tests. Include instruction on computer aided (Mac and PC) statistical analysis and presentation of results. Cross listed with BIOL 2090.

BIOL 4091 Ecology and Evolution Research Methods (1 Credit)
This course builds upon the concepts in BIOL 4090, Biostatistics, by covering in more detail and specificity issues involved in designing one’s experiment to adequately test the hypotheses or describe the data of interest. Students bring and discuss their specific research projects as case studies to maximize the utility of the course.

BIOL 4100 Microbial Structure & Function (2 Credits)

BIOL 4110 Essentials of Immunology (2 Credits)

BIOL 4120 Human Chromosomes and Mutagenesis (2 Credits)

BIOL 4130 Microevolution (2 Credits)
Microevolution, the change of gene frequencies within populations; examination of forces that cause it, evaluation of its contribution to process of speciation.

BIOL 4140 Protein Biosynthesis (2 Credits)
Processes of protein synthesis in cells; emphasis on posttranslational modifications that occur to secretory proteins prior to secretion.

BIOL 4150 Special Topics in Adv Biology (1-4 Credits)
Topics of special interests to teaching and research faculty presented as needed to complement and expand existing curriculum. May be taken more than once for credit.

BIOL 4155 Leadership in Science (1 Credit)
This course addresses the basic leadership skills necessary to succeed in the dynamic professional environment of the biomedical sciences. Topics covered include leadership strategies and professional negotiation, conflict resolution, and team-building. Students will determine leadership strengths and weaknesses and use case studies to strengthen their leadership practices.

BIOL 4190 Biometry (3 Credits)

BIOL 4210 Grad Sem: Cell Biology (2 Credits)
A series of student presentations focusing on varied topics involving cell biology. May be taken more than once for credit.

BIOL 4211 Advanced Cell Biology (3 Credits)
Students study the subcellular structure and organization of the cell. Organelle structure and function are examined in detail as well as biogenesis and degradation (turnover) of these subcellular structures. Cytoskeletal dynamics are also a major focus. Specific topics covered include cell division, macromolecular synthesis, membrane transport, cell-matrix and cell-cell communication, cell migration, cell differentiation, and mechanisms of cell death. The course follows a lecture format in conjunction with selected journal article presentations and discussions by the students. Cross listed with BIOP 4150.
BIOL 4212 Advanced Molecular Biology (3 Credits)
This course focuses on a detailed analysis of regulated gene expression. The topics include lectures and readings of relevant literature in areas covering gene regulation at multiple steps, including transcription, RNA processing, and translation. In particular, the logic of experimental design and data analysis are emphasized.

BIOL 4213 Advanced Cell Signaling (3 Credits)
Students in this course investigate a large array of cellular signal transduction cascades. Specific signaling pathways to be covered include growth factor receptors, cytokine receptors, steroid receptors, integrin-extracellular matrix, heterotrimeric G-protein coupled receptors, monomeric G-proteins, transcription factors, lipids, cytoskeleton, cell cycle, and apoptosis. Each of these topics is examined in the context of normal cell physiology as well as their roles in specific disease processes. The course follows a lecture format in conjunction with selected journal article presentations and discussions by the students.

BIOL 4220 Grad Sem: Ecology & Evolution (2 Credits)
A series of student presentations focusing on varied topics involving ecology and evolution. May be taken more than once for credit.

BIOL 4230 Grad Sem: Molecular Biology (2 Credits)
A series of student presentations focusing on varied topics involving ecology and evolution. May be taken more than once for credit.

BIOL 4231 Responsible Conduct in Rsrch (1 Credit)
This course covers several topics regarding guidelines for ethical practices in research. Topics include: data ownership, conflict of interest and commitments, human subjects, animal welfare, research misconduct, authorship, mentoring, peer review, and collaboration. The course includes an online training component and meets one hour each week to discuss these topics.

BIOL 4300 Fall Graduate Reviews in Biol (1 Credit)
Students participate in a required review session that precedes selected departmental seminar presentations by faculty and outside speakers, and participate in a discussion session with the seminar speaker.

BIOL 4301 Wntr Graduate Reviews in Biol (1 Credit)
Students participate in a required review session that precedes selected departmental seminar presentations by faculty and outside speakers, and participate in a discussion session with the seminar speaker.

BIOL 4302 Sprg Graduate Reviews in Biol (1 Credit)
Students participate in a required review session that precedes selected departmental seminar presentations by faculty and outside speakers, and participate in a discussion session with the seminar speaker.

BIOL 4303 Reviews in Biology (1 Credit)
The experience is built around the departmental seminar series offered every quarter.

BIOL 4310 Foundations in Literature: Cell and Molecular Biology (2 Credits)
Students participate in a weekly discussion group that focuses on recent papers from the primary literature in Cell and Molecular Biology.

BIOL 4311 Wntr Selected Top: Reg Bio (2 Credits)
Students participate in a weekly discussion group that focuses on recent papers from the primary literature in regulatory biology.

BIOL 4312 Sprg Selected Top: Reg Bio (2 Credits)
Students participate in a weekly discussion group that focuses on recent papers from the primary literature in regulatory biology.

BIOL 4322 Selected Tpcs: Molecular Biol (2 Credits)
The syllabus for the Selected Topics series varies each quarter. Each quarter a faculty member sets the theme for the quarter and identify a set of review articles to introduce the topic. The instructor leads the first session and provide important background material on the topic. Students select a paper from the primary literature to present to the class on the topic designated for the quarter.

BIOL 4330 Foundations in Literature: Ecology (2 Credits)
Students participate in a weekly discussion group that focuses on recent papers from the primary literature in Ecology.

BIOL 4331 Foundations in Literature: Evolution (2 Credits)
Students participate in a weekly discussion group that focuses on recent papers from the primary literature in Evolution.

BIOL 4332 Foundations in Literature: Conservation Biology (2 Credits)
Students participate in a weekly discussion group that focuses on recent papers from the primary literature in Conservation Biology.

BIOL 4440 Current Concepts-Animal Phys (2 Credits)

BIOL 4610 Developmental Biology (4 Credits)
The processes and mechanisms of development, exemplified by higher animal embryogenesis, with consideration of simpler model systems. Laboratory sessions use live materials; course finishes with individual projects. Prerequisite: BIOL 2510 or equivalent.

BIOL 4700 Human Molecular Biology (4 Credits)
Molecular basis of heredity and genetic control, using in-vitro systems and microbial and eukaryotic models; molecular basis of heredity and genetic regulation considering in-vitro systems as well as prokaryotic and eukaryotic models. Restricted to MBA Bioenterprise students.
BIOL 4710 Endocrinology: Chemical Communication Systems (4 Credits)
Mechanisms of hormone action, evolution of vertebrate endocrine systems, analysis of function integration of hormonal responses in maintenance of homeostasis. Restricted to MBA Bioenterprize students.

BIOL 4720 Neuropharmacology (4 Credits)
How psychoactive drugs exert their effects on the nervous system; drugs of abuse and drugs used in the treatment of psychotic and neurodegenerative disorders. Restricted to MBA Bioenterprize students.

BIOL 4730 Molecular Lab Techniques (4 Credits)
Techniques in gene excision, cloning and reinsertion; gene sequencing. Restricted to MBA Bioenterprize students.

BIOL 4731 Cell and Molecular Techniques (4 Credits)
Analysis of neuroendocrine systems using a multidisciplinary approach. Anatomical/immunological, biochemical and molecular approaches used to analyze neuroendocrine pathways in the hypothalamus/pituitary system. Restricted to MBA Bioenterprize students.

BIOL 4740 Microbiology (4 Credits)
Fundamental principles; role of bacteriology in biological phenomena. Includes laboratory. Restricted to MBA Bioenterprize students.

BIOL 4750 Immunology (4 Credits)
Organs, cells and molecules that underlie mammalian immune response; relationship of immune system to disease. Restricted to MBA Bioenterprize students.

BIOL 4760 Advanced Cell Biology (4 Credits)
Focuses on spatial and temporal control of intracellular processes with an emphasis on neuronal and endocrine cells. Topics include vesicular traffic, protein targeting, dynamics and spatial organization of signaling complexes. Emphasis on modern techniques of cell and molecular biology with examples from primary literature. Restricted to MBA Bioenterprize students.

BIOL 4850 Laboratory Skills for Forensic Serological Analysis (5 Credits)
This course is designed to provide students with two major educational skills. First, is a thorough understanding of the fundamental science behind the identification and serological analysis of biological evidence in a forensic context. Second, is a rigorously developed set of practical hands-on proficiencies with the major commercial assay systems used by forensic laboratories for the identification of blood, saliva, semen, and other biological material with potential probative value to a criminal investigation.

BIOL 4860 Laboratory Skills for Forensic Genetic Analysis (4 Credits)
This course is designed to provide students with two major educational skills. First, is a thorough understanding of the fundamental science behind the molecular genetic analysis of biological evidence in a forensic context. Second, is a rigorously developed set of practical hands-on proficiencies with the major commercial assay systems and software used by forensic laboratories for the determination and analysis of DNA profiles.

BIOL 4870 Medical Ethics (4 Credits)
This course presents knowledge and discussion of ethical issues that arise from advances in the biomedical sciences and medicine. Several specific ethical issues and policies related to methodologies and procedures, emerging medical technologies, treatment decisions, doctor-patient relationship, informed consent, medical experimentation/clinical research, and health care reform.

BIOL 4880 Capstone in Biomedical Sciences (4 Credits)
This is the capstone course for students enrolled in the Professional Science Master's program. In this course, students integrate advanced knowledge in science and math along with courses taken outside traditional science and math courses as their electives. This course incorporates lectures, guest speakers, and class discussions focusing on current issues or concerns in the chosen concentration. PSM students only. Requires instructor approval.

BIOL 4991 Independent Study (1-17 Credits)
BIOL 4992 Directed Study (1-10 Credits)
BIOL 4995 Independent Research (1-8 Credits)
BIOL 5991 Independent Study (1-17 Credits)
BIOL 5995 Independent Research PhD (1-8 Credits)

Biophysics (BIOP)

Courses
BIOP 4100 Foundations in Biophysics (3 Credits)
Focus of the course is on application of basic physics principles to the study of cells and macromolecules. Topics include diffusion, random processes, thermodynamics, reaction equilibria and kinetics, computer modeling. Must be admitted to the MCB PhD program or related graduate program with instructor approval. Cross listed with PHYS 4100.

BIOP 4150 Cellular Biophysics (3 Credits)
Biophysical approaches to understanding cell function. We emphasize the various experimental approaches that biophysicists use to study basic cellular processes, including a variety of fluorescence images, optical and electrophysiological techniques. Cross listed with BIOL 4211.
BIO 4210 Current Topics in Biophysics (2 Credits)
This is a seminar course that focuses on current primary literature in the fields of molecular and cellular biophysics. This is the first of a three course, year-long sequence.

BIO 4992 Directed Study (1-10 Credits)

BIO 4993 Lab Rotation (2-9 Credits)
Lab rotation in Molecular and Cellular Biophysics before students pass the first phase of their qualifying exam.

BIO 4995 Independent Research (1-9 Credits)
Independent research in Molecular and Cellular Biophysics before students pass the first phase of their qualifying exam.

Business Core (BUS)

Courses

BUS 4101 Base Camp Self and Team Training (0 Credits)
The Base Camp is the launch event for the new MS Management program. During the one-week Base Camp, students will become familiar with other members of their cohort, work on their team skills, get to know themselves better both as individuals as well as potential managers. In this week students will take a battery of tests to help them explore their strengths and limitations both individually and as members of a team. Students will work with the staff of the Daniels Career Center to establish their career goals, polish their job search portfolios, and create LinkedIn professional profiles. They will also recognize the importance of personal branding and professional projection in dealing with colleagues, other professionals, and potential employers.

BUS 4102 Base Camp Program Launch Team Challenge (0 Credits)
The Base Camp is the launch event for the new MS Management program. During the one-week Base Camp, students will work in teams to create business ideas, develop the ideas, prepare a business plan, and professionally present and pitch to a panel of judges consisting of academics and business professionals. Teams will compete with each other in the Base Camp Launch Challenge.

BUS 4310 Business Communication for Accounting Professionals (4 Credits)
This course emphasizes critical communications skills for future accounting, tax, auditing and consulting professionals. The course develops written communication skills including but not limited to technical writing, reporting the results of research and explaining complex issues. Oral communication assignments include formal presentations, development of debate skills and boardroom presence. Assignments incorporate business etiquette and teambuilding.

BUS 4330 International Business (2 Credits)

BUS 4444 Global Bus, Governance & CSR (4 Credits)
In an increasingly globalized world, civil society, states and businesses are trying to discern how to govern business conduct across the borders of nation-states. Many of the issues our society faces today—global financial crises, environmental degradation, and corruption, to name a few—are impossible to tackle within a given country. Instead, these issues require collaboration and coordination across a variety of actors spread around the globe. Within this framework, businesses are aware of increased pressure to behave responsibly and adopt a corporate social responsibility (CSR) approach to their conduct. Yet, businesses are unsure how to integrate these goals into their business strategy and engage meaningfully with stakeholders. Likewise, governments recognize the importance of having business at the table, but do not have a clear understanding of how to best engage with the private sector. The response to this conundrum is a focus on global governance, which refers broadly to the way in which global affairs are managed. After a brief overview of economic trends and trajectories around the globe, the course will focus on global governance as a mechanism for change. The class will first explore the opportunities and shortcomings of global governance efforts. The class will build on this scholarship by discussing the role business plays in global governance mechanisms. As society has become aware of, and is acutely concerned with, business conduct, the role of the manager and business strategy in these realms has also changed. Students will analyze these trends and study their implications for government, business, or civil society strategy and practice. The final portion of the course will focus on specific issue areas, including: human rights, labor standards, the natural environment, corruption, and microfinance.

BUS 4445 International Business: Strategy and Practice (4 Credits)
This course focuses on applied issues in international business. Students will learn to think strategically about international business issues, and will in turn be able to apply that thinking to best practices. The following subject areas will be covered: country selection, entry mode theory, exporting, born-global businesses, organizational structures internationally, negotiation, consumption, culture and demand. Other potential topics include global supply chain management/sourcing, country of origin effects, etc. This course focuses on applied issues in international business. Students will learn to think strategically about international business issues, and will in turn be able to apply that thinking to best practices. The following subject areas will be covered: country selection, entry mode theory, exporting, born-global businesses, organizational structures internationally, negotiation, consumption, culture and demand. Other potential topics include global supply chain management/sourcing, country of origin effects, etc.
In the last century, the technologies of the industrial age (telegraph, railroads, electricity, radio, telephone, television, automobiles, airplanes, computers) have dramatically altered not only the way business is conducted, but the way we live and learn. These technologies have also enabled undesirable and unintended consequences: urban sprawl, global warming, terrorism, weapons of mass destruction, stress, obesity. Where is technology taking us? In this course, students look at innovation, creativity, entrepreneurship and design, and the role each can play in creating a better business world, a business world less driven by science fiction than inspired by social fiction, a business world which begins to shift from an industrial age of ever more encompassing technology to a creative economic environment based less on stuff and more on people and their needs.
BUS 4700 Special Topics in Business (1-4 Credits)
BUS 4701 Special Topics in Business (1-6 Credits)
BUS 4702 Special Topics in Business (1-6 Credits)
BUS 4703 Special Topics in Business (1-6 Credits)
BUS 4704 Topics in Business (1-6 Credits)
BUS 4705 Topics in Business (1-6 Credits)
BUS 4802 Executing in a PM Enterprise (4 Credits)
This course is the second course in a three-part required series. Pre-requisite: Must be a Lockheed employee.

BUS 4804 Kaiser Leadership Edge - People Leadership (4 Credits)
The People Leadership course is part of the Leadership Edge program designed specifically for the Kaiser Permanente Colorado organization. The program grows the internal leadership capacity necessary to reach their goal of becoming the best solution in health care. By exploring topics and cases from multiple perspectives and across business areas, participants develop a deeper understanding of the challenges and opportunities that Kaiser faces. Signature needed to register. Must be a Kaiser employee to register.

BUS 4805 Kaiser Leadership Edge - Financial Acumen (4 Credits)
The Financial Acumen course is part of the Leadership Edge program designed specifically for the Kaiser Permanente Colorado organization. The program grows the internal leadership capacity necessary to reach their goal of becoming the best solution in health care. By exploring topics and cases from multiple perspectives and across business areas, participants develop a deeper understanding of the challenges and opportunities that Kaiser faces. Signature required to register. Must be a Kaiser employee to register.

BUS 4806 Kaiser Permanente Strategy, Innovation, and Execution (4 Credits)
The Strategy, Innovation and Execution course is part of the Leadership Edge program designed specifically for the Kaiser Permanente Colorado organization. The program grows the internal leadership capacity necessary to reach their goal of becoming the best solution in health care. By exploring topics and cases from multiple perspectives and across business areas, participants develop a deeper understanding of the challenges and opportunities that Kaiser faces. Signature required to register. Must be a Kaiser employee to register.

BUS 4980 Internship (0-10 Credits)
Faculty supervised Internship.

BUS 4991 Independent Study (1-10 Credits)
BUS 4995 Independent Thesis (6 Credits)

BUS 9000 Study Abroad Tongji University (0-18 Credits)
This course facilitates study abroad through an exchange agreement with Tongji University School of Economics and Management in Shanghai China. University of Denver exchange students may take only graduate level courses at Tongji University and only graduate level courses from Tongji are counted for graduate credit at the University of Denver.

BUS 9001 Study Abroad Doshisha University (0-18 Credits)
This course facilitates study abroad through an exchange agreement with Doshisha University, Global Business and Management Studies, Kyoto, Japan.

BUS 9002 Study Abroad University of Stockholm (0-18 Credits)
This course facilitates study abroad through an exchange agreement with the University of Stockholm Business School, Stockholm, Sweden.

Business Ethics & Legal Studies (LGST)

Courses
LGST 3730 Values Based Leadership in Practice (4 Credits)
This course is a practical focus on leadership culture through analysis of real leaders applying theory to their personal experiences and practice. The course utilizes speakers in the Voices of Experience Speaker Series and outstanding literature to facilitate discussion. The course is offered in two-credit-hour sequences over two quarters. Prerequisites: LGST 2000 and degree checkpoint 2.

LGST 4198 E-Commerce Law and Ethics (4 Credits)
The changes in technology and business over the past 20 years have been dramatic and far-reaching. Navigating the even more astonishing changes in the future requires some perspective on the developments of the recent past. How did we get to where we are? What technological, economic and political forces have generated the current state of e-commerce? How are these forces likely to change into the future? What are the basic features of e-commerce as its exists today?

LGST 4550 Business Law for Accountants (4 Credits)
This course provides students with a detailed review of the legal considerations in forming, operating, and dissolving the most common forms of business entities: partnerships, limited liability companies, and corporations. The rights, duties and liabilities of the managers, owners and accountants (internal and external) of these entities are extensively examined. The course also provides an overview of federal securities laws impacting these organizations. Prerequisite: ACTG 4620 or BUS 4620 or LGST 2000 (concurrent registration OK).
LGST 4700 International Law (4 Credits)
Offers both an introduction to public international law (the rights and duties of states and intergovernmental organizations [IGOs]) and to private international law (the rights and duties of individuals, businesses, and non-governmental organizations [NGOs] in their international affairs). Majority of course devoted to key international issues of business law and public policy such as alternative dispute resolution (ADR), privatization, intellectual property, international sales, the Foreign Corrupt Practices Act, trade (GATT and WTO), and the international facilities that deal with the adjudication and resolution of legal issues related to business.

LGST 4701 Topics in Ethics & Legal Study (1-5 Credits)
This course examines complexities, paradoxes, and dangers of leadership. The platform for the course is a Core Leadership Model (and logical deviations from it) which can result in Great Leadership. At the heart of Great Leadership one finds a values base. Through in-depth analysis of the key dimensions of the Core Model and its accompanying deviations, participants gain a deep understanding of - and practical experience with - Values Based Leadership in today’s world.

LGST 4730 Values Based Leadership in Practice (4 Credits)
The course examines the complexities, paradoxes, and dangers of leadership. The platform for the course is a Core Leadership Model (and logical deviations from it) which can result in Great Leadership. Through in-depth analysis of the key dimensions of the Core Model and its accompanying deviations, participants will gain a deep understanding of - and practical experience with - Values-Based Leadership in today’s world.

LGST 4740 Science & Mgmt. of Org. Ethics (4 Credits)
This course examines our knowledge regarding ethical decision making and behavior in organizational contexts. The course also explores the implications of such knowledge for effectively creating and managing ethical organizations. The course will be conducted as a graduate seminar with students playing a central role in identifying topics, researching content areas, and deciding on course outcomes. We will examine conceptual and theoretical models of ethical behavior in organizations, research empirical studies, and develop managerial implications. The overarching goal is to increase knowledge and understanding so as to strengthen capacities to be ethical leaders and managers. Prerequisite: BUS 4100. Non-business students may take the course with permission.

LGST 4760 CEOs and Corporate Governance (4 Credits)
In the wake of the Sarbanes-Oxley and Dodd-Frank laws, corporate governance has become a compelling issue for business students and executives. Corporate board members and leaders of institutional investors share their insights concerning corporate governance from strategic, financial and legal perspectives. CEO/board dynamics are explored, along with leadership development and executive succession policies. The roles of major board committees, such as the audit, compensation, nominating, and legal compliance committees are given special emphasis. Board responsibilities in corporate crises and re-structuring are examined, along with the legal liabilities of executives, board members, and the corporation. Public policy pressures on corporate governance, including the roles played by the Securities and Exchange Commission and other regulatory bodies are discussed, along with the responses by business organizations, political interest groups, and self-regulatory bodies. Shareholder activism and litigation, along with pressures from other corporate stakeholders are also emphasized in the course. Examples of topics include corporate scandals, executive compensation, global corporate governance systems, and governance reforms. Students engage in a number of case analyses over the course of the quarter, produce a four-part case study, and discuss actual real world solutions with business leaders who have been involved in the issues. Cross-listed with ACTG 4760.

LGST 4775 The Leader’s Compass (4 Credits)
This course qualifies for the four course requirement for the MBA Values Based Leadership concentration. By reading the works of great philosophers and using the Socratic Method, students come to understand the role of values in business and society, and learn to respectfully listen to, and learn from, those with different values. Students synthesize the readings and class discussions by writing a paper describing what (a) "a good society" and (b) "a good work organization" would look like to them personally, and what would be needed in terms of leadership to create each condition. Prerequisite: BUS 4620.

LGST 4780 Leadership, Teams & Values (4 Credits)
This course is designed for Daniel Scholars (who have completed the first quarter of their MBA program including Value Based Leadership) to provide both challenging intellectual discussion and physical engagement around the fundamental ethical dilemma of competition and/or cooperation. The venue for the course is Harbor Island, San Diego, California, and the adjacent waters of San Diego Bay and the Pacific Ocean. Both traditional classrooms and the untraditional learning environment of the off-shore sail boat provide the context of dynamic learning about values, teams and self. Prerequisite: BUS 4100.

LGST 4790 Entrepreneur & Family Business-Organization, Governance Ethics & Leadership (4 Credits)
This course covers the most current legal and ethical issues involving the creation of value, strengthening and growing family businesses through the process of best practices in business governance, coupled with ethical conduct and values based leadership, and legal compliance. Cross listed with LGST 3790. Prerequisite: BUS 4100.

LGST 4980 Internship (1-5 Credits)

LGST 4991 Independent Study (1-10 Credits)

LGST 4992 Directed Study (1-4 Credits)

LGST 4995 Independent Research (1-10 Credits)
Courses

INFO 4100 Survey of Business Analytics (4 Credits)
This course provides an overview of business analytics: how data are generated, collected, actively warehoused and analyzed to support decision making. It addresses how to combine data with corporate processes and culture to gain new insights to empower corporate strategy and improve daily operations.

INFO 4120 Python for Business Analytics (4 Credits)
Python is a popular general purpose programming language which is well suited to a wide range of problems. With the right set of add-ons, it is comparable to domain-specific languages such as R and MATLAB. Python is a scripting language. The following topics will be covered: Importing data, Reading and writing files, Cleaning and Managing Data, Merging and joining DataFrame objects, Plotting and Visualization, Statistical Analysis, Fitting data to probability distributions and Linear models. Packages: Pandas, NumPy, matplotlib, statsmodels, Scikit-learn, and IPython. Principal Content Elements: 1. Introduction to Programming Logic and Design Using Python 2. Data Management 3. Statistical Analysis 4. Advanced Data Management and Statistical Analysis Prerequisites: STAT 4610.

INFO 4140 Business Databases (4 Credits)
This is an introductory database course which covers enterprise database design, modeling and implementation.

INFO 4200 Business Analytics Capstone Planning (2 Credits)
This course provides the foundation for the capstone course. Students begin the planning phase for their culminating project, identifying a business need and company with which to partner. Students then outline the problem, determine objectives and project deliverables, create a document of understanding, and produce a work plan. Prerequisite: STAT 4610.

INFO 4240 Data Warehousing (4 Credits)
This course addresses how to extract and time stamp data from many different business databases, transform it into a common compatible format, and load it into the data warehouse. The course includes using the data warehouse for real time queries as well as generating longer period reports for strategy considerations. Data marts and data mining are also included as part of this course. Prerequisites: INFO 4100 and INFO 4140.

INFO 4250 Data Driven Decision Making (4 Credits)
Businesses make decisions and improve processes using their own and external data and a variety of modeling and analytic techniques. This course introduces students to the business data landscape, data management in organizations, the data-driven decision-making process, and the fundamental concepts behind statistical inference and analytic modeling to support decision-making.

INFO 4280 Project Management (4 Credits)
In this course students examine the science, practice the art, and discuss the folklore or project management to enable them to contribute to and manage projects as well as to judge when to apply discipline. The course also covers the use of MS Project Professional as a management tool and Crystal Ball as a Monte Carlo simulator for project exercises. Students also learn the fundamentals of project and project simulation for business decision-making. Prerequisite: INFO 4100.

INFO 4300 Predictive Analytics (4 Credits)
This course is designed to prepare students for managerial data analysis and data mining, predictive modeling, model assessment and implementation using large data sets. The course addresses the how, when, why and where of data mining. The emphasis is on understanding the application of a wide range of modern techniques to specific decision-making situations, rather than on mastering the theoretical underpinnings of the techniques. The course covers methods that are aimed at prediction, forecasting, classification, clustering and association. Students gain hands-on experience in using computer software to mine business data sets. Prerequisite: STAT 4610.

INFO 4340 Data Mining and Visualization (4 Credits)
In this course, students create business intelligence tools such as balanced scorecards, data visualization and dashboards to inform business decisions. The course focuses on the identification of metrics, measures, indicators and key performance indicators for a variety of business operations. The focus is on the advantages and disadvantages of various modeling methodologies and implementations moving towards performance improvement. Prerequisite: STAT 4610.

INFO 4360 Complex Data Analytics (4 Credits)
This course explores the concepts of the considerations and management of big data projects. It also explores technical aspects of performing text analytics and natural language processing, network analysis, as well as geographic data analysis. We will focus on social data for some of the examples and also explore how disparate data sources can be combined to provide insight for business decisions. Prerequisite: STAT 4610 preferred but not required.

INFO 4380 Decision Processes (4 Credits)
This course addresses the process of decision making in the enterprise: who makes what decisions based on what information and for what purpose. Business Intelligence is premised on the HP motto: "in God we trust. All others bring data." But what is the cost of collecting and analyzing the data and presenting the results, and what decisions justify that cost? Is the transformation from data to decision always rational, and what are the common pitfalls for human decision makers? We examine the results of recent experiments from behavior economics and their relevance to making business decisions. Prerequisite: INFO 4100.

INFO 4400 Business Analytics Capstone (4 Credits)
This course gives students an opportunity to apply the knowledge and skills learned in this program to a real-world problem submitted by a partner business. Students take a business problem from model construction and data collection through an analysis and presentation of results to recommendations for specific business decisions. Prerequisite: INFO 4200.
INFO 4401 Business Analytics (2 Credits)
Businesses can never have perfect information; therefore, they must employ statistical techniques to improve the decision-making process. This course introduces students to managerial decision-making using probability and other statistical techniques to support and validate the chosen decision. A student project will focus on data collection (primary research), data analysis, decision analysis, written/oral presentation skills, and the development of an infographic.

INFO 4520 Health Informatics (4 Credits)
Annual health care spending in the United States exceeds 16% of GDP ($2 Trillion) and is expected to continue to increase. The effective use of information technology is perceived as an important tool in increasing the access to and quality of health care delivery in a cost effective manner. This course examines the role of health informatics in the health care deliver and management process. The objectives of this course are to familiarize students with the critical issues and challenges faced by those in the health care environment, what technologies are or will soon be available to potentially address these issues and challenges, potential barriers professionals employed in the health care field may face deploying and managing these technologies, and possible strategies to assist these professionals in addressing and overcoming these barriers. This course focuses on four major areas related to health informatics: the role of electronic health records, clinical decision support systems, analytics, and other e-health initiatives such as mobile technologies and telehealth.

INFO 4590 Optimization (4 Credits)
This course introduces students to the basic optimization modeling techniques and tools as practiced by business analysts, operations research analysts, data analysts, data scientists, decision scientists, decision support scientists, business intelligence analysts, quants, actuaries, financial analysts, marketing analysts, and anyone else interested in using analytics to improve the bottom line. The course will focus on problem definitions, problem configuration, spreadsheet solution, LP Software (LINGO) solutions, and interpreting and implementing results.

INFO 4700 Topics in Business Analytics (0-10 Credits)
Exploration of current trends and topics in business analytics. Prerequisite: INFO 4100.

INFO 4991 Independent Study (1-10 Credits)
INFO 4992 Directed Study (1-4 Credits)

Chemistry (CHEM)

Courses

CHEM 3110 Chemical Systems I (3 Credits)
Advanced discussion of modern concepts of organic chemistry; bonding, stereochemistry, reaction mechanisms. Prerequisites: CHEM 2453 and equivalent of one year of physical chemistry.

CHEM 3120 Chemical Systems II (3 Credits)
Interpretation of trends in the chemistry of the elements in terms of orbital interactions. Most examples will be taken from the third row transition metals and the boron and carbon groups. Prerequisites: CHEM 2131, CHEM 3310 and CHEM 3110.

CHEM 3130 Chemical Systems III (3 Credits)
Advanced-level physical biochemistry course intended for advanced-level undergraduates and graduate students. Focuses on kinetic, thermodynamic and dynamic aspects of biopolymers; delineates the relationship of these properties to the mechanism and function of biological macromolecules. Prerequisites: CHEM 3811, CHEM 3812, CHEM 3813, CHEM 3610 or the equivalent.

CHEM 3220 Advanced Analytical Chemistry (3 Credits)
Principles of chemical instrumentation applied to analytical measurements; principles, instrumentation and applications of spectrometric and chromatographic measurements. Prerequisites: CHEM 3210 and CHEM 3621, or the equivalent.

CHEM 3310 Structure and Energetics I (3 Credits)
Fundamentals of quantum chemistry, and introduction to symmetry and molecular structure of small and large systems. Prerequisite: one year of physical chemistry.

CHEM 3320 Structure and Energetics II (3 Credits)
Computational methods in chemistry. Prerequisites: CHEM 3310, one year of physical chemistry.

CHEM 3410 Atmospheric Chemistry (3 Credits)
The concepts of equilibrium thermodynamics, kinetics, and photochemistry will be applied to understanding atmospheric processes. Covers urban air pollution in detail with focus on primary pollutants. Also covers stratospheric chemistry with focus on ozone chemistry and the chemistry of climate change. Prerequisites: CHEM 2270 and CHEM 2453.

CHEM 3411 Aquatic Chemistry (3 Credits)
The circulation of the oceans and their chemical make-up. 'Classical water pollution problems' like biological oxygen demand and turbidity are discussed. Also presented: aquifer structure and flow, ground water chemistry, pollutant partitioning between stationary and mobile phases, heterogeneous surface chemistry, and the detection of trace contaminants. Prerequisites: CHEM 2270 and CHEM 2453.
CHEM 3412 Environmental Chemistry & Toxicology (3 Credits)
A survey of environmental toxicology concepts: animal testing, dose-response data, epidemiology, risk assessment. The course includes ecotoxicology, focusing on the alteration of biological and chemical systems beyond the simple response of an individual to an environmental chemical. Prerequisites: CHEM 2270 and CHEM 2453.

CHEM 3610 Physical Chemistry I (3 Credits)
Fundamentals of thermodynamics, including phase and reaction equilibria, properties of solutions, and electrochemistry needed for advanced study in life sciences and for Physical Chemistry II and III. May be taken for graduate credit by nonchemistry majors. Prerequisites: CHEM 2453, calculus and physics.

CHEM 3620 Physical Chemistry II (3 Credits)
Fundamentals of quantum chemistry, including theories of atomic and molecular structure and spectroscopy. May be taken for graduate credit by nonchemistry majors. Prerequisite: CHEM 3610.

CHEM 3621 Physical Chemistry III (3 Credits)
Fundamentals of kinetic theory and statistical mechanics. May be taken for graduate credit by nonchemistry majors. Prerequisite: CHEM 3620.

CHEM 3703 Topics in Organic Chemistry (3 Credits)
May include organic photochemistry, organic synthesis, organic electrochemistry or natural products. May be repeated for credit. Prerequisites: CHEM 2453 or equivalent and others depending on topic.

CHEM 3705 Topics in Biochemistry (3,4 Credits)
May include physical techniques for exploring biological structure, biological catalysis, and selected fields within biochemistry taught from original literature. May be repeated for credit. Prerequisites: CHEM 3811, CHEM 3812, CHEM 3813.

CHEM 3811 Biochemistry-Proteins (3 Credits)
Protein structure and function, starting with the building blocks and forces that drive the formation of protein structure and the basic concepts of protein structure, and continuing with enzyme catalysis, kinetics, and regulation. Prerequisites: CHEM 2453 or instructor permission.

CHEM 3812 Biochemistry-Membranes/Metabolism (3 Credits)
Membranes and membrane mediated cellular processes, energy and signal transduction, and metabolic/biosynthetic pathways. Prerequisite: CHEM 3811.

CHEM 3813 Biochemistry-Nucleic Acids (3 Credits)
Molecular processes underlying heredity, gene expression and gene regulation in prokaryotes and eukaryotes. Prerequisite: CHEM 2453.

CHEM 3831 Advanced Protein Biochemistry (3 Credits)
This course provides fundamental insights into the chemistry and physics of proteins. It investigates how amino acids form proteins with highly complex three-dimensional structures and how these structures mediate function. We examine key research articles and their contribution to our current understanding of proteins. Topics range from protein folding to enzyme kinetics and emphasize basic principles. Prerequisites: CHEM 2453 and instructor permission.

CHEM 3991 Independent Study (1-10 Credits)
May be repeated for credit.

CHEM 3992 Directed Study (1-10 Credits)

CHEM 3995 Research in Chemistry (1-10 Credits)
Research project conducted under guidance of a faculty member. Credit hours and projects arranged on an individual basis. May be repeated for credit.

CHEM 4400 Adv. Topics: Organic Chemistry (3 Credits)
Physical organic chemistry; reaction mechanisms, structure reactivity relationships, kinetics, photochemistry, molecular orbital theory, etc.; current literature. May be taken for credit more than once.

CHEM 4900 Chemistry Seminar (1 Credit)
A weekly presentations of research in progress and of current literature by outside speakers. faculty and graduate students.

CHEM 4991 Independent Study (1-10 Credits)

CHEM 4992 Directed Study (1-10 Credits)

CHEM 4995 Independent Research (1-10 Credits)

CHEM 5991 Independent Study (1-10 Credits)

CHEM 5995 Independent Research (1-10 Credits)
Courses

CFSP 3900 Child Guidance (5 Credits)
Students in this class explore effective child guidance theories and factors that impact their classroom application with young children from birth to age 8. Empirically-based positive guidance techniques and strategies are reviewed and applied to everyday practice, especially as they relate to establishing prosocial environments, classroom management, and meeting the needs of children and families from diverse backgrounds.

CFSP 3910 Early Childhood Nutrition (3 Credits)
Young children have specific nutritional and physical needs. This course covers the nutritional needs of children, such as how to ensure that they get all the nutrients they need to stay healthy. The course explores what consists of safe foods at various stages in childhood, especially when not all foods can be eaten by infants and toddlers. Learn about the best practices in the field of early education regarding what foods to serve young children that promote positive health, hygiene and physical development.

CFSP 3991 Independent Study (1-10 Credits)
CFSP 3992 Directed Study (1-10 Credits)
CFSP 4000 Assessment for Non-Psychologists (2 Credits)
Foundation and methodology of assessment are considered in the context of informing practices of professionals who construct a variety of test formats including assessment of cognitive abilities, achievement testing, vocational assessment, and assessment of personality.

CFSP 4301 Professional and Ethical Issues in School Psychology (3 Credits)
This course examines professional issues pertinent to working with early childhood through adolescent populations in school and community settings. Professional issues and contemporary service models pertinent to the field of early childhood and school psychology are reviewed, including an introduction to ethical issues, federal mandates, professional training, and roles and responsibilities. Students learn and are involved in casework discussion pertinent to the application of best practices in the delivery of assessment, intervention, and consultation services. Special emphasis is given to current mental health and education regulations and reforms. Controversial issues highlighted in the field are covered including differential issues facing early childhood and school psychology professionals in urban and rural settings. Students become acquainted with a variety of ethical issues affecting practice in the public schools; in hospital, agency, and private settings; and in higher education. Attention is focused on ethical standards, reasoning processes, and conduct in applied settings.

CFSP 4302 Legal Issues in Education (3 Credits)
This course is designed to acquaint students with a variety of legal issues affecting practice in the public schools; in hospital, agency, and private settings; and in higher education. Attention is focused on federal and state legislation, special and regular education case law, psychological practice case law, and ethical standards, reasoning processes, and conduct in applied settings. Special consideration is given to the nonequivalence of ethical standards of practice as they relate to legal mandates and court decisions concerning practice in the schools.

CFSP 4303 Risk, Resiliency & Prevention (3 Credits)
This course examines the history and theoretical bases of resiliency research and the characteristics of children at significant risk of delays, disorders, and low-incidence disabilities. Participants obtain practical information regarding the assessment, identification, amelioration, facilitative responses, and intervention in school and community settings for these populations. The course moves beyond a pathology approach that focuses on the deficits of children and families to an empowerment perspective that focuses on strengths. The course is grounded in child development research and educational and family systems Prevention principles, curriculum, and policy agendas are discussed that build on a model of collaboration between and among disciplines in community and school settings.

CFSP 4304 Diversity in School and Community Settings (3 Credits)
This course explores diversity in children and families, and the impact of culture on personal and family development. Emphasis is placed on the intersection of school and community settings' cultures and those of children and families, and how this affects learning and development for individuals and groups of children. Attention is given to students’ cultures and cultural experiences, and how these affect the work they do with children and families in school and community settings.

CFSP 4305 Exceptional Child: Biomedical & Psycho-Social Aspects (3 Credits)
This course provides a broad survey of the field of exceptionality and special education. Included are discussions of current issues and controversies in the field, characteristics, classification, diagnosis, and educational interventions for early childhood and school-aged children with high-incidence and low-incidence disabilities who have exceptional educational needs. Biomedical and psychosocial etiologies are reviewed. Implications for child and family interventions and supports also are addressed.

CFSP 4308 Early Academic Competencies (3 Credits)
This course provides an overview of early academic competencies across diverse settings and stakeholders, such as families, teachers/providers, programs, and communities. A comparative analysis of evidence-based early literacy strategies, environments, curriculum, and a review of current evaluation and instructional language and math literacy practices for working with teachers, families, and young children is undertaken. Play-based and other informal methods of assessment and intervention are covered, including the integration of technology and strategies to promote early skill development with language and math with infants, toddlers and preschoolers in natural environments.

CFSP 4310 Infant Development (3 Credits)
This course provides an overview of theoretical, research, and practice issues in the field of child development. Attention is given to sensorimotor, cognitive, language, and social-emotional development. The focus of the course is on typical development of children from early childhood to early adolescence. The course will emphasize the synthesis of past research into current findings and accepted theories and will allow the student to broaden their understanding of the impact of research on current policies and practices.
CFSP 4311 Child Development (3 Credits)
This course provides an overview of the growth and development of the child from conception to twelve years. Attention is given to physical/sensorimotor, cognitive, language, and social-emotional development domains with a focus on typical as well as atypical development. Research and policy are reviewed as it relates to developmentally appropriate practice addressing the whole child and the creation of supportive environmental contexts. Guided observation and individual case work allow for application and integration of developmental theory and practice.

CFSP 4312 Learning Application and Analysis (3 Credits)
This course examines learning theories and applied behavioral principles. Students learn to apply theories to case studies and fieldwork related to infants, toddlers, preschoolers, and school-age children with and without disabilities. Students work in teams to analyze and solve problems relating to learning and behavior at home and school, and to develop positive behavioral support and effective learning plans.

CFSP 4315 Professional and Ethical Issues in Early Childhood Special Education (3 Credits)
This course provides students with an understanding of the role of an Early Childhood Special Educator Specialist and serves as the foundation for students who are interested in pursuing this as a profession. This includes the profession's ethical and professional practice standards, and understanding of the multiple roles and complex situations across wide age and developmental ranges. This course also covers the historical laws and legal issues associated with the profession. The course also highlights why special educators engage in professional activities and learning communities that benefit individuals with developmental issue and their families, colleagues, and their own professional growth. This course promotes the idea that special educators are lifelong learners and regularly reflect on and adjust their practice.

CFSP 4317 Learning Differences in P-3 (3 Credits)
This course reviews the challenges that arise in early childhood classrooms (preschool- 3 grade) related to children who exhibit academic and behavioral differences and delays. Academic and behavioral interventions and differentiation strategies will be addressed. Additionally, the course will cover the approaches for addressing children who require additional academic and behavioral support in the classroom.

CFSP 4320 Infant Assessment (3 Credits)
This course is designed to teach students how to assess infants using a variety of standardized and non-standardized methods. The entire assessment process including screening, evaluating, writing results, and interpreting the results to families and to professionals are addressed. Tests are examined with consideration for when and why specific instruments should be used. Students are trained in-depth in the administration and interpretation of a variety of instruments for assessment of cognitive, language, social-emotional and motor development. Prerequisite: CFSP 4310.

CFSP 4322 Psycho-Educational Assessment I (4 Credits)
This course is one of two required courses designed to provide students in School Psychology with expertise in individual intelligence and achievement test administration, scoring, interpretation, and report writing. Each student has an opportunity to administer various cognitive and achievement measures, with particular emphasis on the Wechsler Scales. Contemporary issues pertinent to the assessment of intelligence are covered. Emphasis is placed synthesizing and integrating information from cognitive and achievement assessment with other sources to produce effective educational recommendations. In addition, the role of these tools in the special education qualification process is highlighted. Important issues regarding the use of such tests are discussed, as well as the use of tests in schools and clinical practice. The focus of the class is primarily on the assessment of school-aged children. Lab fee required.

CFSP 4323 Psycho-Educational Assessment II (4 Credits)
This course is the second of two required courses designed to provide students in School Psychology with expertise in individual intelligence and achievement test administration, scoring, interpretation, and report writing. Each student has an opportunity to administer various cognitive and achievement measures, with particular emphasis on the Woodcock Johnson Scales. Nontraditional forms of assessment, as well as adaptive behavior measures, are also covered. Integrating results of assessments with other data to provide effective educational recommendations continues to be an emphasis. The focus of the class is on the assessment of school-aged children. Lab fee required.

CFSP 4324 Assessment III (4 Credits)
This course is the second of two required courses designed to provide students in School Psychology with expertise in individual intelligence and achievement test administration, scoring, interpretation, and report writing. Each student has an opportunity to administer various cognitive and achievement measures, with particular emphasis on the Woodcock Johnson Scales. Nontraditional forms of assessment, as well as adaptive behavior measures, are also covered. Integrating results of assessments with other data to provide effective educational recommendations continues to be an emphasis. The focus of the class is on the assessment of school-aged children. Lab fee required.

CFSP 4312 Learning Application and Analysis (3 Credits)
This course examines learning theories and applied behavioral principles. Students learn to apply theories to case studies and fieldwork related to infants, toddlers, preschoolers, and school-age children with and without disabilities. Students work in teams to analyze and solve problems relating to learning and behavior at home and school, and to develop positive behavioral support and effective learning plans.

CFSP 4320 Infant Assessment (3 Credits)
This course is designed to teach students how to assess infants using a variety of standardized and non-standardized methods. The entire assessment process including screening, evaluating, writing results, and interpreting the results to families and to professionals are addressed. Tests are examined with consideration for when and why specific instruments should be used. Students are trained in-depth in the administration and interpretation of a variety of instruments for assessment of cognitive, language, social-emotional and motor development. Prerequisites: CFSP 4311 and CFSP 4320.
CFSP 4330 Family-School Partnering and Consultation (3 Credits)
This course is designed to familiarize educational, mental health, and early childhood service providers with essential attitudes, approaches, and actions necessary to form successful family-school-community partnerships that can foster development and learning, especially for children with disabilities. Ecological, family systems, and family-centered theory and principles serve as the foundation for working collaboratively with families from diverse cultural and social backgrounds within school and community settings. Students gain skills in family interviewing; consultation to identify family strengths, needs, and resources; collaborative problem-solving; and multi-systemic learning. Evidence-based family involvement, education, and intervention strategies contribute to positive family-school partnering relationships are reviewed within a multi-tiered, school-based service delivery framework.

CFSP 4332 Classroom Management and Consultation (4 Credits)
This course is designed to acquaint students with current directions in classroom management and school-based consultation. Covered are issues related to consultant and consultee characteristics, consultation practices and processes, models and stages of consultation, facilitating desired outcomes in consultation, and evaluation of consultation outcomes. Special emphasis is also given to problems of classroom management and collaboration with parents, teachers and other educational and community personnel. Case analysis and practice are required.

CFSP 4335 Infant & Family Interventions (3 Credits)
This course will describe various models for intervention with infants and toddlers with disabilities, emphasizing intervention within natural environments. Working with children and families in home, childcare, and other community settings will be emphasized and contrasted with intervention in more clinical settings. Students learn how to consult with parents and community professionals in providing coordinated transdisciplinary services when working with children in home and community settings. All areas of development will be addressed. Field experiences with children and families are expected to practice the skills addressed in class. Families will be asked to share their experiences to enable students to gain the “human” side of theory and practice.

CFSP 4336 Preschool Interventions (3 Credits)
This course covers early childhood interventions applicable within community, preschool and home environments. A hierarchy of intervention strategies is addressed including universal, targeted, and intensive approaches. There is a focus on building supportive networks, routine-based intervention strategies, and collaboration to enhance family resources. Students review empirically validated early interventions and curriculum for young children exhibiting both normal and delayed development.

CFSP 4337 School-Age Academic Competencies (4 Credits)
The purpose of this course is to review theories of learning, disability and response to intervention approaches that incorporate environmental, curriculum-based, standardized, analytical or diagnostic assessments. Students learn to link assessment data to targeted empirically valid learning and behavioral interventions and strategies for students exhibiting difficulties or delays in literacy, writing, or math skills. Students evaluate learning environments, formulate instructional hypotheses, and plan interventions and strategies in regards to phonic awareness, decoding/phonics, word recognition, reading fluency, listening comprehension, study skills, written expression, mathematical calculation or problem-solving. Guidelines to promote differentiated classroom instruction and for working with students with limited English proficiency are reviewed. Effective family-school partnering and home-school consultation practices are highlighted to further facilitate learning. These goals are accomplished through critical readings and assignments, classroom case discussion, demonstrations, modeling, practice with hypothetical cases, and individualized tutoring with a referred student.

CFSP 4338 Low-Incidence Disability and Intervention (3 Credits)
This course reviews a wide range of neurodevelopmental disorders and low-incidence disabilities including autism, fragile X syndrome, and Fetal Alcohol Syndrome, visual and hearing impairment, along with syndromes associated with chromosomal deletions. Implications for assessment and intervention are outlined including diagnostic criteria, prevalence, and treatment and intervention strategies. Research on identification and treatment including state of the art interventions and assistive technology are addressed. Experts and researchers on specific disabilities, from the community will be used as guest lecturers. Students observe children within community sites and also work with local families affected by low-incidence disabilities.

CFSP 4339 Introduction to Play Therapy (3 Credits)
This course examines the history and theoretical bases of major theories of play to enhance children’s social-emotional and adaptive functioning. Child-centered, interpretive, and structured play therapy models are reviewed. Information is covered regarding preparation, selection of materials and toys, playroom characteristics, facilitative responses, and how to adapt play therapy in school, home and clinical settings. The play therapy process is illustrated from the initial referral and contact through termination, including observing and responding during sessions, facilitation and interpretation, therapeutic limit setting, and group play therapy strategies. Case studies, role play, video and script analysis are incorporated as is brief play therapy and applications with special populations. Efficacy, evaluation and future areas for professional development are reviewed. This course is designed as an introductory experience to prepare students for further supervised practica in play therapy.

CFSP 4340 Counseling Children and Adolescent (4 Credits)
School Mental Health Counseling I is designed to provide in-depth knowledge of major theories behind contemporary school-based mental health counseling approaches for children and adolescents. Students will learn developmentally informed and empirically driven individual and group counseling strategies to enhance interpersonal, emotional, and social functioning within a multi-tiered system of support. Guidelines and ethical principles are reviewed to guide school-based practice and to help build collaborative partnerships between school, home, and community settings. These goals are accomplished through self and peer reflection, critical analysis of therapy research, evaluation of case studies, video modeling, and in-vivo practice and feedback. This course and its contents are a prerequisite to prepare students for School Mental Health Counseling II, an advanced class that incorporates supervised counseling experience.
CFSP 4342 Crisis, Intervention and Prevention (3 Credits)
This course provides the knowledge and skills needed to respond effectively and to be a member of a school or community crisis team. Crisis theory, models, conceptualizations and current research are covered with a focus on the components of the crisis response and specific individual and group counseling skills needed to provide crisis intervention and postvention. Essential guidelines and components of a comprehensive community/ school safety and crisis plan, national and local policies and programs and effective prevention strategies are reviewed.

CFSP 4343 School Mental Health Counseling II (4 Credits)
School Mental Heath Counseling II is designed as an advanced counseling class that incorporates supervised counseling experiences to improve interpersonal, emotional and social functioning in young children to adolescents. Students learn to design, deliver and evaluate evidence-based prevention and intervention approaches and consultative mental health services. By working alongside a field site supervisor, students engage in case review, analysis, and delivery of counseling services designed to mirror expectations placed on mental health professionals in school and community settings. Self-reflection, transcript analysis, and peer, instructor, and supervisor feedback are employed to develop professional and personal individual and group counseling skills within a multi-tiered system of support.

CFSP 4349 Community Practicum (2 Credits)
Taken during the first year of entry, the Practica is a supervised initial year field experience designed to expose students to a variety of home, community- and school-based settings that serve families with children who have developmental and special needs, and in the CFSP Clinic. Each week for up to four hours, students are expected to attend, observe, and participate in a range of site-specific team meetings and services offered to families and children. For the MA in Educational Psychology degree, students, during the fall or winter quarter, identify, develop and initiate a research project with input from the faculty. The MA project culminates during the fourth quarter (summer) and serves as the final project in lieu of a comprehensive exam.

CFSP 4351 CFSP Clinic (2-3 Credits)
Supervised field experience in the CFSP Clinic working with preschool through high school-aged students and their families. Casework includes assessment, intervention, and consultation on a variety of psychoeducational problems of school-aged children and youth.

CFSP 4353 School Practicum (2 Credits)
This is a 300-500 hour supervised field experience taken after the successful completion of core courses and Practica I experience. Practica is considered a critical professional transition year to help consolidate learning and professional competencies in preparation for a subsequent Internship. Students work throughout the year with Clinic Faculty and a licensed Field Supervisor within the University of Denver psycho-educational clinic and infant, preschool, elementary, middle or high school settings and also attend weekly Practicum seminars or individual supervision sessions with a University Faculty member. Supervision is designed to provide ongoing professional feedback, case analysis, peer consultation, continued professional development pertinent to the successful practice of School Psychology in urban and rural settings.

CFSP 4354 Child, Family and Community Internship (1-6 Credits)
Supervised advanced Child and Family field experience in a community medical, mental health, or educational agency setting.

CFSP 4355 School Psychology Internship (1-6 Credits)
Supervised advanced School Psychology field experience in a public or private school/community setting. Advanced standing in the program and 1200 clock hours of internship experience required.

CFSP 4356 School Psych Field Experience (4,8 Credits)
Part-time, 20-hour-per-week or full-time, 40-hour-per-week supervised advanced School Psychology field experience in a public or private school or community setting. Students register for 4 credit hours for half-time enrollment or for 8 credit hours for full-time enrollment. This course is not graded. Advanced standing in the program and 600 or 1200 hours of internship experience is required. Department approval is required for registration. Must be registered with CFSP 4355.

CFSP 4357 Early Childhood Practicum (1-4 Credits)
This course provides students with a field experience in an Early Childhood environment for students who are interested in pursuing a profession in Early Childhood Special Education. Field Practicum in Early Childhood Special Education is an off-campus, 600-hour minimum supervised experience taken throughout your coursework. Field Practicum is designed to broaden one’s professional skills and is considered a critical transition of substantial growth. Each student is required to successfully complete 3 practica; an infant/toddler, (Birth to 3 years) a preschool (3-5 years) and an early elementary focused (Kindergarten through 3rd grade). Practicum seminar is designed to facilitate case analysis, ongoing self-reflection, and to provide peer consultation and professional feedback relevant to best practice. The field practicum is considered a critical professional transition to help consolidate learning and professional competencies in preparation for employment. All students work with a licensed Field Supervisor. Students will be placed in infant, preschool, elementary school settings. During practicum, students provide direct and indirect services that support children and/or families in a variety of settings. All students attend weekly practicum seminars facilitated by a University Supervisor. Supervision is designed to provide ongoing professional feedback, case analysis, peer consultation, and continued professional development and experiences pertinent to successful practice. This course promotes the idea that special educators are lifelong learners and regularly reflect on and adjust their practice.

CFSP 4361 Seminar: CFSP Supervision (1-2 Credits)
This is an advanced seminar for Ph.D. students in Child, Family and School Psychology focusing on supervision of psychological and educational service provision in school, hospital, and community agency settings.

CFSP 4363 Child, Family, School Psychology Program Development and Evaluation (3 Credits)
This course focuses on theory and practice of program development and evaluation in school and community agency settings. Both qualitative and quantitative methods of program evaluation are discussed. Students have the opportunity to collaborate on a comprehensive evaluation of a specific educational, health, or mental health program.
CFSP 4991 MA Independent Study (1-10 Credits)
This course allows MA or EdS Child, Family, and School Psychology students to study a specific topic area in detail in conjunction with a cooperating faculty member.

CFSP 4992 Directed Study (1-10 Credits)

CFSP 4995 Research - M.A. Thesis (1-10 Credits)
This course is for students whose program requires completion of a masters level thesis.

CFSP 5991 PhD Independent Study (1-10 Credits)
This course allows PhD Child, Family, and School Psychology students to study a specific topic area in detail in conjunction with a cooperating faculty member.

CFSP 5992 Directed Study (1-10 Credits)

CFSP 5995 Dissertation Research (1-20 Credits)
This course is for PhD Child, Family, and School Psychology students engaged in completing their doctoral dissertation.

Clinical Psychology (CPSY)

Courses

CPSY 4000 Issues in Forensic Psychology I (3 Credits)
Overview of psychological theory, research and practice as used within the legal and criminal justice system; differences between forensic and clinical assessments and interventions; special topic areas (e.g. trauma, abuse, domestic violence, etc.); ethical issues.

CPSY 4010 Introduction to Statistics (3 Credits)
General statistical principles and techniques and their application to psychological and psycho-legal issues. Students will develop computer analytic skills to assist in answering professionally relevant questions.

CPSY 4020 Psychopathology and Diagnosis (3 Credits)
An overview of major DSM diagnostic categories, as well as an introduction to ICD and noncategorical classification.

CPSY 4030 Clinical Interviewing and Theories of Psychotherapy (3 Credits)
Theoretical and practical issues related to clinical interviewing within forensic and non-forensic settings; exploration of the process of psychotherapy from various theoretical perspectives.

CPSY 4040 Issues in Forensic Psychology II (3 Credits)
Further exploration of the relationship between the legal system and psychological theory in areas of criminal law (e.g. standards of legal competency, insanity defense, prediction of dangerousness), civil law (civil commitment, personal injury) and family law (e.g. child custody determinations, juvenile issues).

CPSY 4050 Research Methods (3 Credits)
Examination of the research process, including the formulation of questions and utilization of various methodologies to answer hypotheses.

CPSY 4060 Psychology of Criminal Behavior (3 Credits)
Psychological origins and dynamics of criminal behavior from the viewpoint of major psychological theories; treatment of the types of offender populations (e.g. the antisocial personality, psychopath, adolescent offender, female offender) within the criminal justice system.

CPSY 4070 Trauma & Crisis Intervention (3 Credits)
Theory, techniques and research relating to various types of trauma (e.g. childhood abuse, combat veterans, natural disaster survivors); crisis intervention techniques as a system of managing trauma related difficulties.

CPSY 4080 Issues in Forensic Psychology III (3 Credits)
Relationship and application of psychological principles and practice to varied law enforcement and correctional functions; assessment of violence in the workplace, trauma debriefing, hostage negotiation. Students will become prepared to assume the role of an expert witness in a variety of psycho-legal settings.

CPSY 4090 Issues in Measurement (3 Credits)
Critical assessment of various psychological tests, with an emphasis on validity, reliability and issues of standardization.

CPSY 4100 Mental Health Law (3 Credits)
The goal of this introductory Mental Health Law course is to provide students with a general understanding of the laws impacting the field of mental health, including those involving professional responsibility and ethics; competency issues; court-ordered evaluations and testimony; family law issues; the rights of differently-abled and historically marginalized persons; and defenses based on mental state. Course objectives include assisting students in locating, understanding, and interpreting laws relevant to the mental health practitioner; recognizing potential legal and ethical dilemmas faced in forensic practice; and applying the principles of mental health law to offer the highest standard of care in their clinical practices.

CPSY 4105 Psychology, Public Policy, and Advocacy (2,3 Credits)
This course is designed to provide students in clinical training with an overview of the political advocacy process in the United States, its potential impact on the practice of mental health, and opportunities for involvement in public policy discourse.
CPSY 4110 Family Systems and Therapy (3 Credits)
This course examines various approaches to family systems, including an overview of systems theory, plus ideas that have been labelled structural, strategic, and Bowenian. Goffman’s performance theory will also be emphasized, especially as it applies to clinical work. Students will practice rethinking interpersonal conflicts, and they will develop increased awareness of their own families and their roles in them. Students will also apply systemic ideas to their own required therapies.

CPSY 4120 Psychology of Performing Arts (3 Credits)
Students gain an understanding of the psychological factors involved in the performing arts, including theatre, acting, dancing, music, and circus arts. Students learn about appropriate psychological interventions for these populations to enhance performance. The course format includes lecture, discussion, guest speakers, case studies, and role plays.

CPSY 4130 Organizational Leadership: Center for Performance Excellence (3 Credits)
This course is designed to familiarize CPEX Officers with approaches to effective leadership while engaging in leadership roles within the Center for Performance Excellence (CPEX). Students are exposed to successful leadership strategies from the business world and have the opportunity to implement these strategies into their roles as leaders within CPEX. This course is intended for CPEX Officers only.

CPSY 4140 Exercise Psychology (3 Credits)
In this course, students explore the theory, research, and practice related to psychological aspects of exercise behavior. Students explore research and intervention models in exercise psychology and be able to integrate this knowledge in their practice. Major topics include health behavior change, the impact of exercise on mental health, and exercise motivation and adherence.

CPSY 4150 Psychology of Performance in Business (3 Credits)
Students gain an understanding of the psychological factors involved in the business world. Factors are examined at the individual, team, and organizational level. Students learn about appropriate psychological interventions for these populations to enhance performance. The course format includes lecture, discussion, guest speakers, case studies, and role plays.

CPSY 4160 Psychology of High Risk Occupations (3 Credits)
In this course, students gain an understanding of the psychological factors involved in high risk occupations. High risk occupations include individuals whose profession directly involves saving lives or placing their own life at risk. Students learn about appropriate psychological interventions for these populations to enhance performance and resilience in the high stress situations required by their jobs. The course format includes lecture, discussion, guest speakers, case studies, and role plays.

CPSY 4200 Practicum I (3 Credits)
CPSY 4210 Practicum II (1-6 Credits)
CPSY 4220 Practicum III (3 Credits)
CPSY 4230 Practicum IV: Theories of Personality (3 Credits)
CPSY 4240 Practicum V (1-6 Credits)
CPSY 4250 Practicum VI (3 Credits)
CPSY 4260 Psychophysiology and Biofeedback Lab (2 Credits)
This course is designed to be both an introduction to psychophysiology and biofeedback and to its applications, particularly to sport and performance. The principles of psychophysiology, the biofeedback instruments used, the areas of application, the techniques commonly used in conjunction with biofeedback, the diverse field of biofeedback and applied psychophysiology, and the latest uses for optimal self-regulation are covered. The course involves use of biofeedback instrumentation as well as classroom participation and readings and a self-regulation project.

CPSY 4300 Eval and Treat Juv Offender (3 Credits)
Theories of juvenile delinquency and studies concerned with the etiology, development and prediction of such; review of the various psychological treatment options utilization with juvenile offenders; consideration of the legal responses to juvenile crime and the role of the psychologist within the juvenile justice system.

CPSY 4310 Ethical Iss in Forensic Psyc (3 Credits)
Discussion of ethical and legal conflicts and dilemmas as a psychologist within the legal system, and consideration of ways to resolve such conflicts, including standards applicable to the science and practice of forensic psychology and the role of the expert witness.

CPSY 4320 Cognitive Assessment (3 Credits)
Students learn to administer, score, and interpret the WAIS. There is some exposure to other intelligence tests as well. Students understand diagnostic validity (Bayes' Theorem), how to identify interpretive material, and how to think ideographically about nomothetic data. Through discussions of legal cases, students learn numerous forensic issues to which cognitive assessment is applicable, including for example testamentary capacity, competence to waive Miranda rights, and ability to enter a contract.

CPSY 4321 Assessment Independent Study (1 Credit)
CPSY 4330 Cog Behavioral Interventions (3 Credits)
Theory, techniques and research relating to cognitive-behavioral therapy, focusing on assessment, case conceptualization and intervention approaches within a forensic setting.
CPSY 4335 Intro to Trial Consulting (3 Credits)
The art of trial consulting is the skill to meld multiple theories, methodologies, and concepts into a working and research-based strategy. This skill is very reminiscent to the art and practice of therapy. As with any practice, be it law, psychology or trial consulting, a solid base is necessary. This course is an introduction into the theory and application of trial consulting techniques in the criminal and civil arena. This overview addresses the key elements in the trial consulting including and introduction into the psycho-legal perspective, the application of research methodologies utilized by trial consultants, and specific interdisciplinary topics within trial consulting. These specific topics include concepts like the theory of persuasion, jury selection, expert testimony, and neuropsychology.

CPSY 4340 Psychopathology, Evaluation & Treatment of the Adult Offender (3 Credits)
Psychological theories related to etiology, development and prediction of violent crime; types of intervention possible within in the criminal justice setting. Topic areas may include special offender populations (e.g. sexual offender, offenders with developmental disabilities or those classified as mentally retarded).

CPSY 4350 Sociocultural Issues in Forensic Psychology (3 Credits)
Explores the impact of identity dynamics, including privilege and oppression, in clinical forensic practice.

CPSY 4360 Personality Assessment: Self-Report (3 Credits)
Administration and interpretation of objective personality instruments and discussion of their utilization within a forensic setting; use of the MMPI-2 and MCMI.

CPSY 4370 Substance Abuse (3 Credits)
Substance use and abuse, with focus on symptom formation, classification, causes socio-cultural factors and treatment modalities; various theoretical approaches to the etiology and treatment of substance abuse; resultant psychological and physiological effects of various drugs.

CPSY 4380 Group Interventions (3 Credits)
Interpersonal dynamics of small groups and larger organizational settings; understanding of group processes (such as group formulations and development, group conflict, and group resistance); skills enabling positive group intervention.

CPSY 4400 Personality Assessment: Projective (3 Credits)
Students learn to administer and interpret the Thematic Apperception Test and Early Memories. These are construed as behavior samples under conditions where the occasioning environment is reproducible, so that the functional relationship between the behavior and the stimulus can be understood carefully. Students learn to write reports that integrate several sources of information to answer referral questions.

CPSY 4410 Criminal Evaluations (3 Credits)
Incidence and prevalence of criminal violence; risk assessment within the context of prediction, supervision and intervention in both a correctional and mental health setting. Special topics will include assessment of various legal competencies, the insanity of defense and assessment of dangerousness.

CPSY 4420 Research in Forensic Psychology: Independent Study (1 Credit)

CPSY 4430 Career Counseling (3 Credits)
This course is designed to teach the theoretical framework of career counseling, and introduce the basic counseling tools used in the career counseling process. The course presents major theories of career development, introduce sources of occupational information, and introduce principles of assessment in career counseling. The impact of diversity and difference on career development and choices, as well as the career counseling process, is also explored. Topics include: the role of interests, skills, values and personality in the career development process; social, cultural and family influences on the career development process; and career development across the lifespan.

CPSY 4500 International Disaster Psychology: Foundations (3 Credits)
This is the first course in a three course sequence designed to provide the entering M.A. student with a fluent understanding of the area of International Disaster Psychology. The course will cover the evolution of IDP from its beginnings to its present status. It will review the different innovations in the area. Potential subject areas include the treatment of refugees, torture victims, child soldiers, internally displaced persons and complex Post Traumatic Stress Disorder.

CPSY 4501 Psychotherapeutic Models of Intervention (3 Credits)
Major psychological models of intervention are the focus of this course. The major theoretical models of personality development, psychopathology and theories of intervention are explored including psychodynamic, family systems, behaviorism, cognitive-behavioral approaches and others.

CPSY 4502 Psychotherapy with Children and Families (3 Credits)
This course provides an understanding of various psychotherapeutic approaches to children and families. The perspectives and techniques of play therapy, behavioral interventions, cognitive-behavioral therapy and integrative work with parents and families are explored.

CPSY 4503 Clinical Interviewing (3 Credits)
Theoretical and practical issues related to clinical interviewing in international and national disaster settings.

CPSY 4505 Cross Cultural Analysis (3 Credits)
The first course in a two part series designed to provide students with an understanding of cross cultural analysis. The course will provide an understanding of diverse cultures. Students will review historical literature in the area of cross cultural understanding. Students will also be taught methodologies for conceptualizing and understanding diverse cultures and cross cultural practices in psychology.

CPSY 4509 Global Mental Health Systems (3 Credits)
This course will focus on the dynamics of mental health systems in developing countries.
CPSY 4510 Preparation for International Internships: Intercultural Competence (3 Credits)
This is the second course in the three part introductory sequence. Students will continue to learn about the field of IDP and future trends for the field. The course will address specific subject areas within the field in order to provide students with the working knowledge needed to continue to pursue advanced training in the area. Potential subject areas will include treatment of refugees, torture victims and working in post conflict areas across the globe.

CPSY 4511 Humanitarian and International Refugee Law (3 Credits)
This course surveys the central rules, complexities and debates of international refugee law, which is both a specialized field of its own and also an intersection of human rights law, migration law, and humanitarian policy. We focus extensively on how courts and the United Nations have attempted to interpret the various refugee definitions found in human rights treaties, and introduce rules of international law governing how refugees should be treated. We also examine the obstacles refugees face today in enjoying their rights.

CPSY 4512 Disaster Mental Health (3 Credits)
This course will explore disaster response systems and their mental health components.

CPSY 4513 International Disaster Psychology Case Conference (2 Credits)
This class meets to discuss case theory, formulation and psychotherapy practice with persons affected by disaster and/or trauma.

CPSY 4515 Ethics (3 Credits)
The course is designed to educate students about the ethical guidelines in psychology applicable to the field of IDP. Students will learn the APA Ethics Code as well as other more specialized ethics guidelines applicable to the field of IDP. Students will be expected to identify, address and resolve potential ethical conflicts. Potential future trends in the development of ethics in the area of IDP will be addressed.

CPSY 4530 Program Evaluation (3 Credits)
Theory and techniques for developing management information and assessment systems for human service programs. Organization evaluation of international organizations will be discussed. Psychosocial interventions will be highlighted.

CPSY 4545 Lifespan Development and the Cultural Context (3 Credits)

CPSY 4550 Seminar: Therapeutic Interventions (3 Credits)
Small group seminar is a small group class designed to provide students a discussion forum to share and integrate their experiences in the IDP Master’s Program. Students are expected to address and share their field placement experiences with other students in their seminar. The seminar will also provide instruction on the implementation of theory in IDP to practice in multiple settings. Faculty will provide supervision for the students’ field placements.

CPSY 4552 Trauma & Child Development (3 Credits)
The course reviews the literature regarding childhood trauma and its implications for child and adult development. Models for the conceptualization of trauma and for treatment of childhood trauma are discussed. Cross-cultural theories of childhood development and trauma are emphasized.

CPSY 4556 International Perspective of Trauma Intervention (3 Credits)
This course, taught by a different visiting professor each year, will take an in-depth look at trauma and the development of mental health systems and interventions internationally.

CPSY 4557 Internl Public Health (3 Credits)
This course will provide an overview to the many issues concerning international public health today. Topics include basic epidemiology, malaria, tuberculosis, HIV/AIDS, diarrheal diseases, injury prevention, and environmental health. Specific attention will be given to examining the intersection between disease prevention and disaster mitigation.

CPSY 4558 Practical Apps Clinical Theory (1 Credit)
This course enables first year Master of Arts in International Disaster Psychology (MAIDP) students to explore the application of coursework in clinical psychology to practice in the field. Articles and case examples that apply ethics, developmental theory, psychotherapeutic models, cross cultural analysis and group interventions are discussed.

CPSY 4560 Humanitarian Law of Armed Conf (3,5 Credits)
This course is a theoretical and practical introduction to international humanitarian law (IHL). IHL is known by many other names such as "humanitarian law," "law of conflict," and "laws of war." All these terms refer to the rules regarding the treatment of civilians and non-combatants. These "rules" are especially important to know if you eventually work for an IO or NGO that finds itself in areas of armed conflict. Cross listed with INTS 4935.

CPSY 4563 Family Therapy: Children and Families in Crisis (2 Credits)
This course will explore theoretical and practical approaches to working with children, adolescents and families in crisis. Integrative frameworks will be discussed that view culture, family system and individual functioning as inter-related, and family, parent and child related interventions will be explored. Several therapeutic modalities applied across multiple settings that reduce the impact of crisis and trauma and promote functioning will be studied. Prerequisites: CPSY 4545 and CPSY 4500.

CPSY 4565 Group Dynamics of Organizations (3 Credits)
A comprehensive review of the literature regarding the understanding of systems and organizational structure and dynamics. Methods of assessment and interventions in organizational structure will be presented. Cross-cultural implications will also be addressed.
CPSY 4566 From Triage to Justpeace (3 Credits)
This course examines the inter-disciplinary continuum of integrated work that responds initially to natural and human-made disaster, but then leads to coordinated relief and development projects, and eventually seeks longer-term justpeace. Students learn how normative “regimes” or changed behavior are built and sustained by societal, state, and global actors. Students apply critical interview skills among professionals of diverse disciplines, and in particular, meet the range of development organizations headquartered in Colorado.

CPSY 4570 Crises Intervention (3 Credits)
This course will deal with the clinical approaches to handling psycho-social crises.

CPSY 4580 Psychodynamic Theory (3 Credits)
Traditional and modern theories of psychodynamic concepts will be presented. Students are instructed on the use of such theories as a tool to structure interventions in their field work.

CPSY 4585 Family Systems (3 Credits)
A comprehensive review of family therapy concepts and treatment theories. A review of the applicable literature of family therapy is provided with an emphasis on cross-cultural models and interventions.

CPSY 4590 Psychology of Loss and Grief (3 Credits)
A review of the theory of loss and grief. The course reviews cultural understandings of loss and grief as seen following disaster and conflict. Treatment modalities of loss and grief are also presented.

CPSY 4591 Supervision Group - IDP (1 Credit)
This class is an opportunity for students in field-placements to receive additional supervision for their field-placement work. Students present and receive supervisory consultation about their work in these settings.

CPSY 4595 International Disaster Psychology Internship (6 Credits)
Students will spend one quarter in various international locations working in full time internships with international nonprofit organizations applying the principles and knowledge obtained during their study in the IDP program. Students will work under faculty and professional supervision.

CPSY 4600 Community Psychology in an International Setting: South Africa (5 Credits)
Community Psychology in an International Setting: South Africa combines pre-departure academic study at the University of Denver (DU) with service learning field placements in the Republic of South Africa (RSA). The course requires attendance at four classroom session prior to departure, full participation in a field placement while in RSA, and a re-entry meeting upon our return. Overall, the fundamental focus will be on community psychology in RSA - salient issues, challenges, resources, and success in post-Apartheid South Africa. Community psychology both shapes and reflects change. Students will learn about how various historical and current policies in RSA have shaped (and disenfranchised) various communities throughout the country. Field placements will prioritize community psychology issues inherent in the organizations, people, and settings of historically disadvantaged black communities in South Africa. Secondarily, academic topics will include the history of RSA (emphasizing pre- and post-Apartheid time periods), current challenges in RSA (ethnicity, immigration, HIV/AIDS, increased crime rate), and cultural aspects of RSA. Pre-departure classes will also focus on the pragmatics of the trip, team-building, and exploring the goals of international service learning.

CPSY 4605 Psychotherapy Interventions (3 Credits)
This course will survey different theoretical models of psychotherapy with an emphasis on specific intervention approaches.

CPSY 4606 Gender-based Violence (3 Credits)
Gender-based Violence will cover issues as they relate cross-culturally. Special attention will be directed towards descriptions of programs approaching these issues and the challenges of designing and implementing such programs in various cultural environments.

CPSY 4610 Exercise Physiology (2 Credits)
This course offers an advanced study of selected areas in physiology of sport and exercise. The applied perspective emphasizes understanding the principles in designing effective conditioning programs for performance, fitness, and health. Empirically valid principles of training for muscular fitness (e.g., strength, power, speed) and energy fitness (i.e., aerobic and anaerobic) are explored. Additionally, environmental influences (e.g., altitude), lifestyle choices (e.g., nutrition), and selected developmental considerations (e.g., as related to gender differences) are discussed. Applications to sport and performance psychology consulting in sport, performing arts, and high-risk professions complement the course content.

CPSY 4615 The Elite Athlete Brain (3 Credits)
The primary goal of this course is to provide students with an understanding of the expert’s brain from sport and performance literature. The course will review landmark and recent publications examining expert-novice contrasts, and those of athlete-non athlete comparisons. Students will review literature on training interventions to accelerate the development of expertise and learn to evaluate the validity of scientific claims of related consumer products. Students will gain a basic understanding of where state of science in understanding sport related concussions, including diagnostic tools, recovery, and prevention.

CPSY 4620 Kinesiology (2 Credits)
This course is an in-depth exploration of selected areas of kinesiology as a discipline and a profession focusing on human movement. Based on interdisciplinary theoretical and empirical perspectives, the explored areas include: (a) functional anatomy as related to adaptations to training; (b) biomechanics; (c) neurophysiological processes involved in motor learning and motor control; and (d) other relevant biophysical processes (as related to talent selection and development, physiological adaptations to training, etc.). In addition, this course surveys career opportunities in academic study and clinical practice in various areas of sport, fitness, exercise, and physical education.
CPSY 4630 Adept, Professional, Supervisor and Leader (2 Credits)
This course addresses the multiple roles of sport and performance psychology (SPP) consultants from a developmental perspective (i.e., education and training, early years in the profession, and full professional maturity). In-depth examinations of the consultant as an expert, person, performer, and self-regulator are grounded in the SPP literature and theoretical accomplishments in related fields (e.g., counseling psychology). Additionally, the acquisition of fundamental knowledge, skills, and abilities involved in supervision (mentorship) and further socialization to the field of SPP with an emphasis on positive leadership for local, national, and global progress complement the course content.

CPSY 4635 Athletic and Performance Nutrition (2 Credits)
Graduate level course educating student-coaches and administrators and performance specialists to use research and best practices in performance nutrition to achieve athletic and performance enhancement, and general wellbeing. The course will help facilitate students' ability to influence sporting and general environments to use nutrition as a means to enhance performance, with a secondary examination of preparing students to understand and manage individual differences, needs, and motivations for food choices. Course content will include modeling nutrition, encouraging a sense of family at team meals, leveraging media to internalize nutrition behaviors, and impacting availability of positive nutrition choices.

CPSY 4650 Sport Psychology (3 Credits)
A comprehensive view of the field of sport psychology will be covered. Through participation in this course, students will develop a better understanding of the field of sport and exercise psychology and develop skills that will assist in enhancing their career opportunities. Varied psychology topics (e.g., individual differences/personality, motivational orientations and strategies, applied psychological skills, social influence and group dynamics) with an emphasis on understanding major theories and research and applying those theories and research findings to diverse sport, exercise, and performance settings. Additionally, the psychological effect that participation in a sport or a physical activity has on a performer including anxiety reduction, aggressive behavior, and personality development will be explored.

CPSY 4652 Theoretical Aspects of Sport and Performance Psychology (3 Credits)
This course is an in-depth exploration of selected aspects of the theories of sport psychology along with applications of these theories to other performance domains. An advanced understanding of the field of sport and performance psychology is pursued in relation to psychosocial aspects involved in both the preparation and performance processes among adults, youth, and children who represent all skill levels. The explored areas include: (a) motivation, confidence, and anxiety in sport and performance, (b) selected topics in social psychology and psychobiology, (c) psychological skills training, and (d) special topics (e.g., personality, flow, injuries, burnout).

CPSY 4653 Sport in American Society (3 Credits)
This course examines the influence of the social context on sport. Attention is given to the influence of society on sport as an institution and the role of sport as an agent of social change. This course examines how sport affects the social world we live in. Topics explored include the intersection of sport and gender, race/ethnicity/culture, socioeconomic class, media relations, violence, deviance, and sexuality.

CPSY 4654 Coaching & Leadership (3 Credits)
This course is a survey of the intersection of coaching, leadership, organizational behavior, organization dynamics, and change management. It examines the definitions, history, theories, and research in the sport and management leadership literature. Students will gain an understanding of how planning, motivation, team building, and leadership impact a team's or organization's effectiveness. Students are expected to learn and personally develop the analytical and leadership skills that affect individual and group performance.

CPSY 4655 Social Psychology of Sport (3 Credits)
This course will address the relationship between sport and cultural dynamics, sociological factors underlying competitive physical activity, and behavioral responses of sport participants and supporters to various socio-cultural motivations. This course will be a serious study of organized professional, amateur, and youth sports in North America. Emphasis will be placed on social forces that both impinge on and enhance athletic activities and organizations, and the influence sport has on society.

CPSY 4656 Psychology of Injury (3 Credits)
In this course, students will explore psychological theory, research, and practice in relation to the prevention, occurrence, and rehabilitation of sport injuries. Major topics will include: psychological risk factors for injury, psychological responses to injury, and psychological interventions to prevent sport injuries and enhance sport injury rehabilitation.

CPSY 4657 Motivational Interviewing (2 Credits)
This is an advanced course reviewing the theories and research findings related to motivational interviewing with the goal to apply them to performance (athletic, non-athletic) and exercise contexts. Topics include motivation for behavior change, transtheoretical model of behavior change, self-determination theory as applied to behavior modification, and the relationship between and the influences of emotion and motivation on counseling and sport and performance consultation. This course will place an emphasis on relating current leading theories and research evidence to consulting work. Equally in importance, there will be in-class hands-on activities (e.g., role playing), experiences (e.g., self-reflective tasks) and assignments (e.g., role playing tasks) that will add to the student competence in motivational interviewing.

CPSY 4660 Sport Psychology Interventions and Techniques (3 Credits)
Students will acquire knowledge and increase their comprehension of cognitive-behavioral intervention strategies (e.g., mental skills training) and how they can be applied to achieve optimal performance of athletes and others. The complex interaction between the sport psychology consultant and performer will be explored.

CPSY 4662 Foundation of Counseling Theories (3 Credits)
This course will review major contemporary counseling models, theories, procedures, and the helping relationship. Advanced study of techniques and research findings. Survey of principles underlying individual, family systems, and multicultural approaches to counseling.
CPSY 4663 Applied Motor Learning (2 Credits)
This course is an advanced examination of applied motor behavior theories and research. Emphasis is given to understanding of the processes involved in controlling skilled movement and the principles of skill acquisition to guide designing effective learning environments, practice schedules, and practice units. The examined areas include: (a) the field of study of motor control and learning; (b) performance and learning variables as impacting retention and transfer; (c) information processing model; (d) sensory and central contributions to motor control; (e) individual differences; and (g) instruction, demonstration, and feedback across different stages in motor learning.

CPSY 4664 Practicum in Sport and Performance Psychology III: Business Principles (3 Credits)
This is the third course in a year long, three-part sequence. This course serves the purpose of (a) providing an opportunity for students to learn about sport and performance psychology through observation and experiential opportunities; (b) providing an intimate forum for discussing the practice of sport and performance psychology; and (c) providing information on professional development and conduct. The course requires didactic and experiential activities. Business, consultation, and professional development issues in sport and performance psychology will be addressed. Prerequisite: CPSY 4673.

CPSY 4665 Beh Kinesiology & Physiology (3 Credits)
A study of human movement. Topics will include but are not limited to structural anatomy, biomechanics, and neurophysiology. The biomechanical etiology of various injuries will be studied.

CPSY 4666 Movement Principles for Performance (3 Credits)
This course is an exploration of selected areas of the exercise and sport sciences. The explored areas include: functional anatomy, biomechanics, and exercise physiology.

CPSY 4668 Psychology of Excellence (3 Credits)
The purpose of this course is to examine the theories, research, and intervention strategies related to the pursuit of excellence. This course explores the deliberate interventions necessary to support the development of excellence and expertise. Students will learn the nature of expertise development, the necessary steps to achieve excellence, and common roadblocks. The concept of excellence will be investigated in many contexts, such as sport and performance, intrapersonal, relationships, and life in general. Topics to be explored include: happiness, contentment, life satisfaction, values, character strengths, emotional intelligence, optimism, hope, flow, and resiliency.

CPSY 4669 Consulting Methods & Practices (3 Credits)
This course is an advanced exploration of theories, research findings, and skills related to the practice of consultation in performance settings. Specific topics include: (a) the consultant roles; (b) the major theoretical approaches to consultation (e.g., mental health, systemic); (c) the processes and stages of consultation (e.g., developing interpersonal relationships; design, implementation, and evaluation of service delivery); (d) ethical and multicultural issues; and (e) students' personal strengths and concerns in the role of a consultant (e.g., values interpersonal style, and consultant variables that impact the effectiveness of their role as an agent of behavior change).

CPSY 4670 Psych of Coaching & Leadership (3 Credits)
Examination of psychological components of coaching and talent development. Explores coaching development, coaching models, as well as strategies for dealing with athletes and different coaching contexts. Discussion of talent development theories including influence of genetic and environmental factors.

CPSY 4671 Theories of Performance Excellence (3 Credits)
This course is designed to familiarize students with theories of performance excellence developed by leading practitioners. Each week, students are exposed to a different practitioner's approach, which often includes an opportunity to observe the practitioner's style through video. Emphasis is placed on the role of theory in practice, theory-based conceptualizations utilizing a case study format, and comparing and contrasting the different theories.

CPSY 4672 Counseling Methods & Practices (3 Credits)
This course is an introduction to counseling microskills and techniques needed in helping relationships, with attention to building the therapeutic alliance. Emphasis placed on learning skills in small group format. Laboratory experience in demonstrating skills and the ability to form an effective counseling relationship is required. Pre-practicum experience to prepare students to work with clients.

CPSY 4673 Practicum in Sport and Performance Psychology 2 (3 Credits)
This is the second course in a year long, three-part sequence. This course serves the purpose of (a) providing an opportunity for students to learn about sport & performance psychology through observation and experiential opportunities; (b) providing an intimate forum for discussing the practice of sport and performance psychology; and (c) providing information on professional development and conduct. The course requires didactic and experiential activities. Psychological consultation, best practices, and professional development issues in sport and performance psychology will be addressed. Prerequisite: Practicum in Sport and Performance Psychology I.

CPSY 4674 Clinical Issues: Interviewing and Diagnosis (3 Credits)
This course examines adult psychopathology as classified in the DSM. Special emphasis will be placed on the intersection of performance with more traditional psychopathology. Students learn about etiology, symptomology, epidemiology, and treatment issues. Possible causes and contributory factors are examined, as well as theoretical and multicultural considerations. Prerequisites: Theoretical Aspects of SPP, Applied SPP, and Ethical Issues in SPP.
CPSY 4676 Assessment and Measurement (3 Credits)
This course covers the selection, use, and proper interpretation of common sport and performance psychology assessments. Basic principles of educational and psychological measurement, including test construction, validity, and reliability are addressed. The assessments taught include those used for individual assessment, individual selection, and organizational assessment (360 degree feedback, surveys, etc.). Prerequisites: CPSY 4652, CPSY 4690, and CPSY 4682.

CPSY 4677 Motivation, Emotion & Learning (3 Credits)
This is an in-depth course reviewing the theories and research related to motivation, emotion, and learning in performance contexts. Topics include the relationships between motivation, emotion, and learning; and the influences of emotion and motivation on counseling and consultation. The course provides basic information about the human cognitive system. Students are taught the basic principles of learning, with a focus on the principles of learning which are most applicable in sport and performance settings. This course places an emphasis on relating current research to practice.

CPSY 4678 Scholarly Writing Methods and Practices (1-3 Credits)
The primary goal of this course is to familiarize students with the methods and practices of scholarly writing. The course focuses on writing a scholarly review of literature, methodology, results, and conclusions according to APA style. Within the course, students are also asked to review one another’s work while developing editing skills and methodological complexity.

CPSY 4679 Field Placement Practicum in Sport and Performance Psychology (3 Credits)
Supervised practice sport & performance psychology in an approved sport or performance setting under licensed practitioners.

CPSY 4680 Sport and Performance Psychology Practicum (3 Credits)
This course will familiarize students with professional issues relevant to the practice of sport and performance psychology. Students will be presenting and analyzing their current applied experiences as coaches and leaders in sport and performance settings in the community. This is a participation-intensive course and the students will receive feedback and suggestions from both the instructor and peers in a group supervision format. Importantly, the ongoing feedback and readings will provide an opportunity for students to understand and apply theories and practice systems of behavior change in sport and performance psychology in the context of their own clients/cases. Students will learn the roles and responsibilities inherent in professional and ethical consultation, with a special emphasis given to the dilemmas of serving as an embedded consultant.

CPSY 4681 Multicultural Issues (3 Credits)
This course covers the research and theories of counseling the culturally different client. Students are expected to develop multicultural skills, including culturally-based conceptualization, assessment, and selection of culturally appropriate intervention strategies. This course will examine these issues in general, with a special emphasis on those in sport and performance cultures. This is both an experimental and seminar-based course, aimed at developing student’s personal awareness, knowledge, and skills.

CPSY 4682 Ethical and Legal Issues (3 Credits)
This course introduces the students to the ethical principles, codes, and standards related to the profession of sport and performance psychology. This includes an overview of the regulation of the practice of psychology, the relationships between ethical codes and legal statutes, and the development of a personal model for ethical decision-making.

CPSY 4683 Group Interventions (3 Credits)
This course is a survey of group counseling methods and techniques from a theoretical and applied perspective. The course will include practical application of group counseling interventions. Prerequisites: demonstrated knowledge of ethical principles and departmental consent.

CPSY 4684 Team and Organizational Dynamics (3 Credits)
This course examines the principles, theories, and research of human functioning in performance related teams and organizations. It explores the social and psychological factors influencing behavior in organizations, along with individual differences, dyadic relations and small group behavior. Students learn about the dynamics of team and organizational diagnosis, feedback and learning, intervention, and planned change.

CPSY 4685 Human Growth & Development (3 Credits)
This course is a comprehensive analysis of theories and research relating to human psychological development and learning across the lifespan. It explores the cognitive, affective, academic, physiological, moral, and social/cultural/racial domains. An emphasis is placed on a) the theoretical models underlying character and moral development, and b) adolescent and college student development theories.

CPSY 4686 Practicum in Sport and Performance Psychology: Professional Practice (3 Credits)
This course provides an examination of the critical components of successful and ethical professional practice and career building in sport and performance psychology in conjunction with intensive provision of sport and performance psychology services. The entire body of sport and performance psychology theoretical and applied knowledge as well as the skills that the students have acquired will be utilized. Additionally, rigorous self-reflective activities and ethical decision-making will increase the student professional and personal growth as directly related to effectiveness in the sport and performance psychology practice. Emphasis will be placed on diversifying and integrating theoretical knowledge and applied strategies and skills while simultaneously engaging in supervised independent work in real life sport and performance settings.

CPSY 4687 Psychology of Injury (3 Credits)
This course examines the psychological factors involved in injury, rehabilitation, and return to performance. The effects upon social, personal, and performance adjustment are addressed. The course covers how relevant theory and research can be used to inform practical applications to help the injured performer's rehabilitation and return. It presents the major medical aspects of injury and the rehabilitation process.
CPSY 4688 Seminar in Sport and Performance Psychology (3 Credits)
Advanced seminars offered by sport and performance psychology faculty on topics relevant to the practice and science of sport and performance psychology area.

CPSY 4689 Psychophysiology and Biofeedback (2 Credits)
This course explores the underlying mechanisms and psychophysical determinants of behavior in sport and performance settings. Students learn the use of biofeedback in achieving voluntary self-regulation and control of stress related behaviors.

CPSY 4690 Sport and Performance Psychology Interventions (3 Credits)
This course is designed to familiarize students with the application of sport and performance psychology interventions. Students experience the building of a sport and performance psychology program. This program includes the cardinal skills of relaxation, concentration, imagery, self-talk, and mental routine; followed by broader topics such as goal setting, motivation, confidence, cohesion, engagement, and mastery. The instructor briefly reviews relevant theory and research followed by demonstrations of techniques and strategies, after which students learn by doing. Specific attention is given to blending the science of peak performance with the art of applying science.

CPSY 4691 Practice Development in Sport and Performance Psychology (3 Credits)
The primary goal is to acquaint students with the skills needed to develop and implement a private practice in the profession of sport or performance psychology. The course takes students through the process of business development by using the traditional business plan model, from the necessary startup expenses to the executive summary. Throughout the course students learn the What, When, Where, and How of starting their own consulting practice, while learning the basic components of branding, marketing, and operations. Prerequisite: Must be enrolled in the MASPP program or instructor approval.

CPSY 4692 Entrepreneurship in Sport and Performance Psychology (2 Credits)
The primary goal of this course is to provide students with an overview of skills necessary to succeed in the entrepreneurial profession of sport and performance psychology. The course is flexibly designed to accommodate the students’ desired career paths. Topics covered may include: sales and marketing, developing a practice, job search and interviewing skills, and understanding the job market.

CPSY 4700 Organization and Administration of Sport (4 Credits)
Graduate level course to educate students on the organization and administration of sport and sport coaching. Course content includes emergency action planning, facility management, human resource management, evaluation and development, legal responsibilities, record keeping, finance, and public relations. Students will learn how to lead organizations and coaching staffs to develop fair and safe participation.

CPSY 4705 Sociocultural Aspects of Sport Coaching (4 Credits)
Graduate level course to educate students on the sociocultural and social-psychological aspects of sport coaching and athletic performance. Students will understand how to analyze and apply social, sociological and social-psychological theory to sport coaching and athletic performance. Consideration will be given to developing a critical understanding of sport coaches’ knowledge development, and how to implement multiple, effective and ethical strategies to enhance coach and athletic performance.

CPSY 4710 Motor Learning and Sport Pedagogy (4 Credits)
Graduate level course to educate students on the science and practice of how athletes learn motor skills and how coaches can facilitate skill acquisition. Course content includes the scientific and theoretical frameworks of motor learning, with a secondary examination of motor control and development. Applied course content will focus on how coaches can use learning strategies such as demonstration, instruction, feedback, and practice planning to improve athletic performance.

CPSY 4715 Strength, Conditioning, and Injury Prevention Program Design (4 Credits)
Graduate level course to educate students on the scientific, theoretical and practical foundations of strength, conditioning and injury prevention. Students will learn how to design strength and conditioning programs to enhance athletic performance and reduce and lessen the severity of injury. This course is also intended to help students become familiar with the National Strength and Conditioning Association’s (NSCA) Certified Strength and Conditioning Specialist (CSCS) exam, and position statements from several national governing bodies on athlete safety and physical performance.

CPSY 4720 Psychology of Athletic Performance (4 Credits)
Graduate level course to educate students on the psychological aspects of athletic performance, and secondarily coach performance. Course content includes the theoretical and practical application of established mental skills (e.g., motivation, efficacy, arousal, anxiety, focus, self-awareness, goal-setting, imagery, team cohesion). Concepts will be applied to the evaluation and creation of practice and training plans to enhance athletic performance.

CPSY 4725 Philosophy, Leadership and Legal Issues of Sport (4 Credits)
Graduate level course to educate students on the social foundations of sport and coaching. Course content includes the history and formation of sport and sport coaching, social issues (e.g., race, class, gender, inclusivity, etc.), how sport is used for (un)desirable ends and the public good, the coach’s role in demonstrating and encouraging ethical behavior, and legal concepts and the coach’s role in reducing negligence and promoting a healthy and safe environment for numerous stakeholders. Additional topics include themes across leadership theory (e.g., transformational and servant-leadership, emotional intelligence, athlete-centered coaching) and the relationship between educational institutions and sport/athletics. There are no prerequisites for this course.

CPSY 4730 Biomechanics of Athletic Performance (4 Credits)
Graduate level course to educate students on the biomechanics of athletic performance. Students will learn quantitative and qualitative methods of biomechanics to analyze and enhance athletic performance and prevent injury. Course content includes knowledge of the musculoskeletal system, force development and how additional factors such as body composition and joint structures influence athletic performance and injuries.
CPSY 4735 Understanding Sport Research (4 Credits)
Graduate level course to educate students on understanding and doing sport research. The primary focus of this course is on facilitating student’s understanding of research methods commonly used in sport research. Secondly, the course will examine how research is actually done, including reviewing the literature and writing and referencing scholarly work. Course content will cover topics such as paradigms and philosophy of science, epistemology and the creation of knowledge, and numerous research designs, methodologies and methods. Content will also include understanding statistics and qualitative methods.

CPSY 4740 Practicum 1 in Sport Coaching (1 Credit)
Practicum 1 in Sport Coaching helps students to gain the knowledge, skills and attitudes to become a quality coach and reflective practitioner through experiential learning. Students will draw upon MASC course content and their coaching experiences to reflect upon the complexities of sport coaching to integrate their knowledge and skills to identify and solve problems. Students must complete at least 50 hours of coaching for every one hour of credit enrolled. This course provides basic to intermediate level content and prepares students for Practicum 2. Prerequisites: Passed background check, submitted current CPR/First Aid certificate at level in which student is coaching and valid for the full quarter while enrolled. Student must be enrolled in the MASC program.

CPSY 4745 Practicum 2 in Sport Coaching (1 Credit)
Practicum 2 in Sport Coaching helps students to gain an advanced understanding of the knowledge, skills and attitudes to become a quality coach and reflective practitioner through experiential learning. Students will draw upon MASC course content and their coaching experiences to reflect upon the complexities of coaching to solve vital problems. Students must complete at least 50 hours of coaching for every one hour of credit enrolled. Prerequisites—one earned credit of Practicum 1, passed background check, submitted current CPR/First Aid certificate at level in which student is coaching and valid for the full quarter while enrolled. Student must be enrolled in the MASC program.

CPSY 4750 Sport Coaching Capstone (2-4 Credits)
Capstone literally means "a finishing stone or a structure." Similarly, students will complete a project that demonstrates the student’s initiative and excellence. To help explore the student’s interest and refine a suitable topic, students are encouraged to discuss the capstone project with course instructors early and throughout their time in the MASC program. Students may build off a previous course activity or assignment, but the Capstone Project must reflect new and substantive work appropriate to the number of hours enrolled. While students have the autonomy to negotiate new project ideas, sample projects could include: thesis or original research, review of literature paper, presentation at conference, leading a service-learning event, writing a book chapter, authoring a novel or other creative writing, or a webinar. Prerequisites: Students must have completed at least 16 credit hours towards the MASC degree and have completed or being enrolled concurrently in Understanding Sport Research.

CPSY 4991 Independent Study (1-17 Credits)
CPSY 4992 Directed Study (1-10 Credits)
CPSY 4995 Independent Research (1-17 Credits)
CPSY 5000 Rad Behav/Funct Contextl Models (3 Credits)
CPSY 5000 is designed to provide a historical, philosophical and conceptual background to better understand and appreciate Behaviorist views of "being-in-the world". The course lays the foundation for the sophisticated application of a science of behavior-its theories and methods-to the assessment of clinical problems and the art of doing psychotherapy. The course will invite a little discomfort, disturb some preconceptions, and compel students to address some difficult questions and thorny issues. Among the goals of this course are to see students commit to being more than a psychologist technician, to encourage them to develop a guiding philosophical core in their practice as a psychologist; to assist them in clarifying or deepening whatever philosophical worldview they may hold; and that they will have achieved an informed understanding of radical behaviorism/functional contextualism - whether or not they choose to further pursue these models.

CPSY 5010 Cognitive & Affective Models (3 Credits)
This is the first in a three part sequence that includes Psychophysiology and Clinical Neuropsychology and is designed to introduce students to the current research in cognitive neuroscience and consciousness. This first course focuses on sensation/perception, learning, memory, emotion, language and other higher cognitive functions. Lectures will emphasize current technologies and historical inquiry and the unique contributions made by psychosocial and cultural variables.

CPSY 5020 Psychoanalytic Models (3 Credits)
Psychoanalytic theories, including Freud's topographic and structural theories, ego psychology, object relations theory and modern relational theories, including self-psychology and intersubjectivity.

CPSY 5030 Systems Models (3 Credits)
Basic concepts of general systems theory and their applications in psychology, focusing on family systems, groups and organizations.

CPSY 5040 History and Systems in Psych (2 Credits)
Basic psychological concepts surveyed from a historical point of view, tracing development of psychological bases of professional practice.

CPSY 5050 Advanced Statistics (3 Credits)
CPSY 5051 Statistics I Lab (1 Credit)
CPSY 5070 Research Methods (2 Credits)
Sequential course that cover fundamentals of structuring, analyzing and critiquing research reports and proposals; strategies to guide and facilitate the writing process; attitude and thinking skills necessary for function as a local clinical scientist; research design tools, methods and strategies for answering different types of questions.
CPSY 5071 Research Methods II (2 Credits)
Sequential courses that cover fundamentals of structuring, analyzing and critiquing research reports and proposals; strategies to guide and facilitate the writing process; attitudinal and thinking skills necessary for function as a local clinical scientists; research design tools, methods and strategies for answering different types of questions.

CPSY 5073 Qualitative Research Methods (2 Credits)
Qualitative research involves obtaining in-depth information about the behaviors and beliefs of people in naturally occurring social settings. This course introduces students to the philosophical underpinnings, history, and key elements of five qualitative approaches: narrative research, phenomenology, grounded theory, ethnography, and case study. We compare theoretical frameworks and methodologies, experience the use of data, and discuss writing strategies. In addition, we read articles that are exemplars or each approach.

CPSY 5075 Program Evaluation Technique (3 Credits)
Theory and techniques for developing management information and assessment systems for human service programs.

CPSY 5080 Diagnosis and Classification (2 Credits)
An overview of major DSM diagnostic categories, as well as an introduction to ICD and noncategorical classification.

CPSY 5108 Introduction to Acceptance and Commitment Therapy (ACT) (2 Credits)
Acceptance and Commitment Therapy (ACT) belongs to the movement in clinical psychological science that sees acceptance and openness to experience as an essential addition to change-focused psychotherapeutic treatment strategies. Although consciously based on behavior-analytic thinking, ACT is a hybrid in terms of approach and technique, bringing together aspects of Zen Buddhism, Gestalt therapy, and humanist-existential thought. The paradox upon which ACT is founded is that only radical acceptance of what cannot be changed empowers people to recognize and change the things that they can. The ACT approach is about embracing necessary suffering in order to make more committed, life-affirming choices and live in accordance with personal values. ACT emphasizes that in a very deep sense all human beings are in the same boat. The technical and theoretical bases of ACT are through normal didactics, but the heart and art of the approach occurs through experiential exercises, group process, and from observation and modeling. Prerequisite: CPSY 5000.

CPSY 5120 Introduction to Animal-Assisted Interventions (3 Credits)
This course serves as an introduction to animal-assisted interventions (AAI) as they are commonly used by mental health care professionals. It is designed to provide students with an overview of the foundations of AAI, the variety of ways in which this modality is used, international perspectives on AAI, various perspectives on ethics and animal welfare, and researchers' current understanding of the role of the human-animal bond in facilitating AAI treatment efficacy. General topics to be addressed include the characteristics of the species used in AAI, the basic principles of AAI, the use of AAI with a variety of populations, and animal abuse issues. A number of guest lecturers will share their knowledge and experiences with students throughout the quarter.

CPSY 5130 Issues in Measurement (3 Credits)
Validity, reliability and standardization issues in psychological testing; statistical properties of commonly used tests.

CPSY 5131 Issues in Measurement Lab (1 Credit)
Optional. Focused assistance with basic math skills; review and clarification of class topics.

CPSY 5170 Life Cycle: Inf to Mid Childhd (3 Credits)
Understanding normal development of children (0-12 years), integrating theory, research and a phenomenological perspective.

CPSY 5180 Life Cycle: Adolescent - Adult (2 Credits)

CPSY 5200 Life Cycle: Late Adulthood (3 Credits)
Theories of aging; social, psychological and biological changes; assessment and intervention methods, emphasizing issues impacting older adults. (65 years and above).

CPSY 5230 Group Dynamics & Interventions (3 Credits)
Provides psychologists in training with multiple learning experiences highlighting that groups and organizations are intensely psychological environments in which most psychologists function professionally and personally and have the potential to impact positively.

CPSY 5231 Social Psychology (3 Credits)

CPSY 5250 Existential and Humanistic Theory and Therapy (2 Credits)
Historical roots and basic assumption of existential and humanistic views. Students encouraged to integrate materials with their personal values and assumptions about human nature and their interaction with clients.

CPSY 5270 Physiological Psychology I (3 Credits)
Terminology and principles of and research in physiological psychology. Where possible, application made to content and practice of clinical psychology.

CPSY 5271 Physiological Lab I (1 Credit)
Optional. Assistance with material covered in CPSY 4170.
CPSY 5273 Physiological Lab II (1 Credit)

CPSY 5290 Clinical Neuropsychology (3 Credits)
Historical, conceptual and clinical foundation for, as well as current developments related to, the field of clinical neuropsychology. Includes exposure to: developmental neuropsychology and neuroanatomy; higher cognitive functions; neuropsychologically informed interviews and standard neuropsychological test batteries; neuropsychological profiles associated with a variety of acquired disorders (both classical neuropsychological and psychological in nature); ethnic, cultural, age and gender considerations; and current status of a variety of professional/ethical issues. Prerequisite: CPSY 5270.

CPSY 5310 Ethical Issues in Psychology (3 Credits)
In-depth consideration of ethical standards applicable to the science and practice of psychology; pertinent laws and legal standards governing the practice of psychology; areas in which legal and ethical standards suggests contradictory actions on the part of the clinical psychologist.

CPSY 5320 Professional Issues in Psych (2 Credits)
Issues, concerns and controversies impacting current practice of professional psychology at the state and national levels; preparation for future alternative systems of service delivery. Emphasis is on professional life after the PsyD. Required for first year students.

CPSY 5340 Social Psychology of Racism and Oppression (3 Credits)
Theoretical and experimental nature of racism and oppression, primarily in the United States, definition of such terms as stereotypes, prejudice, racism, white supremacy and privilege; exploration of various theories regarding these terms and how they manifest themselves historically and contemporarily.

CPSY 5360 Racial/Ethnic Identity Dvlpmnt (3 Credits)
This course will explicate the concept of ethnic identification, and the process by which this central aspect of a person's overall identity develops. Accordingly, the two central questions that this course will address are: a. who are they? and b. how did they get that way? These questions will be examined utilizing a Descriptive Psychology perspective.

CPSY 5370 Lesbian, Gay, Bisexual and Transgender Issues (3 Credits)
Various aspects of gay, lesbian life explored cross-culturally; nature of homosexuality, including the controversy of heredity vs. choice. Issues of oppression and discrimination will also be explored. The role of psychology and the politics of homosexuality will be studied. Students will also be asked to explore their personal awareness regarding homosexuality in their everyday lives and in a therapeutic context.

CPSY 5380 Culturally Competent Psychotx (3 Credits)
As the final class in the year-long multicultural course sequence, this class will integrate the theoretical content of the preceding classes and focus on their psychotherapeutic implications. This course will address psychotherapy with the following groups - African Americans, Asian Americans, Latinos, Native Americans, and the GLBT community.

CPSY 5385 Pro Sem: Beg. Psychotherapy (2 Credits)
This is a clinical and didactic seminar on beginning psychotherapy. The focus will be on case formulation and developing a therapeutic relationship with the client.

CPSY 5386 Pro Sem: Child & Ad Psychother (2 Credits)
This seminar involves the evaluation and treatment of children, adolescents and their parents in the Professional Psychology Center. Supervision is provided from an integrative perspective, and topics relevant to child and adolescent psychotherapy are discussed.

CPSY 5388 Pro Sem: Psychological Assessmt (2 Credits)
Assessment is a central feature of the work of the clinical psychologist. This seminar is an opportunity to hone your knowledge and skills in personality and cognitive assessment. It will involve some lecture, but mainly focus on supervision of assessment cases obtained through the Professional Psychology Clinic. You will be expected to complete four assessments during the year - you certainly can do more if you wish. You also will have the opportunity to present a case you have completed to the seminar during the Spring quarter.

CPSY 5389 Pro Sem: Behavior Therapy (2 Credits)
This advanced professional seminar draws upon pragmatic philosophy and contextualistic worldview as it informs and guides contemporary behavior analytic theory and practice. Students gain experiences using functional analysis as a method for describing and integrating clinical observations and learn to implement a variety of evidence based, acceptance inspired interventions designed to facilitate psychological flexibility and values-congruent living in clients from diverse backgrounds. Therapeutic work is conducted in an atmosphere of care, respect, compassion, and commitment, and challenges the client (and therapist) to be more open, aware, vulnerable, and present in their lives.
CPSY 5390 Pro Sem: Forensic Issues (2 Credits)
This seminar will introduce students to the various areas and ways in which psychology interacts with the legal and criminal justice systems. Students will develop their capacity to perform evaluations relating to psychological questions, dilemmas, and disputes that are most frequently requested of forensic psychologists. Focus of the seminar will be on assisting students in clarifying their role as an evaluator and consultant to attorneys, judges, and criminal justice personnel; exploring the ethical responsibilities therein; learning to compose reports for a legal rather than a clinical audience; and preparing to testify as an expert witness. Students will formulate and deliver case presentations, participate in a "mock" testimony experience, and submit reports. Students in past seminars have conducted child custody evaluations, mental status at time of offense evaluations, Social Security disability evaluations, asylum, T-visa, and U-visa evaluations, animal abuse, competency and juvenile placement evaluations; these evaluations allow students the opportunity to conduct full battery psychological assessments, and learn how to apply findings to a legal context. In addition, we have been getting more court mandated therapy clients. Thus, students will get assessment experience as well as individual therapy experience with adults and children. Assessment experience required. If you have not completed all assessment courses, please speak to Lavita. Students are required to complete a combination of 4 assessments/therapy clients during the course of the year. Please note that the forensic seminar requires a substantial time commitment because assessments requires longer sessions with clients to administer tests, time to score and interpret tests, and report writing.

CPSY 5391 Professional Seminar: Psychodynamic Therapy (2 Credits)
This seminar focuses on psychodynamic psychotherapy - that is, individual adult psychotherapy with the aim of bringing about meaningful and lasting psychological concepts as they apply to your patients, with a practical, "hands on" focus - for example, what to do and say when your patient shuts down, threatens suicide, act out, comes on to you, misses appointments, gets worse, throws up in your office, and all the other troubling and fascinating things people do from time to time in psychotherapy. Prior or current personal psychotherapy is highly desirable and strongly recommended. Students should be prepared to discuss their clinical work candidly - and help foster an environment of mutual trust, compassion, and respect, in which candid discussion can take place.

CPSY 5392 Pro Sem: Couple and Family (2 Credits)
This seminar allows students more in-depth training in working with systems including couples and families. Students should take Couples Therapy and Family Therapy either before or concurrent with the seminar. Special topics covered include divorce, step families parenting, sex therapy, multicultural issues, and ethics, as well as more general couple and family therapy work.

CPSY 5393 Pro Sem: ACT (2 Credits)
Acceptance and Commitment Therapy (ACT) is a pragmatically based, relatively new and highly experiential form of therapy whose overarching goals are to a) assist clients (and therapists) in accepting what cannot be changed (i.e., the form or frequency of certain private events), while b) helping them fully commit to behaving in accordance with idiosyncratic values. Although consciously based on behavior-analytic thinking, ACT is a hybrid therapy in terms of approach and technique, bringing together aspects of Zen Buddhism, Gestalt therapy, and humanist-existential thought. In the seminar, students will learn the technical and theoretical bases of ACT through group process, individual and small group supervision, as well as from observation and modeling. Prerequisite: Behavioral Models course.

CPSY 5394 Professional Seminar: Cognitive Therapy (2 Credits)
This is a year-long seminar in cognitive-behavior therapy (CBT). Trainees learn the theory and practice of CBT through readings, didactic presentations, discussion, and especially case presentations. Small-group supervision is also required. Other orientations to therapy and common factors are also covered.

CPSY 5396 Pro Sem: Adv. Psychotherapy (2 Credits)
Seminar will focus on the individual therapy treatment of adult cases. Particular emphasis will be placed on conceptualizing cases from a developmental perspective with no particular emphasis on object relations and the psychology of self. We will evaluate culture, role of trauma, issues of sexual orientation, and developmental history. Students will be encouraged to look at their own and other's responses in a supportive environment that will foster discussion on counter-transference responses. An in depth exploration of client's needs will be assessed and model the treatment to those needs, rather than applying the same treatment model to all patients. Previous exposure and readings on the psychology of self and object relations is helpful. Readings to deepen our understanding of the above will be assigned. Must have taken or be currently enrolled in Adult Psychopathology sequence. Prerequisite: Psychoanalytic Models course.

CPSY 5399 Professional Seminar: Gender Issues (2 Credits)
This seminar will focus on gender issues from developmental and psychodynamic perspectives. Topics will include issues relevant to women, men, and transgendered/intersexed individuals. Clients may include adolescents and adults with a variety of presenting concerns including relationship problems, identity issues, eating disorders, pregnancy and postpartum work, parenthood, mood and anxiety disorders, and aging.

CPSY 5404 Prof Sem: Integrative Therapy (2 Credits)
This advanced seminar examines various integrative models of psychotherapy, and students will have the opportunity to develop their own therapeutic "voice" by integrating the major theories already learned at the GSPP. While the seminar will be theoretical in nature, one goal is to help students prepare for practice in the real world by exploring the common factors of therapy, and how to work collaboratively in a client-directed fashion. Clients may include adults, adolescents, and children with a wide variety of presenting concerns, in individual, couples, family, or group therapy. Students will be expected to present their work regularly on DVD and (in Dr Cornish's supervision), occasionally behind the two-way mirror. Competency areas covered include: professionalism, reflective practice, scientific knowledge and methods, relationships, individual and cultural diversity, ethical/legal standard and policy, assessment, and intervention. In addition to supervision on psychotherapy, there may be an option for students to be supervised on their supervision of a first year student in the PPC.
CPSY 5405 Advanced Relational Psychodynamic Seminar (2 Credits)
This seminar focuses on relational psychotherapy from the perspectives of self-psychology and intersubjective systems theory in working with adults. We examine the co-creation of the therapeutic relationship, the making of meaning, emphatic listening, attuning to the other’s affective experience and putting the other’s subjective experience into words. We develop treatment plans and case formulations that are consistent with this perspective.

CPSY 5406 Professional Seminar: Health Psychology (2 Credits)
This advanced seminar focuses on the ways that clients’ physical health concerns affect psychosocial and emotional well-being. We focus on the relationship between the mind and the body and take a holistic and contextual approach to understanding work with clients, keeping in mind relational and cultural variables throughout the seminar. Clients in the PPC that have been in this seminar have had cancer, multiple sclerosis, diabetes, heart failure, chronic pain, autoimmune diseases, etc. As relevant to our work with clients, we discuss pain management, mindfulness, differential diagnosis of depression and anxiety, sleep hygiene, psychosocial oncology, grief and loss, and other empirically supported treatments for issues that clients present. The overarching theoretical framework of the course is relationship-focused, client-centered, and strengths-based. We draw on rehabilitation psychology and medical psychology, and explore diversity issues in a variety of ways, including examining disability as a multicultural issue. We use readings from interpersonal psychotherapy, feminist and multicultural therapy, positive psychology, meaning-centered psychotherapy, humanistic/existential therapy, client-centered therapy and post-traumatic growth to guide discussions. Particular attention is paid to helping clients enhance their strengths and find meaning in their lives during times of transition. Since many health settings are focused on a short-term model of treatment, students in seminar have the option of taking on shorter-term cases and we explore the use of time-limited psychotherapy in a health setting. It is expected that most students take on new cases in this seminar.

CPSY 5420 Behav-Analytic Prin 1 (2 Credits)
This course covers philosophical foundations, assumptions, and principles underlying major systems and models of behaviorism. Emphasis is given to the philosophy of science called radical behaviorism and its behavior-analytic functional-contextualistic tradition. Course 1 specifically targets contingency-shaping selection processes based upon Pavlovian and operant conditioning paradigms. Recommended prerequisite: CPSY 5000.

CPSY 5421 Behavioral Analysis Princ La (1 Credit)

CPSY 5422 Behav-Analytic Prin 2 (2 Credits)
This course covers philosophical foundations, assumptions, and principles relevant to cultural-linguistic practices. Emphasis is given to the philosophy of science called radical behaviorism and its behavior-analytic functional-contextualistic traditions. Course 2 specifically addresses verbal relational contingency selection processes based upon cultural and its verbal community. Prerequisite: CPSY 5420.

CPSY 5423 Behav-Analytic Assess/Case Frm (2 Credits)
This course covers the philosophical foundations, assumptions, and principles relevant to behavioral assessment and case formulation tactics. Emphasis is given to the philosophy of science called radical behaviorism and its behavior-analytic functional-contextualistic traditions. This course specifically targets an empirical data-driven approach to idiographic assessment for purposes of developing conceptual analyses from the contextual-functional analytic perspective. Prerequisites: CPSY 5420, CPSY 5422.

CPSY 5424 Behavior-Analytic Intervention (2 Credits)
This course provides an overview of issues, principles and methods basic to clinical practice and intervention. Emphasis is given to the philosophy of science called radical behaviorism and its behavior-analytic functional-contextualistic traditions. This course specifically targets a range of commonly used methods of intervention (e.g., counter-conditioning and exposure-based treatments, guided action strategies, acceptance-commitment approaches, Eastern interventions). Issues relevant to the structuring of therapy sessions, the therapeutic relationship, behavioral nonadherence, empirical research, and other topics of therapeutic interest will be reviewed. This course will incorporate the use of experiential exercises, modeled demonstration, and behavior rehearsal methods for training purposes. Prerequisites: CPSY 5420, CPSY 5422, CPSY 5423.

CPSY 5466 Health Psychology (2 Credits)
This course is designed to provide students with a broad overview of the salient empirical and theoretical aspects of health psychology and behavioral medicine. The course will emphasize the role that psychological variables play in the development, exacerbation, treatment and prognosis of both acute and chronic illness. We will also highlight sociopolitical and cultural discourse surrounding end-of-life decision making, healthcare accessibility and the phenomenology of a disabled population.

CPSY 5467 Health Psychology Service Learning Seminar (1 Credit)
The Health Psychology Service Learning Seminar provides the opportunity for students to gain clinical experience with the underserved/underrepresented populations covered in the Health Psychology course (CPSY 5466). Students who enroll in the Seminar must agree to complete 20 hours of supervised clinical service with an agency and supervisor of their choice.

CPSY 5468 Sport and Performance Psychology Practicum in Collegiate Athletics I (2 Credits)
This is the first course in a year long, three-part sequence. This course serves the purpose of providing: a) practice in sport and performance psychology in a NCAA Collegiate Athletic Department under the supervision of licensed practitioners; b) an opportunity for students to learn about sport and performance psychology through observation and experiential opportunities; and c) information on professional development and conduct. The course requires didactic and experiential activities. The didactic component covers the practice of sport and performance consulting, focusing on gaining entry and building working relationships. Current research is integrated with theory, emphasizing empirically validated approaches to best practice.
CPSY 5469 Sport and Performance Psychology Practicum in Collegiate Athletics II (1 Credit)
This is the second course in a year long, three-part sequence. This course serves the purpose of providing: a) practice in sport and performance psychology in a NCAA Collegiate Athletic Department under the supervision of licensed practitioners; b) an opportunity for students to learn about sport and performance psychology through observation and experiential opportunities; and c) information on professional development and conduct. The course requires didactic and experiential activities. Psychological consultation, best practices, and professional development issues in sport and performance psychology are addressed.

CPSY 5470 Sport and Performance Psychology Practicum in Collegiate Athletics III (2 Credits)
This is the third course in a year long, three-part sequence. This course serves the purpose of providing: a) practice in sport and performance psychology in a NCAA Collegiate Athletic Department under the supervision of licensed practitioners; b) an opportunity for students to learn about sport and performance psychology through observation and experiential opportunities; and c) information on professional development and conduct. The course requires didactic and experiential activities. Psychological consultation, best practices, and professional development issues in sport and performance psychology are addressed.

CPSY 5480 Integrated Primary Care (2 Credits)
This course is designed to provide an introduction to the field of Integrated Primary Care (IPC). Primary health care physicians currently serve as the de-facto mental health care providers for approximately 50-80% of the patients they serve. Psychologists are desperately needed to support primary care, yet traditional clinical training does not adequately prepare them to work in this field. Students in this course can expect to acquire a solid knowledge in IPC that will enable them to function effectively in the primary care culture. A clinical exposure component are required so students can experience the pace and problem range seen in the primary care office. Class size is limited. Students not enrolled in the PsyD program must petition the instructor for approval to register.

CPSY 5482 Health Psychology Service-Learning: Clinical Practice in Integrated Primary Care (1 Credit)
This course will be a clinical and didactic seminar for students who are involved in service-learning projects in integrated primary care clinics in the community. Students will participate in service-learning, clinical rotations, and administrative and consultation duties outside of the course time. The course format will include time for clinical supervision of community cases, didactic training on topics of relevance to integrated primary care settings, and lectures from interprofessional community preceptors from the clinics. Prerequisite: Health Psychology CPSY 5466 or permission of the instructor.

CPSY 5500 Diagnosis & Treatment of Children (2 Credits)
CPSY 5505 Diagnosis & Treatment of Adolescents (2 Credits)

CPSY 5550 Couples Therapy (2 Credits)
Theory, techniques and research relating to couples therapy, including theoretical perspectives: behavioral couples therapy, emotionally-focused couples therapy and object relations couples therapy. The course also addresses specific problem areas, including domestic violence, infidelity, depression, anxiety, substance abuse and personality disorders. Prerequisite: CPSY 5030.

CPSY 5560 Family Therapy (2 Credits)
Theory, techniques and research relating to family therapy, including several theoretical perspectives: behavioral, experiential, psychodynamic, multigenerational approaches. Special topics covered include working with community resources, addressing developmental issues of children, working with medical and school systems, utilizing cultural factors in planning programs and interventions and adults in family therapy. Prerequisite: CPSY 5030.

CPSY 5562 Psychological Consultation (2 Credits)
This course provides an overview of the practice of psychological consultation. Theories and models of consultation in various settings including businesses, organizations, health care, and schools are covered. The process and stages of consultation from entry to termination are analyzed. This class differentiates consultation from other types of psychological interventions. Important legal, ethical and multicultural issues in consultation are addressed throughout the course. Students develop their own model for conducting consultation and refine that model through work with local organizations. Students increase their awareness of their strengths and weaknesses in the practice of consultation. Methods of instruction include lecture, discussion, experiential exercises, and interactions with local organizations and professional consultants.

CPSY 5590 Adult Psychopathology I (2 Credits)
Theoretical understanding and treatment of adults within a developmental, ego analytic framework. First quarter-differences between the neuroses, borderline, and psychoses. Prerequisite: CPSY 5020.

CPSY 5591 Psychodynamic Psychotherapy (2 Credits)
Theoretical understanding and treatment of adults within a developmental, ego analytic framework. Second quarter - the neuroses. Prerequisite: CPSY 5020.

CPSY 5592 Adult Psychopathology III (2 Credits)
This course is a continuation of Adult Psychopathology I and II with an emphasis on complex trauma and the psychotic disorders. Diagnostic understanding, differential diagnosis, and treatment implications are emphasized within a psychoanalytic orientation. Prerequisites: CPSY 5590 and CPSY 5591 or instructor approval.

CPSY 5620 Intersubjective Systems Theory (2 Credits)
This course focuses on psychotherapy from the perspectives of intersubjective systems theory in working with adults. We examine the co-creation of the therapeutic relationship, the making of meaning, empathic listening, attuning to the other’s affective experience and putting the other’s subjective experience into words. We develop treatment plans and case formulations that are consistent with this perspective.
CPSY 5680 Cognitive Assessment (4 Credits)
Theoretical, professional and clinical issues involving intelligence and its measurement; assessment of cognitive functioning and clinical interpretation of test results, focusing on the WAIS-III (and child equivalents). Prerequisite: CPSY 5130.

CPSY 5685 Introduction to Pediatric Neuropsychological Assessment (2 Credits)
Pediatric neuropsychology integrates many basic sciences including behavioral Neurology, developmental psychology, neuroanatomy, psychopathology, and psychological assessment. The role of pediatric neuropsychologist is to provide comprehensive assessment, consultation, and intervention in the context of a developing child. The course will review important concepts, theories, and empirical research in the field of pediatric neuropsychology. Students will learn the basic rationale in conducting a pediatric neuropsychological evaluation, including a brief review of many common pediatric assessment measures. In addition, many common pediatric disorders will be reviewed from a neuropsychological perspective including: Dyslexia, Attention Deficit hyperactivity Disorder, Pervasive Development Disorders, Traumatic Brain Injury, Seizure Disorders, and Mental Retardation. Upon completion of the course the student will have a greater appreciation of a neuropsychological conceptual framework and have a better understanding of specific pediatric disorders.

CPSY 5686 Suicide Prevention, Intervention and Postvention (2 Credits)
Suicide is a serious public health issue and challenge for the nation, Colorado, and our local communities. In 2009, suicide claimed the lives of almost 34,000 people in the United States and is the second leading cause of death for college students and men ages 25-34. In Colorado, there are many more suicides than motor vehicle deaths. While most clinicians are focused on the assessment and treatment of people at high risk for suicide, a more comprehensive approach is needed to prevent people from becoming suicidal in the first place. This course covers best practices in suicide prevention, intervention and “postvention” (suicide crisis response) and will explore the particular issues of several vulnerable populations.

CPSY 5687 Contemporary Issues in Geropsychology (2 Credits)
This course addresses issues in aging. Topics include healthy aging, aging issues in diverse populations, contemporary options for care, challenges in service delivery, the interplay of medical and mental health needs, mental health treatment approaches and issues, and end-of-life issues.

CPSY 5690 Introduction to the Rorschach (4 Credits)
Exner’s Comprehensive System for administering, scoring and development hypotheses with the Rorschach Test. Prerequisite: CPSY 5130.

CPSY 5692 Advanced Rorschach Analysis (2 Credits)
This course is an exploration of advanced topics in Rorschach interpretation. Topics will include: conceptual understanding of the Comprehensive System; content and sequence analysis; differential diagnosis; integrating alternative systems of interpretation with the Comprehensive System; development and use of special scales; appropriate use of computerized interpretation; and integration of Rorschach analysis with personality theory. Prerequisites include course work in Rorschach administration, scoring and basic interpretation; and in personality theory. Students will be expected to score, analyze, and present Rorschach protocols.

CPSY 5700 Adv Personality Assessment (3 Credits)
Projective techniques including Rorschach, storytelling tasks and projective drawings, with a focus both on test content and the patient-examiner relationship in the context of the diagnostic consultant. Prerequisites: CPSY 5130, CPSY 5680, CPSY 5690.

CPSY 5705 Self Report Assessment (3 Credits)
Construction and application of objective instruments, emphasizing the MMPI and MCMI. Students are required to submit test reposts. Prerequisite: CPSY 5130.

CPSY 5706 Self Report Assessment Lab (1 Credit)
Optional. For students anticipating a need for extra help with report writing.

CPSY 5710 Intro to the Crisi Wartegg System for the WDCT: Administration, Scoring, and Basic Interpretation (2 Credits)
This course introduces the Crisi Wartegg System (CWS), a new methodology for the clinical use of the Wartegg Drawing Completion Test (WDCT). The WDCT is a projective drawing technique that can be completed in 5-10 minutes and is appropriate for children, adolescents, and adults. It is easy to administer and not overwhelming for clients to complete. The WDCT is not well known in the United States; however, a recent meta-analysis (Gronnerod & Gronnerod, 2011) attests to its validity in assessing personality and psychopathology. The course will review the history and theory of the WDCT, teach its administration, introduce the major features of the scoring system, and discuss basic interpretation. Prerequisites: CPSY 5680 Cognitive Assessment, CPSY 5705 Self Report Assessment, and CPSY 5690 Introduction to Rorschach.

CPSY 5711 Introduction to the Crisi Wartegg System for the WDCT: Lab (1 Credit)
This lab accompanies the Crisi Wartegg System course (CWS). It supplements material presented in the class and provides an experiential component to training in the CWS. It will include applied practice of administration, scoring and calculations, as well as basic clinical case interpretation. Concurrent enrollment in the Crisi Wartegg System course is required. Prerequisites: CPSY 5680 Cognitive Assessment, CPSY 5705 Self Report Assessment, and CPSY 5690 Introduction to Rorschach.

CPSY 5740 Integrative Personality Assessment (2 Credits)
This course is the culmination of the assessment sequence, and integrates techniques, approaches and concepts covered in issues in Measurement, Cognitive Assessment, Objective Personality Assessment, and Rorschach. Aspects of the other core courses in the curriculum will also be brought to bear on the question of how to obtain and how to interpret information within various theoretical models for the purposes of answering referral questions and planning interventions. Projective testing will be introduced as a source of behavior samples for which the occasioning environment is known to the psychologist. There will be focus on distinguishing interpretable from irrelevant information, and on integrating interpretable information into meaningful patterns. The goal of using assessment to answer referral question and plan treatments will generate a special focus on report writing.
CPSY 5741 Therapeutic Assessment (2 Credits)
This course explores the advances made in understanding and enhancing the therapeutic impact that assessment can have on clients. We read broadly in the area: from the genesis of collaborative assessment fueled by Fischer to the empirical foundations and structure of Therapeutic Assessment provided by Finn to novel applications of the approach highlighted by Handler. This important movement in assessment is applicable to personality, cognitive, and neuropsychological assessment as well as any professional endeavor that aims to help clients understand themselves in life-changing ways. The course is designed for those with a solid foundation in assessment who wish to develop greater facility in helping their clients.

CPSY 5745 Human Sexuality (2 Credits)
The psychology of human sexuality is a survey of historical and contemporary psychological views on a wide variety of sexual behaviors; theory and research bearing on the relationship between life span, psychological development, psychological functioning, interpersonal processes, and sexual behaviors; political and social issues involved in current sexual norms and practices. Specific implications for clinical psychology will be discussed.

CPSY 5750 Supervision (2 Credits)
This course is designed to familiarize students with theories of supervision; provide practical, guided experience in peer supervision/consultation; help students understand and critically discuss the supervisory process; aid in gaining awareness of how multicultural issues may affect supervision; and familiarize students with ethical and legal issues in supervision.

CPSY 5755 Supervision Practicum I (1 Credit)
This is a four quarter sequence, 1 quarter credit hour/quarter, in which advanced students will have the opportunity to supervise on beginning student under the overall supervision of a faculty member. Each quarter practicum will include appropriate level readings, group discussions and report writing. Admission to the course with instructor's approval.

CPSY 5756 Supervision Practicum II (1 Credit)
This is a four quarter sequence, 1 quarter credit hour/quarter, in which advanced students will have the opportunity to supervise one beginning student under the overall supervision of a faculty member. Each quarter practicum will include appropriate level readings, group discussions and report writing. Admission to the course with instructor's approval.

CPSY 5757 Supervision Practicum III (1 Credit)
This is a four quarter sequence, 1 quarter credit hour/quarter, in which advanced students will have the opportunity to supervise one beginning student under the overall supervision of a faculty member. Each quarter practicum will include appropriate level readings, group discussions and report writing. Admission to the course with instructor's approval.

CPSY 5758 Supervision Practicum IV (1 Credit)
This is a four quarter sequence, 1 quarter credit hour/quarter, in which advanced students will have the opportunity to supervise one beginning student under the overall supervision of a faculty member. Each quarter practicum will include appropriate level readings, group discussions and report writing. Admission to the course with instructor's approval.

CPSY 5760 Professional Issues II (2 Credits)
This class provides an organized and comprehensive approach to pre-doctoral psychology internship selection, emphasizing an understanding of "fit." Topics covered include choosing sites; writing cover letters, CVs, and AAPI essays; preparing application materials; interviewing techniques; rank ordering sites; and dealing with emotions related to the process. The course syllabus includes important readings from the current literature. Lectures are balanced with guest appearances by DU Writing Center staff and others. Opportunities are given for role play among the students.

CPSY 5762 Qualitative Data Analysis (3 Credits)
This course, designed for psychology students who are completing their doctoral or masters' projects, focuses on qualitative data analysis. Throughout the course, we explore different research traditions including phenomenology, grounded theory, ethnography, case study and critical theory. In doing so, we discuss their differing philosophical assumptions, procedures for research, and methods for data collection and analyses. Emphasis is placed on developing skills in qualitative data analysis techniques such as indexing, coding and memo writing. Students also gain experience using qualitative data software (NVIVO 7) and exploring its utility for visual representations and other analytic approaches to understanding their data.

CPSY 5765 Cognitive Behavioral Therapy (2 Credits)
This course focuses on clinical applications of cognitive-behavioral theory. Major theorists in the area are reviewed, including Ellis, Beck, Lazarus, and Meichenbaum. Research utilizing cognitive-behavioral therapy as an evidence-based practice are reviewed. In addition, key cognitive behavioral techniques are demonstrated and practiced.

CPSY 5770 Doctoral Paper Preparation (2 Credits)

CPSY 5775 Clinical Psychology Internship (8 Credits)

CPSY 5815 Trauma and its Aftermath (2 Credits)
Conceptual model for treating trauma; incidence and specific treatment techniques for various types of trauma (e.g. combat vets, survivors of natural disaster and victims of childhood abuse); professional issues relating to trauma (e.g. secondary PTSD and ethical issues). Students exposed to a variety of reading and expected to integrate current research into clinical application. For advanced students who have both a clinical and conceptual background.

CPSY 5816 Int'l Psychology Externship (5 Credits)
International externship is one component of a yearlong advanced seminar. The five credit course offers students the opportunity to work with victims of disasters in an international setting.
CPSY 5825 Introduction to Latino Psychology and the Latino Experience (3 Credits)
This course will highlight the current psychosocial research and literature relevant to the mental health of Latina/o populations including influences of culture, acculturation, immigration, and language on utilization of psychological services. The course will explore the variables that can affect how different Latino groups respond in a unique way to the various services offered in the community. This course will familiarize the student with the personal, social, cultural and institutional forces that affect the psychology of Latinos, to include history, religion, gender roles, emotional processing, violence, bilingualism, and stigmization and oppression.

CPSY 5826 Therapy and Psychological Intervention with Latinos (3 Credits)
As the second course in GSPP’s Latino Psychology sequence, this course examines the theories and models of research on psychotherapy with Latinos to prepare future therapists to engage in culturally responsive services with the growing U.S. Latino population. This course focuses on clinical interventions that address that particular mental health needs of Latinos in the United States. A particular emphasis is placed on the skills that are necessary in order to attain clinical competence treating members of the various Latino groups, by both Latino and non-Latino clinicians. Empirically-based psychological treatments for Latino patients will be examined. Creative ways will be discussed for adapting these interventions with Latinos. Discussion of clinical cases will be integrated into the course. Prerequisite: CPSY 5825.

CPSY 5827 Assessment with Latinos (3 Credits)
As the third course in GSPP’s Latino Psychology sequence, the Psychological Assessment with Latinos addresses the cultural considerations needed for interviewing and conducting psychological evaluations of Latinos. Clinical interviewing techniques and measures across all psychological assessment domains, including diagnosis, personality, and cognition, as well as more specialty-focused areas such as neuropsychological assessment, forensic assessment, and school-based assessment will be covered. The class will explore the strengths and limitations of each assessment measure with a particular focus on language, research and norming issues, and administration. Prerequisite: CPSY 5825 and CPSY 5826.

CPSY 5828 Latino Psychology Practicum (3 Credits)
This course is designed to sharpen your clinical skills by examining current cases and analyzing appropriate intervention and assessment techniques as a class. Students will formally present cases from their current caseload, in traditional case presentation format. We will base our following discussions in Latino psychological theory and orientations, and apply didactic material learned in the previous three courses of the Latino sequence. Case discussions will be sustained by students and will be positive, constructive, and ethical. It will be important for students to remain open to feedback, new approaches, constructive criticism, and exploring their strengths and weaknesses as early clinicians among their peers and professor. This course is also designed to assist students in the management of their complete caseload and seek advisement from the class on professional issues encountered as a Latino psychologist, in order to maintain both an ethical and realistic professional perspective.

CPSY 5840 Psychopharmacology (2 Credits)
CPSY 5846 Military Culture & Psychology (2 Credits)
This course is intended to provide an introduction to military culture and military psychology. A primary focus will be on training the students to be culturally competent clinicians when providing services to veterans, service members and their families. Overall tenets of military culture will be reviewed; however, focus on the individual service member or veteran’s experience will also be highlighted as there are many subcultures within the military. The diversity of military experience is related to multiple factors, such as branch, job, rank, location of service, era, deployment experience, combat status and individual identity. An additional focus of the course will be on basic topics that are important to understanding military psychology. Some of these concepts include core military values, training, branches of the service, the assignment to specific jobs, military mental health services, preparation for high-risk operational assignments, occupational hazards and discharge related issues. Ethical and legal issues related to working with this population will also be discussed.

CPSY 5845 Intro to Psychosocial Oncology (3 Credits)
In this course, students will be introduced to the field of Psychosocial Oncology. This course will include an overview of the physiological processes involved in cancer prevention, etiology, and treatment. Students will develop a better knowledge of the different types of cancer, staging, and treatment options. A brief history of the field of psychosocial oncology will also be presented. The psychological sequelae of cancer diagnosis, treatment, metastases and recurrence, and survivorship will be included in this course. Special topics will also include working with caregivers and family members of cancer patients, sexuality and cancer, and working with patients and families at the end of life. Common psychotherapeutic interventions and assessments for oncology settings will be explored. In addition, the variety of roles of a psychologist in oncology settings will be discussed. Themes that will be included throughout the course are ethical and reflective practice, working with cancer patients from a multicultural perspective, and reducing compassion fatigue.

CPSY 5880 Business Issues in Professional Psychology (2 Credits)
This course introduces students to business principles as they apply to professional psychology. Students think through various business practice decisions, such as starting, managing, marketing, and diversifying a psychology practice and consider the related legal, ethical, and financial issues.

CPSY 5989 Doctoral Paper Development (1 Credit)
This course is designed to facilitate the development and writing of the doctoral paper. Students are expected to adhere to the GSPP Doctoral Paper Guidelines and the APA style guidelines. A major feature of the class is student-to-student sharing and critiquing of doctoral project ideas and plans. Students are expected to take advantage of this opportunity to hone their writing skills and develop their doctoral paper proposal. Students have complete the proposal phase of their project further develop their research methodology.
Communication (COMN)

Courses

COMN 3130 Organizational Communication (4 Credits)
This is an applied course, service learning course, based on a consulting model. While the course will extend and enrich the topical and theoretical knowledge developed in COMN 1550 and COMN 2130, the primary purpose of this course will be to help students explore how they can put such knowledge into practice by collectively working with a local non-profit organization to first diagnose and then propose (and, in some cases implement) solutions to an organizational communication problem faced by that organization.

COMN 3230 Principles of Leadership (4 Credits)
Roles, functions, behaviors that influence and direct; emphasis on interpersonal effectiveness; theories and methods.

COMN 3245 Building Group/Team Effectiveness (4 Credits)
The objectives of this course are to help students acquire a deeper understanding of groups and teams, how they function, and what contributes to their success or failure. It also aims to help students develop the skills and capacities that will allow them to contribute in concrete and significant ways to successful outcomes and satisfying experiences for themselves and others in groups and teams. Cross listed with LDRS 2540.

COMN 3270 Health Communication (4 Credits)
This course examines the role of health communication in our everyday lives. We will focus on communication strategies that inform and influence individuals, families and communities in decisions that enhance health. We will also explore the dynamics and impact of health communication between individuals and the health care system such as doctor-patient communication, dissemination of health related information, and the role of mediated communication in examining health communication.

COMN 3280 Family Communication (4 Credits)
The purpose of this course is to enhance understanding about communication patterns within families. In this course, we will examine theory/research on the role of communication in creating and maintaining healthy marriages and families. Specifically, we will study communication and the family life cycle, different family forms, family race/ethnicity, power in families, conflict in families, communication and stress in families, and communication in the aging family. The course format includes lectures, discussions, analysis of case studies, and in class applications.

COMN 3285 Advanced Relational Communication (4 Credits)
Advanced Relational Communication is intended to increase understanding of relationships from diverse perspectives. The three main perspectives we will investigate show how relationships affect and are affected by their context, the individuals involved, and the relational system. The goals of this course are for students to increase their skill in (1) explaining how knowledge about context, individuals, and relational systems increases understanding of communication processes in a variety of relationships; (2) evaluating critically the information about relationships that we encounter in our everyday lives; (3) asking and investigating questions about real-life relationships.

COMN 3290 Communication and Aging (4 Credits)
In this course, we will focus on the communication processes associated with aging. We will explore the implications of aging and how aging affects the process and outcomes social and relational interactions. We will examine communication and aging through interactional processes (intraperersonal, interpersonal and relational) and through context (organization, family, health, and culture). Emphasis will be placed on the theoretical and applied research in communication and aging.

COMN 3300 Principles of Persuasion (4 Credits)
This course involves a social scientific approach to persuasion and social influence. Some of the topics included in this approach are the relationship between attitude and behavior; characteristics of the source, message, and receiver of a persuasive appeal; and models and theories that explain the effects of persuasive communication. By the end of the course, students should be able to think more critically about the persuasive messages they encounter in everyday life, to apply theoretical models of persuasion, and to construct persuasive messages.
COMN 3315 Public Deliberation (4 Credits)
During the last two decades public deliberation has emerged as the centerpiece of theoretical and practical accounts of liberal democracy. This course begins by setting out the nature and functions of public deliberation. We will then track how deliberative democrats respect the traditional accounts of inclusion, equality and reason in an attempt to meet the demands of the deep cultural diversity that marks social life in advanced industrial societies. Specifically we will ask if public deliberation as portrayed in these accounts is sufficient to meet these demands or do we need to expand our understanding of political argument to include a diversity of rhetorical practices? And, once we do expand our account of deliberation how does this transform the traditional problematics of both democratic and rhetorical theory?

COMN 3425 Rhetoric and Governance (4 Credits)
An introduction to the works of Michel Foucault and his influence on contemporary rhetorical theory. Permission of instructor is required.

COMN 3435 Rhetoric and Public Life (4 Credits)
An introduction to the conceptual and political history of the public sphere. The course pays particular attention to how the normative assumptions of public communication are affected by the demands of cultural pluralism. Permission from instructor is required.

COMN 3470 Seminar in Free Speech (4 Credits)
This course will survey some of the major conceptual innovations in the justifications of freedom of speech. We will begin with an exploration of the traditional defenses of free speech and then move to a reexamination of those defenses in light of modern communication theory and the challenges of pluralism. In particular we will ask if the justifications of free speech need to be rethought given our understanding of speech as a social force that constitutes identities and values rather than merely expressing private opinions. Moreover, given our understanding of the social force of speech, should we regulate speech that is racist, sexist and seems to erode the foundations of a public culture based on mutual respect and public deliberation over social goods? Can we devise a robust defense of free speech based on its social force that both protects those that may be harmed by antidemocratic discourses and still provides the resources for democratic dissent?

COMN 3500 Advanced Public Speaking (4 Credits)
Theory, preparation, delivery and evaluation of public speeches.

COMN 3680 Gender and Communication (4 Credits)
This course focuses on the interactive relationships between gender and communication in contemporary U.S. society. This implies three priorities for the class. First, the course explores the multiple ways communication creates and perpetuates gender roles in families, media, and society in general. Second, the course considers how we enact socially created gender differences in public and private settings and how this affects success, satisfaction, and self-esteem. Third, the course connects theory and research to our personal lives. Throughout the quarter, the course considers not only what IS in terms of gender roles, but also what might be and how we, as change agents, may act to improve our individual and collective lives. Cross listed with GWST 3680, HCOM 3680.

COMN 3700 Topics in Communication (1-4 Credits)
COMN 3701 Topics in Communication (1-4 Credits)
COMN 3702 Topics in Communication (1-4 Credits)
COMN 3703 Topics in Communication (1-4 Credits)
COMN 3704 Topics in Communication (1-4 Credits)
COMN 3705 Topics in Communication (1-4 Credits)
COMN 3770 Mediated Communication and Relationships (4 Credits)
This course examines how people develop, define, maintain, and manage interpersonal relationships through their use of mediated communication. We will examine communication in relationships that occur through the Internet, text-messaging, cell phones, chat rooms, gaming, and virtual communities. This is a seminar type course where students guide and are guided through their own study of mediated relationships.

COMN 3800 Philosophies of Dialogue (4 Credits)
This course explores the philosophies of dialogue of Martin Buber, Mikhail Bakhtin and others in the context of contemporary communication scholarship on ethics, culture, and relationship. Prerequisite: permission of instructor.

COMN 3850 Communication Ethics (4 Credits)
This class is not just about how to be ethical communicators but it is also about how to discover ethics—the good life and care for others, answerability and responsibility—deep within the structures of human communication itself. The course is committed to a mixture of theory and practice but practice is at the heart of the matter. Half of our sessions will be devoted to dialogue or conversation about ethics in life. There we will try to work as close as we can with ethics in our own lived experience. In the other half, we will explore theory: the ethical/philosophical/communicative ground of ethics.

COMN 3991 Independent Study (1-5 Credits)
COMN 3992 Directed Study (1-10 Credits)
COMN 3995 Independent Research (1-10 Credits)
Topics and quarter hours vary. Prerequisite: instructor's permission.

COMN 4010 Introduction to Graduate Studies (4 Credits)
History of the discipline; noteworthy scholars and publications, current issues in the discipline.
COMN 4020 Communication Studies: Relational (4 Credits)
Recent social science literature in interpersonal communication; emphasis on pragmatics, meta-level perspectives, relational concerns affecting intimacies, friendships, families.

COMN 4030 Communication Studies: Organizational (3-4 Credits)
Ways in which communicative actions create, maintain, transform terms that define and regulate our practical and passionate attachments to each other; specifically how identity, knowledge, value, social organizations are constructed in and through communicative practices.

COMN 4100 Seminar: Speech Communication Theory (4 Credits)
Theoretical foundations of communication and language behavior; syntactics, semantics, pragmatics.

COMN 4110 Theories in Interpersonal Communication (4 Credits)
Selected themes in interpersonal communication, based primarily on theoretical sources, including interaction, relationships, goal achievement, hierarchies, interpersonal change.

COMN 4120 Comparative Theories in Human Communication (4 Credits)
Selected efforts to construct theories of human communication; lectures, discussions, student presentations of analysis of readings.

COMN 4130 Seminar in Communication in Human Organizations (4 Credits)
Current problems and issues in organizational communication.

COMN 4140 Graduate Colloquium (4 Credits)

COMN 4150 Culture, Ethnicity and Communication (4 Credits)
A cross-cultural approach to investigate communication codes, norms, value dimensions, power, privilege, and relationship issues within national, ethnic, and gender groups.

COMN 4160 Performance Ethnography (4 Credits)
This seminar provides a theoretical and methodological framework for understanding performance ethnography. This is not a “how to” class; rather, this is a course that examines the theories and perspectives behind performance ethnography as a method and orientation. Among the subtopics that fall within the purview of performance ethnography we will examine will be performative writing, personal narrative, poetic transcription, autoethnography, narrative ethnography, and ethics. This course provides an introduction and broad overview to performance ethnography.

COMN 4200 Physical Basis of Spoken Language (4 Credits)
The purpose of this course is to provide the student with a comprehensive understanding of the past, current, and evolving legal, policy, and regulatory issues effecting telecommunications, telecommunications-related industries, and the Internet. Laws and policies effecting multichannel television, wireline and wireless telephone companies, and the Internet will be examined in depth. Focus is placed on the role public policy plays in light of a rapidly changing information environment, critical evaluation and understanding of the rationale behind policy and regulatory activity, and the exploration of the various complex problems arising from the evolving information environment and its products.

COMN 4210 Seminar: Interpersonal Communication (4 Credits)
Selected theories applicable to interpersonal communication and their implications.

COMN 4220 Critical Intercultural Communication (4 Credits)
This seminar explores the key figures and foundational essays in the development of Critical Intercultural Communication. This seminar offers a critical perspective on current theory and research in intercultural communication. We emphasize questions and practices of “diversity” (especially involving race, class, gender, and sexuality) as they manifest in local and global contexts in the United States. The principle objective is to develop a politically informed and self-reflexive praxis in the service of reframing the study of intercultural communication.

COMN 4221 Culture, Power and Representation (4 Credits)
Central to the production of cultural knowledge about the ‘other’ is the labor of power implicated in all practices of discursive representation. In this course, we will examine the various theories of representation, the racial and gendered production of difference, the relation between discourse and subjectivity, and more generally, the poetics and politics of representation. These topics will be explored within a rich variety of contexts and institutional sites, e.g., in colonial and anthropological discourse, in popular media narratives and consumer culture, in the global deployment of Western theoretical/knowledge productions, among others.

COMN 4222 Theories of Identity and Subjectivity (4 Credits)
The seminar explores the communicative constitution of cultural, political, and institutional identities. Discussion will range from the historical development of the theoretical discourse on identity and subjectivity to more contemporary theories covering the emergence and transformation of identities in public discursive spaces. Particular attention will be given to theoretical frameworks and methods of inquiry animating research having to do with what is known as the “new cultural politics of difference.” The course ends with a look at the contexts and arenas in which “identity” and “subjectivity” have emerged as critical sites of contestation in the 21st century.

COMN 4223 Culture and Communication: Contexts and Issues (4 Credits)
This is a capstone course in the foundations sequence for the Culture and Communication Area of Concentration in Human Communication Studies. This course will integrate content from the other three area foundations courses and specifically address implications for the study and practice of intercultural communication in such contexts as globalization, transnationalism, diaspora, colonization, immigration, adaptation, localization, corporate, institutional, and situated discourse. In addition current theoretical, research, and application issues and problematics such as multivocality, voice and representation, intersections and contradictions of contradictory identifications, representations, micro and macro forces, and paradigmatic separation and integration will be discussed. Prerequisites: COMN 4220, COMN 4221 and COMN 4222.
COMN 4230 Intercultural Training (4 Credits)
Research and theoretical approaches that examine international/intercultural training and instructional practices about topics such as adaptation, adjustment, competence, conflict and cultural diversity.

COMN 4231 Discourse and Race (4 Credits)
This course looks at race as a discursive formation using the literature in Critical Race Theory that has emerged over the past decade. In analyzing this body of work covering a wide range of themes and diverse theoretical perspectives, we hope to uncover the historic, material, as well as symbolic determinations of the discourse on race that have conspired to sustain a highly racialized system in place.

COMN 4232 Critical Sexuality Studies (4 Credits)
This course takes a critical approach to the study of sexualities by challenging our assumptions and everyday knowledges about identities, gender, sexuality, race, and ethnicity. This course is organized around important and recent publications in the fields of Communication Studies and Sexuality Studies. Rather than simply reiterating the canonical voices such as Foucault and Butler, the course focuses on the voices of queer people of color.

COMN 4240 Seminar: Group Communication (4 Credits)
Small group literature; interpersonal and group communication.

COMN 4250 Seminar: Family Communication (4 Credits)
This course is designed to investigate and explore the communication processes associated with families. Areas of exploration include definitions of family communication and interactional patterns, the impact of life stage on family communication processes, marriage and divorce, parent-child communication, sibling interactions, the child-free family, and the later-life family.

COMN 4251 Advanced Seminar in Family Communication (4 Credits)
This advanced seminar is designed to build on the first seminar in family communication. The course will examine how historic research in the study of families have influenced the field of family communication. Emphasis will be placed on how understanding these classics can influence theory and research in the human communication area of family communication.

COMN 4280 Theories-Group Communication (4 Credits)
Examination, from different theoretical perspectives, of group communication as an area of study; research and application in speech communication discipline.

COMN 4300 Seminar in Persuasion (4 Credits)
Theory, research, special problems in persuasion and attitude change.

COMN 4310 Communication and Collaboration (4 Credits)
A survey of contemporary theories and applications.

COMN 4315 Public Deliberation (4 Credits)
An introduction to the theories and problematics of public deliberation. The course pays particular attention to the demands of inclusion, equality, and public reason as requirements of public deliberation.

COMN 4400 Seminar: Rhetoric Conversation Analysis (4 Credits)
Contemporary contributions to development of rhetorical theory ranging from perspectives on rhetoric offered by various rhetorical theorists to methods of rhetorical criticism.

COMN 4420 Rhetorical Theory (4 Credits)
Contemporary rhetorical theories.

COMN 4425 Rhetoric and Governance (4 Credits)
An introduction to the works of Michel Foucault and his influence on contemporary rhetorical theory.

COMN 4435 Rhetoric and Public Life (4 Credits)
An introduction to the conceptual and political history of the public sphere. The course pays particular attention to how the normative assumptions of public communication are affected by the demands of cultural pluralism.

COMN 4510 Seminar: Speech Communication Theory (4 Credits)
Integration of conceptual theory with behavioral practice in formal public speaking situations through lectures, discussions, performances.

COMN 4530 Critical Theories of Communication II: Nietzsche's Influence on Contemporary Rhetoric (4 Credits)
In conversation with Classical Rhetorical Theory and Critical Theories I, this course is designed to explore a major philosopher's influence on rhetoric and communication studies. Friedrich Nietzsche offers and inspires a second trajectory of thinking that allies with, but ultimately diverges from, the Marxist critical project. Broadly, Nietzschean thought echoes the Marxist concern for structural oppression, alienation, and limited consciousness; but it attempts to undermine structural power as much as possible without the tools of structural power (namely, language, values/truth/knowledge, and the subject). We explore this line of critique much more closely, considering how it has materialized in communication scholarship. This course offers a point of departure for explorations of particular theorists.
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COMN 4700 Topics in Communication (1-4 Credits)

Theoretical and practical exploration of interpersonal role relationships; emphasis on time, space, kinetic, vocal, tactile cues; methodological concerns.

COMN 4760 Linguistic Aspects of Communication Theory (4 Credits)

This course explores the work of Todorov, Bakhtin, Levinas, and Hyde as foundational to communication ethics.

COMN 4901 Quantitative Methods II (4 Credits)

This course is a continuation of the HCOM 4900 which explored the process of human inquiry, social science paradigms, the development of sound research questions, and strategies and techniques surrounding sampling, measurement and design. This course will expand on the exploration of research design and statistical methods that can be utilized in answering research questions and hypotheses. In addition, we will be collecting data that will be used to help us understand and analyze various statistical strategies.

COMN 4910 Theory Building in Communication (4 Credits)

Steps involved in constructing theory; application of theory building process to communication phenomena.

COMN 4915 Discourse Analysis (4 Credits)

An introduction to common theoretical assumptions and methods shared by scholars who study discourse as social interaction, with emphasis on analyzing key features of discourse that are central to their work.

COMN 4920 Communication Research Practicum (4 Credits)

Grounded theory, phenomenology and other non-numerical approaches to research in human interaction.

COMN 4930 Speech and Communication Research - Qualitative Methods (4 Credits)

This course teaches students qualitative data management skills, introduces them to an array of qualitative methods for analyzing naturalistic data, and guides them through the application of these skills to qualitative research projects. Prerequisite: COMN 4930.

COMN 4932 Critical Methods for Studying Culture (4 Credits)

This seminar provides an overview of a variety of critical methodologies (inclusive of the theory of method) for the study of culture. Potential course foci include textual analysis, critical ethnography, personal narrative, oral history, performance writing, and autoethnography.

COMN 4933 Writing Culture (4 Credits)

This course guides students through the process of writing an article centered around culture and communication, following the practices of the field.

COMN 4990 Graduate Tutorial in COMN (2 Credits)

In this course, students will closely engage in scholarly work with a faculty member, with the intention to foster collaboration on mutually beneficial topics. This close collaboration can take many forms, and much like an independent study, it will be designed by faculty and students together. Such collaboration may include: deeper reading of the literature in a particular communicative context; advancing a research project toward presentation and publication (through data collection, data analysis, or/and manuscript revision); pedagogical development (through the development of syllabi, assignments, teaching materials, and educational philosophy). Students will deepen their knowledge base on a topic of significance in the field, advancing scholarly, pedagogical, and/or creative work.
COMN 4991 Independent Study (1-10 Credits)
COMN 4992 Directed Study (1-10 Credits)
COMN 4995 Independent Research (1-10 Credits)

COMN 5921 Seminar: Communication Research I (4 Credits)
Design, method, procedure strategies in research. Prerequisite: approved proposal.

COMN 5922 Seminar: Communication Research II (4 Credits)
Design, method, procedure strategies in research. Prerequisite: approved proposal.

COMN 5923 Seminar: Communication Research III (4 Credits)
Design, method, procedure strategies in research. Prerequisite: approved proposal.

COMN 5991 Independent Study (1-10 Credits)
COMN 5992 Directed Study (1-10 Credits)
COMN 5995 Independent Research (1-15 Credits)

Computer Information Systems (MCIS)

Computer Science (COMP)

Courses

COMP 3200 Discrete Structures (4 Credits)
Discrete mathematical structures and non-numerical algorithms; graph theory, elements of probability, propositional calculus, Boolean algebras; emphasis on applications to computer science. Cross-listed as MATH 3200. Prerequisites: MATH 2200 or COMP 2300 and COMP 1672 or COMP 1771.

COMP 3341 Multimedia Systems (4 Credits)
This course covers fundamental issues in design and implementation of multimedia applications. This course also covers technologies in multimedia systems such as multimedia data representation, compression, networking, data management, and I/O technologies. Prerequisite: COMP 3361.

COMP 3351 Programming Languages (4 Credits)
Programming language as a component of software development environment; binding, scope, lifetime, value and type of a variable; run-time structure–static, stack-based and dynamic languages; parameter passing–call by reference, value, result, value-result and name; subprogram parameters; role played by side effects, dangling pointers, aliases and garbage; garbage collection; data abstraction - study of object-oriented, functional, and logic languages. Prerequisites: COMP 2370, COMP 2691, and COMP 2355.

COMP 3353 Compiler Construction (4 Credits)
Design and implementation of a major piece of software relevant to compilers. Prerequisite: COMP 3352.

COMP 3361 Operating Systems I (4 Credits)
Operating systems functions and concepts; processes, process communication, synchronization; processor allocation, memory management in multiprogramming, time sharing systems. Prerequisites: COMP 2355, COMP 2370, and COMP 2691.

COMP 3371 Advanced Data Structures & Algorithms (4 Credits)
Design and analysis of algorithms; asymptotic complexity, recurrence equations, lower bounds; algorithm design techniques such as incremental, divide and conquer, dynamic programming, randomization, greedy algorithms, etc. Prerequisites: COMP 2370, MATH 3200.

COMP 3381 Software Engineering I (4 Credits)
An introduction to software engineering. Topics include software processes, requirements, design, development, validation and verification and project management. Cross listed with COMP 4381. Prerequisite: COMP 2370.

COMP 3382 Software Engineering II (4 Credits)
Continuation of COMP 3381. Topics include component-based software engineering, model-driven architecture, and service-oriented architecture. Prerequisite: COMP 3381.

COMP 3400 Advanced Unix Tools (4 Credits)
Design principles for tools used in a UNIX environment. Students gain experience building tools by studying the public domain versions of standard UNIX tools and tool- building facilities. Prerequisites: COMP 2400 and knowledge of C and csh (or another shell), and familiarity with UNIX.

COMP 3410 World Wide Web Programming (4 Credits)
Creating WWW pages with HTML, accessing user-written programs via CGI scripts, creating forms, imagemaps and tables, and Java programming principles and techniques. Prerequisite: COMP 2355.

COMP 3421 Database Organization & Management I (4 Credits)
An introductory class in databases explaining what a database is and how to use one. Topics include database design, ER modeling, database normalization, relational algebra, SQL, physical organization of records and clocks, heap files, sorted files, hashing, extendible hashing, linear hashing and B trees. Each student will design, load, query and update a nontrivial database using the Oracle DMBS. Prerequisite: COMP 2370.
COMP 3431 Data Mining (4 Credits)
Data Mining is the process of extracting useful information implicitly hidden in large databases. Various techniques from statistics and artificial intelligence are used here to discover hidden patterns in massive collections of data. This course is an introduction to these techniques and their underlying mathematical principles. Topics covered include: basic data analysis, frequent pattern mining, clustering, classification, and model assessment. Prerequisites: COMP 2370.

COMP 3501 Introduction to Artificial Intelligence (4 Credits)
Programming in LISP and Prolog with applications to artificial intelligence; fundamental concepts of artificial intelligence; emphasis on general problem-solving techniques including state-space representation, production systems, and search techniques. Prerequisites: MATH 2200, COMP 2370.

COMP 3621 Computer Networking (4 Credits)
An introduction to computer networks with an emphasis on Internet protocols. Topics include: network topologies, routing, Ethernet, Internet protocol, sockets, operating system impact and client/server implementations. Prerequisites: COMP 2355 and COMP 2370. Corequisite: COMP 3361.

COMP 3701 Topics in Computer Graphics (4 Credits)

COMP 3702 Topics in Database (4 Credits)

COMP 3703 Topics-Artificial Intelligence (4 Credits)

COMP 3704 Advanced Topics: Systems (4 Credits)

COMP 3705 Topics in Computer Science (1-4 Credits)

COMP 3731 Computer Forensics (4 Credits)
Computer Forensics involves the examination of information contained in digital media with the aim of recovering and analyzing latent evidence. This course will provide students an understanding of the basic concepts in preservation, identification, extraction and validation of forensic evidence in a computer system. The course covers many systems level concepts such as disk partitions, file systems, system artifacts in multiple operating systems, file formats, email transfers, and network layers, among others. Students work extensively on raw images of memory and disks, and in the process, build components commonly seen as features of commercial forensics tools (e.g. file system carver, memory analyzer, file carver, and steganalysis). Prerequisites: COMP 2355.

COMP 3801 Introduction Computer Graphics (4 Credits)
Fundamentals of graphics hardware, scan conversion algorithms, 2D and 3D viewing transformations, windows, viewports, clipping algorithms, mathematics for computer graphics, graphics programming using a standard API. Prerequisites: COMP 2370, MATH 1952 or 1962, and MATH 2060.

COMP 3821 Game Programming I (4 Credits)
An introduction to computer game programming. Use of a game engine to create 3D computer games. Topics to include game scripting, simple 3D asset creation, incorporation of assets, keyboard/mouse event handling, animation, game phases and score keeping. Prerequisite: COMP 2370.

COMP 3822 Game Programming II (4 Credits)
An introduction to computer game engine programming. Major class goal is to understand how game engines are created by building subsets of a game engine. Non-exhaustive set of topics include how terrains are generated, how animations are supported, how particle systems are implemented, how physics systems are coded, and how support is provided for higher level scripting languages. All coding will be done in low-level graphics languages. Prerequisites: COMP 3801 and COMP 3821.

COMP 3904 Internship/Co-Op in Computing (0-10 Credits)
Practical experience in designing, writing and/or maintaining substantial computer programs under supervision of staff of University Computing and Information Resources Center. Prerequisites: COMP 2370 and approval of internship committee (see department office).

COMP 3991 Independent Study (1-10 Credits)
Cannot be arranged for any course that appears in the regular course schedule for that particular year.

COMP 3992 Directed Study (1-10 Credits)

COMP 3936 Operating Systems II (4 Credits)
Continuation of COMP 3361. Case studies of existing operating systems programing. Prerequisite: COMP 3621.

COMP 3702 Theory of Algorithms (4 Credits)
NP-complete; lower bound theory; approximation algorithms; amortized complexity and data structures, randomized algorithms. Assorted topics such as string algorithms, graph algorithms, linear programming, computational geometry. Prerequisite: COMP 3371.

COMP 3834 Secure Software Engineering (4 Credits)
This course is concerned with systematic approaches for the design and implementation of secure software. While topics such as cryptography, networking, network protocols and large scale software development are touched upon, this is not a course on those topics. Instead, this course is on identification of potential threats and vulnerabilities early in the design cycle. The emphasis in this course is on methodologies and paradigms for identifying and avoiding security vulnerabilities, formally establishing the absence of vulnerabilities, and ways to avoid security holes in new software. There are programming assignments designed to make students practice and experience secure software design and development. Prerequisites: COMP 3381 & COMP 4555. COMP 3621 is highly recommended. Students must be able to implement complex programs in C, C++ and Java.

COMP 4600 Seminar in Computer Science (0-4 Credits)
Preparation and presentation of lectures on some aspect of current research in computer science; topics not generally encountered in formal courses, may include robotics, pattern recognition, parallel processing, computer applications. 10- to 15-page paper with bibliography required.
COMP 4621 Computer Networking (1-4 Credits)
COMP 4701 Special Tpcs-Computer Graphics (1-4 Credits)
COMP 4702 Advanced Topics-Database (3 Credits)
COMP 4703 Adv Topics-Artificial Intell (1-4 Credits)
COMP 4704 Advanced Topics-Systems (3-4 Credits)
COMP 4705 Advanced Topics-Programming (1-4 Credits)
COMP 4708 Special Topics-VLSI (3 Credits)
COMP 4709 Special Tpcs-Computer Security (3 Credits)
COMP 4720 Applied Cryptography (4 Credits)
Block ciphers, one-way hashes, symmetric and asymmetric encryption, public-key infrastructure, digital signatures, security protocols, anonymity, and digital cash.
COMP 4721 Computer Security (4 Credits)
This course gives students an overview of computer and system security along with some cryptography. Some network security concepts are also included. Other concepts include coverage of risks and vulnerabilities, policy formation, controls and protection methods, role-based access controls, database security, authentication technologies, host-based and network-based security issues. Prerequisite: COMP 3361.
COMP 4722 Network Security (4 Credits)
Authentication and key establishment, web security, Internet worms, viruses, spyware, spam, phishing, botnets, distributed denial of service, TCP/IP and DNS security, firewalls and intrusion detection systems, and wireless security. Prerequisites: COMP 4621 and COMP 4721.
COMP 4723 Ethical Hacking (4 Credits)
Penetration testing, denial of service, social engineering, buffer overflow, hacking of sessions, bluetooth, smartphone, and wireless protocols. Web security including SQL injection and cross-site scripting is included as well. Prerequisites: COMP 4621 and COMP 4721.
COMP 4991 Independent Study (1-10 Credits)
Cannot be arranged for any course that appears in regular course schedule for that particular year.
COMP 4992 Directed Study (1-10 Credits)
COMP 4995 Independent Research (1-17 Credits)
Research projects undertaken in conjunction with a faculty member.
COMP 5991 Independent Study (1-17 Credits)
COMP 5995 Independent Research (1-17 Credits)

Conflict Resolution (CRES)

Courses
CRES 3401 Caribbean Conflict Resolution (3 Credits)
A travel course offering students an opportunity to view a broad spectrum of conflict–from interpersonal to community to intercultural–in Caribbean countries. Local conflicts and conflict resolution processes are examined, along with visits to governmental and non-governmental organizations and cultural sites to develop an understanding of how particular methods and approaches for solving disputes are applied within this political and cultural setting.
CRES 4111 Reflective Practice and Evaluation (5 Credits)
Course is designed for practitioners who would like to become more reflective and theory oriented in their practice, and for researchers who wish to work with actual data and questions from practice. The goals are to learn techniques for making theories of practice explicit, to examine ways practice and research may modify theory, and to explore how to introduce and expand reflective practice into conflict resolution.
CRES 4221 Negotiation Theory and Practice (3,5 Credits)
An overview of negotiation theories, strategy and tactics to understand the role of power perceptions, communications, and ethics affect bargaining processes and outcomes.
CRES 4222 Mediation Theory and Issues (5 Credits)
An analysis and critique of the nature and role of third parties in conflict intervention including conciliator, arbitrator, facilitator, monitor, trainer. Theoretical perspectives and case studies are used to understand the situations in which third parties operate, what values and resources they bring to their roles, and how power issues affect mediator functioning. Ethical guidelines are also considered.
CRES 4225 Conciliation and Reconciliation (5 Credits)
Societies are often divided along ethnic, racial, or religious lines. Without work at the grassroots level, international peace agreements regularly fail within five years of ratification. How do we create sustainable post-conflict relationships? How does justice factor into peace, or into the sustainability of peace agreements? This course explores these questions by building on concepts and themes introduced in Mediation Theory (CRES 4222), and analyzing topics such as multilevel interventions and their challenges, second track diplomacy, and citizen dialogue. Reconciliation is a key factor in peace building – Voice, Acknowledgement, and Repair are specifically considered within this realm. Focus is also on the challenges presented by deep-rooted, protracted conflicts, allowing for more complete understanding of the situations in which third parties must operate.

CRES 4333 Resolving Contingent Public Issues (5 Credits)
The course covers collaborative governance work, including identity politics of contentious public issues. Natural resources disputes and the range of processes used to address these conflicts, including theories and concepts useful for understanding environmental and policy disputes, case studies, and world views that premise these disputes, provide insight into constructing interventions best suited to the characteristics and context of each contentious issue.

CRES 4400 Restorative Justice (3 Credits)
This course explores four leading Restorative Justice practices - Victim-Offender Mediation, Conferencing, Talking Circles, and Truth Commissions - to understand how needs of victims are addressed, and embracing notions of forgiveness, reconciliation and social healing within a set of principles based on social justice.

CRES 4410 Intractable Conflict (3 Credits)
This course is focused on factors that lead to intractability, along with strategies for violence prevention and conflict transformation. Conflict mapping and analysis, sources of intractability, and social, psychological, economic and political dimensions of intractable conflicts are examined.

CRES 4420 Negotiating Difficult Situations (3 Credits)
What should a negotiator do when the win-win approach fails and important interests are at stake? This course addresses a variety of tactics and ploys of unethical behavior and dirty tricks used in persuasion and bargaining. Students learn how to recognize and counter such techniques and practice in simulated and real world settings. Prerequisite: CRES 4221.

CRES 4810 Conflict Resolution Topics (3,5 Credits)
Fields of interest to Conflict Resolution Students such as negotiation, international conflict resolution case studies, restorative justice, conflict transformation, methods for conflict resolution research.

CRES 4820 Topics in Conflict Resolution (1-5 Credits)
Fields of interest to Conflict Resolution Students such as negotiation, international conflict resolution case studies, restorative justice, conflict transformations, methods for conflict resolution research.

CRES 4830 Topics in Conflict Resolution (3-5 Credits)
Fields of interest to Conflict Resolution Students such as negotiation, international conflict resolution case studies, restorative justice, conflict transformation, methods for conflict resolution research.

CRES 4840 Managing Organizational Conflict in the Workplace (3,5 Credits)
A broad study of conflict in organizations that may involve gender, race, age, disability and other issues, using lecture, case studies, group dialogue, and team projects to develop systems of management and evaluation.

CRES 4850 Creating Agreement (3 Credits)
Multilateral agreements are as complex as they are difficult to create. What are the key elements in this process? The history of such negotiations is one of both successes and failures. This course examines the development of criteria necessary for creating satisfactory and acceptable agreements involving multiple parties through a series of case studies that link negotiation theory and praxis.

CRES 4860 Public Forum Facilitation (3 Credits)
Diverse democracies require high quality communication and coordination to function well. In the current era, however, polarization, cynicism and apathy have become the norm, they obstructing possibilities for collaborative problem-solving. What are the best processes for making public decisions in a democracy? This course examines the tools of advocacy, debate, dialogue and deliberation through the lens of facilitation in public forums.

CRES 4870 Conflict Vulnerability Assessment (3 Credits)
This course guides students seeking to specialize in early warning and conflict prevention approaches at the community, societal, or country level through the contemporary scholarly literature, policy-related instruments and models that seek to define and measure conflict vulnerability.

CRES 4880 Grant Writing: The Research Proposal and Conflict Analysis (3,5 Credits)
This course is designed to cover key elements of social research methods that are important principles of evidence-based policy, known for its rigor and precision in careful data collection - including quantitative and qualitative methodology analysis and expert opinion to build facts and findings from context-free, context rich and colloquial environments into a coherent whole - to support informed decision-making capability.

CRES 4961 Professional Development (0 Credits)
To develop the specialized knowledge, skills, attitudes, values, norms, and interest needed to perform professional roles in the Conflict Resolution practitioner community. It involves informal socialization including lessons learned incidentally through association with mentors, networking with practitioners, and observations of conflict resolution processes in all areas of life. Students gain awareness of how self-image and activities play an active part in professional socialization.
CRES 4971 Practicum (3-5 Credits)
Students design, execute, and evaluate conflict resolution interventions. Student involvement in planning, implementation, reflection, and evaluation may look different in different contexts, but all elements are present in some form. Students are supervised by faculty with relevant theoretical expertise and practice experience.

CRES 4981 Internship (1-5 Credits)
CRES 4985 Internship (4-8 Credits)
CRES 4991 Independent Study (1-5 Credits)
CRES 4995 Thesis Research (1-5 Credits)

Construction Management (CMGT)

Courses

CMGT 4110 Preconstruction Integration and Planning (4 Credits)
This course examines the role of preconstruction services, team integration, and joint design planning in various Integrated Project Delivery (IPD) approaches. Various tools and techniques associated with preconstruction services and design planning from the proposal stage through the design stages of a project are considered.

CMGT 4120 Construction Planning and Scheduling (4 Credits)
Understanding and applying scheduling and control to construction projects is essential to successful construction management. Project scheduling emphasizes network-based schedules, such as critical path management (CPM), network calculations, critical paths, resource scheduling, probabilistic scheduling and computer applications. Project control focuses on goals, flow of information, time and cost control, and change management. Prerequisite: CMGT 4410.

CMGT 4155 Sustainable Development/LEED (4 Credits)
The course includes many case studies of historic and contemporary structures exemplifying various sustainability features. Emphasis is placed on how LEED project certification influences the overall construction project. Topics include LEED certification techniques for sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and design. The following topics are covered from a LEED perspective: ventilation, air conditioning, heating, electrical lighting, energy efficiency, and building control systems. The student studies and analyzes how management and LEED techniques are applied to current construction projects.

CMGT 4177 Environmental Systems and MEP Coordination (4 Credits)
A study of electrical and mechanical systems used in the construction of buildings. Course content includes system design, component selection and utilization for energy conservation, cost estimating or systems, coordination and management of installation. Specific systems included are electrical, air conditioning, heating, ventilation and plumbing, fire protection, life safety, communication, power systems and lighting. The course also considers coordination of MEP systems and explores emerging technology and environmental issues related to mechanical and electrical systems in buildings. Cross listed with CMGT 3177 and XRCM 4177.

CMGT 4180 Construction Layout/Surveying (4 Credits)
Designed to provide the student with the theory, principles and techniques of construction layout and surveying. Includes field procedures in fundamental land surveying as well as site and foundation layout. Cross listed with CMGT 3180.

CMGT 4200 Lean Construction Project Management (4 Credits)
This advanced course focuses on cuttingedge lean tools and other productive strategies for the management of people and processes in the construction industry. The tools and strategies presented draw on the very successful Toyota Production System adapted to the construction industry. Lean construction methodologies such as the Last Planner System, the Lean Project Delivery System, and Integrated Project Delivery are discussed. Topics also include sustainability and the emerging interest in "green construction," as well as the use of Building Information Modeling to enhance the development and management of integrated projects. This course also looks at the human element in relation to motivation, safety, and environmental stresses. A number of case studies are presented to highlight best practices in Lean Construction Project Management.

CMGT 4230 Design Management and Schedule Control (4 Credits)
This course examines the various strategies and techniques associated with managing the design delivery process to align with the construction budget and schedule needs in an integrated fashion. Design planning, scheduling, and resource allocation are considered along with design value determination and management of the design-construct interfaces. Constructability, value engineering, design performance.

CMGT 4250 Construction Job Site Management (4 Credits)
This course addresses how a successful construction project is managed and administered from design through construction to closeout. Emphasis will focus on how to unite the key stakeholders (contractors, architects, engineers, etc.) to provide them with a workable system for operating as an effective project team. The latest technology, laws and regulations associated with contract administration will be presented. Topics pertinent to each stage of a project are introduced and discussed as they occur throughout the life of the project. Numerous real-world examples will be utilized throughout the course. Various electronic project administration tools and techniques will be demonstrated including Building Information Modeling.
CMGT 4310 Cost Modeling and Trend Management (4 Credits)
This course covers various approaches to construction cost estimating at the conceptual stages of planning and design through detailed construction. Students learn parametric estimating techniques and how they are applied to construct and predict reliable budgets at the earliest stages of design. Students build cost models and refine those models with greater detail as design develops through a project. Building information modeling is introduced and used to create massing models to demonstrate design impacts on project costs. Cost trending techniques are presented to manage, monitor and document project performance relative to cost.

CMGT 4320 Architectural Planning and Design Management (4 Credits)
This course introduces students to the significant value that architecture brings to real estate and the built environment and the various services and professions associated with it. Students will be introduced to principles, protocols and the planning process related to the design function and the link between the architect’s vision and the finished physical structure. Students will be introduced to design, thinking, theory and application. Student will learn to read and interpret the various graphical and written construction documents as well as know how they are developed and what information they contain. Architectural, structural, mechanical, electrical, plumbing and civil drawings and specifications are covered. The business model for design services will be explored as well as the unique risks and challenges associated with managing the design throughout the various stages of development and construction.

CMGT 4401 Residential Practicum I (4 Credits)
A three course sequence designed to emphasize the practical application of the theories and concepts of residential development. The courses provide a capstone experience for seniors. Students are expected to apply their knowledge of general business, real estate and construction management practices by forming a student business entity, acquiring land, building and selling a residential property. Students will apply accounting, finance, marketing, real estate and construction management techniques in the development of a single family residence. Cross listed with CMGT 3401.

CMGT 4410 Construction Building Systems (4 Credits)
A survey of residential and commercial construction materials, means, and methods associated with the various structural and architectural systems used to design and construct buildings. Project plans and specifications are incorporated to teach the basic sequencing and overall construction process. The influence of sustainability in construction is introduced.

CMGT 4420 Construction Estimating (4 Credits)
Integrated approach addressing construction accounting, estimating, purchasing, and management reporting systems. Cross listed with CMGT 3100, XRCM 4420. Prerequisite: CMGT 4400 or permission of instructor.

CMGT 4438 Legal Issues & Risk Management (4 Credits)
General contract and real estate law, including property rights, title concepts, deeds, purchase contracts, law of agency, environmental issues and disclosures, basics finance concerns, tax law, landlord-tenant law, construction contracts, indemnity agreements, rights and remedies of property owners, contractors and subcontractors issues, and various areas of liability for real estate practitioners and property owners.

CMGT 4480 Const Project Management (4 Credits)
Principles and techniques of construction project management, use of systems analysis, internal and external procedures, planning, programming, budgeting and staffing, controlling major projects, emphasis on construction scheduling techniques with case application. Cross listed with CMGT 3120.

CMGT 4490 Residential Development (4 Credits)
A seminar-style capstone course that integrates various aspects of the construction management curriculum. Emphasis is on topics in the construction and development industries. Cross listed with CMGT 3190. Prerequisite: CMGT 4410.

CMGT 4560 Relational Contracting and Risk Mitigation (4 Credits)
Relational contracting is a construction project delivery framework for multidisciplinary, integrated projects that focuses on aligned goals, high performance, innovation, mutual respect, open communication and a "no blame" culture between Client, Contractor, and Design Team. This approach to contracting, also known as Alliance Contracting, is becoming more prevalent in the United States and is often applied when using integrated project delivery systems. This course compares and contrasts transactional contracting methods with relational contracting methods and the influences on the project team and projects outcomes. Relational contracting is also considered in the context of risk mitigation and project optimization.

CMGT 4580 Integrated Teaming and Project Leadership (4 Credits)
This course examines the unique leadership skills and talents associated with leading and facilitating multidisciplinary, integrated design and construction teams. The focus of the course is on applying strategic intelligence and a system of leadership in the development of integrated solutions for the built environment. This leadership model is driven by a compelling purpose and supported by people who share practical values and have excellent processes, to look into the future, create a vision, and bring that vision to reality. Effective strategies for supporting high performance teams are explored.

CMGT 4700 Topics in Construction Mgmt (1-4 Credits)
CMGT 4980 Construction Mgmt Internship (0-10 Credits)
CMGT 4991 Independent Study (1-10 Credits)
CMGT 4992 Directed Study (1-10 Credits)
CMGT 4995 Independent Research (1-10 Credits)
Continuous Enrollment (CENR)

Courses

CENR 4500 Continuous Enrollment-Master P (4 Credits)
Continuous Enrollment 4600 registration permits graduate students to maintain full-time status with the University and to use University resources; including library, e-mail, lab access, student health insurance, and reduced rates at the Coors Fitness Center. It is only for students who have completed all their course work and is allowed only when a student is pursuing full-time academic work/research necessary to complete a degree. Permission to enroll for Continuous Enrollment is granted for up to one academic year beginning in the fall quarter. Students requiring CE must complete and submit the proper permission form prior to registration. CENR 4600 is for master’s level and EdS students, including those with approved time extensions for completion of their degrees and who are eligible for financial aid.

CENR 4700 Continuous Enrollment-MAext (0 Credits)
Continuous Enrollment 4700 registration permits graduate students to maintain active status with the University and to use university resources; including library, e-mail, lab access, student health insurance, and reduced rates at the Coors Fitness Center. It is only for students who have completed all their course work and is allowed only when a student is pursuing academic work/research necessary to complete a degree. Permission to enroll for Continuous Enrollment is granted for up to one academic year beginning in the fall quarter. Students requiring CE must complete and submit the proper permission form prior to registration. CENR 4700 is for master’s level and EdS students who have an approved extension of time for completion of their degree program, but who are no longer eligible for financial aid because they are past the 7-year master’s level (6 years for MSW), or 8-year EdS financial aid eligibility limit. CENR 4700 shows as 0 credit hours and does not confer loan eligibility or loan deferment.

CENR 5600 Continuous Enrollment-PhD (8 Credits)
Continuous Enrollment 5600 registration permits graduate students to maintain full-time status with the University and to use university resources; including library, e-mail, lab access, student health insurance, and reduced rates at the Coors Fitness Center. It is only for students who have completed all their course work and is allowed only when a student is pursuing full-time academic work/research necessary to complete a degree. Permission to enroll for Continuous Enrollment is granted for up to one academic year beginning in the fall quarter. Students requiring CE must complete and submit the proper permission form prior to registration. CENR 5600 is for doctoral level students, including those with approved time extensions for completion of their degrees and who are eligible for financial aid.

CENR 5700 Continuous Enrollment-PhDext (0 Credits)
Continuous Enrollment 5700 registration permits graduate students to maintain active status with the University and to use university resources; including library, e-mail, lab access, student health insurance, and reduced rates at the Coors Fitness Center. It is only for students who have completed all their course work and is allowed only when a student is pursuing academic work/research necessary to complete a degree. Permission to enroll for Continuous Enrollment is granted for up to one academic year beginning in the fall quarter. Students requiring CE must complete and submit the proper permission form prior to registration. CENR 5700 is for doctoral level students who have an approved extension of time for completion of their degree program, but who are no longer eligible for financial aid because they are past the 10-year financial aid eligibility limit. CENR 5700 shows as 0 credit hours and does not confer loan eligibility or loan deferment.

Counseling Psychology (CNP)

Courses

CNP 4641 Adolescent Development (3 Credits)
Physical, cognitive, emotional, social, and moral development in adolescents with emphasis on interaction of various aspects of development within an environmental context; focus on normal development with exploration of special problems of adolescents, e.g., substance abuse, teen-age pregnancy, eating disorders and delinquency; critical study, and discussion of literature on adolescence and interviews with adolescents.

CNP 4642 Adult Development (3 Credits)
Literature on normal development of adult thinking and problem-solving processes and the self-esteem. Physiological changes and relationship between cognitive development and developmental tasks of adults included.

CNP 4645 Lifespan Development (4 Credits)
Survey of the principles of development from conception to adulthood, emphasizing biological, environmental, and cultural factors affecting development.

CNP 4700 Counseling Theory (3 Credits)
Basic counseling theories and philosophical principles as a foundation for professional training including history, concepts, techniques and trends.

CNP 4701 Advanced Seminar: Counseling Theory (3 Credits)
Focus on advanced practice issues and (doctoral students only) integration of theory and practice.

CNP 4702 Introduction to Assessment (3 Credits)
Psychological instruments used to assess social, educational, emotional, personality, language, intellectual, behavioral, and perceptual development of adolescents; required practice in administering instruments.
CNP 4704 Psychological Assessment (5 Credits)
Administration, scoring and interpretation of objective and projective personality-assessment techniques, the DSM IV, diagnostic categories, report-writing skills, ethical standards for testing. Lab fee required. Prerequisite: counseling or school of psychology Ph.D. student or instructor approval.

CNP 4705 History and Systems of Psychology (3 Credits)
Historical and philosophical basis of modern psychological theories; basic issues as related to major school of psychology.

CNP 4706 Cognitive Assessment (5 Credits)
This course provides students in Counseling Psychology with experience in individual intelligence, learning and memory, and neurocognitive screening test administration, scoring, interpretation, and report writing. Each student has an opportunity to administer various cognitive measures, with particular emphasis on the Wechsler Scales. Contemporary issues pertinent to the assessment of intelligence are covered. Emphasis is placed on synthesizing and integrating information from cognitive assessment with other sources to produce effective intervention and therapeutic recommendations. Issues regarding the use of such tests are discussed, as well as appropriate use in agencies and clinical practice. Lab fee required.

CNP 4710 Career Counseling (3 Credits)
Career development theories; career counseling and assessment techniques; applications of career counseling to special populations. Lab fee required.

CNP 4711 Advanced Group Counseling (3 Credits)
Advanced group course that concentrates on advanced leadership skills, leadership styles, and leader methods geared toward conducting counseling groups with diverse populations for different problem areas. This class will also focus on the theory and research on group counseling and psychotherapy.

CNP 4712 Grief and Loss (3 Credits)
This course is an opportunity for students to examine their own ideas about grief and loss and come to a clearer understanding of their meaning, with the goal of using this personal growth to facilitate the development of professional and clinical skills. The course will examine current theory, clinical applications, and research implications with an emphasis on personal exploration and cultural considerations.

CNP 4720 Group Counseling Theory (3 Credits)
Theory and research on dynamics of group process, group treatment and leadership strategies; implications for group counseling and psychotherapy. Prerequisite: master’s or doctoral student in counseling or related field.

CNP 4730 Counseling Psychology Program Development and Evaluation (3 Credits)
Development, evaluation strategies and techniques for human service agencies and schools; application of research and evaluation skills in applied settings.

CNP 4740 Basic Counseling Techniques (4 Credits)
Basic counseling and interviewing skills; emphasis on building counseling relationships and facilitating client’s self-exploration; skills of empathy, advanced empathy, self-disclosure, confrontation and immediacy.

CNP 4741 Int Counseling Techniques (4 Credits)
Sample of counseling techniques and effectiveness with different types of clients. Prerequisite: CNP 4740.

CNP 4743 Fieldwork in Counseling (1 Credit)
Introduction to the field of counseling with special emphasis on practicum placement. Prerequisite: admission to the MA program in counseling psychology.

CNP 4750 Counseling Psychology Beginning Practicum (1-4 Credits)
Supervised practice in counseling for master’s students. Prerequisite: CNP 4740, and be a counseling psychology student.

CNP 4751 M.A. Internship (1-4 Credits)
Yearlong, 600-hour supervised field practice for second-year master’s students with weekly seminar. Prerequisites: CNP 4750 and be a counseling psychology master’s students.

CNP 4752 Counseling Psychology Advanced Practicum I (3 Credits)
Supervised practice in counseling for doctoral students. Prerequisites: CNP 4750 or prior practicum, and be a counseling psychology student.

CNP 4753 Counseling Psychology Advanced Practicum II (1 Credit)
Group supervised practice in counseling for second-year doctoral students with emphasis on process and countertransference issues. Prerequisite: CNP 4752.

CNP 4754 Couns Psych: PhD Internship (1 Credit)
Meets 12-month internship requirement in counseling psychology. Prerequisites: completion of comprehensive examination and dissertation proposal.

CNP 4755 MA Clinic (2-5 Credits)
MA clinic is a required course for all students in the 90-credit Clinical Mental Health Counseling Concentration.

CNP 4756 PhD Counseling Clinic (1 Credit)
On-campus, advanced-experience counseling of clients from the community with close supervision and observation. Prerequisite: Doctoral student in counseling psychology.
CNP 4758 PhD Field Experience (8 Credits)
Required 12-month, 40-hour-per-week internship for doctoral students in Counseling Psychology. Registration for this course indicates full-time enrollment. This course is not graded. Prerequisites: completion of comprehensive examination and dissertation proposal. Department approval is required for registration. Fall quarter enrollment must be done in conjunction with CNP 4754.

CNP 4760 School Counseling Practicum (2-4 Credits)
A minimum of 100 hours supervised practice in School Counseling for Master’s students in the School Counseling Concentration. Students must be supervised by a licensed school counselor.

CNP 4761 School Counseling Internship I (2-4 Credits)
100-hour supervised field practice in a school setting for Master’s students in the School Counseling Concentration, with weekly seminar. Students must be supervised by a licensed school counselor.

CNP 4762 School Counseling Internship II (1 Credit)
A minimum of 600-hour supervised field practice in a school setting for master’s students in the School Counseling Concentration, with weekly seminar. Students must be supervised by a licensed school counselor.

CNP 4769 Cognitive Behavioral Strategies (4 Credits)
Cognitive Behavior Therapy (CBT) is a treatment approach that incorporates a multitude of evidence-based strategies to construct an individualized and comprehensive treatment plan for a wide variety of mental/behavioral disorders. CBT has been extensively investigated in both research and applied setting. CBT offers foundational knowledge and skills to provide an active, client involved approach to resolving individual and family challenges. CBT is structured, goal-directed, and focuses directly on client problem areas. Students will practice and develop the skills necessary to implement CBT techniques and strategies.

CNP 4770 Counseling Psychology Seminar: Research (3 Credits)
Review of current process and outcome research in counseling and psychotherapy; substantive issues, including client and therapist variables as well as methodological issues and experimental designs. Prerequisite: doctoral student.

CNP 4772 Diversity Seminar: Psycho-Social Issues (1 Credit)
Series of courses to analyze social and psychological impacts of oppression related to minority status, socioeconomic status, gender and family configurations; taught using an awareness and knowledge approach; implications for counseling; series includes general seminar and series of 1 credit follow-up seminars on particular topics, e.g., American Indian mental health, African-American mental health and women’s mental health. Prerequisites: CNP 4773 and students must take the 3-credit general seminar prior to the individual seminars.

CNP 4773 Diversity: Multicultural Counseling Psychosocial Issues (3 Credits)
This course uses a social justice perspective to examine the impact of oppression of Americans considered having a minority status in the United States. Minority status is defined according to an individual’s current experiences and/or his or her group’s history of oppression in America. Issues and concepts related to ability, age, class, socioeconomic position, ethnicity, gender, race, religion, sexual orientation, and other issues of oppression will be examined. The course is designed to present a general introduction to multicultural and social justice concepts and issues in multicultural counseling. Due to the extensive amount of material in this area only some selected issues and topics will be presented. Students interested in more specific multicultural diversity topics should take the one-credit Counseling Psychology diversity seminars or courses offered in other University of Denver colleges and departments. Students will be involved in interactive learning including the application of awareness and knowledge of course concepts and issues to themselves as participants in counseling with clients who have experienced oppression. The course is designed for graduate students who are professionals-in-training in mental health, counseling, and counseling psychology. Students should have a basic understanding of professional counseling skills and be willing to participate in counseling role-play activities. However, please note that this is not a clinical skills training course.

CNP 4776 Family Counseling (3 Credits)
Introduction to family counseling, including survey of major theories and research, and in-class demonstrations of techniques. Prerequisite: advanced master’s or doctoral student.

CNP 4778 Health Psychology (3 Credits)
Overview of rapidly expanding field of health psychology; wide variety of topics dealing with role of psychological processes in health and health care; includes impact of stress on physical health, and psychological factors that determine health-related behavior, psychological aspects of delivery of health care, and assessment issues in health psychology.

CNP 4780 Counseling Psychology Seminar: Supervision (3 Credits)
Introduces literature and research on counseling supervision, including awareness of individual differences; provides experience supervising master’s level counselors. Prerequisites: doctoral student and CNP 4752.

CNP 4784 Psychopathology (3 Credits)
Introduction to psychopathology and overview of several broad topics including schizophrenia, mood disorders and personality disorders.

CNP 4787 Motivational Interviewing (4 Credits)
Motivational Interviewing is a client-centered collaborative style of therapeutic relationship designed to strengthen a person’s motivation for and commitment to change. This class will facilitate skill development in managing client ambivalence, eliciting change-talk and honoring the client’s autonomy regarding taking steps toward a commonly agreed upon goal.
CNP 4788 Physiological Psychology (3 Credits)
Physiological Psychology is designed to expose students to the field of physiology and highlights its reciprocal relationship with behavior. We will cover topics including the structure and function of the nervous system and areas of research relevant to clinical psychology (e.g., substance abuse, mental illness, and biological rhythms). Given the limited time devoted to each area, more in-depth coverage should be pursued by interested persons.

CNP 4789 Pharmacology of Addictive Behavior I and II (4 Credits)
This class provides a solid base of knowledge about the drugs of abuse including what occurs physiologically with drug use and other addictive behaviors. Additionally, this course explores neuroscience and genetic research on addiction to better understand the changes in the brain that underlie drug use and addictive behaviors.

CNP 4790 Counseling Psychology Seminar: Ethics (3 Credits)
Professional ethics in practice and research in counseling psychology, including informed consent, confidentiality, clients' rights, psychologists' obligations, etc.; basic APA documents. Prerequisite: doctoral student.

CNP 4791 Counseling Psychology Seminar: Counseling Couples (3 Credits)
Introduction to couples counseling, including survey of major theories and research.

CNP 4792 Pro-Seminar in Counseling Psychology (1 Credit)
Introduction to field of counseling psychology required for all first-quarter doctoral students. Prerequisite: counseling psychology doctoral students.

CNP 4794 Counseling Psychology Seminar: Special Topics (1-10 Credits)
Variety of special topics on research and practice in counseling psychology; readings, lectures and projects to provide an in-depth understanding of topics, which vary from to year and cover areas such as counseling women, counseling in business and industry, advanced group therapy, time-limit counseling, vocational counseling, etc.

CNP 4795 Master of Arts Counseling: Legal and Ethical Issues (3 Credits)
Introduction to ethical and legal issues in school and agency counseling for master's students. Prerequisite: master's student in counseling psychology.

CNP 4797 Counseling Addictive Behavior (4 Credits)
Introduction to assessment, treatment and outcome evaluation of chemical and nonchemical addictive behaviors. Requirements include abstinence from a "compulsive" behavior; journaling about one's cognitive, emotional and behavioral reactions during the abstinence period; attending 12-step meetings; participating in a quasi-12-step in class meeting; critiquing a film depicting dynamics of an alcoholic family.

CNP 4799 Infectious Diseases in Addictive Behaviors (2 Credits)
Drug and alcohol abuse and infectious diseases go hand in hand. This class explores the high risk for contracting and spreading infectious diseases among drug abusers. This class helps prepare students to identify such diseases, determine client risk for infection, and educate students about disease prevention and treatment options.

CNP 4800 Consultation (1 Credit)
This course is designed to teach the basic theories of psychological consultation that can be used to guide practice in a variety of settings. Students learn to differentiate process, collaborative and expert consultation. The class format includes presentations from practitioners working in school, medical, forensic, and business settings. In addition, students also learn about the ethical principles that guide their practice and to also become sensitive to how their work with diverse cultural backgrounds may be perceived. Prerequisite: must be enrolled in the Counseling Psychology doctoral program.

CNP 4991 MA Independent Study (1-10 Credits)
CNP 4992 Directed Study (1-10 Credits)
CNP 4995 Research - M.A. Thesis (1-10 Credits)
CNP 5991 PhD Independent Study (1-10 Credits)
CNP 5992 Directed Study (1-10 Credits)
CNP 5995 Dissertation Research (1-20 Credits)

Cultural & Critical Studies (CCST)

Courses

Curriculum and Instruction (CUI)

Courses

CUI 3055 Human Rights & Education (3 Credits)
Emphasis on human rights, both domestic and international, for the field of education; study of writings and research of leading educators encompassing concepts of human rights; focus on educational issues involving human rights, the Right of the Child, work of UNICEF, and implications of human rights for educational practice. Cross listed with CUI 4055.
CUI 3801 Current Issues in K-12 Education (3 Credits)
This course introduces prospective K-12 educators to the contemporary social, political, pedagogical and curricular context of schooling. Major areas of analysis and discussion will include: gender, social class, cultural competency, linguistically diverse education, funding, sexual orientation, educational policy, and diversity. The course will attempt a critical, reflective, and balanced view of schooling for the purpose of helping students develop the ability to interpret and respond to the challenges associated with teaching in modern schools. Coursework will be paired with a service-learning field experience in an urban educational setting characterized as linguistically and culturally diverse.

CUI 3802 Teacher Identity (3 Credits)
The most effective teachers combine the outer technical aspects of teaching (lesson plans, differentiated instruction, culturally responsive pedagogy, and content knowledge) with the inner non-technical elements (passion, heart, beliefs, and calling). In this course we examine the "inner-life" of the teacher with an emphasis on how understanding the themes of teacher selfhood impact the technical aspects of teaching. Key questions to examine include the following: How do the gifts, talents, and inner capacities of the teacher impact and influence communication and learning in the classroom; why do I teach; what will continue to fuel my passion for teaching; and what vision of the future do I hold for schools? Students should expect to complete 10-20 hours per week of service learning in area education settings.

CUI 3990 Service Learning in Community (1-4 Credits)
This course provides students with the opportunity to serve in the community and to reflect on their service experiences in a classroom setting through structured and meaningful reflection sessions. Students will examine a variety of topics, including the nature and significance of service-learning, motives for service, community action as a means for positive social change, and the relationship between service-learning, social justice, and civic responsibility. Cross-listed with AH 3580, SS 3580.

CUI 3991 Independent Study (1-10 Credits)
CUI 3992 Directed Study (1-10 Credits)

CUI 3995 Urban Education (5 Credits)
Historical, political and sociological influences that shape and socially construct urban schools. Characteristics, opportunities, and needs of students in urban schools and examples of current effective practice.

CUI 3996 Urban Youth Development (5 Credits)
This course examines urban youth development from several perspectives, including the social-psychological, the cognitive/creative, the physical and health-related, and the philosophical. Cross listed with CUI 3996.

CUI 4020 Introduction to Curriculum (3 Credits)
Introduces curriculum theory and curriculum as a field of study; includes study of issues such as standards, cognition, diversity, ecology, and social justice, among others.

CUI 4021 Models of Curriculum (3 Credits)
Reflects on ways various curriculum orientations may resolve modern issues or problems, with students' independent pursuit of one or two orientations in depth; orientations examined include cognitive pluralism, developmentalism, rational humanism and reconceptualism, among others. Recommended prerequisite: CUI 4020.

CUI 4022 Curriculum Theory into Practice (3 Credits)
Helps students move from theoretical concepts and decisions involved in curriculum development to actual construction of curricula; survey of potential components encompassed in a variety of curricula followed by participation in designing a curriculum as a member of a student team; final facet requires students to develop a curriculum. Prerequisites: CUI 4020 and 4021 or instructor's permission.

CUI 4027 Implementing Curriculum: A Practicum (3 Credits)
Opportunity to experience authentic role of curriculum on site; work at the Denver Zoo, the Denver Museum of Nature and Science, other museums and school sites; to develop and implement curriculum.

CUI 4028 Literacy Instruction and Assessment (3 Credits)
Organized around a developmental continuum for literacy acquisition. Addresses best research-based practices that allow teachers to assess students' abilities and to select appropriate instructional strategies leading to communicative competence for all children.

CUI 4029 Issues in Literacy (3 Credits)
Prepares educators to participate thoughtfully and critically in often-contentious discourse about literacy. Examines the research base that supports sound policy and practice regarding literacy instruction for all children.

CUI 4031 Teaching and Learning (3 Credits)
Takes a disciplinary approach (e.g., sociological, historical, philosophical, and anthropological) to the analysis of teaching and learning environments in response to broad questions such as: What are effective teaching and learning environments? For whom and under what circumstances? How can we create such environments?.

CUI 4032 Analysis of Teaching (3 Credits)
Provides a systematic introduction to the research base that characterizes effective practice and to the array of research methods that can be employed to study teaching and teacher development.

CUI 4033 The Practice of Teaching (3 Credits)
Course explores personal, conceptual, and empirical understandings of "teaching practice." Topics addressed have included: metaphors for teaching practice, best practices for equity and social justice, professional development practices.
CUI 4034 Curriculum & Cultural Context (3 Credits)
This course will address the influence of cultural, political, sociological, and economic factors on curriculum at the instructional, situational, societal, and ideological levels. Students should be interested and willing to explore these issues through readings and discussion. We will be exploring various perspectives, including our own, which inform the discussion on this critical area of education.

CUI 4035 Critical Perspectives: Democracy, Power, and Privilege (3 Credits)
In this course, students will examine issues related to democracy, power, and privilege in public education. Specifically, students will learn about how anti-democratic groups are working to undermine public education in the U.S. Students will explore White privilege, racism, classism (and other "isms") and the impact they have had and continue to have in public school settings, particularly at schools that serve historically marginalized and oppressed students. Theoretical frameworks such as Critically Relevant Teaching and Critical Race Theory will be introduced in this class as well.

CUI 4038 Urban Youth Development (3 Credits)
This course examines urban youth development from several perspectives, including the social-psychological, the cognitive/creative, the physical and health-related, and the philosophical. We will explore the emerging field of youth development in an urban context, integrate theory and practice, and analyze youth policies and their implications. Cross listed with CUI 3996.

CUI 4039 Transformational Teaching and Learning (3 Credits)
This course takes an exploratory approach to the analysis of transformation teaching and learning. It asks questions such as "What are effective teaching and learning environments?" "For whom and under what circumstances?" "How can we create such environments?" We will explore how patterns of activities in the classroom can be designed to achieve simultaneously all of the major goals of educational reform. The term classroom is not restricted to the physical classroom space but "classroom" in the sense of the organized instructional activities that can extend outside of the school building into the community.

CUI 4041 School and Curricular Reform (3 Credits)
A look into school reform movements, why most fail and only a few succeed.

CUI 4042 Instructional Design & Web Development for Educators (3 Credits)
Introduces presentation software, basic HTML, and web page development software. Focuses on various Learning, Instructional Design, and Learning Style Theories and how they relate to the development of technology supported pedagogy. Students will create individualized instructional web pages for use in practice.

CUI 4043 Development of Technology Enhanced Educational Environments (3 Credits)
Utilizing emerging Learning Theories and complex Instructional Design Theories, students will move into advanced educational web page development including designing with style sheets and layers. Several customized technology mediated lessons or professional projects will be created for use in practice. Various tools, designed to enhance learning environments, will be explored.

CUI 4045 Technology Practicum (2 Credits)
Under the supervision of the professor, students will generate technological applications relevant to their own work settings using ideas and concepts learned in CUI 4040.

CUI 4046 Technology Leadership (3 Credits)
Explores the role of ethics, values, social, legal, and power issues associated with technology in education. Analyzes how technology is transforming learning, equitable distribution of information, and the implications for providing optimal education to diverse learning populations.

CUI 4050 Curriculum & Instr Rsrch Sem (0-3 Credits)
Students write proposals and learn about current relevant research in curriculum. Students learn about the proposal and dissertation process as well as current research in curriculum.

CUI 4051 Seminar in Dissertation (1-5 Credits)
Individualized assistance in developing the dissertation topic, issue, problem; guidance in preparation for proposal orals and application to the Institution Review Board (IRB), direction for dissertation chapter organization, writing and completion. This seminar is targeted for the student who needs support in completing the dissertation.

CUI 4055 Human Rights & Education (3 Credits)
Emphasis on human rights, both domestic and international, for the field of education; study of writings and research of leading educators encompassing concepts of human rights; focus on educational issues involving human rights, the Rights of the Child, work of UNICEF, and implications of human rights for educational practice. Cross listed with CUI 3055.

CUI 4058 Teacher as Researcher (3 Credits)
Emerging philosophical and methodological issues that arise when school practitioners undertake research within their own sites; range of research traditions including quantitative, statistical research and qualitative methodologies; mastering relevant skills and accessing resources for students to be better prepared to conduct their own inquiries and understand and solve problems.
CUI 4070 Clinical Internship (1-9 Credits)

CUI 4100 Sociocultural Foundation of Education (3 Credits)
Examination of the expanded conceptions of diversity to include difference based on ethnicity, biethnicity, and multiethnic identity, social class, differently-abled, age, gender, and sexual orientation; implications of terrorism on America for ethnically diverse populations in our schools and on educational establishments around the world; attention to the interactions of ethnicity with social class and gender identifications in the school setting; implications of the learning of another language as well as the impact of language diversity in our schools; consideration of new conceptual frameworks for multicultural and diversity education for educators for the 21st century.

CUI 4130 Philosophy of Education (3 Credits)
Focuses on 3-4 philosophers and examines the contributions their philosophical ideas have on education. Philosophers studied have included John Dewey, Cornel West, Nel Noddings and Maxine Greene.

CUI 4131 Spirituality in Education (3 Credits)
This course will explore the role of spirituality in education from both the student and educator point of view through an examination of the big questions that are held close to the heart; the ones that guide us toward meaning making in the world. The primary goal of the course is to plumb the depths of spirituality, a deep sense of inner meaning making, that calls us toward a particular profession. The course will focus on the interface between spirituality in education through the lenses of curriculum and instruction.

CUI 4150 Sociology of Education (3 Credits)
Sociology of education emphasizes the importance of the process of socialization on education, the interactions of ethnicity, gender, and social class in education, the formal roles and statuses within the bureaucracy of the school, the informal or "hidden" curriculum, the system of higher education and comparative views of educational systems around the world, and the impact on teaching and schools in an era of terrorism. Objectives of this course: to apply major concepts and theories in sociology to the institution of education; to interpret the applications of sociological theory to the school and the broader educational enterprise; and for personal expansion of philosophy and worldview through humanistic and social science perspectives.

CUI 4153 Practicum: Curriculum and Instruction (1-5 Credits)
Designed to fit the educational needs of the individual student who may choose from a wide variety of practicum (internship) experiences, including teaching, curriculum development, museum internships or research projects in curriculum and instruction.

CUI 4155 Special Topics (1-10 Credits)
Special topics in the field of education.

CUI 4159 Educating Multiethnic Populations (3 Credits)
Emphasizing a worldwide view in considering how education should be delivered to children and youth for life in the 21st century, especially since the World Trade Center Disaster of September, 2001. It is incumbent on those in teaching to find creative policies for working together with those in government and business, strategies that acknowledge our human diversity within and overall context of equality and peacefulness. This begins with raising social justice issues in the classroom in ways that encourage students to openly examine difficult and personally challenging materials, facilitating communication and understanding between members of diverse and unequal social groups.

CUI 4160 Race, Class and Gender in Education (3 Credits)
Ethnicity, Class & Gender in Education applies the concepts and theories of social science disciplines - sociology, social psychology, anthropology, historical perspectives and philosophical orientations - to the inclusive examination of the issues of racism, classism, sexism, and homophobia in education. This course seeks to conceptualize ethnicity, gender and social class as interactive systems, not as separate and independent variables, that impact students, teachers, school systems and the educational enterprise. We examine educational systems and practices that historically have disadvantaged women and peoples of color and discuss strategies and techniques for empowerment of the members of these groups.

CUI 4161 Ethnicity, Gender & Diversity in the Curriculum (3 Credits)
The focus of this course is to examine and explore the complexities of teaching in contemporary educational settings in which the forces of sexism, racism and classism are found. In our society where wide diversity characterizes our student population, it has become an imperative to recognize difference and relate effective teaching to these conditions. Major trends and influences that are impacting the school curriculum are explored.

CUI 4170 Engaging Learners through the Arts (3-5 Credits)
This seven day institute is designed to engage participants in a challenging exploration of the creative process through workshops with professional artists in the disciplines of dance, visual arts, creative writing, music, and theatre, and to provide a greater understanding of the theory and practical applications of school reform.

CUI 4171 The Arts in Education:Stage II (3-5 Credits)

CUI 4172 Aesthetic Foundation in Education (3 Credits)
Educational enterprise from aesthetic viewpoints; examination of a number of aesthetic theories and exploration of implications for curriculum, teaching, and evaluation.

CUI 4180 History of Education in the United States (3 Credits)
Traces historical context and development of K-12 schools in the United States from initial discovery of North and South America by Europeans to the present; understanding through examination of central issues that strongly influenced our current educational systems - evolution of schools, religion, social and political reform, women's issues, nationalism and ethnicity, industrialization of the nation and world.
CUI 4400 Nature and Needs of Gifted Learners (3 Credits)
This course is designed to provide participants with an understanding of 1) conceptual foundations and definitions of giftedness, 2) how intelligence, creativity, and non-intelligence factors are related to giftedness, 3) the nature, development, types, and needs of gifted individuals, 4) principles and issues in the identification of gifted individuals, and 5) the major issues and tensions in the education of gifted and talented individuals. Lectures, discussions, and other class activities and assigned readings and projects will include topics such as the history and nature of the giftedness construct; theories of intelligence and creativity and their relationship to conceptions of giftedness; types of giftedness; the diversity of gifted individuals and their personal and educational needs; the role of identification in the education and development of gifted children and youth; and purposes and perspectives in gifted education.

CUI 4401 Psychological Aspects of Giftedness (3 Credits)
The psychological development of gifted children is examined through a study of current theories, models, research, and case histories. Understanding of psychological development creates a foundation for applications and practices that nurture the psycho-social-emotional development of gifted individuals. Specific topics include the psychological nature and needs of the gifted; perfectionism, stress, and underachievement; special issues for gifted boys and gifted girls; highly gifted; and pertinent theories of psychological development. Emphasis is placed on synthesis of theories and application to specific situations.

CUI 4402 Curriculum for Gifted Students (3 Credits)
This course is designed to provide participants with an understanding of the conceptual foundations in the design and development of curriculum for gifted and talented students. Includes theories, models and processes for curriculum modification and curriculum design; strategies for adapting educational content, process, product, and learning environment based on the educational characteristics and needs of gifted learners; and curriculum design and development approaches that are effective in the intellectual and personal growth of gifted and talented learners. Content in this course is aligned with appropriate instructional strategies and techniques recommended for use with gifted and talented learners. Lectures, discussions, class activities, assigned reading and projects include topics such as a general overview of curricular principles and perspectives; critical analysis of general curriculum; issues of diversity in curriculum development and modification including cultural congruence; recommended models of curriculum development for gifted and talented learners; and national trends in gifted education.

CUI 4403 Instructional Strategies for Gifted Learners (3 Credits)
This course provides a basic understanding of how to adapt curriculum for gifted learners through various instructional strategies. Strategies studied include: acceleration, enrichment, differentiation, compacting, grouping, independent study, and service learning. By selecting instructional strategies based on assessed learner needs, educators can reach many types of gifted learners in their classrooms including gifted students of poverty and gifted learners of cultural and ethnic diversity. The objectives of this class are that participants: know about and be able to define instructional strategies that meet assessed academic and affective needs of gifted learners and be able to adapt curriculum for gifted learners using learned instructional strategies.

CUI 4404 Twice-Exceptional Students (3 Credits)
The purpose of this course is to acquaint the student with the various areas of exceptionalities typically encountered with gifted students and to provide classroom related techniques to assist the teacher in identifying and working with twice-exceptional children in an effective manner. Environmental, behavioral, motivational, emotional and educational needs are addressed. Legal responsibilities, parent communication and staff development will be emphasized.

CUI 4405 Practicum in Gifted Education (1-3 Credits)
Students wishing to earn credit for the Practicum in Gifted Education must complete an experience in three of the five areas (Teaching, Assessment, Administration, Research, or Policy). Students must submit a Practicum Proposal outlining the intended practicum experiences. This Proposal must be approved by the practicum faculty supervisor when the practicum experiences are begun.

CUI 4407 Current Issues in Gifted Education: Identification (3 Credits)
This course focuses on the screening and selecting of gifted and talented students. It is designed for practicing professionals - teachers, counselors, psychologists, and administrators - who must make decisions about the identification and serving of gifted and talented students. Course uses multiple assessments, both quantitative and qualitative, to identify gifted students within an increasingly diverse population (including culturally- and ethically-diverse, high-potential, linguistically-different students with unique affective needs as well as high-potential economically-disadvantaged students). Students will use data to diagnose educational needs, prescribe appropriate educational strategies and to incorporate appropriate identification strategies for identifying gifted and talented students. Legal responsibilities and parent communication as well as staff development are emphasized. Students are required to develop an identification model based on relevant theory and current practices to be used in their particular setting.

CUI 4408 Creativity: Theory & Practice (3 Credits)
The essence of innovation is creativity, in thought, process and outcome. Classic and current theories provide a foundation for analysis of the concept of creativity. This course is designed to provide participants with an understanding of 1) the conceptual foundations and definitions of creativity; 2) how intelligence, creativity, and non-intellectual factors are related to the constructs of giftedness; 3) documented brain research underlying exceptional cognition and/or creativity; 4) principles and issues in the identification and appropriate programming for creative individuals; and 5) the multiple perspectives and manifestations of creativity. Salon discussion groups, lectures, class activities and assigned readings and projects focus on the history and nature of the construct of creativity, theories of creativity, the role of innovation and transformation, assessment and measurement tools, environmental support of the creative process and creativity, and teaching and learning applications.
CUI 4410 Prog Dev/Ldrshp/Comm Gifted Ed (3 Credits)
This course emphasizes the concepts and practices involved in development and management of school- and district-based programs for the special education of gifted and talented children and youth. The course leads to in-depth understanding of program components and systems, program planning and evaluation, program leadership, advocacy in gifted education, and communications. In addition, emphasis is placed on planning and development of staff development in relation to gifted children. This course includes extensive in-class discussion and field applications.

CUI 4411 Wkshp: Gifted & Talented Educ (2-3 Credits)
This course is designed to provide participants with an overview of the education of gifted and talented students. Areas of focus within the course include definitions of gifted and talented students, characteristics, educational and psycho/social needs, common identification methods and concepts and common practices in curriculum and instructional differentiation.

CUI 4417 Independent Study: Gifted Educ (1-3 Credits)
CUI 4450 Education and Psychology of Exceptional Children (3 Credits)
Characteristics of students with moderate needs and state criteria used to determine eligibility for special education population.

CUI 4451 Teaching the Exceptional Child (3 Credits)
This course provides a broad overview of the field of exceptionality and special education. Included are discussions of current issues and controversies in the field, characteristics, classification, diagnosis, and educational interventions for early childhood and school-aged children with high-incidence and low-incidence disabilities who have exceptional education needs. This course also explores the characteristics of students with various disabilities, the history of Special Education, The Individuals with Disabilities Education Act (IDEA) and its current implications, the Response to Intervention Model (RtI) and the Individualized Education Plan (IEP). Prerequisite: CUI 4450.

CUI 4452 Low Incidence Disabilities and Behavior Intervention (3 Credits)
This course reviews a wide range of neurodevelopmental disorders and low-incidence disabilities including fragile X syndrome and Fetal Alcohol Syndrome, along with syndromes associated with chromosomal deletions. Implications for assessment and intervention are outlined including diagnostic criteria, prevalence and treatment. Research on identification and treatment including state of the art interventions and assistive technology are addressed. This class also addresses theories, research, effective practices, and background information needed to implement successful behavior intervention programs for whole classroom management and for students identified with behavioral needs. Prerequisites: TEP 4010 and CUI 4451.

CUI 4453 Curriculum Adaptations and Assessments for Children with Disabilities (3 Credits)
This course applies theories, research, effective practices, and background information for assessment for students with disabilities, monitoring student academic progress, and transition planning for students exiting K-12 schools.

CUI 4455 Assessment of Students with Special Needs (3 Credits)
Theories, research, effective practices and background information needed to develop, implement, analyze, and apply assessment data for mild/moderate-needs students.

CUI 4457 Behavior Intervention (3 Credits)
Theories, research, effective practices, and background information needed to implement successful behavior intervention programs for mild/moderate-needs students.

CUI 4459 Curriculum, Collaboration, and Transitions in K-12 Schools (3 Credits)
Knowledge, techniques to develop independent skills for K-12 moderate/mild-needs students and transitions across grade levels.

CUI 4500 Elementary Literacy: Theory and Practice I (1-3 Credits)
This course provides an introduction and overview to the many components that make up a quality balanced literacy program. The course includes an introduction to intervention models and the Individualized Education Plan (IEP). Prerequisite: CUI 4450.

CUI 4501 Elementary Literacy: Theory and Practice II (1-3 Credits)
This course is an extension of Elementary Literacy I and concentrates on the continued development of theories and practical strategies for teaching literacy in diverse classrooms. This course will supply K-6 teachers with the skills to assess student abilities, select appropriate instructional strategies, and design effective instructional programs that lead to increased listening, speaking, reading and writing achievement of all children.

CUI 4502 Elementary Science and Social Studies Methods for Cultural Linguistic Diversity (3-4 Credits)
This course will enable students to develop a deeper understanding of science and social studies content and curriculum in the elementary classroom. Students will explore a range of instructional materials and develop teaching strategies with the guidance of state content standards and research on effective classroom instruction for culturally and linguistically diverse students. This course will revolve around discussion of key questions in the following eight areas: The Role of Social Studies and Science; Instruction; Standards; Content Knowledge; Curriculum Integration; Technology; Culturally Responsive Pedagogy; Sheltered Instruction.

CUI 4503 Elementary Math Methods for Cultural Linguistic Diversity (3,4 Credits)
This course will prepare pre-service elementary teachers to engage students in mathematical learning activities guided by Colorado State Mathematics Content Standards and research. Pre-service teachers will develop an understanding of how students in the elementary grades construct meaning through active engagement in purposeful activities. In addition, students will develop an understanding of infusing best practice for culturally and linguistically diverse students into the math curriculum in terms of culturally relevant pedagogy and sheltered instruction. This course will revolve around the discussion of key questions in the following seven areas: Content Standards; Instruction; Assessment; Differentiated Instruction; Technology; Culturally Responsive Pedagogy; and Sheltered Instruction.
CUI 4504 Elementary Math, Science, and Social Studies Methods Cultural Linguistic Diversity (3 Credits)
This course prepares students to develop a deeper understanding of math, science, and social studies content and curriculum in the elementary classroom as guided by Colorado Model Content Standards and research on effective sheltered content instruction for culturally and linguistically diverse students, and differentiated instruction for diverse learners.

CUI 4505 Mathematics for Secondary Teachers (2,3 Credits)
In this class, prospective secondary teachers study fundamental mathematical ideas typically taught at the secondary level. Students learn about the five fraction sub-constructs and solve problems in all five areas. In addition, students study ideas that are fundamental to understand algebra. For instance, students learn how to build rules to represent functions. Finally, students learn about inquiry-based approaches to teaching that they can use in their secondary classrooms with their students.

CUI 4506 Mathematics for Elementary School Teachers I (2,3 Credits)
In this class, prospective elementary school teachers experience an in-depth look at the representations of rational numbers, including base-ten and decimal numbers, integers, fractions, and arithmetic operations on these sets. Problem solving is emphasized throughout. Students also learn about inquiry-based approaches to teaching that they can use in their classrooms with their students.

CUI 4507 Mathematics for Elementary School Teachers II (3 Credits)
In this class, prospective elementary school teachers study fundamental mathematical ideas typically taught in grades 5-8. Students learn about visualization and its importance in geometry. Students study geometric shapes and solve a variety of problems involving geometric shapes. In addition, students learn some fundamental ideas of measurement and study length, area, volume, dimension, error and precision. Students also solve problems involving area, learn about solid shapes, and solve volume and surface area problems. Finally, students learn about inquiry-based approaches to teaching that they can use in their classrooms with their students. Prerequisite: CUI 4506.

CUI 4508 Mathematics for Elementary School Teachers III (3 Credits)
In this class, prospective elementary school teachers study fundamental mathematical ideas typically taught in grades 5-8. Students learn about visualization and its importance in geometry. Students study geometric shapes and solve a variety of problems involving geometric shapes. In addition, students learn some fundamental ideas of measurement and study length, area, volume, dimension, error and precision. Students also solve problems involving area, learn about solid shapes, and solve volume and surface area problems. Finally, students learn about inquiry-based approaches to teaching that they can use in their classrooms with their students. Prerequisites: CUI 4506.

CUI 4509 Mathematics for Middle School Teachers (3 Credits)

CUI 4510 Adolescent Literacy (3 Credits)
This course provides secondary teacher candidates an understanding of the essential elements of adolescent literacy. Students learn how literacy develops in reading, writing, and oral language and will be able to relate this information to teaching reading and writing in all content areas for both middle school and high school students.

CUI 4511 Secondary Literacy: Reading and Writing Across Content Areas (1-6 Credits)
Students learn how literacy develops in reading, writing, and oral language and will be able to relate this information to teaching reading and writing in all content areas for both middle school and high school students. This course addresses specific strategies for assessing adolescent’s literacy skills/abilities and design appropriate literacy instruction in all content areas.

CUI 4512 High School Mathematics from an Advanced Perspective (3 Credits)
High School mathematics education. Meets Common Core State Standards.

CUI 4520 Urban Education I: Diversity and Social Justice (1 Credit)
This class will address questions about multicultural and social diversity in the classrooms, curricular and pedagogical theories and practices, access and equity, and the politics of education.

CUI 4521 Urban Education II: School, Student, Family and Community Influences on Student Learning (2-4 Credits)
This course will consider how teachers are able to foster meaningful connections between the educational goals of the schools and the personal and cultural experiences of young people. Students will study the child in relation to family, school, and community, as well as the relationships between teacher and pupil. We will emphasize the cultural complexity of an urban society and pay special attention to ways that curriculum, language, and literacy affect school success.

CUI 4522 Urban Education III: Sources of Pressures and Possibilities in High Poverty Schools (2,3 Credits)
This course will focus on the sources of problems in high poverty schools and examine educational reform efforts that attempt to transform high poverty schools and classrooms.

CUI 4527 Supporting English Language Learners and Students with Special Needs Across Content Areas (3 Credits)
This course evaluates similarities and differences in theory, methods, approaches, and techniques in meeting the needs of diverse learners including English Language Learners, special needs, and/or gifted. Differentiated instruction, Sheltered instruction, and Response to Intervention (RTI) are key methodologies in meeting needs of diverse learners.

CUI 4529 Foundations of Education for Linguistically Diverse Learners (3 Credits)
This course will examine the essential knowledge and orientations educators must possess to effectively meet the needs of culturally and linguistically diverse (CLD) learners through the analysis of historical, political, ethical, and legal foundations of language education in the United States. This course will explore the immigrant experience and the experience of CLD learners in schools in order to understand how the psychosocial aspects of the immigrant experience can impact second language learning.
CUI 4530 Second Language Acquisition (1-3 Credits)

CUI 4531 Supporting English Language Learners Across the Curriculum (3,4 Credits)
This course will evaluate methods, approaches, and techniques in language teaching. This course will also explore classroom strategies and practices for content-area instruction through sheltered instruction, and socio-cultural context of second language acquisition in U. S. public schools including how teachers can support bilingualism, multilingualism, biculturalism, and multiculturalism in the mainstream classroom. Furthermore, this course will explore the needs of special education and gifted culturally and linguistically diverse learners.

CUI 4532 Culturally Responsive Pedagogy (3,4 Credits)
This course examines the intricate web of variables that interact in the effort to create culturally responsive pedagogy. It examines the need and establishes a definition for culturally responsive pedagogy; and includes an examination of one's conception of self and "others," conception of social relations; and conception of knowledge teaching and learning in a culturally diverse context. Furthermore, it cultivates the practice of culturally responsive teaching as well as explores the reality of implementing cultural responsive pedagogy in an era of standardization. In sum, this course helps practicing teachers acquire the dispositions, cultural knowledge, and competencies to adapt their curriculum and instructional skills for culturally responsive classroom practice.

CUI 4533 Research Issues in the Education of Culturally and Linguistically Diverse Learners (3,4 Credits)
In this course, students will act as teacher-researchers in order to explore issues that impact the achievement of culturally and linguistically diverse learners. This course will allow students to use functional research tools that can inform practice and lead to better teaching and learning in urban schools, and access resources to enable educators to define and address challenges in their teaching. More importantly, classrooms will become sites for educational reform in that, essentially, educators will act as advocates for change.

CUI 4534 Language Teaching Lab (1 Credit)
This course will critically examine elements of best practice for culturally and linguistically diverse learners through formal observations of three exemplary teachers and evaluate their classroom practices, instructional strategies, assessment practices, and communication strategies. This course will apply our conceptual knowledge of first and second language acquisition and our knowledge of the foundations of the English language to critically analyze each classroom context.

CUI 4535 Language in Society and Schools (3,4 Credits)
This course will introduce students to the discipline of sociolinguistics, including ways language and society impact one another, and how this interaction is reflected in schools. The focus of this course will be on current sociolinguistic theory and research on language variation and its social, political, and cultural significance. Topics include bilingualism and multilingualism in society; formal and informal types of language discourse; language and dialect; cross-cultural communication; and ways language both reflects and creates such constructs as power, culture, gender, ethnicity, and social class. In addition, this course will explore language ideology and language policy and planning.

CUI 4536 Linguistic and Cultural Issues in Linking Assessment and Instruction (3-4 Credits)
This course expands the educators' knowledge of the connection between data-based instruction and assessment. Educators assess student learning by utilizing strategies that provide continuous feedback on the effectiveness of instruction. Educators learn informal and formal assessment practices that promote student learning and achievement. Educators develop knowledge and understanding of initial assessment of culturally and linguistically diverse learners' skills and abilities in order to provide appropriate placement and instruction. Educators utilize native language tests to promote adequate placement/transition of students. This course also helps educators develop a framework to analyze and develop culturally responsive assessment practices in order to improve student achievement. Finally, this course integrates Response to Intervention (RTI) strategies to improve student assessment.

CUI 4537 Seminar & Practicum in LDE (1-6 Credits)
This course is to provide students with the opportunity to merge theory and practice in real classroom situations. This course is organized around two main components. The seminar consists primarily of discussions on connections between theory and practice. The practicum centers on educators' own respective teaching contexts. Students in this course are required to "log" 200 hours of direct teaching with linguistically diverse learners. Under the supervision of a practicum advisor, students will be evaluated for evidence of mastery of LDES standards.

CUI 4538 Language, Literacy & Culture (3,4 Credits)
Attaining age-appropriate English literacy skills poses many challenges to culturally and linguistically diverse (CLD) learners. Educators must therefore develop proficiency in effective literacy instruction for CLD learners. Effective literacy instruction includes a repertoire of teaching practices designed to scaffold literacy and language across the content areas, and culturally relevant curriculum as an essential component to support the achievement of CLD learners. This course will focus on helping educators gain the necessary skills, orientations, and competencies to advance the literacy of CLD learners through linguistic and cultural knowledge.

CUI 4540 Curriculum, Instruction and Assessment: Theory and Practice I (1-3 Credits)
This is the first quarter of an academic year-long weekly seminar to foster reflective, research-based classroom practice. Teacher candidates will deepen their understanding of teaching and learning in contemporary schools through a guided teaching apprenticeship with a trained mentor teacher, focused observations of a myriad of classrooms, readings, interviews, discussions, critical writing, and presentations.

CUI 4541 Curriculum, Instruction, and Assessment: Theory and Practice II (1-4 Credits)
This is the second quarter of an academic year-long weekly seminar to foster reflective, research-based classroom practice. Teacher candidates will deepen their understanding of teaching and learning in contemporary schools through a guided teaching apprenticeship with a trained mentor teacher, focused observations of a myriad of classrooms, readings, interviews, discussions, critical writing, and presentations.
CUI 4542 Curriculum, Instruction, and Assessment: Theory and Practice III (1-4 Credits)
This is the third and final quarter of an academic year-long weekly seminar to foster reflective, research-based classroom practice. Teacher candidates will deepen their understanding of teaching and learning in contemporary schools through a guided teaching apprenticeship with a trained mentor teacher, focused observations of a myriad of classrooms, readings, interviews, discussions, critical writing, and presentations.

CUI 4543 Educational Psychology: Learning and Development (1-3 Credits)
This course focuses on theories of learning and development, including behaviorism, cognition in context, and sociocultural perspectives, among others, as well as practical application of those theories. Issues of classroom management and student motivation are explored within the context of these theories.

CUI 4544 Ed Psych: Exceptional Child (1-3 Credits)
The focus of this course is on educating children and adolescents with special needs in the general education classroom. The intent is to enable future educators to better serve the needs of these children in their classrooms. Topics such as the special education process, information on specific disabilities, accommodations and modifications, behavior issues, mental health, and communicating with parents will be addressed.

CUI 4545 Perspectives on American Education I (1-3 Credits)
We expect that students will complete this 2-quarter-long class with an appreciation for and commitment to critical reflection, collegiality, ongoing professional growth, and educational reform. Through readings, reflective writing and activities, role-plays, case discussions, community-based field work, visits to a myriad of schools and classrooms, and guest presentations, we expect students to recognize and wrestle with the complexity that characterizes teaching in American society. Four central and recurring themes for this course include: democratic foundations of public schools, apprenticeship of observation, teaching as vocation, and the moral dimensions of teaching.

CUI 4546 Perspectives on American Education II (2 Credits)
We expect the students will complete this 2-quarter-long class with an appreciation for and commitment to critical reflection, collegiality, ongoing professional growth, and educational reform. Through readings, reflective writing and activities, role-plays, case discussions, community-based field work, visits to a myriad of schools and classrooms, and guest presentations, we expect students to recognize and wrestle with the complexity that characterizes teaching in American society. Four central and recurring themes for this course include: democratic foundations of public schools, apprenticeship of observation, teaching as vocation, and the moral dimensions of teaching.

CUI 4600 History and Philosophy in Mathematics Education (3 Credits)
Introduction to the effective integration of history and philosophy of mathematics into mathematics education.

CUI 4610 Learning and Teaching of Mathematics (3 Credits)
Introduction to foundational research literature on learning and teaching in mathematics education.

CUI 4620 Research on Diversity, Equity, and Social Justice in Mathematics Education (3 Credits)
Introduction to research related to issues of diversity, equity, and social justice in P-16 mathematics curriculum, instruction, and assessment.

CUI 4630 Learning Mathematics: Early Childhood (3 Credits)
Development of theories, materials, and methods used to teach mathematics in preschool to grade two and develop abilities in their use.

CUI 4640 Improving Elementary Math Instruction (3 Credits)
Teacher development of elementary mathematical content, pedagogy, curriculum, attitudes and power, and collaboration.

CUI 4700 Foundations of Education: Cognitive Theory I (3 Credits)
Introduction to cognitive research in education. Includes theories and research regarding the implementation of these theories in specific curricula.

CUI 4710 Foundations of Education: Cognitive Theory II (3 Credits)
Second course in cognitive research in education. Includes theories and research regarding the implementation of these theories in specific curricula. Prerequisite: CUI 4700.

CUI 4720 Discourse in the Mathematics Classroom (3 Credits)
The study of discourse as it relates to mathematics teaching and student learning.

CUI 4730 Mathematics and Instructional Technology (3 Credits)
Introduction to the principles of effective use of technology in mathematics instruction.

CUI 4740 Policy and Mathematics Education (3 Credits)
Introduction to educational politics and how those policies have influenced and continue to influence mathematics education.

CUI 4790 Seminar on Race in Mathematics Education (3 Credits)
Seminar course for advanced doctoral students on issues of race and mathematics education in the US.

CUI 4870 Education in International Settings (3 Credits)
Objectives of this course include: viewing education in the 21st century as cross-cultural and international; examining the role of schooling in shaping national identity and citizenship in nation-states around the globe; and identifying promising practices and exemplary curriculum material for teaching cross-cultural perspectives and world awareness.
CUI 4991 MA Independent Study (1-10 Credits)
CUI 4992 Directed Study (1-10 Credits)
CUI 4995 Research - M.A. Thesis (1-10 Credits)

CUI 5980 Research as Problem Analysis (3 Credits)
This course is the first of three culminating research courses for students in the Ed.D. in Curriculum and Instruction. This course is designed to guide candidates through the doctoral proposal process and introduce the initial stages of data collection and analysis.

CUI 5981 Research as Intervention (3 Credits)
This course is the second of three culminating research courses for students in the Ed.D. in Curriculum and Instruction and is designed to help candidates finish collecting their data and analyze their data. This course will also introduce and develop the evaluation or analysis section of the doctoral paper and the beginning steps of the dissemination of the research project.

CUI 5982 Applied Research (4 Credits)
This course is the final of three culminating research courses for students in the Ed.D. in Curriculum and Instruction and is designed to help candidates disseminate their project, reflect on their project, and defend their project. This course is specifically focused on writing the quasi-practical section of the doctoral paper and the dissemination of the research project to the community partner.

CUI 5991 PhD Independent Study (1-10 Credits)
CUI 5992 Directed Study (1-10 Credits)
CUI 5994 Seminar in Dissertation Organization and Research (1-5 Credits)
Individualized assistance in developing the dissertation topic, issue, problem; guidance in preparation for proposal orals and application to the Institution Review Board (IRB), direction for dissertation chapter organization, writing and completion. This seminar is targeted for the student who needs support in completing the dissertation.

CUI 5995 Dissertation Research (1-10 Credits)

Economics (ECON)

Courses

ECON 3040 Marxian Political Economy (4 Credits)
An exposition of Marx’s theory of value through a detailed reading of Capital, vol. I. Excerpts from other readings by Marx, and some of the relevant secondary literature used. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.

ECON 3075 Marxism (4 Credits)
This course is a survey in the theoretical and political work influenced by the writings of 19th century philosopher and economist, Karl Marx. The course covers both the historical traditions in Marxism in the 19th, 20th, and 21st century as well as the geographical traditions of these time periods in France, Germany, England, Italy, Russia, China, and America. It is not necessary that students have a prior background in Marx’s work, but it is highly recommended. Requires junior standing or above. Cross listed with PHIL 3075.

ECON 3110 European Economic History (4 Credits)
The emergence of capitalism from feudal society; the Industrial Revolution, English capitalism; European industrialization; state and economy in capitalism; 20th-century Europe and the global economy. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.

ECON 3120 Economic History of the U.S. (4 Credits)
Industrial progress from colonial period to the present time; influence of economic forces in social and political development. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.

ECON 3460 Monetary Theory and Policy (4 Credits)
Studies the interaction between money and the economy. Examines the workings of the financial institutions and how they affect the economy. Looks at the questions of what serves as money, what determines interest rates, and how the central bank conducts monetary policy and its effect on the performance of the economy. Restriction: junior standing. Prerequisite: ECON 2030.

ECON 3480 Money & Financial Markets (4 Credits)
Examines workings of the money and financial markets and their relation to the monetary system and to the macroeconomy. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.

ECON 3500 Economic Development (4 Credits)
Careful re-examination of the works of the prominent development economists of the immediate postwar decades to critically shed light on the treatment of topical development problems by modern economists. Restriction: junior standing. Prerequisite: ECON 2020 or 2030.

ECON 3590 Urban Economics (4 Credits)
Covers topics and issues of economic growth and decline in metropolitan areas, emphasizing urban economic issues. A broad range of policy areas is discussed, including labor market policy, welfare reform, housing policy, racial segregation, transportation, and environmental policy, among others. Restriction: junior standing. Prerequisite: ECON 2020 or 2030.
ECON 3600 International Monetary Relations (4 Credits)
Theory, policy, and history of international organization of money and finance; open-economy macroeconomics: balance of payments, exchange rate dynamics, monetary policy effectiveness. Cross-listed with INTS 3600. Restriction: junior standing. Prerequisite: ECON 2030.

ECON 3610 International Trade Theory & Policy (4 Credits)
Examines topical trade issues confronting the United States, policies proposed to tackle them, and the theoretical underpinnings of these policies. Studies how those policies could affect the less developed countries as determined by the environment established under the World Trade Organization. Prerequisite: ECON 2020 or 2030. Recommended: ECON 2610.

ECON 3620 Philosophical Perspectives on Economics and Social Sciences (4 Credits)
This course provides an advanced survey of conceptual and methodological issues that lie at the intersection of philosophy, economics, and the social sciences. More specifically, the main goal is to engage in a critical discussion of how sciences such as psychology, sociology, and neuroscience can challenge and modify the foundations and methodology of economic theories. The course is structured around three broad modules. After a brief introduction, we begin by discussing the emergence of rational choice theory which constitutes the foundation of classical and neoclassical economics and present some paradoxical implications of expected utility theory. The second module focuses on the relationship between economics and psychology. More specifically, we examine the emergence of behavioral economics, the study of the social, cognitive, and emotional factors on the economic decisions of individuals and institutions and their consequences for market prices, returns, and resource allocation. Finally, the third module focuses on the implications of neuroscience on decision making. We discuss some recent developments in neuroeconomics, a field of study emerged over the last few decades which seeks to ground economic theory in the study of neural mechanisms which are expressed mathematically and make behavioral predictions.

ECON 3670 Econometrics: Multivariate Regression Analysis for Economists (4 Credits)
This course develops the foundations of ordinary least squares (OLS) regression analysis and teaches students how to specify, estimate, and interpret multivariate regression models. Students have to apply what they have learned using a popular software package used for econometrics and real data. Special topics also covered include regression models that include dummy variables, log-linear models, fixed effects models, a brief discussion of instrumental variables, and an introduction to time-series analysis and forecasting. Prerequisites: ECON 2670 and either ECON 2020 or ECON 2030. Restriction: Junior standing.

ECON 3740 Health Economics (4 Credits)
This course is designed to study the nature of the organization of health care production, delivery and utilization according to economic theory. It introduces the up-to-date problems and issues in the U.S. health care system by studying demand for and supply of health care services, health care production and costs, and market analysis of health care industry. Important parties playing roles in health care industry such as private health insurance firms, physicians, pharmaceutical industry, and hospital services will be studied in detail. In addition, the course deals with the role of government in health care industry and various health care reforms proposed in the U.S. Restriction: junior standing. Prerequisite: ECON 2020 or 2030.

ECON 3830 Topics in Macroeconomics (4 Credits)
Coverage varies but may include advanced topics in monetary theory, the study of business cycles, or the works of important monetary and macroeconomic theorists. Restriction: junior standing. Prerequisite: ECON 2030.

ECON 3850 Mathematics for Economists (4 Credits)
Restriction: junior standing. Prerequisite: ECON 2030.

ECON 3900 Growth, Technology and Economic Policy (4 Credits)
This course will introduce students to the important issues related to technological change and how it relates to economic growth. The lectures seek to explain how technology and innovation determine growth and development with special emphasis on learning-by-doing, organizational capability, appropriation and spillover effects. The core topics that will be covered include: (1) origins of new technology and its market introduction, (2) the process of technological adoption and advancement, (3) the dissemination of technology and innovations within and across firms, industries and countries, (4) the impacts of technological change, including benefits and costs, on individual and society at large and (5) policy implications to promote innovation and to reduce its negative effects. The rest of the course will focus on the relationship of technological change to human development, social welfare, as well as prior experiences of industrialized economies and emerging economies. Prerequisites: ECON 2020 and junior standing.

ECON 3970 Environmental Economics (4 Credits)
This course examines economic perspectives of environmental and resource problems, ranging from peak oil, food crisis, and climate change. Topics include the property-rights basis of polluting problems, environmental ethics, benefit-cost analysis, regulatory policy, incentive-based regulation, clean technology, population growth and consumption, and sustainable development. Restriction: junior standing. Prerequisite: ECON 2020.

ECON 3991 Independent Study (1-8 Credits)
Prerequisites: ECON 1030.

ECON 3992 Directed Study (1-10 Credits)

ECON 3995 Independent Research (1-4 Credits)
This research project is based on a topic that the student picks in consultation with the chair of the economics department. During the consultation process a faculty supervisor is assigned to work with the student throughout the research process. The topic is preferably one that requires the student to demonstrate her/his ability to apply what he/she has learned in the intermediate-level required courses for the economics major. Restriction: senior standing.
ECON 3996 Senior Paper Research (2-4 Credits)
This research project is based on a topic that the student picks in consultation with the chair of the economics department. During the consultation process a faculty supervisor will be assigned to work with the student throughout the research process. The topic is preferably one that requires the student to demonstrate her/his ability to apply what she/he has learned in the intermediate-level required courses for the economics major. Restriction: senior standing.

ECON 4020 Adv Macroeconomic Theory (4 Credits)
Determinants of national income and its components and of the level of employment and the general price level; also examines business cycles and alternative macroeconomic theories.

ECON 4030 Adv Microeconomic Theory (4 Credits)
The orthodox microeconomic approach to determining prices and income distribution in competitive general equilibrium based on utility and profit maximization of consumers and firms; alternative theories of value and distribution.

ECON 4050 Origins of Modern Economics (4 Credits)
This course covers the development of economic theory from the decline of the classical school through the emergence of the Keynesian theory and investigates in detail the structure of the neoclassical theory and the degree to which Keynesian economics provides an alternative. We examine why economists thought that certain theoretical frameworks were better than others and what problems skill remain.

ECON 4991 Independent Study (1-10 Credits)
ECON 4992 Directed Study (1-10 Credits)
ECON 4993 Thesis Topic Development and Defense (4 Credits)
This resembles an independent study where a student will work under the supervision of a professor. The aim is to encourage the student, as s/he completes a certain number of hours of course work, to actively formulate and develop her/his thesis topic, and to formally present and defend it in a thesis workshop scheduled by the Department. A minimum of 20 credit hours of graduate-level course work must be completed. Instructor's permission required.

ECON 4995 Thesis Research (1-10 Credits)

Emergent Digital Practices (EDPX)

Courses
EDPX 3950 Collaboration and Production (4 Credits)
In this collaborative capstone experience, students combine skills to create complex works that encourage the social collaboration of its audience or users. Students learn how to develop group working methods that take advantage of the skills of each member. This course requires full cooperation between team members in order to demonstrate synthesis of the principles of experience, emergence, and engagement taught throughout the program. Understanding and involving the audience as full participants in the final created experiences are also essential. Lab fee. At least junior standing required. Prerequisite: varies with topic.

EDPX 4000 Digital Design Concepts (4 Credits)
An introductory course requiring conceptual, perceptual and manual skills to meet rigorous studio research into the history of mark-making, letter forms and layout designs as reflective of cultural, social, political and psychological contexts of interpretation. This class also emphasizes 2-D principles of design, including form, structure, conceptual understanding, visual aesthetics, semiotics, organizational systems, relationships of typography and imagery. Lab fee.

EDPX 4010 Emergent Digital Tools (4 Credits)
This course serves as a primer on the tools essential to expression, sharing, and creation in digital mediums. This includes knowledge of web technologies, creative coding, video, audio, and the basic historical and theoretical contexts of each. Lab fee.

EDPX 4020 Emergent Digital Cultures (4 Credits)
This course familiarizes students with current crucial approaches to understanding digital media and the impacts these media have in personal, community, cultural, social, institutional and international life. The course pays particular attention to cultural constructions of emergent digital media and practices. This course introduces graduate students to a variety of disciplinary lenses and conceptual practices, with readings and research ranging from media theory and studies, philosophy of technology, media archaeology and history, to science fiction studies as approaches to digital media and cultures.

EDPX 4100 Programming for Play (4 Credits)
This course offers an introduction to the creation of games and playful interactive objects. Students explore the space of socially conscious and humane games as well as investigate the creation of compelling interfaces and interactive opportunities. Cross listed with EDPX 3100. Prerequisites: EDPX 4000 and EDPX 4010, or permission of the instructor.

EDPX 4110 Rapid Game Design and Prototypes (4 Credits)
This course is a rigorous investigation into games, rules, systems, interaction, and the iterative design methodology through the rapid creation of paper-based and physical game prototypes. The ambition is for each student to create one new game per week in response to varying material and conceptual constraints. Participants create and constructively critique games created by classmates. Participants are expected to become reflective in their play. Class time is devoted to play-testing and discussion. Lab fee. Cross listed with EDPX 3110.
EDPX 4112 Rapid Physical Game Design & Prototyping (4 Credits)
This course is a rigorous investigation into games, rules, systems, interaction, collaboration, and the iterative design methodology through the rapid creation of large, human scale, "Big Games." The ambition is for students, working in changing collaborative groupings, to rapidly create games in response to varying material and conceptual constraints. Participants will both create and constructively critique games created by classmates. Participants are expected to become reflective in their play. Class time will be devoted to play-testing and discussion. Prerequisite: EDPX 4000. Lab fee.

EDPX 4115 Game Design: Paper to Digital (4 Credits)
This rigorous game design and development course analytically considers formal game design elements through game design and simple 2D game creation exercises, game design text readings, the creation of paper-based game prototypes, digital game-mechanic prototypes, and the followed by the creation of a complete 2D digital game. Class time is devoted to reading discussions, design exercises, play-testing, and some workshopping time. Lab fee. Prerequisite: EDPX 4100 or permission of the instructor.

EDPX 4120 Making Critical Games (4 Credits)
This course is a time intensive practicum offered once a year and may be available in Summer terms. Students are challenged to create games (board, physical, video-, and hybrid games) that respond to social conditions in a critical manner while still maintaining an essential ludic quality. Public Good and Civic Engagement projects are welcomed. The course may be repeated for credit with permission of the instructor and when projects vary. Lab fee. Prerequisites: EDPX 4100 and EDPX 4110 or permission of the instructor. Cross listed with EDPX 3120.

EDPX 4130 Making Educational Games (4 Credits)
This course is a time intensive practicum offered once a year and may be available in summer terms. Students are challenged to create games (board, physical, video-, and hybrid games) that deliver K-12 educational content while still maintaining an essential ludic quality. Course may be repeated for credit with permission of the instructor and when projects vary. Lab fee. Prerequisites: EDPX 4100 and EDPX 4110 or EDPX 4115, or permission of the instructor.

EDPX 4200 Data Visualization (4 Credits)
This course explores the creation of informational graphics for visual unpacking of relationships within and among data sets. Students learn to visualize large data sets as a means of revealing and exploring patterns of information. Creating interactive visualizations is also covered, allowing for deep and participatory engagement with information. The resulting mediums include print and web. Lab fee. Cross listed with EDPX 3200. Prerequisites: EDPX 4000 and EDPX 4010 or permission of the instructor.

EDPX 4210 Typographic Landscapes (4 Credits)
This class is a rigorous investigation of the expressive potential of typography as a crucial element of visual expression and electronic media. This class presumes no background in typography. Students are guided through project-based explorations that range from hand-rendered inter-letter spatial relationships to the typesetting of modest sets of pages for paper and e-books. Lab fee. Prerequisite: EDPX 4000 or permission of the instructor.

EDPX 4215 Game Design: Paper to Digital (4 Credits)
This vigorous game design and development course analytically considers formal game design elements through game design and simple 2D game creation exercises, game design text readings, the creation of paper-based game prototypes, digital game-mechanic prototypes, and the followed by the creation of a complete 2D digital game. Class time is devoted to reading discussions, design exercises, play-testing, and some workshopping time. Lab fee. Prerequisite: EDPX 4100 or permission of the instructor.

EDPX 4220 Making Networks (4 Credits)
This course provides students with the skills necessary to establish network presence across a range of platforms and technologies. Current web technologies and standards are covered but an emphasis is placed on identifying emerging platforms and developing innovative methodologies for critical engagement with emergent digital practices. Technologies studied may include content management and delivery systems, web APIs, big data, digital mapping platforms, data visualization, augmented reality and locative media. Prerequisite: EDPX 4010 or instructor permission. Lab fee. Crosslisted with EDPX 3250.

EDPX 4230 Interactive Art (4 Credits)
This course expands the concepts, aesthetics, and techniques critical to the exploration and authoring of interactive art. It explores human computer interactions; user/audience interface design/development; interactive logic, author-audience dialogue; meta-data/multimedia asset acquisition and authoring environments. While utilizing students' skills in numerous media forms, the class focuses on sensing, interactive scripting techniques, and emerging forms of digital narrative. Emphasis is on the development of interactive media deployment and distributions ranging from screen media to physical environments. Lab fee. Cross listed with EDPX 3320. Prerequisites EDPX 4310 or EDPX 4450.

EDPX 4240 Designing Social Good (4 Credits)
This course focuses on interdisciplinary approaches to artistic, scholarly and cultural methods for creating change in contemporary societal mindsets for a more sustainable and equitable future. Our objectives are to understand how current practices are reinforced and to then make experiences that encourage new ideas in the personal and global sphere. Lab fee. Cross listed with EDPX 3340. Prerequisites: EDPX 4000 and EDPX 4010.
EDPX 4350 Sustainable Design (4 Credits)
This course reviews and implements advanced sustainable design strategies as a praxis intersecting the domains of digital media design, dissemination, community organization and networking. The course builds upon the basic paradigms that have coalesced in the organizational and critical platforms of the sustainable design movement including ecology/environment, economy/employment, equity/equality and education/pedagogy/dissemination. The class reviews a wide spectrum of sustainable design strategies including: mapping of consumptive origin-thru-fate, green materials usage, creative commons, open source software/hardware movements, collaborative design, predictive complexity modeling, biomimicry, evolutionary design methods, and greening infrastructure, among others. Lab fee. Prerequisite: EDPX 4000 and EDPX 4010 or permission of the instructor.

EDPX 4400 Video Art (4 Credits)
This course continues the investigation of theories and practice of electronic media and expands into an exploration of video art, providing the basic principles of video technology and independent video production through a cooperative, hands-on approach utilizing various video formats. The course may be repeated for credit with permission of the instructor and when projects vary. Lab fee. Prerequisite: EDPX 4010 or permission of the instructor. Cross listed with EDPX 3400.

EDPX 4410 Advanced Video Art (4 Credits)
This course continues the investigation of theories and practices of electronic media and expands into an individual exploration of video art focusing on "off-screen" time-based media through conceptual and technological experimentation. Projects explore creating digital video for projection into spaces, onto buildings, and in the form of installations, to name a few formats. Projects are used as a platform for creative expression focusing on the critical skills necessary for the conception and completion of ideas. Lab fee. Prerequisite: EDPX 4400 or permission of instructor.

EDPX 4420 2.5D Motion (4 Credits)
This course provides students an opportunity to create multi-dimensionally active poetic orchestrations of text, video and audio using the post-production processing and animation tool, After Effects. Lab fee. Prerequisite: EDPX 4010. Cross listed with EDPX 3430.

EDPX 4430 Site-Specific Installation (4 Credits)
This class produces projects investigating physical space, virtual space and site-specific public installations. Lab fee. Cross listed with EDPX 3440. Prerequisites: EDPX 4000 and EDPX 4010.

EDPX 4440 Visual Programming (4 Credits)
This class introduces intuitive visual "programming" that allows rapid building of personalized tools for data, video, image, and sound manipulation. These tools can be used in real-time editing or performance, complex effects processing, or to bridge between multiple pieces of software. Lab fee. Cross listed with EDPX 3450. Prerequisite: EDPX 4010 or permission of the instructor.

EDPX 4450 Visual Programming II (4 Credits)
This class uses advanced visual programming concepts (as provided by Max/MSP and Jitter) to explore visualization and sonification techniques in an artistic context. Areas of exploration include OpenGL modeling and animation, virtual physics emulation, audio synthesis techniques, and external data manipulation. Students use these concepts to create art installation and performance projects. Lab fee. Cross listed with EDPX 3460. Prerequisite: EDPX 4450.

EDPX 4460 Expanded Cinema (4 Credits)
This course introduces several forms of expanded cinema, such as video remixes and mashups; live cinema and audiovisual performance; VJing; sonic visualization; visual music; and ambient video. The class extends the student's multitrack video and audio mixing skills to an emphasis on both performance and generative approaches to audiovisual media. It introduces software and hardware sets including VJ tools and visual programming for generating as well as manipulating video files and real-time source streams. Lab fee. Cross listed with EDPX 3490. Prerequisite: EDPX 4010 or permission of the instructor.

EDPX 4500 Sonic Arts (4 Credits)
This class introduces the tools and techniques of the sonic arts, including field recording, sampling and synthesis, sound editing and effects processing, and mixing. Students survey a variety of sonic arts, historical and contemporary, to understand techniques and strategies for developing and distributing sonic artifacts. Lab fee. Cross listed with EDPX 3500. Prerequisite: EDPX 4010 or permission of the instructor.

EDPX 4510 Sonic Arts II (4 Credits)
This class extends and applies the techniques and theories of the sonic arts to include loop-based composition, generative creation and modular processing. Students learn to add richness and complexity to audio work based on a combination of modern and classic techniques for audio production and the sonic arts. Class assignments include creation of audio for video and games, live performance and installations. Lab fee. Prerequisite: EDPX 4500 or permission of the instructor.

EDPX 4520 Voice and Sonic Environments (4 Credits)
This course covers environmental sound design with an emphasis on the human voice and acoustic ecologies. Studying and exploring a range of documentary, narrative and experimental approaches to sound design and the spoken word, students write and produce several short audio pieces. The final consists of a podcast, voice-oriented performance and/or sonic installation. Lab fee. Prerequisite: EDPX 4500 or permission of the instructor. Cross listed with EDPX 3520.
EDPX 4600 3D Modeling (4 Credits)
This course serves as an introduction to 3D modeling, texturing, and lighting on the computer. Students complete a series of projects in which the processes of preparing and producing a 3D piece are explored. Various strategies and techniques for creating detailed models to be used in animation and games are examined. Additional attention is paid to virtual camera techniques as well as the use of composting in creating final pieces. Current trends in the field are addressed through the analysis and discussion of current and historical examples. Lab fee. Cross listed with EDPX 3600, MFJS 3600. Prerequisite: EDPX 4000 or permission of the instructor.

EDPX 4610 3D Animation (4 Credits)
This course examines animation within virtual 3D environments. Starting with basic concepts, the course develops timing and spacing principles in animation to support good mechanics. They also serve as the basis for the more advanced principles in character animation as the class progresses. Lab fee. Cross listed with EDPX 3610. Prerequisite: EDPX 4600.

EDPX 4620 3D Spaces (4 Credits)
An exploration of 3D digital space and the possibilities found in games, narratives and visualizations in these spaces. A real-time engine is used by students to examine the opportunities of virtual 3D worlds. Lab fee. Prerequisites: EDPX 4010 and EDPX 4600, or permission of the instructor.

EDPX 4700 Topics in Digital Cultures (4 Credits)
This course provides an in-depth exploration of the emergent digital practices of a particular culture and unique area of advanced study (for example, art and science studies; activism; youth culture; critical game studies; the philosophy of technology; or social networking). Students learn the social/historical context of the particular culture and observe and document the interplay between cultural practices and particular technologies. Prerequisite: varies with topic.

EDPX 4701 Topics in Emergent Digital Practices (1-4 Credits)
Topics in Emergent Digital Practices.

EDPX 4725 Activist Media (4 Credits)
Today's alternative cultures use Internet and mobile technologies to access and circulate mainstream information, but also to rapidly exchange information that exists outside mainstream media channels. Activist movements today with access to digital tools and networks are no longer dependent on newspapers and broadcast networks to represent them and to disseminate their messages. We are, however, just beginning to see how the proliferation of alternative networks of communication, and the content, practices, and identities they facilitate, interact with traditional political and business organizations, as well as with traditional media products and practices. This course focuses on media activism over the past half-century tied to various social movements with an emphasis on contemporary protest movements and their use of new and old media tools and strategies. Cross listed with EDPX 3725, MFJS 3150.

EDPX 4730 21st Century Digital Art (4 Credits)
An exploration of Digital Art and surrounding culture from the last 15 years. Topics will include machinima, demoscenes, MMO performances, interactive installations, VR, animation, video shorts, and much more. Students will actively search for, share and critically review much of the creative work for the class.

EDPX 4740 Performance Cultures (4 Credits)
This course explores the history and current state of technology and performance. Topics covered include expanded cinema, live cinema, VJing, performance art, and the intersections of audiovisual media and technologies with dance, theater, and more. This course incorporates reading and discussion of critical texts and documentation of theory, process and practices, and the class includes screening and discussion of examples of both historical and emerging forms of media-enriched performance. Students produce written media on a variety of performance-related issues, artifacts, and practitioners, culminating in a written document or interactive publication. Lab Fee. Prerequisites: EDPX 4010 and EDPX 4020, or permission of the instructor.

EDPX 4750 Sound Cultures (4 Credits)
This course explores some of the cultures of artists, producers, and listeners that have formed around sound technologies. The class combines reading of critical texts and guided listening to study several genres of music, sound art and noise, ranging from post-WWII electronic music, field recordings and sound art, to hip-hop, dub, techno, jam bands, and more. Interdisciplinary in critical approach, this class encourages students to listen to these sonic forms as intersections of technological, social, ideological and imaginative forces. Students produce written media on a variety of sound-related issues, artifacts, and practitioners, culminating in a podcast or interactive publication. Lab fee. Cross listed with EDPX 3750. Prerequisites: EDPX 4010 and EDPX 4020.

EDPX 4770 Cybercultures (4 Credits)
This course encompasses a variety of lenses through which to view, evaluate and critique ideas of ‘community’ and communities in cyberspace (cyber culture). The course covers such issues as: identity and race in cyberspace (including ‘identity and racial tourism’); communication technologies and social control; digital censorship; and utopian and dystopian representations of digital technology. The course also engages with social theories involving issues of technological determinism and the popular representation of technology. It explores the views of a diverse set of critics to ask whether digital things are ‘good’ for you and your communities. Cross listed with EDPX 3770. Prerequisite: EDPX 4020.
EDPX 4780 Speculative Cultures (4 Credits)
This course explores the intersections of emergent digital practices and cultures with the extrapolative thought experiments, technical speculations, and social criticisms of science fiction. Students read, discuss, write and otherwise respond to primary texts by the likes of William Gibson, Bruce Sterling, Cory Doctorow, Philip K. Dick, and Hiroshi Yamamoto. Science fiction studies may also include sub-genres (steampunk, hard science fiction, ecological) and regional categories (Japanese sci-fi), as well as consider science fiction in other media formats (sound recordings, film, games). Students produce written materials in a variety of formats, culminating in a formal essay or interactive publication. Cross listed with EDPX 4780. Prerequisite: EDPX 4020 or permission of the instructor.

EDPX 4800 Topics in Digital Making (4 Credits)
This course provides an in-depth explorations of the emergent digital practices of a technology or method for making (for example, wearables; interactive projections; augmented reality; immersive multi-channel soundscapes). Students learn the social/historical context of the particular method and consider the role and function their creations serve when it becomes public. Lab Fee. Prerequisite: varies with topic.

EDPX 4980 Internship (0-8 Credits)
Instructor approval required.

EDPX 4991 Independent Study (1-8 Credits)
Independent Study form required.

EDPX 4992 Directed Study (1-4 Credits)
Independent study form required.

EDPX 4995 Independent Research (1-10 Credits)

EDPX 5000 Graduate Seminar (4 Credits)
Topics vary. Reading and discussion of critical theory. May include project(s) related to the topic. Course may be repeated up to six times.

EDPX 5100 Graduate Critique (4 Credits)
The course focuses on student’s creative production. Critiques are moderated by a different faculty member each quarter. Conceptual, methodological and theoretical concerns are stressed. Critiques are designed to assist in the experimentation, preparation and construction of individual art projects. Time is also spent on preparing students for a professional practice in the Arts. Course may be repeated up to six times.

EDPX 5700 Research & Theoretical Methods (4 Credits)
This course provides graduate students with the strategies and techniques of research in the area of digital media studies.

EDPX 5800 M.A. Thesis (4-8 Credits)
Independent work toward completion of the MA Thesis. May only be taken with the permission of the Graduate Director. May be taken for up to 8 credit hours.

EDPX 5850 M.A. Project (4-8 Credits)
Independent work toward completion of the MA Project. May only be taken with the permission of the Graduate Director. May be taken for up to 8 credit hours.

EDPX 5900 MFA Exhibition (4-12 Credits)
Independent work toward completion of the MFA Thesis Exhibition. May only be taken with the permission of the Graduate Director. May be taken for up to 8 credit hours.

Engineering (ENGR)

Courses

ENGR 3210 Intro Nano-Electro-Mechanics (4 Credits)
Familiarize science and engineering students with the electromechanical aspects of the emerging field of Nanotechnology (NEMS). NEMS is a relatively new and highly multidisciplinary field of science and technology with applications to state of the art and future sensors, actuators, and electronics. Starting with an overview of nanotechnology and discussion on the shifts in the electromechanical behavior and transduction mechanisms when scaling the physical dimensions from centimeters to micro-meters and then down to nanometers. Several electromechanical transduction mechanisms at the micro and nanoscale are presented and discussed in an application based context. New electromechanical interactions appearing in the nano and molecular scale, such as intra-molecular forces and molecular motors, are discussed. A detailed discussion and overview of nanofabrication technologies and approaches are also provided. Cross listed with ENGR 4210. Prerequisite: must be an engineering or science major of at least junior standing.

ENGR 3510 Renewable and Efficient Power and Energy Systems (4 Credits)
This course introduces the current and future sustainable electrical power systems. Fundamentals of renewable energy sources and storage systems are discussed. Interfaces of the new sources to the utility grid are covered. Prerequisite: ENEE 2021.

ENGR 3520 Introduction to Power Electronics (4 Credits)
This covers fundamentals of power electronics. We discuss various switching converters topologies. Basic knowledge of Efficiency and small-signal modeling for the DC-DC switching converters is covered. Furthermore, magnetic and filter design are introduced. Prerequisites: ENEE 2211 and ENGR 3722.
ENGR 3525 Power Electronics and Renewable Energy Laboratory (1 Credit)
In this course the fundamentals of switching converters and power electronics in a real laboratory set-up are covered. The course incorporates hardware design, analysis, and simulation of various switching converters as a power processing element for different energy sources. The energy sources are power utility, batteries, and solar panels. Prerequisite: ENGR 3520.

ENGR 3540 Electric Power Systems (4 Credits)
This course covers methods of calculation of a comprehensive idea on the various aspects of power system problems and algorithms for solving these problems. Prerequisite: ENGR 3530.

ENGR 3550 Introduction to Machine Drive Control (4 Credits)
This course provides the basic theory for the analysis and application of adjustable-speed drive systems employing power electronic converters and ac or dc machines. Prerequisites: ENGR 3520 and ENGR 3530.

ENGR 3610 Engineering Analysis (3 Credits)
Applied mathematics for engineers. Generalized Fourier analysis, complex variables, vector calculus, introduction to Bessel functions, and applied probability and statistics. Cross listed with ENGR 3620. Prerequisites: MATH 2070, MATH 2080.

ENGR 3620 Advanced Engineering Mathematics (4 Credits)

ENGR 3621 Advanced Engineering Mathematics (4 Credits)
Applied mathematics for engineers. Topics include vector spaces, normed vector spaces, inner product spaces, linear transformations, finite-dimensional linear transformations, linear operators, finite-dimensional linear operators, linear differential systems, linear difference systems, orthogonal transformations, amplitude estimation, fundamentals of real and functional analysis, and introduction to partial differential equations, and applications to engineering systems.

ENGR 3630 Finite Element Methods (4 Credits)
Introduction to the use of finite element methods in one or two dimensions with applications to solid and fluid mechanics, heat transfer and electromagnetic fields; projects in one or more of the above areas. Prerequisites: ENME 2541 AND ENGR 1572.

ENGR 3721 Controls (3,4 Credits)
Modeling, analysis and design of linear feedback control systems using Laplace transform methods. Techniques and methods used in linear mathematical models of mechanical, electrical, thermal and fluid systems are covered. Feedback control system models, design methods and performance criteria in both time and frequency domains. A linear feedback control system design project is required. Prerequisites: ENEE 2021, ENGR 3610 or permission of instructor.

ENGR 3722 Control Systems Laboratory (1 Credit)
This laboratory course serves as supplement to ENGR 3721. It aims at providing "hands on" experience to students. It includes experiments on inverted pendulum, gyroscopes, motor control, feedback controller design, time-domain and frequency domain. Corequisite: ENGR 3721.

ENGR 3730 Robotics (3 Credits)
Introduction to the analysis, design, modeling and application of robotic manipulators. Review of the mathematical preliminaries required to support robot theory. Topics include forward kinematics, inverse kinematics, motion kinematics, trajectory control and planning, and kinetics. Cross listed with ENGR 4730. Prerequisites: ENME 2520 and MATH 2060 or MATH 2200 or permission of instructor.

ENGR 3731 Robotics Lab (1 Credit)
Laboratory that complements the analysis, design, modeling and application of robotic manipulators. Implementation of the mathematical structures required to support robot operation. Topics include forward kinematics, inverse kinematics, motion kinematics, trajectory control and planning and kinetics. Applications include programming and task planning of a manufacturing robot manipulator. Corequisite: ENGR 3730 or permission of instructor.

ENGR 3742 LabVIEW Programming, a primer for certification as an Applications Developer (4 Credits)
The LabVIEW course covers numeric, Boolean, and string controls; programming structures include loops, sequences, formula, and case structures. VISA (virtual instrumentation and software structure) and SCPI (standard commands for programmable instruments) are used to control test equipment and acquire data via the GPIB (general purpose interface bus, IEEE488 standard). Vis (virtual instruments) for data acquisition and analysis are developed utilizing mathematical, signal processing, and statistical LabVIEW programming modules. LabVIEW structures will be used to mathematically model and solve second order differential equations and Laplace transforms.

ENGR 3800 Topics (ENGR) (1-4 Credits)
Special topics in engineering as announced. May be taken more than once. Prerequisite: varies with offering.

ENGR 3900 Engineering Internship (0-4 Credits)
Students in engineering may receive elective credit for engineering work performed for engineering employers with the approval of the chair or associate chair of the department. At the end of the term, a student report on the work is required, and a recommendation will be required from the employer before a grade is assigned. Junior, senior, or graduate status in engineering is normally required. May not be used to satisfy technical requirements. May be taken more than one for a maximum of 6 quarter hours. Prerequisite: permission of instructor.
ENGR 3970 Entrepreneurship for Engineers and Computer Scientists (4 Credits)
The course presents an overview of fundamentals of understanding entrepreneurship and entrepreneurial characteristics; the focus is on aspects of engineering entrepreneurship, technology-based innovation and new product development. Topics to be covered: learning an industry; recognizing and creating opportunities; new product development process, phases and cycle, risks and benefits; ‘testing’ of an engineering-focused business concept; marketing, organizational plan strategies and financing for new start-ups. Special attention is given to technological innovation, considering both incremental or routine innovation, and more radical or revolutionary changes in products and processes. Prerequisite: ENGR 3610 or permission of the instructor.

ENGR 4100 Instrumentation and Data Acquisition (4 Credits)
This course examines different instrumentation techniques and describes how different measurement instruments work. Measurement devices include length, speed, acceleration, force, torque, pressure, sound, flow, temperature, and advanced systems. This course also examines the acquisition, processing, transmission and manipulation of data. Final project or paper. Cross listed with ENGR 3100. Prerequisites: PHYS 1213 OR PHYS 1214.

ENGR 4200 Introduction to Nanotechnology (4 Credits)
The most important recent accomplishments so far in the application of nanotechnology in several disciplines are discussed. Then a brief overview of the most important instrumentation systems used by nanotechnologists is provided. The nature of nanoparticles, nanoparticle composites, carbon nanostructures, including carbon nanotubes and their composites is subsequently discussed. The course also deals with nanopolymers, nanobiological materials and devices. The issues of modeling of nanomaterials and nanostructures is also covered. Multiscale modeling based on finite element simulations, Monte Carlo methods, molecular dynamics and quantum mechanics calculations are briefly addressed. Most importantly, students should obtain appreciation of developments in nanotechnology outside their present area of expertise. Cross listed with ENGR 3200.

ENGR 4210 Introduction to Nano-Electro-Mechanical-Systems (4 Credits)
This course familiarizes science and engineering students to the electromechanical aspects of the emerging field of Nanotechnology (NEMS). NEMS is a relatively new and highly multidisciplinary field of science and technology with applications in the state of the art and future sensors, actuators, and electronics. This course starts with an overview of nanotechnology and discussion on the shifts in the electromechanical behavior and transduction mechanisms when scaling the physical dimensions from centimeters to micro-meters and then down to nanometers. Several electromechanical transduction mechanisms at the micro and nanoscale are presented and discussed in an application based context. New electromechanical interactions appearing in the nano and molecular scale, such as intra-molecular forces and molecular motors, are discussed. A detailed discussion and overview of nanofabrication technologies and approaches are also provided. Cross listed with ENGR 3210.

ENGR 4215 Nanoscale Electromechanical Systems and Nanofabrication Laboratory (4 Credits)
This course provides science and engineering students with comprehensive hands-on experience in design, fabrication and characterization of Nanoscale Electromechanical Systems (NEMS). This laboratory-based course starts with a number of sessions including brief lectures reviewing the fundamentals and theories followed by pre-designed lab experiments. The students are then provided with a choice of different comprehensive design and implementation projects to be performed during the quarter. The projects include design, layout, fabrication, and characterization of the devices potentially resulting in novel findings and publications.

ENGR 4220 Introduction to Micro-Electro-Mechanical-Systems (4 Credits)
This course introduces students to the multi-disciplinary field of Micro-Electro-Mechanical-Systems (MEMS) technology. MEMS and Microsystems technology is the integration of micro-scale electro-mechanical elements, sensors, actuators, and electronics on a common substrate or platform through semiconductor microfabrication technologies. The course gives a brief overview of the involved physical phenomena, electromechanical transduction mechanisms, design principles, as well as fabrication and manufacturing technologies. Cross listed with ENGR 3220.

ENGR 4300 Advanced Numerical Methods (4 Credits)
Fundamental and advanced numerical methods to approximate mathematical problems for engineering applications using modern software such as Matlab. Topics include numerical differentiation and integration, solution to linear and non-linear equations, ordinary and partial differential equations, and initial, boundary, and eigen value problems. Recommended prerequisite: MATH 2070.

ENGR 4350 Reliability (4 Credits)
An overview of reliability-based design. Topics include: fundamentals of statistics, probability distributions, determining distribution parameters, design for six sigma, Monte Carlo simulation, first and second order reliability methods (FORM, SORM). Most Probable Point (MPP) reliability methods, sensitivity factors, probabilistic design. Cross listed with ENGR 3350.

ENGR 4530 Intro to Power and Energy (4 Credits)
Basic concepts of AC systems, single-phase and three-phase networks, electromechanical energy conversion, electric power generation, transformers, transmission lines, AC machinery, DC motors, and contemporary topics in power and energy conversion. Cross listed with ENGR 3530.

ENGR 4545 Electric Power Economy (4 Credits)
This course covers economy aspects of electric power industry and the implications for power and energy engineering in the market environment. Cross listed with ENGR 3545.

ENGR 4550 Probabilistic Methods in Electric Power Systems (4 Credits)
The course covers techniques for probabilistic power system analysis and design, power system reliability, probabilistic structural design and analysis of transmission lines, analysis and assessment of transmission line reliability, probability-based power system design criteria, probabilistic load-flow studies and probabilistic power system stability. Prerequisites: ENGR 3540 or equivalent; permission of instructor; knowledge of MATLAB/Simulating is required.
ENGR 4560 Power Generation Operation and Control (4 Credits)
This course covers economic dispatch of thermal units and methods of solution; transmission system effects; generate with limited energy supply; production cost models; control of generation; interchange of power and energy; power system security; state estimation in power systems; optimal power flow. Prerequisite: ENGR 4540.

ENGR 4590 Power System Protection (4 Credits)
This course covers methods of calculation of fault currents under different types of fault; circuit breakers, current transformers, potential transformers; basic principles of various types of relays; applications of relays in the protection of generator, transformer, line, and bus, etc. Prerequisite: ENGR 4540.

ENGR 4620 Optimization (3,4 Credits)
Engineering problems will be formulated as different programming problems to show the wide applicability and generality of optimization methods. The development, application, and computational aspects of various optimization techniques will be discussed with engineering examples. The application of nonlinear programming techniques will be emphasized. A design project will be assigned.

ENGR 4730 Introduction to Robotics (4 Credits)
Introduction to the analysis, design, modeling and application of robotic manipulators. Review of the mathematical preliminaries required to support robot theory. Topics include forward kinematics, inverse kinematics, motion kinematics, trajectory control and planning, and kinematics. Applications include programming and task planning of a manufacturing robot manipulator. Cross listed with ENGR 3730. Prerequisites: ENME 2520 and MATH 2060 or MATH 2200 or instructor approval.

ENGR 4735 Linear Systems (4 Credits)
This course focuses on linear system theory in time domain. It emphasizes linear and matrix algebra, numerical matrix algebra and computational issues in solving systems of linear algebraic equations, singular value decomposition, eigenvalue-eigenvector and least-squares problems, linear spaces and linear operator theory. It studies modeling and linearization of multi-input/multi-output dynamic physical systems, state-variable and transfer function matrices, analytical and numerical solutions of systems of differential and difference equations, structural properties of linear dynamic physical systems, including controllability, observability and stability. It covers canonical realizations, linear state-variable feedback controller and asymptotic observer design, and the Kalman filter. Cross listed with ENGR 3735. Prerequisites: ENGR 3610, ENGR 3721/3722, or permission of the instructor.

ENGR 4740 Adaptive Control Systems (4 Credits)
Theoretical and application aspects of robust adaptive control design for uncertain dynamical systems. Topics include: parameter estimation, stability, model reference adaptive systems, self-tuning regulators, gain scheduling, design for robustness against unmodeled dynamics and disturbance signals. Examples will be given from aerospace engineering (changes in the dynamics of aircraft), process control, and robotics. Modern alternatives to traditional adaptive control will be discussed (switching multi-model/multi-controller adaptive schemes). Prerequisites: ENEE 3111, ENGR 3610, and ENGR 3721, or permission of the instructor. Familiarity with MATLAB/Simulink.

ENGR 4745 Advanced Non-Linear Control Systems (4 Credits)

ENGR 4750 Networked Control Systems (4 Credits)
Fundamental tools and recent advances in networked control. Topics include the control of multi-agent networks found in multi-vehicle coordination, control of sensor networks, unmanned vehicles, and energy systems. Network models, distributed control and estimation, distributed control under limited communications and sensing, formation control, coverage control in mobile sensor networks. Prerequisites: linear algebra, linear control systems, differential equations, familiarity with MATLAB, or permission of instructor.

ENGR 4755 Optimal Control (4 Credits)
Introduction to optimal control theory (control laws that maximize a specified measure of a dynamical system's performance). Topics include: optimality conditions and constraints; calculus of variations; review of mathematical programming (Language multipliers, convexity, Kuhn-Tucker theorem); Pontryagin's maximum principle (constraints, Hamiltonians, bang-bang control); dynamic programming and Linear Quadratic Regulation (Riccati, Hamilton-Jacobi equation). Prerequisites: ENGR 3721 (Controls) and ENGR 3735/4735 (Linear Systems) or equivalent courses.

ENGR 4810 Advanced Topics (ENGR) (1-5 Credits)

ENGR 4885 Graduate Project for non-Thesis Option Master's Degree (1-4 Credits)
This course is required for all Master of Science graduate students with major in Electrical Engineering, Computer Engineering, and Mechatronic Systems Engineering, who choose the non-thesis option. The student will be supervised by his or her faculty advisor to conduct original and independent research with project topic closely related to the student's depth requirement of the specialization area. The student will deliver a final comprehensive project report and an oral defense for the project. The examination committee for the Master's project shall consist of at least two faculty members.
Engineering, Bio (ENBI)

Courses
ENBI 4500 Biofluids (4 Credits)
The application of fluid dynamics theory and design to problems within the biomedical community. Specific topics covered include the mechanics of inhaled therapeutic aerosols, basic theory of circulation and blood flow, foundations in biotechnology and bioprocessing, and controlled drug delivery. Cross listed with ENBI 3500.

ENBI 4510 Biomechanics (4 Credits)
An introduction to the mechanical behavior of biological tissues and systems. Specific topics covered include: Analysis of the human musculoskeletal system as sensors, levers, and actuators; Joint articulations and their mechanical equivalents; Kinematic and kinetic analysis of human motion; Introduction to modeling human body segments and active muscle loading for analysis of dynamic activities; Mechanical properties of hard and soft tissues; Mechanical and biological consideration for repair and replacement of soft and hard tissue and joints; Orthopedic implants. Cross listed with ENBI 3510.

ENBI 4520 Introduction to Cardiovascular Engineering (4 Credits)
An introduction to cardiovascular mechanics with a focus on the quantitative understanding of the mechanical phenomena that governs the cardiovascular system. Specific topics covered include: basic principles of circulation including macro and micro circulation, soft tissue mechanics, applications to cardiovascular diseases, modelling techniques, clinical and experimental methods, and design of cardiovascular devices. Recommended prerequisites: ENME 2541 and ENME 2661.

ENBI 4800 Adv Topics (Bioengineering) (1-5 Credits)
Various topics in Bioengineering as announced. May be taken more than once. Prerequisite: varies with offering.

ENBI 4991 Independent Study (1-5 Credits)
ENBI 4992 Directed Study (1-5 Credits)
ENBI 4995 Independent Research (1-18 Credits)

Engineering, Computer (ENCE)

Courses
ENCE 3220 Microprocessor Systems II (4 Credits)
Introduction to microprocessors and to the design and operation of computer systems. A study of the microprocessor and its basic support components. Analysis CPU architectures of modern computers. Assembly language programming. Use of an assembler and other development tools for programming and developing microprocessor-based systems. Laboratory. Prerequisite: ENCE 3210.

ENCE 3231 Embedded Systems Programming (4 Credits)
Design, construction and testing of microprocessor systems. Hardware limitations of the single-chip system. Includes micro-controllers, programming for small systems, interfacing, communications, validating hardware and software, microprogramming of controller chips, design methods and testing of embedded systems. Prerequisite: ENCE 3220.

ENCE 3250 HDL Modeling & Synthesis (3 Credits)
Introduction to Hardware Design Language (HDL). Language syntax and synthesis. Applications related to digital system implementation are developed. Project. Prerequisite: ENCE 2101 or instructor's permission.

ENCE 3261 Fault Tolerant Computing (3 Credits)

ENCE 3321 Network Design (4 Credits)
Introduction to network components. Layering of network architecture. Analysis of Local Area Network (LAN) concepts and architecture based on IEEE standards. Design principles including switching and multiplexing techniques, physical link, signal propagation, synchronization, framing and error control. Application of probability and statistics in error detecting and control. Ethernet, Token-ring, FDDI (Fiber Distributed Data Interface), ATM (Asynchronous Transfer Mode), ISDN (Integrated Service Data Networks). Prerequisite: ENEE 3111, ENCE 2101 or permission of instructor.
ENCE 3620 Computer Vision (4 Credits)
This course is an introduction to the basic concepts in image processing and computer vision. First, an introduction to low-level image analysis methods, including radiometry and geometric image formation, edge detection, feature detection, and image segmentation are presented. Then, geometric-based image transformations (e.g., image warping and morphing) for image synthesis will be presented in the course. Furthermore, methods for reconstructing three-dimensional scenes including camera calibration, Epipolar geometry, and stereo feature matching are introduced. Other important topics include optical flow, shape from shading, and three-dimensional object recognition. In conclusion, students learn and practice image processing and computer vision techniques that can be used in other areas such as robotics, pattern recognition, and sensor networks. Cross listed with ENCE 4620. Prerequisite: ENEE 3311.

ENCE 3630 Pattern Recognition (4 Credits)
This class provides an introduction to classical pattern recognition. Pattern recognition is the assignment of a physical object or event to one of several prescribed categories. Applications includes automated object recognition in image and videos, face identification, and optical character recognition. Major topics include Bayesian decision theory, Parametric estimation and supervised learning, Linear discriminant functions, Nonparametric methods, Feature extraction for representation and classification, Support Vector Machines. Cross listed with ENCE 4630.

ENCE 4100 High Speed Digital Design (4 Credits)
Fundamental topics related to the development of high speed digital systems. Topics include signal integrity and reliability related to crosstalk, parasitic, and electromagnetic interference caused by device clocking speed and system complexity. Project. Cross listed with ENCE 3110.

ENCE 4110 Modern Digital Systems Design (4 Credits)
This course focuses on the design of digital systems using combinational, sequential, and programmable logic devices and Hardware Description Languages (HDL). Techniques for logic design including asynchronous logic, physical world interfaces to digital systems, and system performance analysis methods are studied. Students also learn HDL-Verilog to program CPLD devices and FPGA systems. Cross listed with ENCE 3100.

ENCE 4120 Microprocessor Systems I (4 Credits)
Introduction to microprocessors and to the design and operation of computer systems. A study of the microprocessor and its basic support components. Analysis of CPU architectures of modern computers. Assembly language programming. Use of an assembler and other development tools for programming and developing microprocessor-based systems. Cross listed with ENCE 3210.

ENCE 4210 Microprocessor Systems II (4 Credits)
Design, construction and testing of microprocessor systems. Hardware limitations of the single-chip system. Includes micro-controllers, programming for small systems, interfacing, communications, validating hardware and software, microprogramming of controller chips, design methods and testing of embedded systems.

ENCE 4210 Embedded Systems Programming (4 Credits)
Design, construction and testing of microprocessor systems. Hardware limitations of the single-chip system. Includes micro-controllers, programming for small systems, interfacing, communications, validating hardware and software, microprogramming of controller chips, design methods and testing of embedded systems.

ENCE 4250 Advanced Hardware Description Language (HDL) Modeling and Synthesis (4 Credits)
This course covers advanced concepts in Hardware Description Language (HDL) modeling and Synthesis. It covers topics including but not limited to digital system design, simulation, and synthesis using Verilog HDL and VHDL. The course also covers RTL design, behavioral description, system Verilog, and timing analysis using CAD tools.

ENCE 4301 Advanced VLSI Design (4 Credits)
Design of Very Large Scale Integration systems. Examination of layout and simulation of digital VLSI circuits using a comprehensive set of CAD tools in a laboratory setting. Studies of layouts of CMOS combinational and sequential circuits using automatic layout generators. Fundamental structures of the layout of registers, adders, decoders, ROM, PLA’s, counters, RAM and ALU. Application of statistics and probability to chip performance. CAD tools allow logic verification and timing simulation of the circuits designed. Cross listed with ENCE 4501. Prerequisite: ENEE 3220.

ENCE 4501 Advanced VLSI Design (4 Credits)
Advanced techniques in the fabrication and design of VLSI circuits and systems. Modeling of parasitic components. Floor-planning, clock distribution, routing, and low power design. Cross listed with ENCE 3501. Prerequisite: ENCE 3501 or permission of instructor.

ENCE 4601 Detection and Estimation Theory (4 Credits)
The subject of the detection and estimation theory course is on signal and information processing for the purpose of making desired inferences. The purpose of this course is to provide the fundamentals of theory and principles underlying the techniques for such processing. The following topics are involved in this course: receiver operating characteristics, hypothesis testing, Neyman-Pearson theorem, detection of deterministic signals with known parameters in Gaussian noise, matched filters principles, detection of random signals with known characteristics, estimator-correlator, linear models, estimation bias, variance, Cramer-Rao bounds and Fisher matrix, Bayesian estimation, maximum likelihood estimation, minimum mean-squared estimation, detection of deterministic signals with unknown parameters, signal parameter estimation, Bayesian approach and generalized likelihood ratio test, detection of random signals with unknown characteristics, unknown noise parameters; signal processing applications. Prerequisite: basic understanding of probability theory and statistics, or permission of instructor.

ENCE 4620 Advanced Computer Vision (4 Credits)
This course covers advanced concepts in image processing and computer vision including but not limited to image radiometry and geometric formation, edge detection, geometric based transformations (e.g., image warping and morphing), camera calibration, Epipolar geometry, and stereo feature matching. Other advanced topics include optical flow, shape from shading, and three-dimensional object recognition. In conclusion, students learn and practice advanced topics in image processing and computer vision techniques that can be used in other areas such as robotics, pattern recognition, and sensor networks. Cross listed with ENCE 3620. Prerequisite: ENEE 3311.
ENCE 4630 Advanced Pattern Recognition (4 Credits)
This class covers advanced topics in pattern recognition including but not limited to Bayesian decision theory, parametric estimation and supervised learning, linear discriminant functions, nonparametric methods, feature extraction for representation and classification, manifold learning, bag of words, and Support Vector Machines. Cross listed with.

ENCE 4680 Time-Frequency Signal Analysis (4 Credits)
This course focuses on time-frequency signal processing methods. Many TFRs and their usefulness in many applications is covered. Course topics include: signals and signal properties; uncertainty principle. Review of 1-D transforms: Fourier transform (FT), group delay, instantaneous frequency. Desirable properties: linear vs. quadratic TFRs. Linear TFRs: Short-timer Fourier transform (STFT); Wavelet transform; filter banks. Spectrogram: relation to STFT; tradeoff between TF resolution and cross-term attenuation; application examples. Wigner distribution (WD): definition; properties; signal examples; relation to narrowband ambiguity function; cross-term geometry; applications; Smoothed WDs. Scalogram: relation to wavelet transform; properties; TF resolution' applications. Adaptive TFRs: adaptive spectrogram; positive TFRs; short-time techniques; time-frequency distribution series. Reassignment method; matching pursuit algorithms. TFRs in real-world applications: wireless communications, biomedicine, radar, sonar, detection, estimation, classification, speech processing, image processing, structural health monitoring, and many more. Prerequisites: basic knowledge of signal and systems, and digital signal processing, or permission of instructor.

ENCE 4800 Advanced Topics (CPE) (1-5 Credits)
Various topics in computer engineering as announced. May be taken more than once. Cross-listed with ENCE 3321, ENCE 3620.

ENCE 4900 Machine Learning (4 Credits)
This course provides a broad introduction to machine learning. Topics include: supervised learning (linear regression, logistic regression, parametric/ non-parametric, neural networks, support vector machines); unsupervised learning (clustering, dimensionality reduction, kernel methods); anomaly detection and recommender systems. The course also discusses recent applications of machine learning. Recommended prerequisite: basic probability theory and statistics.

ENCE 4991 Independent Study (1-10 Credits)
ENCE 4992 Directed Study (1-10 Credits)
ENCE 4995 Independent Research (1-18 Credits)

Engineering, Electrical (ENEE)

Courses

ENCE 3011 Physical Electronics (4 Credits)
The basic physical concepts of electronics, electrons and holes in semiconductors, transport and optical processes. Concentration on device concepts, including material synthesis and device processing, P-N junction diodes, junctions with other materials, bipolar transistors, field effect transistors (JFET, MESFET, MOSFET) and optoelectronic effect transistors (JFET, MESFET, MOSFET) and optoelectronic devices (lasers, detectors). Prerequisites: CHEM 1010, CHEM 1610, PHYS 1213, PHYS 1214 or permission of instructor.

ENCE 3111 Signals & Systems (4 Credits)
Introduces continuous time and discrete time linear system analysis, Fourier series, Fourier transforms and Laplace transforms. Specific engineering tools for discrete time linear system analysis include discrete time convolution, Z-transform techniques, discrete Fourier transform and fast Fourier transform (DFT/FFT), and the design and analysis of analog and digital filters for real-world signal processing applications. Prerequisites: ENEE 2021, MATH 2070.

ENCE 3141 Digital Communications (3 Credits)
Introductory course on modern digital communication systems. The basic communication system theory, probability and random processes, baseband digital data transmission, coherent and non-coherent digital modulation techniques and analysis of bit error probability. Bandwidth efficiency and transmission of digital data through band-limited channels. Prerequisites: ENEE 3111, ENGR 3610 or permission of instructor.

ENCE 3611 Analysis and Design of Antennas and Antenna Arrays (4 Credits)
Maxwell's equations applied to antenna analysis and design. Topics include fundamental parameters of antennas, radiation integrals and auxiliary potential functions, analysis and design of linear wire antennas, loop antennas, arrays, broadband antennas, frequency independent antennas, aperture antennas and horns. Integrated lab included. Prerequisite: ENEE 2611.

ENCE 3620 Optical Fiber Communications (4 Credits)
A comprehensive treatment of the theory and behavior of basic constitutents, such as optical fibers, light sources, photodetectors, connecting and coupling devices, and optical amplifiers. The basic design principles of digital and analog optical fiber transmission links. The operating principles of wavelength-division multiplexing (WDM) and the components needed for its realization. Descriptions of the architectures and performance characteristics of complex optical networks for connecting users with a wide range of transmission needs (SONET/SDH). Discussions of advanced optical communication techniques, such as soliton transmission, optical code-division multiplexing (optical CDMA) and ultra-fast optical time-division multiplexing (OTDM). Laboratory. Cross listed with ENEE 4620. Prerequisite: ENEE 3030 or permission of instructor.
ENEE 3641 Introduction to Electromagnetic Compatibility (4 Credits)
The study of the design of electronic systems so that they operate compatibly with other electronic systems and also comply with various governmental regulations on radiated and conducted emissions. Topics may include Electromagnetic Compatibility (EMC) requirements for electronic systems; non-ideal behavior of components; radiated emissions and susceptibility; conducted emissions and susceptibility; shielding and system design for EMC. Cross listed with ENEE 4640. Prerequisites: ENEE 3111, ENEE 2611 and ENEE 2223.

ENEE 3670 Introduction to Digital Signal Processing (4 Credits)
Introduction to the theory and applications of Digital Signal Processing. Special attention is paid to the fast Fourier transform and convolution and to the design and implementation of both FIR and IIR digital filters. Prerequisite: ENEE 3111.

ENEE 4030 Optoelectronics (4 Credits)
Optical fibers: structures, waveguiding, and fabrication; attenuation and dispersion; optical sources (LED, LASER, Fiber laser); power launching and coupling; photodetectors (APD, PIN, MSM); and practical optical transmitter and receivers. Cross listed with ENEE 3030.

ENEE 4035 Nanophotonics (4 Credits)
Nanophotonics provides high-speed, high-bandwidth, and ultra-small optoelectronic components. This course covers nanoscale processes, devices and their applications for harnessing and manipulating light on the nanoscale.

ENEE 4141 Digital Communications (4 Credits)
Introductory course on modern digital communication systems. The basic communication system theory, probability and random processes, baseband digital data transmission, coherent and non-coherent digital modulation techniques and analysis of bit error probability. Bandwidth efficiency and transmission of digital data through band-limited channels.

ENEE 4310 Information Theory and Coding (3 Credits)
Information and entropy; coding theory; error detection, correction codes; channel capacity; application to communications engineering.

ENEE 4416 Advanced Digital Signal Processing Topics (4 Credits)
Study of linear discrete-time systems used to perform operation on random processes for the purposes of signal detection, estimation, spectral estimation, enhancement and parametric modeling of signals and systems, linear difference equations, Z-transforms, random sequences, state variables, matched filtering, Wiener filtering. Prerequisite: ENEE 3670.

ENEE 4460 Real-Time Digital Signal Processing (4 Credits)
Digital signal processing algorithms and processing of discrete data, finite word length effects on filters, fixed point arithmetic and floating-point arithmetic. Overview of different architectures of digital signal processors. Programming of the DSP processor, implementation of DSP algorithms on DSP hardware in labs. Prerequisite: ENEE 3111, ENEE 3670, or ENCE 3210.

ENEE 4620 Adv Optical Fiber Comm (4 Credits)
A comprehensive treatment of the theory and behavior of basic constituents, such as optical fibers, light sources, photodetectors, connecting and coupling devices, and optical amplifiers. The basic design principles of digital and analog optical fiber transmission links. The operating principles of wavelength-division multiplexing (WDM) and the components needed for its realization. Descriptions of the architectures and performance characteristics of complex optical networks for connecting users who have a wide range of transmission needs (SONET/SDH). Discussions of advanced optical communication techniques, such as soliton transmission, optical code-division multiplexing (optical CDMA), and ultra-fast optical time division multiplexing (OTDM). Advanced Project. Cross listed with ENEE 3620. Prerequisite: instructor permission.

ENEE 4625 Radio over Fiber Comms. (4 Credits)
This course provides comprehensive and technical foundation in Microwave photonic Applications: Radio over optical fiber communications (RoF) is a novel technology in the field of short-range communication applications. The main goal is to enable range extension of 1 to 3 orders of magnitude over a typical ultra wideband radio signal in the range of 3.1-10.6 GHz. This technology allows separation of low cost Base-Station (BSs) from the Central-Station (CS). In the RoF technology is targeting the Personal Area Network (PAN) market that is characterized by very low cost and low power (10 uW) access point. In RoF, the optical fiber is used to carry extremely wide RF signals (several GHz).

ENEE 4630 Optical Networking (4 Credits)
This course provides a technical overview of optical networking. It gives students a solid understanding of optical networking field principles and practice. Underlying principles are reviewed along with common optical solutions and practices. It explains and provides practical tips on how to design and implement Networks. Examples are used to demonstrate key concepts of ATM, SONET/SDH and DWDM implementation. Prerequisite: ENEE 3011 or instructor approval.

ENEE 4635 Optical Wireless Communications (OWC) (4 Credits)
This course addresses describing important issues in optical wireless theory, including coding and modulation techniques for optical wireless, wireless optical CDMA communication systems, Optical MIMO systems and optical wireless technology such as visible light communications, IR links and sensor networks. Project in OWC. No prerequisite.

ENEE 4640 Electromagnetic Compatibility (4 Credits)
The study of the design of electronic systems so that they operate compatibly with other electronic systems and also comply with various governmental regulations on radiated and conducted emissions. Topics may include: Electromagnetic Compatibility (EMC) requirements for electronic systems; non-ideal behavior of components; radiated emissions and susceptibility; conducted emissions and susceptibility; shielding and system design for EMC. Final Project. Cross listed with ENEE 3641.
ENEE 4650 Radio Frequency Design in the Wireless World (4 Credits)
Topics include the following: basic concepts in Radio Frequency design and communications, transceiver architectures, low-noise amplifiers, mixers, oscillators, phase-locked loops, power amplifiers, and transceiver design examples. Final Project. Prerequisites: ENEE 2611, ENEE 2222, and ENEE 3111 or equivalents.

ENEE 4800 Advanced Topics (EE) (1-5 Credits)
Various advanced topics in electrical engineering as announced. May be taken more than once. Cross-listed with ENEE 3035.

ENEE 4991 Independent Study (1-10 Credits)
ENEE 4992 Directed Study (1-10 Credits)
ENEE 4995 Independent Research (1-16 Credits)
ENEE 6991 Ph.D Independent Study (1-10 Credits)
ENEE 6995 Ph.D Independent Research (1-16 Credits)

Engineering, Mechanical (ENME)

Courses
ENME 3511 Machine Design (3 Credits)
Application of statics, dynamics, mechanics of materials and manufacturing processes to the design of machine elements and systems. Properties of materials and design criteria. Synthesis and analysis of a machine design project. Prerequisites: ENME 2520 and ENME 2541.

ENME 3545 Mechanisms (4 Credits)
Synthesis, analysis and use of mechanisms. Mechanisms studied include cams, gears and planar linkages, with an emphasis on planar linkages. Prerequisites: ENME 2530 and ENGR 1572.

ENME 3651 Computational Fluid Dynamics (4 Credits)
This course introduces principles and applications of computational methods in fluid flow and topics chosen from heat transfer, mass transfer or two phase flow. The conservation equations, their discretations and solutions, are presented. Convergence and validity of solutions along with computational efficiency are explored. Students learn to apply these techniques using the latest software packages. Prerequisites: ENME 2671.

ENME 3661 Mechanical Energy Systems Engineering (4 Credits)
This course covers energy systems engineering analysis from a mechanical and materials engineering perspective. This course covers energy production from traditional energy systems that use fossil fuel combustion such as internal combustion engines, coal-fired plants, and natural gas turbines, to nuclear energy and renewable energy methods such as wind, solar, hydraulic, and geothermal. Lastly, the course will survey emerging technologies for future (21st century) energy systems. Students should have taken at a minimum Thermodynamics, Dynamics, and Fluid Dynamics courses. Prerequisites: ENME 2720, ENME 2510, ENME 2651.

ENME 3720 Introduction to Aerospace Engineering (4 Credits)
This course provides and introduction to aerospace engineering analysis and design. In the atmospheric domain, the basics of aerodynamics are covered, followed by flight mechanics. The approach is from a practical perspective in which analysis and design are intertwined. Students should have taken at a minimum Thermodynamics and Dynamics courses. Prerequisites: ENME 2710 and ENME 2510 or Graduate standing.

ENME 3810 Mechanical Engineering Capstone Laboratory (3 Credits)
This course is the capstone mechanical engineering laboratory course requiring independent experimental design by student teams. Using experimental equipment available in heat transfer, fluid mechanics, solid mechanics, thermodynamics, and measurement and control, the student team is required to design experiments to solve given problems which will be unique to each team. This course encourages students to develop experimental design and research techniques while continuing to improve skills in fundamental lab notebook keeping, uncertainty analysis in measurements, data acquisition, data analysis, report writing, oral presentations, and laboratory safety and procedures. Prerequisite: ENME 2810.

ENME 4020 Adv Finite Element Analysis (4 Credits)
ENME 4310 Computational Methods for Mechanics and Materials (4 Credits)
An introductory course for the general-purpose computational methods in advanced multiscale materials and mechanics. Students learn the fundamentals on the numerical methods used in mechanical and materials engineering. Cross listed with ENME 3310.

ENME 4360 Elasticity (4 Credits)
Students will be able to apply the fundamental principles of elasticity to solve two- and three-dimensional mechanical engineering problems involved in modern applications of elastic structures, composite materials, tribology and contact mechanics. Dependence on previous knowledge of solid mechanics, continuum mechanics or mathematics is minimized. The emphasis is placed on the engineering application of elasticity. Suggeted prerequisite: ENME 2541.

ENME 4400 Fatigue (4 Credits)
A detailed overview of fatigue. Topics include: stress life and strain life approaches, fracture mechanics, constant amplitude and spectrum loading, life prediction, fatigue at notches, microstructural effects, environmentally assisted fatigue, retardation and acceleration, multi-axial fatigue, design against fatigue and reliability. Cross listed with ENME 3400.
ENME 4520 Intermediate Dynamics (4 Credits)
Development and analysis of dynamic systems through classical and modern approaches. Topics include: reference frames, particle kinematics, Newtonian particle mechanics, Phase Portraits, rigid-body kinematics, Euler’s laws, Lagrange’s Equations, Lagrange Multipliers, and Kane’s Equations. Recommended prerequisites: MATH 2070 and MATH 2080.

ENME 4541 Advanced Mechanics of Materials (4 Credits)
This is a second-level course in mechanics of materials with an emphasis on techniques that are useful for mechanical design. Topics may include energy methods, non-symmetrical and nonlinear bending, shear and torsion of closed and open sections, beams in elastic foundations, membrane stress in axisymmetric shells, axisymmetric bending of cylindrical shells, thick-walled cylinders and disks, curved beams, and elastic stability. Recommended prerequisite: ENME 2541.

ENME 4560 Viscous Flow (4 Credits)
Course covers the fundamentals of fluid mechanics from an advanced point of view with emphasis on the mathematical treatment of viscous-flow phenomena. Topics cover the Navier-Stokes equations and its exact and similarity solutions, laminar boundary layer theory, free-shear flows, and the phenomena of instability and transition to turbulence. Recommended prerequisite: ENME 2661.

ENME 4565 Advanced Fluid Dynamics (4 Credits)
Physical properties of liquids and gases; turbulence and closure models; surface waves and instabilities; non-Newtonian fluid behavior; conformal mapping and airfoil theory.

ENME 4650 Micro Heat Exchangers (4 Credits)
Explores the advance principles and applications of fluid dynamics and heat transfer through the application to micro fluidic heat exchanger design and optimization. Students utilize Mathcad extensively to seek optimized exchanger performance within a clearly defined design space. Students also build small scale heat exchangers from their optimized designs. Prerequisite: ENME 2671.

ENME 4650 Advanced Computational Fluid Dynamics (4 Credits)
Building on the principles and applications of computational methods in fluid flow and topics chosen from heat transfer, mass transfer and two phase flow. Specifically, Monte Carlo and volume of fluid techniques are discussed at length. Additionally, students learn how to set up automated design optimization using the latest software packages. Time permitting, students also are introduced to fluid-solid interaction modeling. Prerequisite: ENME 3651.

ENME 4650 Convective Heat Transfer (4 Credits)
The objective of this course is to examine the physical phenomena associated with heat transfer in the presence of fluid flow. We will develop a mathematical description of the processes (fluid flow and heat transfer) for laminar and turbulent flows for both internal and external situations. Exposure to the fundamentals of fluid mechanics and heat transfer is expected before taking this course.

ENME 4600 Advanced Topics (ME) (1-5 Credits)
Determined by interest and demand. May be taken more than once for credit.

ENME 4900 Grad Professional Development (1 Credit)
This course is required for all MME MS graduate students and all MME PhD graduate students who enter with a BS or enter with an MS but fail their first qualifying exam. One of our objectives is for all graduating students to have good written and verbal communication skills. This course is set up to meet those objectives. During this course, students write a mini-proposal and/or literature review. Students follow guidelines for a funding agency (e.g. NSF or NIH) for the mini-proposal. If students have a research advisor, students can coordinate with their advisor. If students do not have a research advisor, students may pick a topic that most interests them. Both a written proposal and an oral presentation are required of all students. Graduate standing is required.

ENME 4950 Graduate Assessment (0 Credits)
This graduate assessment course is required for all MME graduate students to be taken in their last quarter. All required assessment materials are uploaded to DU Assessment to meet the course requirements. Students will receive emails through the DU Assessment system notifying you of what is required to be uploaded.

ENME 4991 Independent Study (1-10 Credits)
ENME 4992 Directed Study (1-10 Credits)
ENME 4995 Independent Research (1-16 Credits)
ENME 5991 Independent Study (1-10 Credits)
ENME 5995 Independent Research (1-16 Credits)

Engineering, Mechatronic Syst (ENMT)

Courses
ENMT 3210 Mechatronics I (4 Credits)
This course provides basic concepts from electrical, mechanical, and computer engineering as applied to mechatronic systems and is intended to serve as a foundation course for further exploration in the area of mechatronics. Prerequisite: senior or graduate standing in engineering.
ENMT 3220 Mechatronics II - Real-Time Systems (4 Credits)
Real-time systems require timely response by a computer to external stimuli. This course examines the issues associated with deterministic performance including basic computer architecture, scheduling algorithms, and software design techniques including data flow diagrams, real-time data flow diagrams, stat transition diagrams, and petri nets. In the lab portion of this class, students program a microcontroller to interact with mechatronic devices. Prerequisite: ENMT 3210, ENCE 3210 or COMP 3354.

ENMT 4000 Space Systems Design I (4 Credits)
The application of advanced theory and concepts as they relate to the development of spacecraft and missile subsystems, and how those subsystems are related under the umbrella of systems engineering. The course emphasizes practical aspects of space systems design and integration, and is team-taught by faculty and functional experts in the various fields. Lecture topics include aerospace materials, mechanics, thermal control, embedded systems, distributed sensor networks and aerospace probability and statistics.

ENMT 4010 Space Systems Design II (4 Credits)
The continuation of Space Systems Design I. Lecture topics include payload communications, guidance and control, spacecraft electric power, propulsion systems, radiation and avionics and sensor subsystems. Prerequisite: Space Systems Design I.

ENMT 4100 Systems Engineering (4 Credits)
Provides a framework for understanding and acquiring the knowledge, tools and skills needed by explicitly "systems-trained" engineers, to effectively interact with specialist engineers and project managers in the engineering of complex, large scale systems. Emphasis is on the development of a life-cycle model for systems engineering processes, to reduce the risk inherent in each life-cycle stage.

ENMT 4220 Mechatronics II (4 Credits)
This course combines systems design and integration with a real world project involving the design and fabrication of an integrated system. Prerequisite: Mechatronics I or equivalent.

ENMT 4730 Advanced Ground Robotics (4 Credits)
Introduction to path planning and sensing and estimation for robotic manipulations and mobile robots. Review of the mathematical preliminaries required to support robot theory. Topics include advanced sensors, mobile robot mechanisms, advanced manipulator mechanisms, path planning in 2-D and 3-D, and simultaneous localization and mapping. Applications include task and motion planning for idealized and real robots. Prerequisite: ENGR 3730.

ENMT 4734 Unmanned Aerial Systems (4 Credits)
Unmanned Aerial Vehicles (UAVs), or Unmanned Aircraft Systems (UAS) as is the preferred term by the US DOD, have seen unprecedented levels of growths in military and civilian application domains. Fixed-wing aircraft, heavier or lighter than air, rotary-wing (rotocraft, helicopters), vertical take-off and landing (VTOL) unmanned vehicles are being increasingly used in military and civilian domains for surveillance, reconnaissance, mapping, cartography, border patrol, inspection, homeland security, search and rescue, fire detection, agricultural imaging, traffic monitoring, to name just a few application domains. This course offers a very comprehensive study of UAS that includes: history of unmanned aviation, including evolution of designs and models for application-specific domains; modeling, control and navigation fundamentals for both teleoperation, semi-autonomous and fully autonomous flights; see-and-avoid-systems for different classes of UAS; integration of UAS into the National Airspace System (NAS); applications and case studies. Prerequisite: ENGR 3730.

ENMT 4800 Adv Topics (Mechatronics) (1-5 Credits)
Various topics in Mechatronics System Engineering as announced. May be taken more than once. Prerequisite: varies with offering.

ENMT 4991 Independent Study (1-5 Credits)
ENMT 4995 Independent Research (1-18 Credits)

English (ENGL)

Courses
ENGL 3000 Advanced Creative Writing-Poetry (4 Credits)
Technique, writing practice and criticism.
ENGL 3001 Advanced Creative Writing-Poetry (4 Credits)
Technique, writing practice and criticism.
ENGL 3002 Advanced Creative Writing-Poetry (4 Credits)
Technique, writing practice and criticism.
ENGL 3003 Advanced Creative Writing-Poetry (4 Credits)
Technique, writing practice and criticism.
ENGL 3010 Advanced Creative Writing-Fiction (4 Credits)
Technique, writing practice and criticism.
ENGL 3011 Advanced Creative Writing-Fiction (4 Credits)
Technique, writing practice and criticism.
ENGL 3012 Advanced Creative Writing-Fiction (4 Credits)
Technique, writing practice and criticism.
ENGL 3013 Adv Creative Writing-Fiction (4 Credits)
Technique, writing practice and criticism.

ENGL 3015 Advanced Creative Writing: Non-Fiction (4 Credits)

ENGL 3017 Travel Writing-Fiction & Fact (4 Credits)
A study of European, American and other narratives of travel. This course examines relevant postcolonial and literary theories of travel and nationhood.

ENGL 3040 Introduction to Publishing (4 Credits)
Cross listed with ENGL 2040, MFJS 3140.

ENGL 3101 Non-Chaucerian Middle English Literature (4 Credits)
A study of Chaucer's near-contemporaries, Gower, Langland, and the Pearl poet as well as drama and lyrics.

ENGL 3121 Chaucer: Canterbury Tales (4 Credits)
Life, culture, language and literary trends of Chaucer's age as reflected in "The Canterbury Tales".

ENGL 3320 Oral Literature and Orality in Literature (4 Credits)
The term "oral literature" generally refers to narratives and poems—including songs—performed and disseminated orally from one generation to the other. Oral literature is, in some respects, the foundational 'text' of written literature. Some of the questions that we therefore explore in this course are as follows: How did oral literature develop? What are its types and their characteristics? How has oral literature been shaped by time and place? How is it distinct from as well as related to written literature? To answer these questions, we explore different forms of oral literature—from the traditional (such as folklore) to the contemporary (such as spoken work poetry). We also study the use of orality as a literary device in written literature. Our studies involve the examination of material and texts from different parts of the world.

ENGL 3402 Early Romantics (4 Credits)

ENGL 3404 England and Empire: Ambivalent Imperialism in Victorian and Edwardian Literature (4 Credits)
A course investigating the literary accounts of and responses to British imperialism in Victorian and Edwardian England in which students read works by Conrad, Kipling and Forster as well as several 20th-21st works by post Commonwealth authors in London.

ENGL 3405 Postmodern Visions of Israel (4 Credits)
This course investigates how representation of Israel as a modernist utopia have been replaced in contemporary literature with images of Israel as a dystopia. The class discusses the historical context that gave rise to visions of an idealized Israel, and the role the Hebrew language played in consolidating and connecting narration to nation. Next the class considers how belles-lettres from recent decades have reimagined Israel as a series of multilingual “multiverses.” A selection of fiction translated from Hebrew forms the core of class reading. Theoretical exploration of postmodernism help us conceptualize the poetics of postmodern literature. No knowledge of Israeli history or Jewish culture is necessary to succeed in this course.
Cross listed with JUST 3405.

ENGL 3706 Writing the American West (4 Credits)
Explores historical and contemporary writing produced in and about the American West.

ENGL 3711 20th-Century American Fiction (4 Credits)
Fiction, poetry, drama, and non-fiction on selected themes by 20th and 21st century American writers. Topics for study may include issues related to regionalism, ethnicity and gender, as well as specific social and historical concerns.

ENGL 3731 Topics in English (1-4 Credits)

ENGL 3732 Topics in English (1-4 Credits)

ENGL 3733 Topics in English (1-4 Credits)
Topics vary reflecting the interdisciplinary nature of the department and studies of the faculty.

ENGL 3743 Modern Jewish Literature (4 Credits)
Stories, novels and memoirs by 20th-century Jewish writers; consideration of issues of generation, gender and idea of Jewish literature as a genre.
Cross listed with JUST 3743.

ENGL 3744 African American Literature (4 Credits)
This course examines fiction, poetry, autobiography, and drama by African American writers, with strong consideration on the socio-historical conditions that gave rise to and continue to inform this literary tradition.

ENGL 3800 Bibliography/Research Method (4 Credits)

ENGL 3803 Modernism/Postmodernism (4 Credits)

ENGL 3813 History and Structure of the English Language (4 Credits)
A composite course studying both the structure of modern English and the history of the English language.

ENGL 3815 Studies in Rhetoric (4 Credits)
This course will examine the history and principles of rhetoric and how they pertain to theory and practice in the field of composition and rhetoric.
ENGL 3817 History of Rhetoric (4 Credits)
ENGL 3818 Composition Theory (4 Credits)
ENGL 3821 Literary Criticism: 19th Century-Present (4 Credits)
ENGL 3822 Literary Criticism: 20th Century (4 Credits)
Critical methods and philosophies of 20th-century critics; their relationship to traditions.
ENGL 3823 Interpretation Theory (4 Credits)
ENGL 3825 Cultural Criticism (4 Credits)
Cross listed with ENGL 2835.
ENGL 3826 Interpretation Theory (4 Credits)
ENGL 3828 Topics in Poetics (4 Credits)
ENGL 3982 Writers in the Schools (2,4 Credits)
This course operates mostly "in the field." Following the models of California Poets in the Schools and Teachers & Writers Collaborative, students are in training with a poet-in-residence, observing him as he conducts a residency in a public school. In addition, we have our own meetings to discuss pedagogy, classroom practices and management, teacher-writer relations, and all other necessary logistical planning. Placement in public schools is facilitated by Denver SCORES, an education program dedicated to increasing literacy in Denver's at-risk school population. For those wishing to work with middle or high school students, or in other community settings (e.g., homeless or women's shelters), special arrangements can be made. This course is a collaborative effort between CO Humanities, Denver SCORES, and the University of Denver.
ENGL 3991 Independent Study (1-17 Credits)
ENGL 3992 Directed Study (1-10 Credits)
ENGL 3995 Independent Research (1-10 Credits)
ENGL 4000 Colloquium (2 Credits)
ENGL 4001 Sem Creative Writing-Poetry (4 Credits)
ENGL 4011 Sem Creative Writing-Fiction (4 Credits)
ENGL 4012 History/Theory of Genre-Poetry (4 Credits)
ENGL 4017 Travel Writing (4 Credits)
ENGL 4050 The Critical Imagination (4 Credits)
This graduate level course explores poetry, fiction, and criticism as different facets of the imagination. This is a large and a necessarily vaguely defined topic. But in the world of literary studies, creativity and criticism are clearly symbiotic. Reading and writing are connected activities. The poet or fiction writer is often a critic, and there are numerous treatments of interpretation in the critical canon suggesting that the act of reading and interpreting is itself an imaginative and creative act. The course explores genre signatures and possibilities, as well as provides an introduction to some of the analytics through which texts, literary and otherwise, are interpreted.
ENGL 4100 Graduate Tutorial (2-4 Credits)
ENGL 4120 Beowulf (2 Credits)
Reading and translation of the Old English Beowulf. Prerequisite: ENGL 4125.
ENGL 4125 Old English (4 Credits)
This class introduces students to Old English grammar, prose, and poetry. This course is a prerequisite for ENGL 4120.
ENGL 4150 Special Topics in Medieval Lit (4 Credits)
ENGL 4200 Special Topics-Early Mod Lit (4 Credits)
ENGL 4210 Holocaust Literature (4 Credits)
This seminar presents a multidisciplinary and transnational approach to literature of the Holocaust. Students consider memoir, fiction, and poetry drawn from a variety of national literatures and linguistic traditions. Works written by victims, survivors and 'witnesses through the imagination' are all considered. These readings are supplemented by secondary texts, including historical and philosophical materials, as well as relevant works from the social sciences.
ENGL 4213 Advanced Studies in Early Modern Literature (4 Credits)
ENGL 4220 Seminar-Studies in Shakespeare (4 Credits)
ENGL 4300 Advanced Studies in 18th Century Literature (4 Credits)
ENGL 4321 Spc Tpcs: 18th Cent Literature (4 Credits)
Special Topics courses will explore specific topics within historical periods, single authors, or theoretical/critical/ scholarly issues.
ENGL 4424 Topics in English: 19th Century Literature (4 Credits)
Special Topics courses will explore specific topics within historical periods, single authors, or theoretical/critical/ scholarly issues.
ENGL 4600 Adv Studies -20th Cent Lit (4 Credits)

ENGL 4621 Adv Studies-20th C. Literature (4 Credits)
This course will offer (and be required of) graduate students an advanced foundation in 20th century literature; the primary texts and their cultural/ historical/ theoretical contexts.

ENGL 4650 Special Topics: 20th Cent Lit (4 Credits)

ENGL 4660 The Black Imagination (4 Credits)
Focusing mainly on Africa, Asia, Europe, and the Americas (especially the USA and the Caribbean/Latin America), this course explores and connects aspects of the black imagination. These aspects include oral performances, thought systems, literature, art, cinema, and critical discourses in different eras and in various places. Studied together, these existential and intellectual signposts provide an expanded insight into black (African and African diasporic) aesthetics from an intercontinental and an interdisciplinary perspective.

ENGL 4675 Interactive Fictions (4 Credits)
This class examines the border between traditional narrative texts and texts that require a higher degree of interactivity, collectively called ‘configurational narratives,’ ‘works in movement’ (Umberto Eco) or ‘cyber texts’ (Espen Aarseth). The goal is to identify what differences may exist between traditional and interactive literatures, and to analyze the possibilities of the future of narrative. Primary texts are drawn from experimental and avant-garde works of poetry, prose, drama, and games. Secondary texts survey recent critical theory and trace analyses of interactivity to determine how “literature is a combinatorial game” (Italo Calvino).

ENGL 4700 Antebellum American Literature (4 Credits)

ENGL 4701 Topics in English (2-5 Credits)
A topics class; topics may change.

ENGL 4702 Topics in English (2-5 Credits)
A topics class; topics may change.

ENGL 4730 American Romanticism (4 Credits)

ENGL 4732 Spc Tpc: Antebellum Amer Lit (4 Credits)

ENGL 4735 Sem: H. James & E. Wharton (4 Credits)

ENGL 4830 Seminar: Teaching and Writing Literature (2-4 Credits)

ENGL 4832 Sem: Teaching Writing & Lit (2 Credits)

ENGL 4840 Topics in Composition Studies (2-4 Credits)
Each offering of this course focuses on specific issues in theory, research, or pedagogy within the broad field of composition studies. Examples of topics include the development of writing abilities; genre theory and composing; multimodal texts and their intersections and disjunctions of rhetoric and composition; the history of composing theories and practices; realms of composing, including the academic, civic, vocational, aesthetic, and interpersonal; institutional formations and settings of composing; discourse theories; stylistics; race, gender, class and composing; and so on.

ENGL 4851 Publishing Institute (6 Credits)

ENGL 4852 Dissertation Colloquium (2 Credits)
This two-credit dissertation colloquium is offered in the winter and spring for third-year PhD students in English who are in the process of researching and writing their dissertations. In addition to having weekly presentations and discussions of work in progress, the group will peruse prefaces and introductions to former English Department dissertations, write and abstract for their own dissertation, and possibly revise and send out a piece from their dissertation. The class is open to both literary studies and creative writing students. Restricted to doctoral students in English.

ENGL 4991 Independent Study (1-17 Credits)

ENGL 4992 Directed Study (1-10 Credits)

ENGL 4995 Independent Research (1-17 Credits)

ENGL 5991 Independent Study (1-17 Credits)

ENGL 5995 Independent Research (1-17 Credits)

English Language Center (ELC)

Courses
ELC 3001 Advanced Graduate Writing for International Students (0 Credits)
The purpose of this course is to introduce international graduate students to the format and expectations of graduate research writing with specific application to the student’s major field of study. Students cover topics related to academic writing citation style, finding/using academic sources, and plagiarism. Students learn to improve their academic writing style and grammar in the context of an academic research proposal and paper.
ELC 3002 Advanced Graduate Speaking for International Students (0 Credits)
The primary goal of this course is to help university graduate students communicate more easily, comfortable, and confidently in English. This course focuses on preparing students for communicating in their academic classes with professors, classmates, and possibly future students as teaching assistance. Accordingly, the students build pronunciation, fluency, vocabulary, and interactive skills (negotiating meaning and compensations strategies, for example).

Entrepreneurship & Venture Mgt (EVM)

Courses
EVM 4040 Social Entrp in Global Mrkt (4 Credits)
This is a dynamic hybrid course with online readings, cases, quizzes, and blogs, as well as in-class experiential interactions with social enterprises in the community. The distance component of this course is guest speakers from other countries. Students will have the opportunity to network, interact, and work with local social enterprises. A value added component of this course is the coverage of global and cross-cultural concepts and issues critical for successfully running social enterprises in a global context.

EVM 4350 Big Challenges, Big Solutions: The Emerging Start-Up (4 Credits)
Students in the experiential course will start a firm in which they formulate an idea, gather basic data, formulate hypotheses, and then test these hypotheses with potential market participants. Students are likely to pivot several times in this course as the experimentation process helps them shape the emerging firm.

EVM 4351 Designing the Start-Up (4 Credits)
In this class, students will develop an executive summary that outlines the core business concept and the type of governance that will be needed, how the business will scale both in terms of product/service and customers. This executive summary will be used to fund the business and determine how the business will be funded-friends and family, credit cards, second mortgages, crowd funding, angel, or VC.

EVM 4355 Entrepreneurial Mindset (4 Credits)
A sustainable enterprise creates value for stakeholders along environmental, cultural/social, and economics dimensions. Based on a belief in the power of entrepreneurs to change the world, this course is designed as a general introduction to the basic concepts of entrepreneurship as a business discipline, whether you are interested in starting a business, working for an entrepreneurial company, launching an entrepreneurial venture within an existing organization, or working with entrepreneurial firms as an investor or advisor. The course is a broad overview of entrepreneurial activities and issues, including identifying business opportunities, developing those business models using the business model canvas, structuring and funding, early stage operations and exit strategies. The class will attempt to support the development of innovative and sustainable business models by students which, hopefully, will become successful entrepreneurial ventures which positively impact the earth.

EVM 4700 Funding the Business (2,4 Credits)
This course will focus exclusively on financing the business, including crowdfunding, angel investments, and private equity, the documents needed for such funding and the valuation of the firm as a result of funding.

EVM 4704 Topics in EVM (1-8 Credits)
EVM 4710 Innovation/Creativity-Business (4 Credits)
Cross listed with EVM 3710.

EVM 4980 Internship (1-5 Credits)
EVM 4991 Independent Study (1-10 Credits)
EVM 4992 Directed Study (1-4 Credits)

Environmental Policy & Mgmt (EPM)

Courses
EPM 4001 Environmental Foundations and Principles (4 Credits)
Each major federal environmental law has a basis in protecting human health, as well as the environment. Although protection of the environment is claimed to be the purpose of the law, protection of the public’s health ultimately becomes its foremost effort. This course provides an overview of how government institutions address environmental health concerns, develop policy, apply the law, and implement environmental public health protections. In addition, how environmental health law is implemented by agencies; the responsibilities of local, state and federal agencies; the rights of the citizens subject to these rules; and the role of the courts throughout the process are explored.

EPM 4002 Integrated Environmental Systems (4 Credits)
The earth as a whole is comprised of many systems that affect the environment. Some have large wide ranging reach, while others are restricted to a relatively small area. Included is everything in between. Actions in one area or system may have unintended secondary and tertiary consequences in that system or others. This course uses various tools and materials to study a few environmental systems and determine connections, consequences, impacts, barriers, decision making, life cycle costs, etc.
EPM 4003 Environmental Finance and Economics (4 Credits)
This class provides an overview of economics and finance in an environmental context. Topics include an overview of the economic system, efficiency, equity, market failure, environmental regulation, benefit-cost analysis, valuing the environment, pollution control, energy, conservation of natural resources, performance metrics, risk and return, time value of money, cost of capital, returns on investments, and standard financial reports. The class makes use of reading assignments, written assignments, case studies, and class participation. The course emphasizes relationship between business management and environmental quality, and provides students with a financial and economic decision-making framework for understanding and analyzing environmental issues.

EPM 4040 Wetland Ecology and Management (4 Credits)
This course provides a detailed examination of aquatic communities and habitats with an emphasis on freshwater systems. The recognition, identification, classification, and maintenance requirements of various wetland communities are stressed. Students analyze Section 404 of the Clean Water Act and the permitting process. Guidelines for placing dredge and fill materials in wetlands and other construction projects that directly or indirectly affect these areas are reviewed. Students explore concepts related to regulatory enforcement, mitigation, and the need for additional policies and actions to sustain as well as protect these critical communities.

EPM 4108 Impacts of Recreational Use (4 Credits)
The practical and theoretical basis of recreational use of public and private lands is examined in the context of ecosystem management. The statutory and regulatory policies and current issues regarding the management and use of lands in wilderness systems, wild and scenic river corridors, parks, and open spaces are discussed in detail. The impacts of recreational uses on the environment and conflicts with other uses of land and resources are discussed. Land use planning policies and decisions which respond to recreation, wilderness and open space issues are examined. Field trips to Rocky Mountain National Park, Chatfield State Park, or other outdoor recreation sites will be scheduled to supplement classroom meetings.

EPM 4115 Introduction to Ecology (4 Credits)
This course examines the concepts of the ecosystem, populations, communities, the flows of energy, material cycles, and the necessity of diversity. Concepts including the unity of organisms and inseparable interactions with the physical environment are analyzed. Class discussions include topics such as the formation, distribution, and organization of ecological communities; plant succession and nutrient cycling; evolutionary trends of plant and animal populations; and species interactions in subalpine and alpine forests, prairies, and plains.

EPM 4120 Introduction to Natural Resource Management (4 Credits)
This course provides an introduction to natural resource management with an overview of historic and contemporary management systems and principles. Students examine key policies, guidelines, and planning procedures of governmental agencies, resource-based industry and the public. Topics include the simultaneous consideration of biological, physical, social, and economic aspects of lands, waters, and natural resources to achieve sustainable conditions. Other topics are multiple use/sustained yield management; soil and water conservation and protection; use, restoration, and preservation of renewable and non-renewable resources; and the preservation and management of natural resources for recreation, spiritual renewal, and other amenity values.

EPM 4140 NEPA (4 Credits)
Students examine the requirements and implementation strategies of the National Environmental Policy Act. The Council on Environmental Quality, National Environmental Policy Act Regulations and the rules and requirements of various federal agencies which are responsible for National Environmental Policy Act implementation are examined in detail. Specific applications of National Environmental Policy Act to private and public activities which constitute major federal actions significantly affecting the quality of the human environment are discussed. Representative Environmental Impact Statements and Environmental Assessments are presented and critiqued for regulatory compliance and thoroughness in disclosing environmental effects of proposed actions. Prerequisite: EPM 4200 (Environmental Protection Law).

EPM 4150 Global Environmental Law and Policy (4 Credits)
This course explores the legal and philosophical underpinnings of the environmental movement, both in the United States and internationally. Students analyze global environmental issues including endangered species, overpopulation, resource depletion, biodiversity, ocean dumping, deforestation, desertification, global warming, and ozone depletion. Emphasis is placed on management options and the use of international laws and treaties to mitigate, lessen, or eliminate damage to various aspects of the environment.

EPM 4200 Environmental Protection Law (4 Credits)
This course reviews a wide spectrum of laws which protect our environment and health. Students will discuss the purpose, context and implications of the most important laws, regulations and court cases that affect the quality of our lives. Coverage includes: National Environmental Policy Act (NEPA), Clean Air Act (CAA), Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Emergency Planning and Community Right-to-Know Act (EPCRA), Occupational Safety and Health Act (OSHA), and related toxics laws. It provides an overview of the legal system and the roles of Congress, the President, executive agencies, states, and courts in shaping environmental laws.

EPM 4220 Endangered Species and Wildlife (4 Credits)
This course provides an overview of the basic principles, trends, challenges, and controversies of the administration of maintaining certain wildlife species. Threats from water and air pollution, poaching and other illegal actions, interrelationships of wildlife and their habitats, and biodiversity will be discussed. Students gain an understanding of the roles and responsibilities of various federal, state and local agencies, environmental and wildlife interest groups, and other organizations involved in wildlife management issues.
EPM 4230 Energy Fundamentals (4 Credits)
This course provides a well-rounded primer on energy as a resource and its importance in the economy and the world today. Renewable energy and alternative fuels as well as nuclear and hydrogen-based technologies will be explored. This course also provides an in-depth view of issues surrounding the development, enforcement and application of energy regulatory policy.

EPM 4232 Sustainability: Policy and Practice (4 Credits)
In 1987 the Brundtland Commission, formerly the World Commission on Environment and Development, defined sustainability as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The wording suggests the concept of sustainability is difficult to define. Certainly it relates to some of the most challenging questions of our times: How do we encourage consumption patterns to ensure a continuing resource supply for future generations? How can an individual enterprise, whether it is a major corporation or a mom-and-pop business, practice sustainability? How do well-meaning executives, scientists, engineers and policymakers achieve a balance between environmental protection and economic development?

EPM 4233 Sustainable Transportation (4 Credits)
21st Century transportation planning on the local and global scale involves consideration of environmental policies and sustainable practices. Development of an efficient system for moving goods and people along highways, airways and public transit networks must coordinate with legal requirements governing automobile source emissions, water pollution, mitigation of congestion, and crisis management. Conflicts occur along political fault lines between public interest groups, environmental justice advocates, the business community, government regulators, and the ordinary commuter. Consideration is given to different fuel sources, including carbon-based, hydrogen, electricity, and biofuels. The course also examines fuel efficiency (CAFE) and trends in emission science and regulation.

EPM 4234 Climate Change and Science (4 Credits)
Global Warming* is a cause celebre, but how much do we really know about the science involved in studying the earth's climate? Moving beyond the social and political opinions espoused in the current debate on climate change, this course delves into the chemical and physical forces at play in the arena. This course covers scientific processes used in measuring climate dynamics, among them ozone chemistry, carbon and oxygen cycles, and heat and water budgets. It explores scales and methods for detecting climate change, including analyzing ice cores, instrumental records, and time series. Some attention will be dedicated to "climate forcing" caused by such things as orbital variations, volcanism, plate tectonics, and solar variability.

EPM 4235 Green Building (4 Credits)
Builders, developers and designers increasingly are promoting the use of green construction practices in the pursuit of healthier, smarter buildings. Students in this course examine sustainable building strategies and tools, including LEED (Leadership in Energy and Environmental Design), the nationally-accepted benchmark for the design, construction and operation of high-performance green buildings. LEED promotes a whole-building approach by recognizing performance in five areas: sustainable site development, water savings, energy efficiency, materials selection and indoor air quality. What materials are best in the design and operation of green building? How can a designer or building owner make better use of power and water efficiency programs? What are the recent developments, trends and case studies of green buildings and materials?

EPM 4236 Nuclear and Hydrogen Energy (4 Credits)
Two future- and high-tech oriented energy sources are explored in this course, nuclear power and hydrogen fuel. The course covers principles used in fission energy and in nuclear power engineering, including controlled chain reactions and reactor design criteria. It also attends to issues of radioactive waste treatment and storage and the mitigation of other radiation hazards. Currently, some 20% of the United States electric power comes from nuclear plants that use low-enriched uranium as fuel, burn nothing, and emit virtually no CO2. What is the future for this form of energy? In addition to nuclear power technology, the course focuses on fuel cells and the hydrogen economy, which brings its own questions concerning cost-benefit analysis and risks. Do these new economy, relatively "clean" energies present a way to avoid the downward trend of depleting natural resources, or do they send a siren song with the waste and safety problems they present?

EPM 4237 Renewable Energy (4 Credits)
Renewable energy sources now generate an estimated 13 percent of power worldwide. A political hot button, renewable energy sources range in their effectiveness, with some technologies already mature and economically viable, while still others need additional development or government subsidies to survive. The course begins with an overview of the major alternative sources, examining each one in-depth to consider its benefits, as well as its environmental and economic risks. We cover thermal systems and photovoltaics in the generation of solar power; atmospheric science and weather in the study of wind power; the organic chemistry that is involved in biomass, biofuels and agricultural residues; direct use of hot water in geothermal systems; and other alternative sources such as tidal and wave energy. Problems vexing grid placement and dissemination throughout a source network is also studied.

EPM 4238 Water and Food Sustainability (4 Credits)
For such basic human needs, water and food present their own highly-technical challenges inside legal, political and environmental spheres. This course delves into environmental, economic, and social implications in water usage and water resources regulation. This course also takes a broad look at food and farming systems at community, society, and ecosystem levels.

EPM 4280 RCRA Permitting and Compliance (4 Credits)
This course presents Resource Conservation and Recovery Act's cradle-to-grave regulations governing solid and hazardous waste generation and disposal, the various permitting requirements, and the process by which permits are obtained. Design and performance requirements for treatment, storage, and disposal facilities are examined. Developing trends in waste minimization, solid waste management, and special waste controls are also examined.
EPM 4355 ISO 14001 Standards (4 Credits)
This advanced course introduces the new ISO 14001 standard for environmental management systems. It includes a history and developmental context review of the ISO 14001 standard. This class reviews the specific elements and processes that form certifiable 14001 environmental management systems. Using an example, students develop a complete program that integrates the 14001 requirements with the existing strategic management methods of an organization. This program demonstrates how to use the 14001 framework as a proactive and systematic approach to environmental management. Class discussions include developing an environmental policy, specifying objectives and targets, implementing an environmental management program, monitoring and measuring program results, and reviewing the program to ensure continual improvement.

EPM 4390 Environmental Policy Analysis (4 Credits)
This course provides a basic introduction to the field of public environmental policy analysis. Specifically, it serves as a foundation course that introduces contemporary methods of policy analysis, agenda-setting, models of policy formulation and implementation, and policy evaluation. The focus is principally on concepts, analytical approaches, and research methods.

EPM 4400 Environmental Values and Ethics (4 Credits)
Students examine ethical considerations in environmental management and decision making. Discussions cover personal versus organizational attitudes; cultural, economic, and historic values; science versus politics; and international and intergenerational policies. The course also explores various philosophies of humankind’s relationship with the environment. Students are encouraged to develop and express a personal philosophy relative to their role in the regulatory, technical, scientific, and financial management of the environment.

EPM 4460 Land And Visual Resources (4 Credits)
This course is designed to provide students from a broad range of disciplines with the skills to carry out applied research tasks and projects requiring the integration of geographic information system technologies and geospatial data. Students are introduced to a collection of techniques and data sources with a focus on acquiring and integrating data. Legal, ethical, and institutional problems related to data acquisition for geospatial information systems is also be discussed.

EPM 4461 Assessment of Social Impacts (4 Credits)
Students examine how the introduction of nuclear power systems or a nuclear waste treatment facilities affect the demographic and economic characteristics of a specific region. Basic analysis of archaeological resources, historic buildings and structures, and traditional cultural properties are also considered. Pertinent areas of environmental law provides guidelines and regulations with relation to the nuclear industry and current policy issues including the importance of the Energy Policy Act of 2005.

EPM 4462 Ecology, Soil, and Water (4 Credits)
A general overview of the potential effects of nuclear power facilities on ecosystems and ecological resources. These include terrestrial resources, wetlands, floodplains, aquatic resources, protected and sensitive species, geology, soil mechanics and seepage. In site-specific scales, the following items need to be considered, such as physical alteration of the landscape, disruption of natural processes, such as flooding and fires, and pollution.

EPM 4463 Air Quality, Noise and Transportation (4 Credits)
Air quality, noise and transportation issues can potentially be affected in the area surrounding a nuclear power plant in a variety of ways. Students become acquainted with the methodology of the dose rate estimations to the public and workers; the methods that are in place to monitor and reduce the risk to the public and workers from all hazards; and various pathways of exposure from possible nuclear contaminants and related pollution. Perceptions of citizens as stakeholders are considered. Identifying and profiling atmospheric toxic sources, developing and assessing emerging measurement methods, characterizing the degree and extent of local air toxicity problems, and tracking progress of air toxin reduction efforts. The impact of transportation on human and environmental risk assessment, including the primary methods and routes used to transport to a specific site, affected employees, commercial shipments, hazardous and radioactive material shipments, transportation packaging, transportation accidents, and onsite and offsite traffic volumes.

EPM 4464 Nuclear Power Plant Systems (4 Credits)
This course presents the basic components of nuclear power plant systems, their functional purpose, and operating conditions, including an overview of the equipments design and components from the safety point of view. An overview of nuclear power plants is presented in context of their impact on the environment and human health, including active and passive safety aspects.

EPM 4465 Environmental Restoration and Waste Management (4 Credits)
Environmental Restoration is the identification and elimination of hazardous materials from a designated site such that the risks to human health and the environment are reduced to an acceptable level for an intended future land use. This course examines successful environmental restoration activities that were used to reduce and mitigate risk associated with past operations of nuclear and nuclear-related facilities and the significant potential to release harmful contaminants. Environmental restoration effects on the ecological and human health risk assessments and analyses related to the transport, treatment, storage, and disposal of waste from the contaminated site are presented. Remediation processes for radioactive materials and other hazardous wastes and the eventual storage, processing, and disposal and the potential effect on humans and the environment is studied. An overview is given on the development of a radiological protection program for an EIS report. External and internal hazards: control measures and monitoring, and other important limits and measurements are explored.

EPM 4500 Leadership for Environmental Managers (4 Credits)
This course is an overview of basic leadership and management skills with an emphasis on topics germane to practicing environmental professionals. It addresses three main subject areas: performance metrics and standard financial reports (i.e., how organizations and businesses keep score); leadership (i.e., changes in behavior and work habits necessary for advancement from staff to management; and achieving clarity in organizational values and mission); and basic elements of internal and external communications. The class will make use of reading assignments, written assignments and class participation.
EPM 4510 Environmental Health & Safety (4 Credits)
The exponential growth in regulations and the increased demand to streamline resources present a unique opportunity for the environmental professional to integrate safety and health practices both horizontally and vertically within the organization. Students will evaluate the benefits and barriers to integrating environmental health and safety programs with applicable laws and regulations. Topics addressed in the class will include a brief review of EPA and OSHA standards as well as an introduction to industrial hygiene, workplace safety management, hazard evaluation and control, and the integration of environment, health, and safety. The course also reviews concepts essential for the understanding and implementation of environmental safety and health policies for use in the workplace.

EPM 4520 OSHA Law (4 Credits)
This course provides an in-depth review of the laws and regulations that govern the safety and health of workers. The course is of value to students seeking to expand knowledge of the Occupational Safety and Health Act. Emphasis is on the areas of overlap between safety and environmental laws, OSHA’s inspection and enforcement authority, employee and employer rights, record keeping requirements and an outline of labor’s interest in OSHA cases. Current topics such as OSHA reform legislation and regulatory agenda are discussed.

EPM 4525 Workplace Safety Management (4 Credits)
This course examines Occupational Safety and Health Administration rules governing workplace safety and other applicable industry standards, like those of the American National Standards Institute and National Fire Protection Association. Students learn how to develop and apply compliance programs, how to reduce losses of direct and indirect costs due to accidents, and how to convince management and employees that safety programs are beneficial. Important programs and topics include development of costs of accidents, investigation programs, practical application of worker’s compensation, confined space entry programs, injury/illness records and reporting, programs for new fall protective rules, personal protective equipment programs, and actions to develop financial and management support.

EPM 4610 Analytics I (4 Credits)
This course explores how companies can and do use data analytics in an era of sustainability and ever-increasing complexity to manage their businesses more effectively. The course has a managerial focus rather than a technical one. Students do not need a statistics or analytics background. It is designed to provide managers with sufficient background on the potential value of data analytics, the business process change associated with data analytics, and the underlying technologies to enable them to interface effectively with analysts and data scientists. A key component of the course is developing a pilot project or business case for an analytics project of your choice.

EPM 4615 Analytics II (4 Credits)
Building on the course content of Environmental Analytics I, this course retains a managerial focus rather than a technical one. Students do not need a statistics or analytics background. It is designed to prepare managers to identify and obtain a publicly available data set (or one from their own organization), suitable to use for carrying out an analytics project, often the pilot project identified in the previous course. In addition, the course goes into the next level of detail on analytical algorithms and cloud technologies to enable students to frame the questions to be answered or insights revealed from running an analytics application. Finally, the course provides an introduction to cognitive computing and its applications, trends, and potential impacts.

EPM 4620 Environmental Reporting Standards and Models (4 Credits)
Students learn the reporting requirements of existing and emerging environmental reporting standards, e.g., SEC requirements, EU standards, NGO standards, Global Reporting Initiative environmental performance indicators, and Sustainability Accounting Standards Board recommendations, and how to craft mandatory and optional reports that conform to these standards and requirements.

EPM 4625 Environmental Analysis and Reporting Project (4 Credits)
Students will design and perform a project that applies the tools and insights of the data analytics revolution to perform sophisticated environmental analyses, and use the results of these analyses to craft mandatory and optional reports that meet existing and emerging environmental reporting standards, e.g., SEC requirements, EU standards, NGO standards, Global Reporting Initiative environmental performance indicators, and Sustainability Accounting Standards Board recommendations.

EPM 4701 Topics in EPM (2-5 Credits)
The content of this course will vary each time it is offered. The topics may include time-sensitive issues in the field of environmental policy and management, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content will be announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

EPM 4705 Land Use Planning (4 Credits)
This course includes a comprehensive examination of the land use planning efforts of federal, state, and local governments. The legal authorities, responsibilities, and conflicts of these governmental entities are examined in detail. Class discussions include: setting goals and objectives for specific components of ecosystems; design of projects to achieve desired ecologic conditions; the interrelationship between home rule authority, local zoning and planning requirements, and federal/state natural resource plans; use of new technologies in planning; and public participation in land use plans.

EPM 4710 Environmental Project Management (4 Credits)
Students discuss environmental project management from the government, industry, and contractor perspectives. The course looks at successful project management organization, planning, and communication strategies. Using examples, students will also examine complex projects needing management. The types of contractual assistance needed will be reviewed.
EPM 4780 Air, Water and Soil Pollution (4 Credits)
This course addresses sources, reactions, and remediation of pollutants occurring in the atmosphere, waters, and soil. The deposition of pollutants from the atmosphere to soil and surface waters (acid rain) is covered. The migration of pollutants from surface waters through the soil to ground waters are also discussed.

EPM 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of a B- or better is required to pass.

EPM 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produces a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and acedemically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

EPM 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

EPM 4910 Research Practices and Applications (4 Credits)
This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through comparing and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master’s degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

EPM 4980 Internship (1-4 Credits)
The EPM Internship is designed to offer students a purposeful experience in the field of environmental policy and management. The internship is an individualized learning experience and a training plan is created for each student in conjunction with the internship site to provide experiences related to the skills and knowledge covered in the certificate and master’s programs.

EPM 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed it with all appropriate offices before registering for the independent study. Independent Study is offered only on a for-credit basis.
EPM 4992 Directed Study (1-10 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Environmental Science (ENVI)

Courses
ENVI 3000 Environmental Law (4 Credits)
Purpose and applications of federal laws pertaining to environmental protection, including NEPA, RCRA, CERCLA, and Clean Water and Clean Air Acts; addresses role of states in implementation of federal environmental laws.

ENVI 3550 Environmental Issues-Colorado (4 Credits)
This course focuses on the identification, analysis and mitigation of landscape-scale environmental issues or concerns, using watersheds as units of study. Emphasis is on field data collection and analysis to answer specific questions or address particular problems.

ENVI 3991 Independent Study (1-5 Credits)
Study of a topic not covered in existing course offerings. May be used for work completed in off-campus internships that focus primarily on the mastery of existing knowledge.

ENVI 3992 Directed Study (1-10 Credits)

ENVI 3995 Undergraduate Research (1-5 Credits)
Original research in environmental science topic under sponsorship of a faculty member; applicable to studies that focus primarily on discovery of new knowledge through application of scientific method.

ENVI 3999 Environmental Science Internship (1-5 Credits)
Supervised internship in a state, local, or federal office or in the private sector. Prerequisites: 15 quarter hours in the environmental science major and approval of supervising faculty. Maximum of 5 quarter hours total.

Executive MBA (XMBA)

Courses
XMBA 4003 Managing H.R. ForCompAdvantage (4 Credits)
This course advances the argument that effective human resources policies will create sustained competitive advantage. To that end, this course addresses the effective management of human resources in four policy areas: employee influence, human resource flows, reward systems, and work systems. The focus is on identifying and creating human resource management practices that align workforce strategy with business strategy.

XMBA 4004 Global Business and Leadership (8 Credits)
This course is an advanced exploration of contemporary leadership practice emphasizing global business and leadership issues and the many challenges that come from working with diverse populations and cultures. Diverse cultures, laws, languages and currencies add to the complexity of putting together and managing international business ventures. The course curriculum includes a ten-day international travel experience focusing on the broad spectrum of issues behind effective business management and leadership in a global market. We travel to two countries where we visit local businesses and meet with executives of national, joint venture and transnational corporations. This course will help the student prepare for international business/leadership activities by exploring questions faced by companies wishing to do business in a global marketplace.

XMBA 4063 Ldrship & Organiza'nl Perform (4 Credits)
The Capstone Leadership Project is an applied learning experience in which students envision, create, lead and bring to fruition an enterprise with significant ROI for their organization and/or genuine social value. The Capstone is the culminating leadership endeavor of students who earn EMBA degrees from the Daniels College. Through the Capstone project, students apply and reinforce the skills and insights gained throughout their Executive MBA Program. The Capstone curriculum includes execution of the leadership project, oral defense of project results, a written leadership thesis and a series of seminars with business faculty and executive speakers.
XMBA 4102 Business & Economic Context (2.5 Credits)
This introductory economics course is designed to provide a survey of essential economics concepts and frameworks for executives. Many business decisions require knowledge of economic principles in order to properly understand what is going on and evaluate the impact of a given decision. Businesses need to understand the impact of government policies, whether they be fiscal and monetary policy or other public policy choices that affect financial markets, labor markets, or specific industries. Many disciplines such as finance, strategy, international business and marketing incorporate economic principles as a common foundation. Finally, economics provides a clear lens to intelligently evaluate and understand the world around us. This course will provide a survey of these economic principles, with an emphasis on teaching core principles via case studies and examples. It will start by defining economics and the basic assumptions of the field, discussing details of how supply and demand interact in the market-place, the importance of price as a signal, and where certain idealistic assumptions made in economics and finance may start to break down in the real world. We will then move to macroeconomics, covering economic growth, trade, investment and consumption, the tension between inflation and unemployment, and the special role of the banking system. The role of government in regulating and managing the economy will be discussed, including fiscal and monetary policy, taxation, public debt, the levers the government and Federal Reserve have at their disposal, and contrast this with how other countries manage their national and regional economies (EU, China, developing countries). We will spend some time on general economic frameworks such as the importance of incentives and unintended consequences, risk and insurance, market failures, externalities and public goods, and the risks of mixing politics with economics. If we have any remaining time, we will touch upon some issues in international development such as microfinance, emerging markets financial crises, and regional development.

XMBA 4164 Strategic Mgmt of Costs & Oper (4 Credits)
This course focuses on firms' internal accounting information systems and their use in decision making, planning and control, and performance evaluation. Applications considered include cost estimation, marginal and long-run pricing, activity-based costing, assessing cost reduction and quality control efforts, measuring opportunity costs for decision making, cost-volume-profit analysis, economic value-added analysis, and multinational transfer pricing decisions. The course integrates knowledge of firms' internal accounting systems and operations management by examining the processes by which goods are manufactured and services are delivered. Specific topics include analysis of production processes, quality management, managing process technology and innovation, productivity and work-force management, production planning and control, and the strategic role of operations in the firm.

XMBA 4165 Corp Financial Decision Making (4 Credits)
This course develops a framework for analyzing a firm's investment and financing decisions. Areas that are examined include budgeting, financial forecasting, mergers and business valuation, sustainable growth, return on equity analysis, shareholder value, and economic value added.

XMBA 4200 Strategic Marketing (4 Credits)
This course provides a framework for examining key strategic marketing issues faced by modern business. As such, it immerses the student in the environment in which marketing decisions (including product development, pricing, integrated marketing communications, channel management and logistics) must be made and business must operate. Using case studies that range from small start-up firms to large transnational organizations, as well as other experiential learning techniques, students are exposed to internal aspects of the organization, as well as external forces that affect organizational performance.

XMBA 4201 Strategic Management (4 Credits)
This course focuses on the competitive strategy of the firm, examining issues central to its long- and short-term competitive position. The course emphasizes application of strategic tools to real world examples. The initial focus is on industry analysis and a firm's decision about in which industries to compete. We then focus on the development of firm-specific capabilities that contribute to competitive advantage. This leads to a discussion of a company's position relative to competitors. We then address the firm's value chain and the role of alliances in implementing strategy. Finally, we focus on managing multiple businesses and concentrate on mergers and acquisitions, diversification and multi-divisional management.

XMBA 4202 Global Information Economy (4 Credits)
In the Global Information Economy, students will apply relevant and effective technology strategies to achieve competitive advantage in the dynamic global business environment. This course will focus on the impact information technology (IT) is having on organizations, business functions, and management practices. This course will also address how IT and information, can be used to enable new business opportunities, improve organizational capabilities, streamline for efficiencies, and enhance managerial communications and decision-making abilities. All of these are accomplished with an eye towards generating business value, creating competitive advantage, and balancing the many diverse needs of a firm's stakeholders.

XMBA 4203 Bus Planning/New Venture Mgmt (4 Credits)
This is an applied course designed to help students develop a professional and comprehensive business plan for either a new venture or for a new business area within an existing corporation. The course will help students integrate the various functional areas of business (i.e. management, marketing, accounting, and finance) into a business plan. The course will take students through the qualitative and quantitative process of bringing a new venture idea to fruition by mapping out the opportunity and target market, product and service configuration, strategy and business model selection, marketing research and sales forecasting, start-up capital and cash flow requirements planning, and financial pro forma statements and valuation.
XMBA 4231 Achieving Strategic Advantage II (2.5 Credits)
This course is divided into several sessions which focus on the links between business strategy and information technology, the organizational implications of the technology and how to successfully incorporate information technology into organizations. The central issues are the leadership implications of utilizing information technology for process improvement and process innovation, managing customer relationships and optimizing supplier-based relationships through project/process management tools. You will also have an opportunity to hear industry leaders address current topics from the world of accounting and finance. The interactive session will address issues that build on the accounting and finance content of the previous classes. Understand how the upstream business and consumer activities can be measured and tracked in a way that quantifies the downstream business results. Realize when and how research can help identify and prioritize strategic options, direct the investment and the return on that investment. Hot topics will uncover the strategic use of competitive benchmarking, segmentation, brand equity, the customer experience and its effect on strategy, amongst many other strategic decision-support frameworks that executives deal with.

XMBA 4330 Financial Accounting (2.5 Credits)
This course introduces the student to the fundamentals of financial accounting and reporting with an emphasis on the needs of the user, both internal and external. The goal is to enable the student to become a knowledgeable reader and user of financial statements. Financial reporting topics will also be discussed in 5 class periods during Winter Quarter.

XMBA 4331 Foundations of Financial Analysis (2.5 Credits)
This course introduces the tools and techniques for financial analysis and planning. Topics include the tax implications of financial decisions, financial ratio analysis, operating and financial break-even analysis, operating and financial leverage, time value of money, and interest rates in the financial markets.

XMBA 4332 Accounting/Financial Reporting (2.5 Credits)
This is a study of the fundamental concepts of financial accounting and reporting by business entities in accordance with generally accepted accounting principles. The course approaches the material from the perspective of the financial statement user rather than the financial statement preparer. Therefore, emphasis is placed on the use and interpretation of information contained in business financial statements by managers, investors, and creditors.

XMBA 4333 Statistical Decision Analysis (2.5 Credits)
This course introduces students to the basic analytical tools for statistical analysis and provides the initial theoretical concepts and skills that are building blocks for future courses. The approach is to present students with a managerial view of how statistical tools are used to analyze data and facilitate business decision-making. Students will familiarize themselves with all of the statistical techniques and models presented in the course and will demonstrate knowledge in applying the appropriate techniques and models to various data sets and interpreting the results of the analysis. When appropriate, statistical software will be utilized to conduct the analysis, allowing students to become proficient in standard business software such as Microsoft Excel, with the MegaStat Add-In provided on the student CD-Rom. Emphasis will be on application to core business disciplines, statistical reasoning, proper interpretation of results, and managerial decision-making.

XMBA 4334 Strategic Management of Costs (2.5 Credits)
The role of cost management is to help management of the organization achieve and maintain success through the implementation of strategy. Cost management methods are covered to help you know why, when and how the framework is used to help the organization succeed. The course materials (including lectures, cases, problems and simulations) provide real-world applications to build your skills as an effective user of cost management tools. Topics include cost behavior, budgeting and variance analysis, cost-volume-profit relations, pricing, quality, Activity Based Costing, Target Costing, the Balanced Score Card, ISO 9000, and using relevant costs and revenues in decision making.

XMBA 4335 Business Intelligence (2.5 Credits)
Information technology (IT) is an enabler of business. This course will focus on the impact IT is having on organizations, business functions, and management practices. It will also address how IT and information, its byproduct, can be used to enable new business opportunities, improve organizational capabilities, streamline for efficiencies, and enhance managerial communications and decision-making abilities. All of these are accomplished with an eye towards generating business value, creating competitive advantage, and acting responsibly towards balancing the many diverse and, at times, conflicting needs of a firm’s stakeholders. In sum, this course will focus on what rising business leaders will need to know about IT and managing IT to thrive in a global, interconnected, and fast-paced business environment and become effective and respected business figures who know not only how to do things right but also how to do the right things.

XMBA 4336 Financial Decision Making (2.5 Credits)
This course applies the tools of financial analysis to financial decisions. Topics include the valuation of financial assets, capital budgeting, cost of capital, Performa financial statements, business valuations and mergers, return on equity analysis, EPS and stock prices, and cash flow statement analysis.

XMBA 4337 Strategic Finance (2.5 Credits)
This course applies the tools of financial analysis to financial decisions. Topics include the valuation of financial assets, capital budgeting, cost of capital, Performa financial statements, business valuations and mergers, return on equity analysis, EPS and stock prices, and cash flow statement analysis.
XMBA 4340 Executive Leadership I (2.5 Credits)
Leadership is about effectively achieving results through others. Technical business knowledge, emotional intelligence competencies, and the ability to execute are all required to achieve this objective. This course examines these elements within the context of developing your own and your organization’s ‘leadership intelligence.’ Explore ethical, legal, social, and public policy challenges frequently encountered by executives and business leaders in the workplace. Issues such as diversity, harassment, downsizing, outsourcing, intellectual property, and executive compensation are some of the topics covered in this course. Shared values have been the foundation of leadership in our democratic society. This course explores how values-based leadership transforms a business from a profit-driven entity to a thriving, sustainable enterprise. The organization grows on the strength of its contributions, and success is measured in stakeholder satisfaction.

XMBA 4341 Power and Influence (2.5 Credits)
This class focuses on an often-overlooked leadership skill – the ability to use power and influence effectively, and to negotiate the relationships critical to being a successful leader. Class time focuses on not only understanding the basics of this critical leadership skill, but also on honing skills through case studies and exercises. Particular attention is given to ethical issues connected with power and negotiation. This course will challenge you to define for yourself what will constitute the effective exercise of power and influence in your life.

XMBA 4342 Human Capital Management (2.5 Credits)
The course will focus on how effective Human Capital Management can be a differentiator for the firm and how managers using good HCM practices can significantly contribute to the firm’s performance. The course will follow the cycle of business planning and execution and focus on the key human capital considerations at each step in the cycle. It will address full spectrum of what would be considered Talent Management processes, and is taught with a global perspective. Each topic area will also look at current practices, as well as emerging practices as companies shift their business models.

XMBA 4343 The Discipline of Execution (2.5 Credits)
In the gap between a brilliant idea and the successful organization lies the discipline of execution. Execution is built on three key processes: the people process, the strategy process, and the operations process. In this course, we study the methods of successful leaders and organizations known for execution, self-evaluate execution skills and reinforce learning via case methodology.

XMBA 4350 Executive Leadership II (2.5 Credits)
Leadership is about effectively achieving results through others. Technical business knowledge, emotional intelligence competencies, and the ability to execute are all required to achieve this objective. This course examines these elements within the context of developing your own and your organization’s ‘leadership intelligence.’ Explore ethical, legal, social, and public policy challenges frequently encountered by executives and business leaders in the workplace. Issues such as diversity, harassment, downsizing, outsourcing, intellectual property, and executive compensation are some of the topics covered in this course. Shared values have been the foundation of leadership in our democratic society. This course explores how values-based leadership transforms a business from a profit-driven entity to a thriving, sustainable enterprise. The organization grows on the strength of its contributions, and success is measured in stakeholder satisfaction.

XMBA 4351 Innovation (2.5 Credits)
The second course in the marketing sequence shifts from left brain activity to whole brain activity. We will offer an opportunity to think differently and to build discipline through a Stage Process to successful commercialization. Building on the tools and disciplines learned in Strategic Marketing in a Dynamic Environment, Leading Innovation shifts to the art of marketing. The course will enable students to understand the role of innovation in delivering value to customers and stakeholders. Acquire executive competence needed to secure the innovation investment. Realize how executives propel and assess innovation through all the stages of the innovation life cycle – from idea exploration to bringing a product/service to market successfully.

XMBA 4352 Leadership Challenges (2.5 Credits)
The purpose and nature of this course is to explore current and emerging issues that managers, executives, and leaders are likely to confront. Positioned about mid-way through the EMBA curriculum, students will be expected to apply and integrate concepts, frameworks, and perspectives from previous courses. Included especially are legal, ethical, public policy, and human resource concepts.

XMBA 4353 Global Business I (2.5 Credits)
Students will be asked to apply models, disciplines, and systems learned during the first four quarters of their EMBA program to a global environment. The global course includes a two week practicum where students pick two international cities and go deep into their respective business environments. The ten weeks of learning and research done in Denver, along with the on the ground research process completed in-country, build a global perspective and the student’s worldview.

XMBA 4354 Global Business II (2.5 Credits)
Students will be asked to apply models, disciplines, and systems learned during the first four quarters of their EMBA program to a global environment. The global course includes a two week practicum where students pick two international cities and go deep into their respective business environments. The ten weeks of learning and research done in Denver, along with the on the ground research process completed in-country, build a global perspective and the student’s worldview.
XMBA 4355 Sustainability (2.5 Credits)
Social entrepreneurship centers on creating effective responses to social needs and finding innovative solutions to social problems. A corporation’s responsibility includes how the whole business is conducted every day. It must be a thoughtful institution which rises above the bottom line to consider its actions on all, from shareholders to society at large. Its business activities must make social sense just as its social activities must make business sense. This course integrates fundamental business practices which are focused on satisfying needs of consumers and meeting organizational objectives; collecting information, sharing across departments, using it to create customer value; and also satisfying customer needs in ways that provide for societal well-being. In essence, sustainable development focuses on: “Meeting the needs of people today without compromising the ability of future generations to meet their own needs”.

XMBA 4360 Strategic Marketing (2.5 Credits)
Focused on creating customers, this course will build decision tools, mental models and a holistic framework for finding the right market, the right price, the right communication and the right partners for your product or service. Through market research and competitive intelligence, students will learn to provide customer value, customer information, customer solutions and organizational profitability. Strategic Marketing in a Dynamic Environment explores the science of marketing. Students will acquire a detailed understanding of strategic business- and decision support models that helps executives navigate and lead an enterprise towards sustainable competitive advantage and differentiation. The course allows executives to develop and internalize business acumen as relates to translating the voice of the customer to strategy and orchestrating stakeholders in a way that add value.

XMBA 4361 Customer Relationship Management (2.5 Credits)
This course advances the argument that effective human resource policies will create sustained competitive advantage. To that end, we will address the effective management of human resources in four policy areas: employee influence, human resource flows, reward systems and work systems. Rather than taking a traditional, staff, personnel perspective, we will address human resource management from the perspective of strategic management, so that you are better prepared to provide direction to the creation of effective management systems.

XMBA 4362 Strategic Management (2.5 Credits)
This strategy course covers a range of concepts and analytical techniques relating to creating and sustaining competitive advantage as the basis for superior performance. It deals with contemporary issues such as industry analysis, core competence of organizations, value chain analysis, and strategy implementation. The emphasis is on the application of analytical tools and frameworks to understand complex strategic issues. Competitive Strategy integrates concepts from finance, marketing, accounting, general management, information technology, and operations management.

XMBA 4363 Strategic Implementation (2.5 Credits)
Strategic Management and Strategy Implementation are courses that build off several previous courses and each other. Students will examine such issues as the vision/mission/values of the organization, the key industry forces that influence the competitive environment of the organization, ways of maintaining and sustaining a core competency, and critical strategy implementation issues. In doing this, the course integrates concepts from finance, marketing, accounting, general management, information technology, legal studies, and operations management. In addressing these issues, the course involves a mix of strategic tools with real world examples and case studies. The course will be offered in a work-shop atmosphere in which students are expected to apply and discuss the various aspects of strategic management.

XMBA 4364 Business Data & Analytics (2.5 Credits)
This course will familiarize the student with data management and analytic methodologies that are prevalent across most industries today, and will suggest a way-ahead as electrons continue to get cheaper to collect and maintain. A well-designed architecture for collecting, storing, and accessing data is essential for all businesses that want to compete successfully as the pace of the decision-making cycle continues to increase. Traditional statistical techniques are still prevalent (and useful!) with proper mining or sampling of big data, and these remain the workhorses of Business Analytics. Analytic modeling is an integral part of business decision-making, and knowing and identifying the appropriate technique can make the difference between discovering the truth and running into a data wall. With the right toolset, the data analyst can tackle large volumes of data with a “divide and conquer” approach. However, the decisions that lead to parsing the data appropriately require not only an understanding of the data and the available tools, but the question being answered as well.

XMBA 4365 Entrepreneurship (2.5 Credits)
This course will teach students the skills required to prepare a business plan for an entrepreneurial venture and to develop the analytical skills needed to identify and evaluate a new business opportunity. The course will cover topics including: crafting a value proposition, market and sales forecasting, exploration of financing options, and building an effective team. The course will incorporate insights from successful entrepreneurs and will conclude with the presentation of the business plan.

XMBA 4720 Executive Business Law (2.5 Credits)
Executive Business Law is intended to be a summary of the state of business law for graduating Executive MBA students in the final quarter of their degree program. Legal philosophy and public policy having been covered early in the Executive Curriculum, this course is a legal update of critical issues in business law for the graduating executive. Topics covered include: corporate governance (including “Agency”), competitive regulation, insider trading, campaign finance, RICO and The Foreign Corrupt Practices Act, Whistle Blowing, The Business Judgment Rule and key HR issues such as sexual harassment, affirmative action, discrimination, and employee/customer privacy. This is a course focused on the legal issues executives are most likely to face in their role as corporate leaders, and the current state of “black letter law” (positive law) in those areas.

XMBA 4991 Independent Study (1-10 Credits)
XMBA 4995 Independent Research (1-10 Credits)
Executive RCM (XRCM)

Courses

XRCM 4000 Business of the Built Environment (4 Credits)
The emphasis of this course is on the importance of real estate and the built environment and its impacts and influences on how we live, work, and play. The course employs a full life cycle sustainable model that links the various phases, functions, and professions of real estate, project delivery, and asset/facility management to create holistic, value generating solutions for society. Professional practices/skillsets associated with the many career options that engage the built environment are explored.

XRCM 4007 Real Estate Financial Analysis (4 Credits)
Alternative analysis formats that can be applied to a wide array of real estate analysis issues; simulates working/decision-making environment; structured overview of analysis tools focused on specific facets of multidimensional real estate decision-making environment; applications in investment analysis, feasibility analysis, valuation, market analysis, and report writing and presentation. Prerequisite: XRCM 4407.

XRCM 4010 Real Estate Capital Markets (4 Credits)
This course will expose students to the Commercial Real Estate Capital Markets that have evolved from exclusively private in the 1980s to a mix of private and public, including commercial mortgage backed securities (CMBS) and real estate investment trusts (REITs), in the 1990s. Any person involved in real estate today must understand all the alternative capital sources available and their requirements. Students will be exposed to the positives and pitfalls of all the capital market products. This course will provide students with the general concepts and definitions. A combination of lectures, guest lectures from industry experts, text & article readings, class discussions, and case studies using real life examples. Prerequisite: REAL 4007.

XRCM 4110 Preconstruction Integration and Planning (4 Credits)
This course examines the role of preconstruction services, team integration, and joint design planning in various Integrated Project Delivery (IPD) approaches. Various tools and techniques associated with preconstruction services and design planning from the proposal stage through the design stages of a project are considered.

XRCM 4115 Corporate Real Estate and Facilities Management (4 Credits)
This course provides a snapshot view of the corporate real estate life cycle and how to strategically plan and manage it. The course addresses key CRE issues including globalization, technology, sustainability and the enterprise business model. Within the framework of a corporate or agency structure, facility management is addressed as a distinct and critical component of successful performance. Topics include facility planning and forecasting, lease administration, space planning, allocation, and management, workplace planning, budgeting, and economic justification, real estate acquisition and disposal, sustainability management, construction project management, move, add, change (MAC) management, operations, maintenance and repair, technology management, emergency, security and life-safety management, and general administrative services.

XRCM 4120 Construction Planning and Scheduling (4 Credits)
Understanding and applying scheduling and control to construction projects is essential to successful construction management. Project scheduling emphasizes network-based schedules, such as critical path management (CPM), network calculations, critical paths, resource scheduling, probabilistic scheduling and computer applications. Project control focuses on goals, flow of information, time and cost control, and change management. Prerequisite: XRCM 4410.

XRCM 4140 Global Perspectives in Real Estate (4 Credits)
Cross listed with REAL 4140.

XRCM 4155 Sustainable Development/LEED (4 Credits)
The course includes many case studies of historic and contemporary structures exemplifying various sustainability features. Emphasis is placed on how LEED project certification influences the overall construction project. Topics include LEED certification techniques for sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and design. The following topics are covered from a LEED perspective: ventilation, air conditioning, heating, electrical lighting, energy efficiency, and building control systems. The student studies and analyzes how management and LEED techniques are applied to current construction projects.

XRCM 4177 Environmental Systems and MEP Coordination (4 Credits)
A study of electrical and mechanical systems used in the construction of buildings. Course content includes system design, component selection and utilization for energy conservation, cost estimating or systems, coordination and management of installation. Specific systems included are electrical, air conditioning, heating, ventilation and plumbing, fire protection, life safety, communication, power systems and lighting. The course also considers coordination of MEP systems and explores emerging technology and environmental issues related to mechanical and electrical systems in buildings. Cross listed with CMGT 4177.

XRCM 4180 Construction, Layout and Surveying (4 Credits)
Theory, principles and techniques of constructing layout and surveying; field procedures in fundamental surveying; site, foundation and frame layout.
XRCM 4410 Construction Building Systems (4 Credits)
This course introduces students to the significant value that architecture brings to real estate and the built environment and the various services and professions associated with it. Students will be introduced to principles, protocols and the planning process related to the design function and the link between the architect’s vision and the finished physical structure. Students will be introduced to design, thinking, theory and application. Student will learn to read and interpret the various graphical and written construction documents as well as know how they are developed and what information they contain. Architectural, structural, mechanical, electrical, plumbing and civil drawings and specifications are covered. The business model for design services will be explored as well as the unique risks and challenges associated with managing the design throughout the various stages of development and construction.

XRCM 4347 Management - Income Properties (0-4 Credits)
Introduction to real estate securities; emphasis on private offerings; determining whether a contemplated transaction involves a security, and what happens if it does; exemptions from registration (Reg D); registration requirements; investor suitability, how to syndicate, acquisition of property, marketing of the property, tax structure and formation of syndication, compensation to syndicators, real estate tax considerations. Cross listed with REAL 4337.

XRCM 4377 RE Securities/Syn/Entrep (4 Credits)
XRCM 4377 covers various approaches to construction cost estimating at the conceptual stages of planning and design through detailed construction. Students learn parametric estimating techniques and how they are applied to construct and predict reliable budgets at the earliest stages of design. Students build cost models and refine those models with greater detail as design develops through a project. Building information modeling is introduced and used to demonstrate massing models to design impact projects on project costs. Cost trending techniques are presented to manage, monitor and document project performance relative to cost.

XRCM 4320 Architectural Planning and Design Management (4 Credits)
This course introduces students to the significant value that architecture brings to real estate and the built environment and the various services and professions associated with it. Students will be introduced to principles, protocols and the planning process related to the design function and the link between the architect’s vision and the finished physical structure. Students will be introduced to design, thinking, theory and application. Student will learn to read and interpret the various graphical and written construction documents as well as know how they are developed and what information they contain. Architectural, structural, mechanical, electrical, plumbing and civil drawings and specifications are covered. The business model for design services will be explored as well as the unique risks and challenges associated with managing the design throughout the various stages of development and construction.

XRCM 4337 Planning, Entitlements, and Public Finance (4 Credits)
This course addresses how a successful construction project is managed and administered from design through construction to closeout. Emphasis will focus on how to unite the key stakeholders (contractors, architects, engineers, etc.) to provide them with a workable system for operating as an effective project team. The latest technology, laws and regulations associated with contract administration will be presented. Topics pertinent to each stage of a project are introduced and discussed as they occur throughout the life of the project. Numerous real-world examples will be utilized throughout the course. Various electronic project administration tools and techniques will be demonstrated including Building Information Modeling.

XRCM 4310 Cost Modeling and Trend Management (4 Credits)
This course covers various approaches to construction cost estimating at the conceptual stages of planning and design through detailed design. Students learn parametric estimating techniques and how they are applied to construct and predict reliable budgets at the earliest stages of design. Students build cost models and refine those models with greater detail as design develops through a project. Building information modeling is introduced and used to demonstrate massing models to design impact projects on project costs. Cost trending techniques are presented to manage, monitor and document project performance relative to cost.

XRCM 4250 Construction Job Site Management (4 Credits)
This course examines the various strategies and techniques associated with managing the design delivery process to align with the construction budget and schedule needs in an integrated fashion. Design planning, scheduling, and resource allocation are considered along with design value determination and management of the design construct interfaces. Constructability, value engineering, design performance.

XRCM 4230 Design Management and Schedule Control (4 Credits)
This course focuses on cutting edge lean tools and other productive strategies for the management of people and processes in the construction industry. The tools and strategies presented draw on the very successful Toyota Production System adapted to the construction industry. Lean construction methodologies such as the Last Planner System, the Lean Project Delivery System, and Integrated Project Delivery are discussed. Topics also include sustainability and the emerging interest in “green construction”, as well as the use of Building Information Modeling to enhance the development and management of integrated projects. This course also looks at the human element in relation to motivation, safety, and environmental stresses. A number of case studies are presented to highlight best practices in Lean Construction Project Management.

XRCM 4210 Planning, Entitlements, and Public Finance (4 Credits)
Real estate development, place making, and community building require the combined efforts of the public, for-profit, and non-profit sectors. Participants in the real estate development process need to understand and appreciate the sometimes competing and sometimes collaborative interests of governments, agencies, and the private developer. This course is designed to familiarize students with the overall context of urban planning and land use. Students discover the variety of participants in the development process and also become familiar with the project entitlement process, zoning, and land use regulation. Students also examine public/private financing structures such as public-private-partnerships (P3s) and become familiar with detailed calculations relating to Tax Incremental Financing (TIF) and Metropolitan Districts.

XRCM 4410 Construction Building Systems (4 Credits)
A survey of residential and commercial construction materials, means, and methods associated with the various structural and architectural systems used to design and construct buildings. Project plans and specifications are incorporated to teach the basic sequencing and overall construction process. The influence of sustainability in construction is introduced.
XRCM 4417 Income Property Valuation and Appraisal (4 Credits)
Residential/Commercial appraising, including market cost and income approaches to value, gross rent multiplier analysis, neighborhood and site analysis, valuation of income properties including market cost and income approaches to value, capitalization theory and techniques, mortgage-equity analysis, and investment value concepts. Prerequisite: XRCM 4407.

XRCM 4420 Construction Estimating (4 Credits)
Integrated approach addressing construction accounting, estimating, purchasing, and management reporting systems. Cross listed with CMGT 4420. Prerequisite: XRCM 4410.

XRCM 4438 Legal Issues & Risk Management (4 Credits)
General contract and real estate law, including property rights, title concepts, deeds, purchase contracts, law of agency, environmental issues and disclosures, basics finance concerns, tax law, landlord-tenant law, construction contracts, indemnity agreements, rights and remedies of property owners, contractors and subcontractors issues, and various areas of liability for real estate practitioners and property owners.

XRCM 4447 Property Development and Feasibility (4 Credits)
Commercial real estate development analysis and feasibility includes economic base analysis, tenant demand analysis, development and construction cost analysis, lease-up analysis, financial feasibility, leasing and property management practices. Five major property types (office, industrial, retail, apartment and hotel) are covered. Prerequisite: XRCM 4007.

XRCM 4477 Income Property Investment (4 Credits)
Comprehensive analytical framework for real estate investment decision-making, equity investment decisions via discounted cash flow, and risk analysis models and strategic planning concepts, structuring parameters to maximize rates of return while controlling downside risks; emphasis on theory, concept building, and practical application to various types of investment properties. Prerequisite: XRCM 4007.

XRCM 4480 Construction Project Mgmt (4 Credits)
This course introduces the student to project management scheduling techniques and methodologies. The student will be exposed to different scheduling techniques, how to develop a project schedule of limited scope, and how to utilize the project schedule for planning and monitoring job progress.

XRCM 4490 Residential Development (4 Credits)
A course sequence designed to emphasize the practical application of the theories and concepts of residential development. Students are expected to apply their knowledge of general business, real estate, and construction management practices by forming a student business entity, acquiring land, building and selling a residential property in a case format. Students apply accounting, finance, marketing, real estate, and construction management techniques in the planning for a residential development. Prerequisite: XRCM 4410.

XRCM 4560 Relational Contracting and Risk Mitigation (4 Credits)
Relational contracting is a construction project delivery framework for multidisciplinary, integrated projects that focuses on aligned goals, high performance, innovation, mutual respect, open communication and a “no blame” culture between Client, Contractor, and Design Team. This approach to contracting, also known as Alliance Contracting, is becoming more prevalent in the United States and is often applied when using integrated project delivery systems. This course compares and contrasts transactional contracting methods with relational contracting methods and the influences on the project team and projects outcomes. Relational contracting is also considered in the context of risk mitigation and project optimization.

XRCM 4580 Strategic Leadership and Integrated Teaming (4 Credits)
This course examines the unique leadership skills and talents associated with leading and facilitating multidisciplinary, integrated design and construction teams. The focus of the course is on applying strategic intelligence and a system of leadership in the development of integrated solutions for the built environment. This leadership model is driven by a compelling purpose and supported by people who share practical values and have excellent processes, to look into the future, create a vision, and bring that vision to reality. Effective strategies for supporting high performance teams are explored.

XRCM 4700 Topics in RE & Const Mgmt (1-5 Credits)
This course will be used for experimental purposes. A way to trial the content of course, relevancy, interest, etc. prior to developing the permanent course.

XRCM 4701 Global Persp in Real Estate II (4 Credits)
This course focuses on inbound U.S. and outbound U.S. real estate issues, with a mix of cultural issues that impact real estate transactions.

XRCM 4702 Argus Financial Analysis (4 Credits)
Using Argus Financial Software to solve complex Real Estate Investment problems. Cross listed with REAL 4500. Prerequisite: XRCM 4007.

XRCM 4705 Risk Management in the Built Environment (4 Credits)
Decision making and risk analysis concepts in the context of real estate and the built environment. This includes, but is not limited to, liability issues as to persons and property, casualty and property damage questions, employee and employer insurance areas, auto insurance, professional liability insurance, directors' and owners' liability issues, medical insurance, life insurance, environmental risks, and much more in areas of exposure that one can face in the business world. The course further examines means to minimize such areas of exposure.

XRCM 4777 Real Estate Principles and Practices (4 Credits)
Introduction to home ownership, real estate industry and its markets; legal aspects of home ownership from consumer's points of view, including property rights, title concepts, deeds, purchase contracts, listing contracts, law of agency, types of mortgages, basics of home loan finance, appraisal, investment and tax benefits. Partially satisfies Colorado real estate sales licensing requirements.
XRCM 4980 Adv Valuation/Report Writing (4 Credits)
Advanced cutting-edge techniques not yet institutionalized nor commonly practiced in the field. Includes writing skills workshops appropriate to specialized nature of appraisal reports, and composition of a complex field problem report to prepare student for writing "demonstration" report required for MAI professional designation. Prerequisite: XRCM 4417.

XRCM 4981 Internship (1-10 Credits)

XRCM 4991 Independent Study (1-10 Credits)

Finance (FIN)

Courses

FIN 4000 Financial Modeling and Databases Bootcamp (1 Credit)
This bootcamp is designed to equip students with a firm foundation in financial modeling as well as acquire an adequate command of Excel functionality and efficiency. This course also serves as an introduction to financial databases, mainly centered on the Capital IQ platform, which the student will be using throughout his or her academic and professional career. Topics covered include: Excel modeling best practices, keyboard shortcuts and common functions, financial datasets, and practical modeling applications in finance.

FIN 4110 Ethics in Finance (4 Credits)
This second course in the Compass is specifically designed for the Master of Science Finance (MSF) curriculum and focuses on the ethical, professional, social, and legal responsibilities of finance professionals, organizations and markets. Financial institutions are facing a crisis of confidence. Trust is an essential ingredient to maintaining efficient and effective financial markets. The finance industry has acquired a reputation for unethical and unsavory activity and has lost the trust of much of society. Many financial professionals believe they are encouraged and rewarded for engaging in unethical activity. We discuss the ethical issues facing financial institutions and professionals and explore solutions for resolving these issues and restoring trust.

FIN 4120 Quantitative Methods in Stock Selection (4 Credits)
This course introduces quantitative methods and techniques applied to alpha generation in stock selection. It enables students to better understand and conceptualize the entire quantitative investment process in the context of a simulated long/short equity portfolio. The student learns to set investment objectives, test investment hypotheses, define security selection criteria and construct portfolios using quantitative techniques. This is a practical class held in a lab environment using financial industry tools and data with a strong emphasis on student participation. Students have to define and defend a quantitative investment strategy and implement it in a simulated portfolio environment. Prerequisites: FIN 4200.

FIN 4130 Financial Risk Management Strategies (4 Credits)
This course applies risk management, quantitative approaches and investment theoretical models to derivatives markets. It examines the proven risk management and revenue enhancement strategies in derivatives and equity markets, creates innovated derivatives investment styles, validates quantitative strategies in options markets, and implements investment models. This course is to offer advanced graduates in finance a well-rounded exposure to the theory and practice of risk management and derivatives investment strategies. It focuses on four aspects: (1) essential risk management theories regarding asset pricing, portfolio construction, and financial statistics; (2) the approaches to develop risk management and derivatives investment strategies based on the fundamental analysis, statistical analysis, and behavioral finance; (3) the rigorous test of various options investment strategies; and (4) the implementation of risk management and investment strategies based on The Reiman Fund. Prerequisites: FIN 4200 and FIN 4500.

FIN 4140 Enterprise Risk Management (4 Credits)
This course introduces the fundamentals of enterprise risk management (ERM). The purpose of this course is to give students an overview of the current approaches used to identify, evaluate and monitor the key risks that an organization faces. Students learn that there are numerous approaches that organizations take in addressing ERM. Over the course of the quarter, a number of outside ERM experts address the class on various aspects of ERM. Students then apply newly gained ERM knowledge to a mock risk assessment developed from a real-life corporate scenario from Newmont Mining Corporation.

FIN 4150 Advanced Business Valuation (4 Credits)
The objective of this course is to present advanced valuation techniques to deepen students’ understanding and enhance their knowledge of valuation theory and practical application.

FIN 4160 Treasury Management (4 Credits)
The objective of the course is to provide students with a comprehensive understanding of how various treasury functions are managed in a corporation and build students’ capabilities to assume the role of a proficient treasury manager.

FIN 4170 Quantitative Methods in Finance (4 Credits)
This course introduces students to the mathematical and statistical methods needed in order to succeed in the quantitative discipline of modern finance. Topics include differential calculus, optimization techniques, linear algebra, probability, and statistical methods. Data analysis software is used when appropriate to facilitate the analysis. Emphasis is on applications, analytic reasoning, and proper interpretation of results.
FIN 4180 Global Finance (2 Credits)
This course explores financial management in the international arena. Principal content elements include: The market for foreign exchange, interest rate parity, hedging currency risk, international portfolio management. Upon completion of this course, students should be able to accomplish the following objectives: Explain the determinants of foreign exchange rates; Explain and identify the financial difficulties and opportunities faced by corporations when operating internationally; Apply forwards and options for hedging currency risk; Identify the determinants of the expected returns on international investments; Discuss current issues in international finance. Prerequisites: FIN 4630.

FIN 4200 Financial Investments and Markets (4 Credits)
Introduction to financial markets, securities, instruments, and other factors that determine the financial environment. Prerequisites: FIN 4630 and STAT 4610 or Fin 4170.

FIN 4201 MS Management Managerial Finance (2 Credits)
FIN 4201 introduces concepts and analytical techniques to identify and solve financial management problems. The focus on Performance Metrics (Ratios and Du Pont Analysis), Time Value of Money and Opportunity Costs, and Project Analysis prepares managers to operate in an environment that can at times be driven by the financial performance of the company.

FIN 4320 Security Analysis and Valuation (4 Credits)
Examination of statistical and theoretical foundation for determination of market prices and market returns. Includes theoretical implications for investment management of options, futures, stocks and bonds. Prerequisite: FIN 4200.

FIN 4330 Portfolio Management and Risk Analytics (4 Credits)
Case and project approach to foundation of investment portfolio management. Prerequisite: FIN 4200.

FIN 4410 Financial Planning & Analysis (4 Credits)
Advanced course in financial planning and decision-making focusing on capital structure, working capital management, long-range and short-term financial planning, and mergers. Prerequisite: MBA 4112.

FIN 4420 Capital Expenditure Analysis (4 Credits)
Advanced course in capital budgeting examining capital allocation processes and procedures and the theory and applied techniques of capital spending and divestment under conditions of certainty and uncertainty. Related issues of cost of capital and leasing also included. Prerequisite: FIN 4630.

FIN 4500 Financial Modeling (4 Credits)
Use of erect functions and macros to construct financial models from corporate finance, investments and financial markets. Prerequisites: FIN 4170.

FIN 4610 Multinational Financial Management (4 Credits)
Financial analysis of multinational corporation operating in international markets, including exchange rates, international instruments, markets, institutions and futures. Prerequisite: MBA 4112.

FIN 4620 Financial Forecasting (4 Credits)
FIN 4630 Managerial Finance (4 Credits)
Analytical skills and tools of finances; theoretical concepts and practical applications. Topics include ratio analysis, breakeven analysis and leverage, securities valuation, capital budgeting, financial forecasting, and working capital management.

FIN 4700 Topics in Finance (4 Credits)
Topics vary each quarter. Course may be taken more than once if topics are different.

FIN 4701 Topics in Finance (1-10 Credits)
Topics vary. For new/experimental courses taught within the Reiman School of Finance.

FIN 4710 Marsico Investment Fund I (4 Credits)
A securities analysis and portfolio management practicum in which students manage a University endowment gift donated by Tom and Cydney Marsico. Prerequisite: Permission of instructor. (First part of two-quarter course.).

FIN 4720 Marsico Investment Fund II (4 Credits)
A securities analysis and portfolio management practicum in which students manage a University endowment gift donated by Tom and Cydney Marsico. Prerequisite: FIN 4710. (Second part of two-quarter course.).

FIN 4730 Marsico Investment Fund III (4 Credits)
This course is an elective course that is the third in the series of classes involving the Graduate investment fund class: Marsico Investment Fund I & II. This course allows students to apply the investment, security analysis, and portfolio management tools and techniques that they have learned in their Finance classes. The students manage an actual portfolio, a portion of the University's endowment originally gifted by Tom and Cydney Marsico. The selection of students for this class is competitive. Students must agree to participate for 2 consecutive quarters, and they must be willing to address portfolio issues during the between-quarter periods if necessary. Because the course involves the application of tools and concepts learned in other classes, the best time to take the course is in the last year of a student's program. Prerequisites: FIN 4710 and FIN 4720.
FIN 4740 Managerial Microeconomics (2 Credits)
This course combines the standard tools of microeconomic analysis with a well-rounded appreciation of the important perspectives that form the business environment in the contemporary world. The goal is to provide students with the tools from microeconomics, game theory, and industrial organization that they need to make sound managerial decisions. The course uses case studies to develop practical insights into managing the firm’s resources to achieve competitive advantage. The course is divided into two principle modules based on market structure: perfect competition and imperfect competition. Both modules cover optimal behavior and strategies.

FIN 4750 Managerial Macroeconomics (2 Credits)
This course covers the theory and practice of modern macroeconomics. It teaches students how private market forces and government policy decisions drive fluctuations in the global economy and affect the business environment. It explores issues related to inflation, interest rates, foreign exchange rate, business cycles, and monetary and fiscal policies. The course uses case studies to analyze real-life macroeconomic issues, and students are encouraged to investigate the potential and limitations of macroeconomic theory with real-world problems. The course is divided into two principle modules: the economy in the long run, and the economy in the short run. Both modules cover impacts of government policies on the business environment in a closed economy and an open economy.

FIN 4830 Econometrics for Finance (4 Credits)
This course focuses on econometric and statistical modeling with an emphasis on finance applications. Prerequisite: STAT 4610 or FIN 4170.

FIN 4860 Derivatives (4 Credits)
This course provides a theoretical foundation for the pricing of contingent claims and for designing risk-management strategies. It discusses more advanced material in financial derivatives and is intended for students who have a quantitative background and are interested in enhancing their knowledge of the way in which derivatives can be analyzed. This course covers option pricing models, hedging techniques, and trading strategies. It also includes portfolio insurance, value-at-risk measure, multistep binomial trees to value American options, interest rate options, and other exotic options. Prerequisite: FIN 4200.

FIN 4870 Strategic Finance (4 Credits)
Addresses theory, concepts, and techniques associated with asset management and creation of value from a strategic orientation. Links financial theory and practice to strategic and operational objectives of the firm, prepares student to incorporate risk and uncertainty into analytical decision-making process and to analyze divestiture, restructuring, and liquidation decisions. Prerequisites: MS/Finance students only and FIN 4840.

FIN 4885 Investment Banking and External Financing (4 Credits)
Considers the blend of theory and practice with regard to designing the appropriate capital structure of the firm as well as appropriate use of securities and process for raising capital in different financial markets. Prerequisites: MS/Finance students only and FIN 4840.

FIN 4890 Fixed Income Analysis (4 Credits)
Emphasizes valuation and management of fixed income securities in prevailing environment of complex and innovative financial arrangements. Study of the nature of evolving markets, both domestically and internationally. Prerequisite: FIN 4200.

FIN 4980 Finance Internship (0-10 Credits)
Permission of instructor required. Hours and times arranged by student.

FIN 4991 Independent Study (1-10 Credits)
Individual study and report. Hours and times arranged by student.

FIN 4992 Directed Study (1-4 Credits)

Gender and Women's Studies (GWST)

Courses
GWST 4700 Special Topics in GWST (1-5 Credits)
Current issues or women’s faculty research interests relevant to women.

GWST 4701 Special Topics in GWST (1-5 Credits)
Current issues or women’s studies faculty research interests relevant to women.

GWST 4702 Special Topics in WSTU (1-5 Credits)
Current issues or women’s studies faculty research interests relevant to women.

GWST 4703 Special Topics in WSTU (1-5 Credits)
Current issues or women’s studies faculty research interests relevant to women.

GWST 4704 Special Topics in GWST (1-5 Credits)
Current issues or women’s studies faculty research interests relevant to women.

GWST 4991 Independent Study (1-10 Credits)

GWST 4992 Directed Study (1-10 Credits)

GWST 4995 Independent Research (1-10 Credits)

Geographic Information Systems (GIS)
Courses

GIS 4070 ArcObjects (4 Credits)
This class is an introduction to the development of custom applications and tools in GIS. It combines ESRI's ArcObjects with C#.NET programming language to introduce students to desktop GIS development. Students learn about the C# language, Object Oriented Programming, ESRI's Object Model Diagrams, conversion of VBA code to C# code, the creation of custom GIS based forms, buttons, and tools, and the automation of the GIS workflow. Students leave this class with the ability to create embedded tools as well as distributable C#.NET GIS applications based on ArcGIS 10.

GIS 4080 Python Programming (4 Credits)
This course introduces Python concepts and the Python scripting environment in a GIS environment. Python is a free, open-source scripting language that has been integrated with ArcGIS. Python is a dynamic, interpreted language that can be used to automate redundant tasks and workflows in GIS. Students learn tools and techniques and proper Python syntax, script flow, and error handling. Students learn to write scripts that allow them to automate redundant tasks and workflows in GIS. Students learn to write scripts that allow them to automate geoprocessing processes and GIS work more efficiently. This course teaching fundamental concepts needed to create Python scripts in ArcGIS. Prerequisite: GIS 4101 or similar GIS course and/or work experience.

GIS 4101 Introduction to Geographic Information Systems (4 Credits)
This is the initial course in Geographic Information Systems (GIS). General introduction including background, development, trends, prospects in this rapidly evolving technology; basic components, functions of GIS, fundamental spatial, geographic concepts explored through use of GIS software.

GIS 4110 Geographic Statistics (4 Credits)
This course introduces the basic concepts of probability and statistics with an emphasis on applications and an ongoing focus regarding the nature and problems associated with spatial or geographic data.

GIS 4200 Geospatial Intelligence (4 Credits)
The term geospatial intelligence (GEOINT) means the exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the earth. GEOINT consists of imagery, imagery intelligence and geospatial information. This course serves as an introduction to the fundamentals of the geospatial intelligence community, core GEOINT technologies and operations, and the role of GEOINT in national, regional and local security affairs supporting decision makers and operations. The course is built on a framework of data, technology and analysis in support of the GEOINT community which may include natural disasters, first responders, military problems, homeland defense, and law enforcement.

GIS 4504 Cartographic Design (4 Credits)
The theory and art of map making developed over several thousand years and has recently been revolutionized by computer technology. This course is designed to expose students to the use of computer techniques in assessing technical design issues in the compilation of accurate and meaningful automated geographic mapping products. ArcView is used in a series of hands-on lab exercises to produce typical GIS mapping products. Each class includes lecture and discussion of cartographic design concepts. Emphasis is placed on reader perception of map design elements, and also includes an introduction to appropriate software tools and application of concepts through lab exercises. In-class time is provided for work on lab exercises. It is likely that additional lab time outside of class will be necessary and/or valuable for students, particularly in completion of the final project. Prerequisite: GIS 4101.

GIS 4510 GIS in Business (4 Credits)
Businesses continue to embrace GIS as an effective alternative to traditional manual mapping analysis methods. GIS has emerged as an affordable solution for performing essential revenue producing and expense reducing functions. Many years ago, successful GIS implementation required huge capital investment and a large staff of GIS experts; however, with the introduction of more powerful inexpensive computers and easier to use software, companies of all sizes are unleashing the business potential of GIS on the marketplace. This course exposes students to various business applications and uses of GIS as well as the underlying theories and technology behind the applications. This course emphasizes various business disciplines including Marketing, Real Estate, Transportation, and Oil & Gas using ArcView GIS in practical, hands-on exercises that demonstrate the theories and concepts discussed in the lectures.

GIS 4520 GIS in Telecommunications (4 Credits)
Telecommunications is a thriving technology and business, accounting for a significant percentage of technical advances and revenue around the globe. GIS has emerged as a crucial tool in the telecommunications field for maintaining existing entities, planning for additional ones, and for gaining an advantage in this very competitive marketplace. The use of GIS in the telecom industry continues to grow because GIS technology accommodates the many CAD programs and drawings representing plant and transmission towers/coverage as well as the geographic representations of those items. Only a few years ago, introducing GIS into a telecom business required significant cash outlay, but through less expensive hardware and more user-friendly software, now even a modest CLEC can implement an effective GIS. This course exposes students to the various applications and uses for GIS in the telecom arena by breaking down the miscellaneous telecom requirements into GIS components and technological solutions. This course emphasizes specific telecom technology application requirements and allows students, through hands-on-lab work, to discover the power of GIS in delivering superior telecom solutions. This course also focuses on OSP/ISP applications and solutions, network connectivity issues as well as the exploding future of wireless technology.

GIS 4530 Crime Mapping and Analysis (4 Credits)
Municipal police departments, county sheriff departments, and other state and federal law enforcement agencies use GIS technology as a tool to analyze crime statistics and patterns. This course explores how GIS technology is used in law enforcement to provide strategic, tactical, and administrative crime analysis.
GIS 4540 Conservation GIS (4 Credits)
This course is designed to provide students with an introduction to the use of geographic information systems (GIS) in conservation. Students receive an introduction to the use of GIS in various types of conservation studies and preservation. Emphasis is placed on the types of applications and analytical techniques in environmental fields where GIS is commonly used as a mapping and analytical tool. The analytical techniques used in lab exercises consist of practical applications that support planning and management of land, species, and habitats.

GIS 4570 Geographic Information Systems in Public Health (4 Credits)
GIS offers many applications and functionality that are tremendously beneficial to the Public Health industry. The ability to visualize cases in space (geographically) and time is invaluable in analyzing spatial clusters of health related events. Further the ability to model the spread of a potential epidemic can literally be a life saver. GIS is a natural choice for solving many Public Health issues including: analyzing the location of diseases; the spread of contagious diseases (both vector borne as well as the spread through human contact); the cause and effect of environmental factors; as well as the availability of Health facilities.

GIS 4620 Geodatabase Application (4 Credits)
This course in Geodatabase Application is logically broken into two separate component parts; the first section deals with Geodatabase concepts and provides a general overview of the Geodatabase structure and implementation including; background, object classes, feature classes, relationship classes, domains, validation rules, and Geodatabase topology. The second portion of the course focuses on Geodatabase Application introducing advanced features of Geodatabase, providing a solid foundation for the application of the Geodatabase to model and address complex real world issues. Geodatabase Linear Referencing, Geodatabase Surface Modeling, and Geocoding Services in the Geodatabase, are explored. This course incorporates a hands-on lab component. Computer lab exercises are designed to introduce the student to concepts and Geodatabase application. Strong emphasis is placed on Geodatabase design. Design objectives, design guidelines and functional requirements of the resulting Geodatabase model are addressed.

GIS 4630 Public Domain Data for GIS (4 Credits)
Geospatial data are the foundation upon which GIS and spatial analysis rests. As GIS has matured, the challenge has evolved from generating data to managing the enormous volume of data from government agencies, nonprofit organizations, and industry, and increasingly, from ordinary citizens through citizen science and volunteered geographic information efforts. Key to working with this volume of data are essential issues such as privacy, copyright, public domain, cost recovery, metadata standards, and data quality that GIS professionals must grapple with to be effective in the 21st Century. This class discusses and applies these issues and works with a rich array of data sources to enable effective decision-making in a Geographic Information System.

GIS 4650 Demographic Analysis Using GIS (4 Credits)
This course offers an overview of US Decennial Census data, covering a brief historical overview of why census information is collected, collection procedures, geographic coverage, and subject matter contained in census reports. Using a popular PC-based desktop mapping software program, students learn how to navigate through census files and create a variety of thematic maps. Several application areas, such as marketing, demographic analysis and facility planning, are used in sample exercises.

GIS 4670 GIS and the Law (4 Credits)
This course provides an overview, from a legal perspective of the role of government in handling and disseminating GIS data; an explanation and analysis of state and federal legislation and court decisions regarding open-records laws; and, an explanation and analysis of other laws or legal doctrines that affect GIS such as copyright, contract, right of privacy, anti-trust, tort liability and ethics.

GIS 4680 Environmental Applications (4 Credits)
This class provides students with an introduction to practical applications of computerized Geographic Information Systems (GIS) in environmental assessment and natural resource management. Emphasis is placed on automated analytical techniques and data presentation methods that support facility site selection, environmental impact analyses, resource management, and characterization of environmental hazards. This course is designed to provide students who participate in environmental assessment projects with introductory preparation for practice as GIS professionals in public agencies or in the private sector.

GIS 4685 GIS and Natural Hazards (4 Credits)
This course is designed to provide students with an introduction to the use of GIS in natural hazard assessment. Students receive an introduction to the use of geographical information systems (GIS) in various types of natural disasters and response management. Emphasis is placed on the types of applications and analytical techniques in environmental fields where GIS is commonly used as a mapping and analytical tool. The analytical techniques used in lab exercises consist of practical applications that support hazard risk and assessment, mitigation, and emergency response planning.

GIS 4687 Hydrologic Modeling in GIS (4 Credits)
Hydrology is concerned with movement of the earth's waters through the hydrologic cycle, and the transport of constituents carried in its flow. In GIS, the landscape is represented by means of geographically referenced data describing the character and shape of relief features. A spatial hydrology model simulates the water flow and transport in a specific locale using GIS data structures. Hydrologic modeling in GIS allows us to automatically delineate a drainage system and quantify the characteristics of the system. It focuses on the movement of water across a land surface. This course looks at the basic inputs to hydrological modeling in GIS, walks students through established modeling procedures, and has students work on projects that are real and relevant as model applications. Instruction is largely hands-on, project-oriented.
GIS 4690 GPS for GIS (4 Credits)
This course is an introduction to GPS (Global Positioning Systems) concepts, techniques, and applications as they relate to GIS data collection. Lectures focus on satellite surveying, GPS technology, error sources, program planning, data collection design, and Quality Assurance issues for data collection programs. Lab exercises include planning a GPS survey, designing a field data collection plan and associated data dictionary, field data collection, and data integration into a GIS.

GIS 4700 Remote Sensing (4 Credits)
This course provides a survey of remote sensing technologies, applications, and the industry. This course is designed for GIS, Geography and Geoscience students who seek to broaden their understanding of remote sensing in support of Geographic Information Systems. Introductions to the electromagnetic spectrum, energy sources, radiation principles, aerial cameras, and electronic imaging provide the student with the initial building blocks to a thorough understanding of remote sensing. This course provides an overview of the various high altitude and space-based collection systems and their characteristics, with a view toward future systems and capabilities. In addition, this course exposes students to the techniques of extracting relevant information from both hard copy and digital imagery.

GIS 4701 Topics in Geographic Information Systems (2-5 Credits)
The content of this course varies each time it is offered, depending on the interests and needs of the students. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

GIS 4740 Digital Image Processing (4 Credits)
This course is the second in the two-course Remote Sensing emphasis of University College's GIS Certificate Program. The curriculum is a rigorous presentation of digital imaging processing theory with emphasis on its application to airborne and space borne imagery. The course includes computer laboratory exercises and workshops, where the students apply theory to satellite and air photo data. Interpretation of the digitally processed data is also included in the class exercises. Examples of vector and raster data integration are be shown as well.

GIS 4750 UAVs and GIS (4 Credits)
The purpose of this course is to introduce GIS students to the emerging world of using Unmanned Aerial Vehicles (UAV) in the GIS workplace for data collection, reconnaissance, and research. UAVs are in the news every day highlighting their use in a military context. Soon the Federal Aviation Administration (FAA) will release new rules and regulations governing the use of UAVs in the civilian sector. This course will prepare students to be conversant in the world of UAVs, basic aviation, safety, flying, mission planning, and general data gathering techniques for use in GIS. Prerequisite: GIS 4101-Introduction to GIS.

GIS 4760 UAS Photogrammetry (4 Credits)
Surveying, photogrammetric mapping, GPS, and remote sensing are critical components to working in the UAV and GIS domain. The second course in this two-course sequence will expand on the data collection process highlighted in the first class and deliver the foundations required by GIS professionals working with UAVs. Prerequisite: GIS 4750-UAVS and GIS.

GIS 4780 Internet Mapping (4 Credits)
Creating web-based maps allows city and local governments, businesses, and other organizations to publish, discover, and share geospatial information. This course introduces the fundamentals of various web-based mapping systems and software applications. Students complete comprehensive projects, each resulting in the creation of a working web site using different technologies. Students make use of WMS (Web Map Services) and WFS (Web Feature Services), integrating them into their web sites and creating their own web map service.

GIS 4900 Internship (4 Credits)
GIS students may fulfill up to three quarter hours of electives by enrolling in a GIS internship with a GIS company or an agency actively engaged in GIS activities. Students incorporating professional work experience must work with an approved mentor, who evaluates the student's performance and learning. The internship is designed to provide practical experience to students without prior professional experience in the field. Students who are employed on a full-time basis in the GIS industry may not use paid work experience as part of the academic program.

GIS 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a for-credit basis.

GIS 4992 Directed Study (1-8 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the directed study. Directed Study is offered only on a for-credit basis.

Geography (GEOG)
Courses

GEOG 3000 Advanced Geographic Statistics (4 Credits)
The second in a sequence of two courses that address general statistical applications particular to geography, environmental science and other disciplines dealing with a spatial dimension in the data they work with. The focus of this second course is on the more advanced multivariate statistical techniques. The course has a strong applied orientation as particular attention is given to which technique is the most appropriate to use for a given type of problem and how to interpret and apply the resulting statistics. Extensive use is made of computer statistics packages. Homework exercises involving such statistical techniques as multiple correlation and regression analysis, principle components analysis, discriminate analysis and canonical correlation. Prerequisite: GEOG 2000.

GEOG 3010 Geographic Information Analysis (4 Credits)
Reviews many basic statistical methods and applies them to various spatial datasets. In addition, several spatial statistical methods are applied to spatial datasets. This course is an in-depth study of the interface between GIS, spatial data, and statistical analysis. Preferred prerequisite: GEOG 2000. Prerequisite: GEOG 2100.

GEOG 3030 Advanced Field Methods (4 Credits)
Various field methods used by researchers in physical geography; techniques include field mapping, laboratory analyses, geologic field methods. Prerequisite: GEOG 1201 or equivalent.

GEOG 3040 GPS for Resource Mapping (4 Credits)
This course is an introduction to GPS (Global Positioning Systems) concepts, techniques, and applications as they relate to GIS data collection. Lectures focus on satellite surveying, GPS technology, error sources, program planning, data collection design, and Quality Assurance issues for data collection programs. Hands-on lab exercises include navigation, mission planning for a GPS survey, designing a field data collection plan and associated data dictionary, field data collection, differential correction, and data integration into a GIS and map production.

GEOG 3100 Geospatial Data (4 Credits)
This graduate-level course is designed to provide graduate students from a broad range of disciplines with the skills to carry out applied research tasks and projects requiring the integration of geographic information system technologies and geospatial data. Students are introduced to a collection of techniques and data sources with a focus on acquiring and integrating data. Legal, ethical, and institutional problems related to data acquisition for geospatial information systems are also discussed. Cross listed with GEOG 2100.

GEOG 3110 GIS Modeling (4 Credits)
This course focuses on the concepts and procedures used in discovering and applying relationships within and among maps. It extends the mapping and geo-query capabilities of GIS to map analysis and construction of spatial models. The course establishes a comprehensive framework that addresses a wide range of applications from natural resources to retail marketing. Topics include the nature of spatial data introduction to spatial statistics and surface modeling in the first five weeks followed by spatial analysis operations and modeling techniques in the second five weeks. The lectures, discussions and independent exercises provide a foundation for creative application of GIS technology in spatial reasoning and decision making.

GEOG 3130 Advanced Geographic Information Systems (4 Credits)
This advanced course explores the more technical aspects of GIS functions and data structures. Students have hands-on access to both raster (grid-cell) and vector-based software packages in the form of lab exercises that culminate in a small student-designed GIS project. Prerequisite: GEOG 2100.

GEOG 3140 GIS Database Design (4 Credits)
Designing databases to provide a foundation for GIS functions and applications, including investigating techniques used for designing databases in non-spatial environments and learning the applicability to GIS problems. Building on concepts and techniques introduced in the first half to extend traditional techniques and methodologies to model the requirements of spatial problems. Students learn to translate the conceptual spatial model into a physical implementation specific to GIS products. Prerequisite: GEOG 2100 or GEOG 3100.

GEOG 3150 GIS Project Management (4 Credits)
This course provides graduate students seeking a career in GIS, or anyone managing a GIS project, with the knowledge, skill and abilities to take a GIS project or program past the design and implementation phase and into day-to-day operation. Students evaluate and analyze the role of GIS in an organization's overall information system strategy and communicate the importance of geography in an information system. Data sharing in the organization is examined to determine the benefits and costs of distributing data creation and maintenance activities throughout an organization. Finally, the role of GIS professionals and the skill sets required to manage GIS effectively are examined. Students review case studies of successful and not-so-successful GIS projects in North America. GIS management issues are addressed by a series of case studies focusing on various management aspects. Students are also expected to visit operational GIS programs in the metropolitan area and interview GIS managers. Students prepare case study evaluations for review in the classroom. Required for all MSGIS students because of the critical importance of GIS project management.

GEOG 3200 Remote Sensing (4 Credits)
This course acquaints students with the basic techniques of the collection, processing and interpretation of information about the character of the earth's surface from remote locations. Students become familiar with the use of the visible, infrared, thermal and microwave portions of the electromagnetic spectrum as a means of determining land cover and/or land use. Both manual and computer-assisted techniques are discussed and include hands-on applications.
GEOG 3230 Advanced Remote Sensing (4 Credits)
This course will build on the basic remote sensing concepts presented in GEOG 3200. Students will explore more in-depth concepts relevant to satellite and airborne remote sensing, including radiative transfer and information extraction. In addition, students will be introduced to two cutting-edge sources of data about the Earth’s surface: hyperspectral and lidar (Light Detection and Ranging) sensors. Students will study specific applications of advanced digital image processing techniques for environmental monitoring, natural resource management, and land-use planning. Finally, students will integrate remote sensing and other spatial datasets in the context of Geographic Information System (GIS) analysis. Prerequisite: GEOG 3200.

GEOG 3300 Cultural Geography (4 Credits)
Theories and methods of cultural geography including cultural area, landscape, history and ecology.

GEOG 3310 Culture/Nature/Economics-Human Ecology (4 Credits)
Cultural adaptation, livelihood strategies and environmental modification among subsistence and peasant societies: responses of such groups to technological change and economic integration.

GEOG 3330 Political Geography (4 Credits)

GEOG 3340 Geographies of Migration (4 Credits)
This course explores contemporary movement of people across international borders and the social, cultural, political, economic, and environmental repercussions of such movements. The class looks at the global flow of people across national boundaries and the ways in which these dispersed peoples build and maintain social networks across national borders. While doing so, we address the role of globalization in international migration processes. What motivates people to move long distances, often across several international borders and at considerable financial and psychological cost? How do migrants change—and how in turn do they bring change, social as well as economic, to new destinations as well as places left behind? This course examines politics and patterns of migration, transnational migration, and immigration to the United States.

GEOG 3350 Qualitative Methods in Geography (4 Credits)
This course focuses upon qualitative methods in the production of geographic knowledge. Qualitative methods are widely employed by geographers to understand patterns and underlying processes of human and human-environment issues in society. The course is designed to expose participants to the theories, purpose, scope, and procedures of qualitative research. Specific topics include: epistemological theories (ways of knowing); ethics and power in research; research design; data collection techniques in interviewing, participant observation and landscape interpretation, discourse and archive analysis, and case studies; data analysis; and writing and disseminating qualitative findings.

GEOG 3400 Urban Landscapes (4 Credits)
Urbanization as a process; national urban systems; internal spatial structure of cities; role of transportation in urban development; location of residential, commercial and industrial activities; agglomeration economies; residential congregation and segregation; environmental justice; urban growth and growth coalitions; decentralization and urban sprawl; edge cities; impacts on the urban environment; world cities; globalization.

GEOG 3410 Urban Applications in GIS (4 Credits)

GEOG 3420 Urban and Regional Planning (4 Credits)
Historical evolution of planning theory and practices; comprehensive planning process; legal, political, economic, social, environmental aspects of urban planning; urban design; urban renewal and community development; transportation planning; economic development planning; growth management; environmental and energy planning; planning for metropolitan regions; national planning.

GEOG 3425 Urban Sustainability (4 Credits)
The 21st century is being called the ‘century of the city.’ Now more than ever, humans across the globe call the city their home. Many of the world’s most pressing crises are manifest in cities, including: greenhouse gas emissions, land degradation, high mass production and consumption, widespread poverty and hunger, and expanding socio-economic disparities. As ‘sustainability’ becomes part of mainstream discourse, this course explores what sustainability means for urban contexts around the globe. Arguably, the city has the potential to be the most efficient, equitable, and environmental form of modern human settlement. Covering all dimensions of sustainability from a social science perspective, this course focuses on theoretical groundings, practices of urban sustainability, and new research agendas. Major topics include cities and nature; planning and land use; urban form; community and neighborhoods; transportation systems and accessibility; livelihood and urban economies; and social justice and the city.

GEOG 3440 Urban Transportation Planning (4 Credits)
A specialized course in the urban planning sequence focusing on issues, practices and policies of urban transportation planning. Recommended for anyone interested in timely transportation topics, such as the feasibility and impacts of light rail transit, the planning and implementation of highway projects, and the role of freight and passenger transportation companies in transportation planning.

GEOG 3445 Sustainability and Transportation (4 Credits)
Sustainable transportation aims at promoting better and healthier ways of meeting individual and community needs while reducing the social and environmental impacts of current mobility practices. Given the importance of transport for economic growth, the uncertainties surrounding the availability and price of future sources of energy for transport use, as well as the social and environmental externalities of currently-utilized transport modes, it is imperative that more sustainable ways of providing transportation be developed and utilized.
GEOG 3450 Transportation and Mobilities (4 Credits)
The geographical study of transport has grown considerably and become more diverse, encompassing new areas of inquiry generated from economic, urban, environmental, political, social, and cultural geography, as well as from transport geography itself. The most notable expansion has been in the area of 'mobilities' research, which is focused on the social aspects of mobility, including both the large-scale movements of people, objects, capital, and information across the world, as well as the more local processes of daily transportation, movement through public space and the travel of material things within everyday life.

GEOG 3460 Air Transportation & Tourism (4 Credits)
This course delves into the world of commercial air passenger transportation, studying the foundations of the industry, its role in the travel and tourism, and strategies for the future. Foundational topics include the history and geography of air transportation, air travel and tourism, the geography of tourism, airline corporate cultures, the role of government, aviation law, regulation, deregulation, and globalization. Study of the principal elements of airline economics, finance, planning, management, operations, pricing, promotion, cost containment, marketing, and policy provide the opportunity for consideration of strategic options within the contemporary airline industry. Further discussion focuses on the planning and management of airport and airway system infrastructure, the issue of sustainable air transportation, and the role of the airline industry within the context of intermodalism.

GEOG 3470 GIS & Environmental Health Geography (4 Credits)
This course is designed to acquaint students with the spatial distributions of populations and their relationships to environmental pollution sources and health outcomes. It utilizes real-life scenarios using population data from the U.S. census, EPA pollution data and various types of vital statistics data. The goal is to implement novel geographic techniques such as spatial analytical techniques and atmospheric modeling of pollutants to assess possible health risks and outcomes. This class requires basic GIS knowledge.

GEOG 3500 Reconstructing Quaternary Environments (4 Credits)
Nature, magnitude, sequence and causes of Pleistocene and Holocene climatic changes; effects of climatic change on plant/animal distributions and human populations; paleoclimatic research methods. Laboratory and field trips. Prerequisites: GEOG core, ENVI 3000.

GEOG 3510 Biogeography (4 Credits)
Biogeography focuses on present and past distributions of plants and animals. In this course we consider a number of themes central to biogeography, including plate tectonics and biogeography, the effects of climate change on plant and animal distributions, biogeographic realms, island biogeography, biodiversity, human impacts on plants and animals, and the origins of agriculture.

GEOG 3520 Geography of Soils (4 Credits)
Spatial variation in soil characteristics; soil processes, soil morphology, their application in soil studies. Prerequisite: GEOG 1203 or equivalent or instructor's permission. Recommended prerequisite: general chemistry.

GEOG 3550 Topics in Physical Geography (1-5 Credits)
Investigations into various aspects of physical environment.

GEOG 3560 Fluvial Geomorphology (4 Credits)
Examines how water and sediment interact at Earth’s surface to create a variety of landforms ranging from small rills to continental-scale river systems. Introduces fundamental fluvial processes or channel hydraulics and sediment transport. Examines common fluvial landforms including alluvial streams, bedrock streams, floodplains and alluvial fans. Combines traditional lectures and in-class discussions with numerous field excursions to rivers in the Rocky Mountains and Great Plains. Prerequisite: GEOG 1203, GEOG 1218, or GEOG 1266.

GEOG 3600 Meteorology (4 Credits)
The basic theory and skills of weather forecasting. Topics include thorough coverage of atmosphere dynamics and thermodynamics, the evolution of various weather types, the mechanics of storm systems (cyclones, severe storms, hurricanes), creation and interpretation of weather maps, and forecasting techniques.

GEOG 3610 Climatology (4 Credits)
Climatology is the study of the processes that result in spatial and temporal variation of weather. This course introduces the student to the processes responsible for the transfer of matter and energy between the Earth's surface and the atmosphere and the average weather conditions that result. In addition, topics of global concern, such as greenhouse effect, El Nino, urban heat islands and acid rain, are discussed. Laboratory exercises provide an opportunity to investigate climate variation and climatic change through the use of a variety of computer simulations.

GEOG 3620 Applied Climatology (4 Credits)
Climatic impact on environmental systems and human behavior; techniques to investigate climatic characteristics of environmental extremes (floods, blizzards), urban climatology and socioeconomic impacts of climate. Prerequisite: GEOG 1201. Recommended Prerequisite: GEOG 3600 or GEOG 3610.

GEOG 3630 Dendroclimatology (2-4 Credits)
Systematic variations in tree ring width and/or density can be used to reconstruct changes in precipitation or temperature well before humans were around to record the variability. This class utilizes hands on methods to introduce the fundamental principles of dendroclimatology. Through readings and lectures, students will learn how tree ring growth can be correlated to climate change. Students will then undertake several research projects to reconstruct past climate variability in the Denver metro area using tree rings. Prerequisite: permission of instructor.
GEOG 3640 Climate Change and Society (4 Credits)
The science of anthropogenic climate change will be presented with an emphasis on critical evaluation of the evidence of climate change and future scenarios and migration strategies. Students will be introduced to the latest climate change research, including the Intergovernmental Panel on Climate Change report, and the most recent literature from the field. The societal and cultural implications of climate change will also be discussed. Prerequisites: GEOG 1201, GEOG 1216, or GEOG 1264.

GEOG 3700 Environment & Development (4 Credits)
Course examines interrelated nature of environmental and development issues in the Third World; addresses the place of environment in development theory and practice and the political ecology of Third World environmental problems and sustainable development approaches.

GEOG 3701 Topics in Geographic Information Science (1-4 Credits)
Topics vary by instructor.

GEOG 3710 Environmental Change in the Eastern Mediterranean (2 Credits)
We tend to associate environmental problems with modern societies and high technology. However, humans have had impacts on the environment, and have had to cope with challenges brought by the environment, throughout their history. Western cultures are intimately linked to the eastern Mediterranean, where some of the earliest centralized governments arose, agriculture developed, and humans first began living in permanent settlements, so the region has a long history of human-environment interaction. This class focuses on historical, archaeological, and paleoenvironmental records from the region to investigate the impacts of human activities, including deforestation, intensive agriculture, and urban development, on the environment, and the ways in which societies in the region responded to natural environmental perturbations, including drought, earthquakes, and volcanic eruptions.

GEOG 3720 Mountain Environments and Sustainability (4 Credits)
Mountain Environments and Sustainability explores the unique physical and cultural aspects of high relief and/or high altitude environments. Covering one quarter of the Earth's land surface, mountains directly or indirectly impact the lives of millions of people. We examine the significance of mountains to climate, water resources, and human activities, and discuss the sustainability of these environments and communities in light of rapid changes in many mountain regions resulting from anthropogenic factors and global change. GEOG 1201, 1202, and 1203 or instructor approval.

GEOG 3730 International Environmental Policy (4 Credits)
This course acquaints students with the global perspective on current problems of environmental protection and resource use. Population growth, food production, industrialization, technology and cultural change are considered, with heavy emphasis on the social dynamics of environmental problems. A variety of political views are studied, and an attempt is made to develop a perspective useful to students in personal and political decisions.

GEOG 3740 Environmental Justice in the City (4 Credits)
This course is designed to acquaint students with environmental justice in the urban environment. This class focuses on the City of Denver as a laboratory to explore the disproportionate impacts of social justice issues, particularly urban pollution, healthy food sources, gentrification, light rail, and employment opportunities, on neighborhoods and communities. A variety of views are studied, and an attempt is made to develop a perspective useful to students to explain urban social justice conditions.

GEOG 3750 Topics in Human-Environment Interactions (1-4 Credits)
This course investigates various aspects of the relationships between human societies and the natural environment.

GEOG 3755 Geography of Health (4 Credits)
The geography of health is a thriving area of study that considers the impact of natural, built, and social environments on human health. This course introduces students to three geographical contributions to health studies. First, it emphasizes the importance of ecological approaches to health, which consider interactions between humans and their environments, including topics such as how climate change might influence disease distributions, and how the built environment can influence patterns of physical activity. A second focus is social theory, exploring how aspects such as race, socioeconomic status, and identity play a critical role in influencing human health. A third section of the course considers how spatial methods (cartography, GIS, and spacial statistics) can help answer health-related questions.

GEOG 3760 Health & Environment, England (4 Credits)
This field course meets in England, visiting several sites in the Midlands. It focuses on ecological approaches to health, which emphasize the relationship between humans and their environment as a critical influence on the health status of populations. This environmental influence may come from the natural, built, or social environment. The course will use a case study approach to emphasize i) the importance of the natural, built, and social environment to human health, and ii) how the relationship between humans and their environments and its sustainability has changed over time. We will explore eight different time periods, asking in each case how people's relationships with their natural, built, and social environments have influenced health at the population scale, and how these influences can inform sustainable health and environment in the future.

GEOG 3800 Geography of Colorado (4 Credits)
This course focuses on the physical and human geography of Colorado, a state that includes the western Great Plains, the southern Rocky Mountains, and the eastern Colorado Plateau. Colorado's varied natural landscapes provide equally varied settings for human settlement and resource use. Recommended Prerequisites: GEOG 1201, GEOG 1202, and GEOG 1203.

GEOG 3830 Natural Resource Analysis & Planning (4 Credits)
Natural resources provide the basis for all human agricultural and industrial activities. This course discusses our resource distribution, conservation, management and sustainable use.
GEOG 3840 Water Resource Analysis (4 Credits)
The focus of this course is on complex policy, economic and local, national and international, and political issues surrounding resource use in the western U.S. Issues include exploitation of nonrenewable and renewable energy and mineral resources; and flexible responses to changing public policy.

GEOG 3860 GIS Applications and Natural Resources (4 Credits)
In this course we will use a case study approach to examine domestic and international natural resources such as oil, coal, timber, minerals, and recycled materials. We will use a case study approach to look at resource distribution, and the environmental impacts of extraction, production, and disposal, as well as the legal and economic context. We will use GIS data and analysis to enhance our understanding of these case studies, and students will do a project and paper using GIS data and image analysis at a local, regional or global scale. Prerequisite: Introduction to GIS or Introduction to GIS Modeling.

GEOG 3870 Water Resources & Sustainability (4 Credits)
In this course, we look at water as both a local and global resource and examine what sustainability means for human and ecological realms. After an overview of the physical processes that drive the hydrologic cycle, surface and groundwater hydrology, we examine how we humans have harnessed water for our use and how we both alter and treat its quality. We examine the legal aspects of water allocation in the U.S. and the groups and agencies that are most involved in managing and overseeing water issues. Finally, we examine the most pressing water "issues" related to wildlife, development, scarcity and conflict. We look forward to imagining the power of both the individual and the collective in meeting our future, global water needs.

GEOG 3880 Cleantech and Sustainability (4 Credits)
Cleantech has only recently become part of our vernacular and it refers to the technology that enables us to produce energy in a manner that has little or no environmental impact (solar, geothermal, wind, responsible biofuels). Clean technology will not only offer us a chance to rehabilitate the climate, but should make us more aware of how fundamental our approach to everyday life needs a more sustainable consciousness. As part of the debate, we will examine some of the problems facing civilization, why we are not sustainable, who the major players are, and how a more sustainable existence is not just our moral obligation, but it is also good economics and sound foreign policy that will accelerate poverty alleviation.

GEOG 3890 Ecological Economics (4 Credits)
Ecological Economics is an emerging transdisciplinary endeavor that reintegrates the natural and social sciences toward the goal of developing a united understanding of natural and human-dominated ecosystems and designing a sustainable and desirable future for humans on a materially finite planet. In this course we start with a basic overview and summary of the neo-classical economic perspective with a particular focus on the recognized market failures of public goods, common property, and externalities. We begin with a reconceptualization of economic theory by imposing scientific constraints (e.g. conservation of mass and energy, the laws of thermodynamics, evolutionary theory, etc.). Using the ideas developed in this reconceptualization of economic theory we explore the implications for international trade and myriad public policies associated with the ethical, environmental, and economic aspects of sustainability.

GEOG 3910 Geomorphology (4 Credits)
An advanced course that examines how Earth's landforms are created by a range of physical processes. Most landforms can be viewed as a result of some combination of erosion, transport and deposition of rock, soil and sediment. The most common agents causing these geomorphic processes are water, wind, ice and waves. This course examines the processes responsible for eroding, transporting and depositing earth materials and compares these processes with the resulting landforms. Prerequisites: GEOG 1202 or GEOG 1217 or instructor's permission.

GEOG 3920 Remote Sensing Seminar (4 Credits)
Special topics in advanced remote sensing.

GEOG 3930 Cultural Geography Seminar (4 Credits)
Topics, methods and current research in cultural geography.

GEOG 3940 Urban Geography Seminar (4 Credits)
International comparison of economic and social, positive and negative aspects of urban systems.

GEOG 3950 Physical Geography Seminar (2-4 Credits)

GEOG 3955 Pollen Analysis Seminar (3 Credits)
Pollen grains preserved in sediment provide long-term records of vegetation conditions. Changing proportions of pollen types may reflect climatic fluctuation or human impacts. We review important recent research in pollen analysis (palynology), pollen sampling, laboratory techniques and pollen identification. Students are responsible for counting a number of samples and contributing data for a pollen diagram.

GEOG 3990 Undergraduate Research Seminar (1 Credit)
This course is designed to prepare students who will participate in faculty-supervised summer research projects. Students are introduced to research design, use of the scientific method, research expectations and reporting of results. Preparation of formal research proposal with adviser.

GEOG 3991 Independent Study (1-5 Credits)

GEOG 3992 Directed Study (1-10 Credits)

GEOG 3995 Independent Research (1-5 Credits)

GEOG 4000 Fundamental Geographic Perspectives (4 Credits)
A foundation course for persons in the community, without a degree in geography, who want to pursue an education in or make use of computer-based geographic technology but who need a foundation in geographic concepts and perspectives.
GEOG 4020 Geographic Research Methodology (4 Credits)
This class prepares students to undertake creative geographic research leading to the generation of new knowledge. Students produce a NSF proposal by the end of the class. In class, students focus on methods rather than philosophy. This does not mean students go through a laundry list of the many methods employed by geographers (they can do this on their own). Students, however, focus on the methods that are appropriate for their research questions and, at the same time, maintain a healthy awareness and respect for methods employed by geographers in other fields. The class does not focus on the philosophy of the discipline or a particular field. However, these concerns should be apparent in your proposals. Indeed, various philosophical frameworks guide research questions and how students choose to answer those questions.

GEOG 4030 Advanced Field Research (1-5 Credits)

GEOG 4040 Research Topic Identification (0-5 Credits)

GEOG 4100 Application/Design/ProductionI (4 Credits)
First of a two quarter sequence designed to be a culminating educational experience. Primarily lab-based with some lecture material, the various application requirements and guidance on how to go about accomplishing Application Design and Production tasks is provided. Prerequisites: GEOG 2000, GEOG 2100, GEOG 3100 or equivalent.

GEOG 4105 Application/Design/ProductionII (4 Credits)
This course places emphasis on programming and producing technical reports and/or papers that will be published in the Geography Department’s online applications library. Prerequisite: GEOG 4100.

GEOG 4110 Geospatial Data (4 Credits)
This graduate-level course is designed to provide graduate students from a broad range of disciplines with the skills to carry out applied research tasks and projects requiring the integration of geographic information system technologies and geospatial data. Students are introduced to a collection of techniques and data sources with a focus on acquiring and integrating data. Legal, ethical, and institutional problems related to data acquisition for geospatial information systems are also discussed.

GEOG 4400 Urban Landscapes (4 Credits)
Urbanization as a process; national urban systems; internal spatial structure of cities; role of transportation in urban development; location of residential, commercial and industrial activities; agglomeration economies; residential congregation and segregation; environmental justice; urban growth and growth coalitions; decentralization and urban sprawl; edge cities; impacts on the urban environment; world cities; globalization.

GEOG 4410 Economic Geography (4 Credits)
The study of the location and spatial organization of economic activities at the local, national, and global scales. Concerned with the spatial configuration of firms, networks, industries, and regions within the emerging global economy. Cross listed with INTS 4410.

GEOG 4460 Air Transportation & Tourism (4 Credits)
This course will be cross listed with GEOG 3460 Air Transportation & Tourism.

GEOG 4584 Geographic Information Systems for Humanitarian Assistance (4 Credits)
This class prepares students for future employment and enables them to bring more wisdom and expertise to the practice of their professions. Geographic Information Systems (GIS) technology is critical to support decision making throughout the process of response, assistance, and development – key stages in any humanitarian action. Much of the information practitioner’s encounter is spatial in nature and GIS provides a toolbox from which to better understand and utilize this type of information. This class introduces students to GIS technology functionality and information management, and examines GIS’ usefulness in humanitarian response. Today, GIS is an essential technology for emergent managers which support decision making on various levels during preparedness, mitigation, response and recovery. One of the main reasons for that is that much of the information is spatial by nature. Additionally, geospatial and geospatial-temporal analysis of data allows us to quickly access and display relevant information through the creation of maps and reports. This course introduces students to the theoretical principles of geographic information systems and examines its potential for humanitarian assistance through case studies and hands-on training with GIS software. Prerequisite: INTS 4056.

GEOG 4701 Topics in Geography (4 Credits)
Topics vary by instructor.

GEOG 4810 Geography of Latin America (4 Credits)
In this course, we examine how past and present cultural preferences and political economies effect changes in Latin American landscapes. Cross listed with GEOG 2810.

GEOG 4900 Graduate Colloquium in Geog (0 Credits)
Solid foundation in history and philosophy of the discipline of geography; basis for further exploration of major research specialization.

GEOG 4930 Nicaragua: Development Dilemmas (4 Credits)
This class takes students to post-revolutionary Nicaragua to examine the consequences of recent land grabs by foreigners and transnational companies. Students learn to operate in a country with minimal "western" infrastructure. They learn to examine developing landscapes (that is, resorts and tourism infrastructure) with new eyes and from the perspective of locals who have been left out of the development loop. By the end of the class, students begin to understand the "development game", begin to question the role of tourism in developing economies, begin to know how to interact with other cultures, and finally learn to question the landscapes we "see" and begin to peel back the layers to understand the social and physical evolution of the landscape before their eyes. This class takes an experiential approach and requires students to participate in a service learning experience. Service learning is defined as a course-based, credit bearing educational experience in which faculty, students, and community members participate in an organized service activity that addresses a self-identified community need. We work with several community-based and non-governmental organizations to ensure a good fit between community needs and student expertise.
GEOG 4950 Advanced Field Research (1-17 Credits)
GEOG 4991 Independent Study (1-5 Credits)
GEOG 4992 Directed Study (1-10 Credits)
GEOG 4993 Capstone or Project (1-4 Credits)
Includes technical design and development for MA geotechnical track project and MS-GIS capstone project.
GEOG 4994 Report (1-5 Credits)
GEOG 4995 Independent Research (1-5 Credits)
Includes field research for doctoral dissertation.
GEOG 4999 Geographic Internship (0-5 Credits)
Supervised internship in a government office at local, state or federal level or within private sector. Prerequisite: Permission of instructor.
GEOG 5991 Independent Study (1-5 Credits)
GEOG 5992 Directed Study (1-5 Credits)
GEOG 5995 Independent Research (1-10 Credits)

Geology (GEOL)

Courses
GEOL 3010 Process Geomorphology (4 Credits)
The land surface of Earth is continuously altered by geomorphic processes. This class focuses upon the nature of these processes, the work that they perform and the resulting landforms. In addition, the student becomes familiar with various methods of geomorphic analysis through the laboratory component of the class. Cross listed with GEOG 3910. Prerequisite: GEOL 1010, GEOG 1202 or permission of instructor.
GEOL 3100 Environmental Geology (4 Credits)
Environmental geology examines geologic hazards, both natural and those attributable to human impacts on the environment from urban and regional development. Specific topics may include disposal of municipal solid waste and radioactive waste; flood, earthquake, volcanic hazards; groundwater pollution and withdrawal; mass-wasting phenomena; and energy-related issues. Prerequisite: GEOL 1010, GEOG 1203 or instructor's permission.
GEOL 3200 Sedimentology/Stratigraphy (4 Credits)
This course reviews the origin, geologic history, and depositional environments of sediments and sedimentary rocks. Course work concentrates on the identification of sedimentary rocks and depositional environments by first-hand observations of rocks in the Denver area. Prerequisite: GEOL 1010, GEOG 1203 or instructor's permission.
GEOL 3300 Petroleum Geology (4 Credits)
This class examines the geological occurrences of petroleum including the origin, migration, and accumulation of oil and natural gas. This class differs from traditional petroleum geology classes by offering an examination of the economics and politics underlying the oil and gas industry, and by considering alternatives to traditional hydrocarbon resources. Prerequisite: GEOL 1010, GEOG 1203 or instructor's permission.
GEOL 3520 Erosion Process & Measurement (4 Credits)
Soil erosion is arguably the most serious environmental problem worldwide. This course focuses upon the significance of this problem, the factors affecting erosion rates, the nature of the processes themselves, methods of measurement, estimation of erosion rates and erosion control practices. Prerequisites: GEOG 1203, GEOG 1218, or GEOG 1266.
GEOL 3540 Hydrology (4 Credits)
This course provides an overview of the hydrologic cycle with emphasis placed on the study of applied hydrology. Discussions include the fundamental characteristics of precipitation, runoff processes, calculation of flood hazards, aquifers (porosity and permeability), the geologic settings of groundwater, the basic physics of groundwater flow, and water supply and use. Prerequisite: GEOL 1010, GEOG 1203 or instructor's permission. Recommended prerequisite: one introductory statistics course.
GEOL 3900 Geomorphology Seminar (1-5 Credits)
Hill slopes comprise the vast majority of the Earth’s land surface. It is upon these surfaces that nearly all of the human population must exist and, hopefully, flourish. Hill slopes assume various forms, and their shape influences their utility for various human endeavors. Numerous geomorphic processes operate upon hill slopes to determine their form, and human activities strongly influence the frequency and magnitude of these geomorphic processes. Consequently, hill slopes are an interface between the Earth and the human population. Prerequisite: GEOL 3010 or permission of instructor.
GEOL 3991 Independent Study (1-5 Credits)

Global Studies (GS)
Courses

GS 4010 Global Players, Structures, and Trends (4 Credits)
In this course, globalization is studied from historical and contemporary perspectives. Structures of community and organizations, governmental and nongovernmental, are examined and compared. Students study cases of global conflict and cooperation. Global issues are introduced, and students examine the role of the United States in the world across issues, borders, and cultures.

GS 4020 Cultural Positioning and Assessment (4 Credits)
In building a global perspective, it is essential to be able to position oneself culturally and interact with people from other cultural backgrounds. This course addresses the question of how to learn about different regions and cultures and how to assess the similarities and differences with one's own. Students learn about how to define culture. They develop skills to research countries, regions, and cultures through history, human geography, religion, and artistic traditions. They use the knowledge gleaned through research to build cross-cultural communication skills.

GS 4030 Issues in Working Internationally (4 Credits)
In a global marketplace, working internationally is very common. There are many legal, corporate, and cultural issues that individuals and corporations in the international workplace encounter on a regular basis. This course addresses legal issues – such as contracts and agreements, import/export regulations, intellectual property, and human resources – that affect how business is done across national and cultural lines. In addition, workers need to be able to assess the business and social cultures in another country in order to navigate the business climate and networking protocols.

GS 4100 Hunger, Food, and Health (4 Credits)
A growing world population, climate change, and scarce resources have many implications on hunger, food, and health. Floods and droughts, conflict and migration affect food supplies, which create hunger. Cultural norms and practices, famine, forced migration, and conflict contribute to health concerns. New strains of disease threaten global pandemics. Students in this course examine current issues of hunger, food, and health in a global context. Social, political, cultural, and economic aspects of these issues are analyzed. The role of governmental and non-governmental organizations and agencies in issues of hunger, food, and health are discussed. Students debate the causes and solutions of global hunger, food, and health issues, using case examples to support their arguments.

GS 4110 Sustainable Development (4 Credits)
Economic development, ecology and democracy are three dynamic, powerful and volatile forces in the world today. Players in the tension between them include nations, large corporations, and a groundswell of farmers, workers, and ordinary people. This course looks at the model of sustainable development as a way for countries to make long-term and ethical decisions about how to use resources: earth, water, air, energy, as well as the most important resource, people. Contrasts are drawn between Western economies and the emerging world attempting the leap from an agricultural paradigm to industrialization, while trying to avoid falling into the Malthus trap of overpopulation. Students develop an understanding of the complex, intertwined relationship between economic growth, environment and humanity.

GS 4120 Terrorism and War in the 21st Century (4 Credits)
In the 21st century, the word “terrorism” is a part of the common vernacular used with multiple, and at times vague, meanings. This course prepares students to understand and explain the contexts and impacts of terrorism through interdisciplinary exploration of terrorism theories. Students investigate how these theories apply to both real world situations and responses to terrorism and how these theories contribute to our understanding of 21st century concepts of war and terror.

GS 4130 Human Rights and the Role of Women (4 Credits)
The Universal Declaration of Human Rights was adopted by the UN General Assembly in 1948. With this international recognition of human rights is a responsibility to promote and protect those human rights. In this course, those rights and the organizations that promote and protect them are studied. The philosophical and theoretical bases for the concept of human rights is examined. In addition, students delve into women's human rights and perspectives, including feminist perspectives on international human rights and issues such as trafficking, refugees, economic and social rights. The role of women in promoting and defending universal human rights is highlighted.

GS 4200 Globalization and Human Geography (4 Credits)
This course examines human-environment relations under globalization from the lens of human geography. Core concepts of human geography such as scale, place, and identity are used to examine current globalization trends, debates, and implications on human settlements and activities. Students examine the interconnection of economics, politics, migration, culture, trade, settlement patterns and development at different scales through the lens of geography. The course ends with an analysis of current resistance responses and alternatives for the future.

GS 4210 World Religious Traditions (4 Credits)
This course examines the religions of the world and their roles in defining cultures and societies. Major world religions are examined and discussed in this course, including their varied beliefs, rituals, and institutions. Comparisons and distinctions are drawn between the various Western and non-Western traditions. In addition to major religions, smaller religious movements and distinct religions from around the world are also discussed.

GS 4220 Competition and Conflict (4 Credits)
In this course, students study philosophies, cultures, and events of competition and conflict across the globe and throughout history. Theories of the dialectic, competition, and struggle for advancement are analyzed. Social and belief systems of nationalism, capitalism, and survival of the fittest are among those that create boundaries and encourage competition and, at times, conflict. Students delve into and analyze various conflicts and cultures throughout history marked by ideals of competition, individualism, and power.
GS 4230 Community and Cooperation (4 Credits)
In this course, students examine world cultures, ideas, and events across history through a lens of community and cooperation. Philosophies of community, social cooperation, and unity for societal progress are analyzed. The philosophies of socialism and communism, their various modes of implementation, and their success are assessed. International organizations that foster cooperation and community, such as the United Nations and the European Union are investigated. Social movements for change that create communities across borders are analyzed and discussed.

GS 4300 Foundations of Translation: The Role of the Professional Translator (4 Credits)
This course examines fundamental translation ideas and theories through assigned readings, lectures, and class discussions. It explores the links between linguistic and cultural factors and their relevance to translation. The course covers the different aspects of translation, surveys translation tools and reference materials, discusses professional roles of translators, analyzes the public perception of the profession, and examines standard business practices and professional codes of ethics. It also introduces the actual practice of translation through realistic exercises.

GS 4301 Written & Sight Translation for Translators & Interpreters (4 Credits)
This is an introductory course for translators and interpreters covering a variety of registers: commercial, journalistic, legal, literary, medical, and technical. Students learn to apply text analysis, text typology, and contrastive analysis of their working languages to identify, analyze, and resolve translation/interpretation problems while independently developing an efficient and rational approach to the process of translation or interpretation. In addition, course assignments include practice and graded exercises in translation and sight translation, utilizing authentic texts drawn from an extensive variety of text categories that include, but are not limited to, current events, general political economy, general legal documents, and scientific and technical topics for general audiences. Language-specific.

GS 4302 Computer Aided Translation (CAT): An Introduction to Software for Translators (4 Credits)
This course provides an introduction to various types of Computer-Assisted Translation (CAT) tools, including translation memory software and translation QA tools. Translation theory or field-specific terminology are not covered. Students become familiar with the concept of translation memory, learn to use the main features (create, import, export, analyze, clean up) of some of the applications available, and use translation memory in the translation process as necessary to create a translation project workflow from start to end. Students also learn to use translation QA tools to revise and perfect translations drafted using translation memory tools. This course may be taken concurrently with GS 4300: Foundations of Translation.

GS 4303 Language Services Practicum (4 Credits)
The Practicum helps students develop and establish an identity as professionals because it builds a practical knowledge of translation or interpretation as a profession. Its goal is to empower students to identify and pursue professional development opportunities and specializations. Students are expected to apply the knowledge, skills, and attitudes cultivated in the translation and interpretation curriculum by apprenticing under qualified translators or interpreters, language agencies, law firms, government agencies (e.g., school districts, the IRS, police departments, social services agencies), and/or healthcare and community-based organizations in a variety of general work situations. Interns shadow their mentors and then move into actual translation or interpretation assignments in monitored situations. Initiation into the language industry through interaction with members of the profession, professional organizations, and institutions is encouraged. Students must prepare a final project based on their practicum experience, following the University College Internship Handbook. The practicum should be taken as one of the last two Translation Studies classes.

GS 4304 Introduction to Legal Translation (4 Credits)
Because a legal document bears legal liabilities, the translation of a legal document has the same legal effect as the original. As a result, the requirements for accuracy in legal translation (meaning, tone, and style) are quite high. This course provides an overview of the nature of legal translation and an introduction to the principles of comparative law, such as how to research legal issues in the countries of the language pair. The concepts of equivalence and zero equivalence are analyzed. Participants translate different types of agreements; certificates; and affidavits, as well as a wide array of documents focusing on probate, family, poverty, and criminal law. Students are given assignments on the research approach, steps, and skills needed to tackle a legal translation project from start to finish. Fundamental legal translation theory is emphasized at the beginning of the course and conveyed in the form of assigned readings, lectures, class discussions, and independent research. Language specific. Prerequisites: GS 4301 and admission to the Master of Liberal Studies in Global Affairs with a Translation Studies specialty of the Certificate of Advanced Study in Translation Studies.

GS 4305 Localization and Translation of Software and Web Pages (4 Credits)
This course provides students with a general overview of the field of web page translation and an introduction to software localization. Class topics range from technical discussions on computer architecture to tips for managing localization projects. Students gain a thorough understanding of the basic components of a localization project (web, software, online help, and documentation) and insight into the larger context of software/web localization and internationalization processes. Using real-life examples and hands-on exercises, students explore the cultural, technical, and organizational challenges in the adaptation of culturally sensitive elements. Language generic. Prerequisites: GS 4301 and admission to the Master of Liberal Studies in Global Affairs with a Translation Studies specialty of the Certificate of Advanced Study in Translation Studies.

GS 4306 Translation of Medical Texts for the Health Care Industry (4 Credits)
This course covers medical terminology involving patient education, medical research, drug development, the human body and systems, major diseases, as well as the most common injuries. Students translate documents used in general medical practice and are introduced to the common roots, prefixes and suffixes in medical terminology. Translation skills are reinforced by analyzing different levels of difficulty in medical texts, by translating, and by addressing requests for editing and rewriting translated materials for patient populations and audiences of different education levels. Students practice translating medical office correspondence, informational brochures, patient letters, discharge information, hospital intake questionnaires, living wills, patient outreach/educational materials, instructions for taking medications, laboratory tests, and medical disability reports, among others. Language-specific. Prerequisites: GS 4301.
**GS 4307 Translation Project Management (4 Credits)**

This course gives students the opportunity to address both translation and non-translation related issues associated with planning, executing, controlling, and delivering a final translation for a client (either direct or as an agency). Particular focus is given to hands-on practice of the various communications between the parties. The course outlines an effective project management methodology that can be applied to large or small translation/localization projects. Language generic. Prerequisites: GS 4301 and admission to the Master of Liberal Studies in Global Affairs with a Translation Studies specialty of the Certificate of Advanced Study in Translation Studies.

**GS 4308 Introduction to Terminology for Translators & Interpreters (4 Credits)**

Terminology is a fundamental part of both translation and interpretation, and knowing how to create and use terminology is a skill necessary both to translators and interpreters. This course will introduce what terminology is, how a termbase differs from a simple glossary or from a dictionary, and how terminology differs from allied fields such as lexicography. It will further introduce some tools used by translators, interpreters and terminologists in their work. Language generic.

**GS 4310 Foundations of Interpretation (4 Credits)**

This course examines the profession of interpreting, including employment opportunities, the role of the interpreter, administrative matters, and ethical considerations. In addition, an overview will be given of the three modes of interpretation (sight, consecutive, and simultaneous), as well as the different areas of interpretation, such as legal, medical, business, community, and conference interpretation.

**GS 4311 The Language Services Business for Translators & Interpreters (4 Credits)**

Translation and interpretation are professions that typically require their practitioners to set up businesses on their own. This course addresses the key issues involved in being an independent contractor in the language industry, including how to acquire clients, how to price professional language services, how to estimate different types of service, and how to manage different client relationships, from government entities to private individuals. The course also analyzes the differences between working directly for clients and working with translation agencies or as a staff translator or interpreter, where it is crucial to know how to work on a team with other language professionals and content experts. The course also covers basic standard business practices in the language industry and business codes of ethics.

**GS 4312 Research for Translation & Interpretation (4 Credits)**

Not so long ago, the only way for translators to conduct research for their assignments was to consult the reference works they happened to own, or if they lived near a good library, go to the library and hope what they needed was available there. The Internet changed all that, revolutionizing the translation and interpretation professions. Now translators and interpreters have at their disposal a seemingly bottomless well of information. At the same time, the research skills needed for translation and interpretation also have changed. This course teaches students how to conduct research using a variety of online tools, how to distinguish between reliable and unreliable sources of information, how to take advantage of the research tools made available by libraries, and in particular how to leverage the various types of resources offered by different types of libraries. Language-generic.

**GS 4313 Translation for the Publishing Industry (4 Credits)**

Most professional translators work outside the publishing industry: they work as freelancers or staff translators in business, technical, medical, legal translation—or in some other translation specialization. But when people outside our industry think of translators, it is likely they think of book translators, i.e., translators who work for the publishing industry. Working as a translator for the publishing industry may be rewarding, but in many respects it is different from the kind of work most translators are accustomed to. This course will explore such themes as the difference between working on book-length projects and shorter projects, and the difference between translations performed as "work done for hire" and copyrighted translations. It will look at publishing contracts, and at the difference between translating non-fiction and fiction works. It will also survey the most prominent theories of translation, past and present, to see how they apply to the translation of literature. Language-specific.

**GS 4314 Translation & Interpretation for Law Enforcement (4 Credits)**

This course explores the scope and nature of translating and interpreting in a law enforcement context, including the kinds of documents a translator is likely to encounter and how an interpreter interacts with both law enforcement professionals and members of the public who lack fluency in English. Language-specific.

**GS 4315 Interpreting for Health Care (4 Credits)**

This course explores the general body of knowledge that serves as the context for the health care interpreting profession and covers the special skills and abilities health care interpreters must demonstrate. It addresses the health care interpreter code of ethics, essential health care terminology, and the different modes of interpreting used in health care settings. The course also covers how to interact effectively with other health care professionals and how to serve as an effective cultural broker between U.S. health care providers and patients with limited English proficiency.

**GS 4701 Topics in Global Affairs (4 Credits)**

The content of this course varies each time it is offered. Specific course content is detailed on quarterly schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

**GS 4901 Capstone Project (4 Credits)**

The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of a B- or better is required to pass.
GS 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produce a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

GS 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

GS 4905 Graduate Social Research Methods (4 Credits)
Graduate Social Research Methods is an exploration of the methods and purposes of social science research from the perspective of the researcher as well as that of the informed professional and consumer of information. Students will learn about the process of research, including the development of research questions, the purpose of various social science research methods, the role of professional ethics, and general approaches to the analysis and interpretation of data. Students will develop the ability to read and critique basic social science research articles and to implement simple research designs. Students will develop and write a research proposal around a specific research question informed by a review of the literature. Technical requirements include the ability to read and modify Microsoft Excel documents. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

GS 4980 Internship (4 Credits)
The internship is designed to offer students a purposeful experience in a practical, industry related setting. The internship is an individualized learning experience and a training plan is created for each student in conjunction with the internship site to provide experiences related to the skills and knowledge covered in the certificate and master’s programs.

GS 4991 Independent Study (1-5 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a credit basis and only for degree candidates.

GS 4992 Directed Study (1-5 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Healthcare Leadership (HC)

Courses
HC 4000 Healthcare Systems and Regulatory Environments (4 Credits)
This course opens with a comprehensive overview of the functions of various types of healthcare organizations: providers, insurance companies, government agencies, and professional associations. Alternative payment and provider models are reviewed, regulatory bodies and issues are explored, and healthcare reform efforts and proposals are discussed. Supply and demand projections for personnel are examined. The work of key federal agencies (NIH, National Center for Disease Control, and Food and Drug Administration) is reviewed as well as the activity of national and international non-governmental organizations. Major national and global public health challenges are introduced.

HC 4005 Healthcare Macroeconomics (4 Credits)
This course focuses on macro analysis of the current financial state of healthcare in the United States. The interrelationships of value, quality, and price are analyzed. The importance of transparency of quality and its effect on value is articulated. Compensation and payer models are compared including the role of employer benefits, private health insurance plans, Medicare and Medicaid, and various mechanisms used to cover the costs of prescription drugs. Current issues, such as pay for performance, cost saving through prevention, cost shifting, and healthcare for the aging, are discussed.
HC 4010 Healthcare Communication and Leadership (4 Credits)
This course focuses on the welfare of patient, family, and community in the context of medical team communication and leadership. Models for communicating highly technical medical information with patients and others involved in their care are examined. Students weigh and assess differences in personal and organizational cultures to optimize patient-centered outcomes. Students acquire a sound body of knowledge and terminology to facilitate communication and leadership across a multitude of disciplines essential in the delivery of healthcare. NOTE: This course is strongly recommended within the first 3 terms of study.

HC 4100 Management Principles in Healthcare Systems (4 Credits)
Healthcare systems are dynamic and require constant attention to maintain relevance and competency. In this course students encounter and explore the strategic management functions required to lead and administer various types of healthcare systems. Techniques are explored for analyzing a system and moving it forward from where it is to where it needs to be.

HC 4110 Healthcare Innovative Strategies and Change Management (4 Credits)
Strategic planning for maximum use of financial resources is critical to success within a healthcare system. The starting point includes understanding all of the basic components of a strategic plan: mission, vision, strategy and tactics. A strategic plan answers the question: Why are we here? Where are we going? How will we get there? What resources do we need? Creative and innovative thinking when considering allocation and management of resources is explored. Students learn the conceptual language and systems of strategic planning and decision making. They learn the application of these principles to provide successful change management within an organization.

HC 4130 Organizational Behavior in Healthcare (4 Credits)
Patient satisfaction, an element of healthcare management, is often a result of how well the entire healthcare system functions. Students examine successful examples of cooperation, compatibility, and dedication within the workplace and explore what contributes to a harmonious and effective healthcare environment. Interpersonal skills are discussed, as well as ethical guidelines and laws that define acceptable workplace behavior.

HC 4200 Comparative Healthcare Systems (4 Credits)
This course describes variations in healthcare delivery systems locally, nationally, and globally as they relate to policy, structure, and finance. Comparisons of systems are made relative to expenditure of resources and outcomes. Students learn about healthcare coverage, access to care, healthcare rationing, provider manpower distribution, and seeking healthcare in foreign countries (medical tourism). The discrepancy between the desirable and the practical is explored, and students are asked to outline and defend a system that they believe is both desirable and practical.

HC 4210 Quality Improvement for HC Leaders (4 Credits)
This course is designed to review the body of knowledge and core competencies needed to function at the level of Certified Professional in Healthcare Quality (CPHQ) in a healthcare organization. Skills gained are applicable to managers and administrators of hospitals, practices, and clinics. Course content is beneficial to clinicians and others interested in quality and patient safety. This course facilitates the successful pursuit of the CPHQ certification exam. Core competencies, aligned with the CPHQ certification exam, to be explored in detail include: Leadership and Management; Quality and Performance Improvement; Healthcare Safety; Information Management and Regulation, Accreditation and Continuous Readiness. Students are strongly encouraged to complete HC4000 and HC4220 prior to registering for the course.

HC 4220 Ethical Considerations in Healthcare (4 Credits)
This course explores ethical considerations encountered throughout the United States’ healthcare industry as well as within the broader global environment. Both clinical and non-clinical scenarios will be examined. Students will learn to apply ethical principles, theories, and concepts to analyze and draw conclusions for a broad range of ethical dilemmas. Through readings, class discussions, and assignments, students will recognize how ethical considerations vary depending on the perspective of the stakeholder or assessor, a critical step in making ethical decisions with no single right answer.

HC 4225 Healthcare Public Policy and the Legislative Process (4 Credits)
This class provides students with an understanding of the political and legislative procedures that lead to healthcare policy change and reform. Students examine the influences and functions of government agencies, legislative processes and procedures and executive branch rule-making. Students objectively evaluate how policy changes occur at the federal and state levels and subsequently affect the functioning as a citizen and a professional. Class lecture focuses on the legislative path of federal law and then follows it through to the outcomes at the state level. Students explore the importance of developing relationships, communication and advocacy strategies with elected officials and various stakeholder groups that interact with the federal and state legislative processes.

HC 4230 Implementation and Evaluation of Healthcare Public Policy (4 Credits)
This course examines strategies for implementation and evaluation of healthcare public policy. Students develop skills in analyzing issues, considering and weighing pros and cons of proposed policy, and in defending strategies for bringing about change. Beginning with the passage of a new law, policy, or regulation, students track the process to implement and evaluate new policy. Topics related to implementation of a new policy include funding the implementation, effect on constituents and the overall national economy, sustainability, and short and long term evaluation of the policy. At the conclusion of this course, students will prepare an implementation plan for selected recently passed state legislation. Students are strongly encouraged to complete both HC4000 and HC4225 prior to registering for this course.
HC 4301 Fundamentals of Healthcare Information Systems (4 Credits)
Healthcare information technology (HIT) systems can improve cost and efficiency when systems are properly evaluated and implemented. Good IT systems are also increasingly being associated with better patient outcomes. However, healthcare has lagged behind other industries in adoption of IT systems. A major challenge to healthcare professionals is understanding the major underlying technical concepts involved in the jargon-filled world of healthcare information systems. This foundational course provides a working knowledge of key HIT definitions and concepts. It is not designed to turn students into network administrators or software developers; rather, it is to equip the student to become an active and valuable participant — or even a team leader — in the evaluation, selection, implementation and ongoing operation of healthcare information systems. Note: This course is a pre-requisite for HC 4325 except with approval by the academic director.

HC 4310 Electronic Health Records Systems (4 Credits)
Electronic health records systems - electronic medical records (EMRs), electronic health records (EHRs), and personal health records (PHRs) are all the buzz these days, yet for the past 30 years the healthcare sector has clung to paper records, manila file folders and clipboards. Technology vendors have been claiming for years that their systems are mature enough to be successfully used, yet many providers say they will retire or sell their practice before they will adopt EMR/EHR technology. Other providers, who have made the leap of faith and have implemented EMR/EHR technology, say they would never go back to paper records. Against this backdrop, this course explores in great detail the technical and controversial aspects of healthcare information technology in general and the specific factors involving evaluation and adoption of EMR systems. We explore the fundamental components of modern electronic records systems, and review their impact on both business and clinical functions, discussing barriers to adoption and how to overcome them. A class exercise is utilized to evaluate one or two EMR systems, and role-play actual evaluation in a clinic environment. Key areas of interoperability, interfaces and standards are introduced. The course is practical and thought-provoking as it emphasizes critical thinking and the synthesis of ideas from multiple sources and perspectives. Participants are challenged to develop their own viewpoints and opinions, substantiated by the published work of those who are thought leaders in the field of HIT, as well as the participants' own experiences.

HC 4315 Telehealth (4 Credits)
Access to proper medical facilities presents a gap in quality healthcare, particularly for certain populations and specialties. The advantages and challenges of telehealth services to address these issues are presented. Special focus is placed on how communication, innovative technology, safety, and efficiency are addressed through telehealth as access and distance become less of a barrier. Regulatory, legislative, and political considerations regarding telehealth implementation are discussed. Students evaluate business and technology infrastructure models required to support telehealth services. Students compare stories of patient reaction to telehealth as a primary or secondary means of access to care.

HC 4325 Healthcare Information Technology Applications (4 Credits)
This course covers the major healthcare information technologies and topics other than the electronic health records systems. There is a large focus in healthcare technology on electronic records systems. However, there are many other important systems that form the complete framework of modern connected healthcare. This course includes electronic practice management (EPM/PMS) systems, scheduling, billing, diagnostics/labs, reporting, payment interfaces and business intelligence in healthcare. Prerequisite: HC 4301, or approval by the academic director.

HC 4335 Information Systems Security in Healthcare (4 Credits)
This course will introduce students to information security risks facing the healthcare industry. Students will learn how to better protect healthcare organizations and their patients’ data. Students will learn about recent security breaches, the impact of those breaches on healthcare organizations, and all of the key players involved. This course also covers the evolution of healthcare IT and the continuously evolving risk and regulatory landscape. Students will explore the regulations of HIPAA and how they relate to day-to-day operations in healthcare organizations. Additionally, this course will prepare students to support information security initiatives in order to protect the organization while furthering the advancement of healthcare IT capabilities. This is not a technical course, however we will be learning about how security is impacted by technology and what we must do across technology in order to secure our healthcare systems, our organizations, and our patients.

HC 4400 Legal Issues: Healthcare Providers and Facilities (4 Credits)
This course is a primer on the legal and compliance considerations associated with operation and administration of healthcare provider groups and facilities. Topics include the Stark and anti-kickback laws, contract law, licensure and credentialing, professional liability, staff management and professional review, HIPAA and patient privacy, safety, highlights of the Patient Protection and Affordable Care Act of 2010 (PPACA), and civil rights and non-discrimination in the private and public sector.

HC 4410 Legal Issues: Healthcare Research, Development and Entrepreneurship (4 Credits)
This course describes legal issues which impact medical research, development of pharmaceutical agents and medical devices, food safety regulation and principles of healthcare entrepreneurism and biotechnology. Topics include institutional review board, data management and security, grants, loans and capital investment as funding sources, and intellectual property.

HC 4420 Legal Issues: Healthcare Delivery and Payment Systems (4 Credits)
This course provides an understanding of the legal complexities of creating and managing delivery and payment models for healthcare services. Course content revolves around the current challenges of evolving from volume based to value based reimbursement principles. Topics include fraud and abuse and compliance systems, legal foundations of private vs. public payment systems, disparities in access and reimbursement, health information exchanges and health insurance exchanges, and review or current healthcare reform efforts in reimbursement procedures.

HC 4500 Operational Challenges in Global Health Management (4 Credits)
This course presents challenges in operations that are unique to healthcare services and products being delivered in the international market. Topics include international marketing of services and healthcare products, negotiation styles, ethical considerations, organizational structure, transporting of medical goods and personnel, individual travel health and medical tourism as a business model. Cultural and religious considerations in healthcare delivery are discussed. Grants and research management for global health are compared with domestic procedures.
HC 4504 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The seminar is dependent upon quality, collegial discussion, and feedback of students' research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of a B- or better is required to pass.

HC 4510 Legal and Employment Issues in Global Health Management (4 Credits)
This course presents legal considerations involved in conducting global programs and business related to healthcare services and products. Employment and labor law are discussed in relationship to employment across international lines and within foreign countries. Intellectual property, patent and copyright of healthcare products, curriculum, and programs are examined. Customs laws, foreign trade, and other regulations such as healthcare licensing and credentialing of personnel are developed. Human resource challenges such as remote team management are discussed.

HC 4520 Global Health NGO Management (4 Credits)
Students will examine factors that impact organizational performance in the global nonprofit health sector. Students expose current challenges associated with Non-Government Organizations (NGOs) that operate in low-income and middle-income countries. Examples include Doctors Without Borders, Shoulder to Shoulder, and others. Students are empowered to research and compare different NGOs and analyze factors that impact organizational effectiveness. Key challenges facing NGO leaders are analyzed and students provide recommendations to improve organizational performance. Course topics include assessment of NGO strategies, organizational resources and financing, and stakeholder relations. Other topics include analysis of countries’ demographics, culture, healthcare delivery, policies, and external environment. It is recommended that students in the Global Health Program Management concentration or certificate complete HC4500 and HC4510 prior to registering for this course. Students in other concentrations or programs may take this course at any time as an elective.

HC 4530 Regulatory Compliance in Global Health Management (4 Credits)
This course discusses the various regulatory requirements of conducting healthcare related business from the perspective of research, development, and marketing of medical devices and pharmaceuticals. Both domestic and international requirements will be examined. Students will develop a template of skills for investigating healthcare related compliance issues that can be adapted to specific markets as needed.

HC 4701 Topics in Healthcare Leadership (1-10 Credits)
This is an advanced special topics seminar course. The focus is on specialized areas of interest. Topics courses may be used as electives within the Healthcare Leadership degree and certificates, and, with advance approval from Academic Director, may substitute for core courses in the degree or certificate programs.

HC 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of a B- or better is required to pass.

HC 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produce a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

HC 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.
HC 4910 Research Practices and Applications (4 Credits)
This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through comparing and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master’s degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

HC 4980 Internship (1-10 Credits)
The Healthcare Internship is designed to offer students a purposeful experience in a practical, industry related setting. The internship is an individualized learning experience. A training plan is created for each student in conjunction with the internship site supervisor to provide experiences related to the skills and knowledge covered in the certificate and master’s programs as well as professional goals. Students are responsible for finding their own internship site and proposing their internship ideas. University College will send notification to all Healthcare students if they hear of internship possibilities. Students may also work through the DJ career center, to explore opportunities for internship experiences.

HC 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a for-credit basis.

HC 4992 Directed Study (1-8 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Directed Study form and filed the form with all appropriate offices before registering for the directed study. Directed Study is offered only on a for-credit basis.

Higher Education (HED)

Courses
HED 3263 Sports and Higher Education (4 Credits)
This course provides an overview of the general history of college and university sports, athletics, intramurals, intramurals, and wellness programs as a broad introduction to this area; additional emphases center on issues related to intercollegiate sports e.g., athletic department positions, student-athlete support systems, ethical considerations, legal issues, politics and policies pertaining to institutional and NCAA norms/regulations, and current and future issues in collegiate athletics. Prerequisite: must be junior- or senior-level student.

HED 3264 Psychosocial Dimensions of Sports and Wellness (4 Credits)
Cross listed with HED 4264.

HED 3991 Independent Study (1-10 Credits)

HED 3992 Directed Study (1-10 Credits)

HED 4210 Critical Higher Education (4 Credits)
This course examines the social and political context of U.S. education and provides an analysis of schooling, cultural politics, and global influences that inform current practices and structures of the higher education system. Central to this course is the development of a critical understanding of topics related to meritocracy, stratification, diversity, and decentralization in higher education. Prerequisite: Ph.D. student in higher education or permission of instructor.

HED 4211 Current Issues in Higher Ed (4 Credits)
A study of contemporary higher education as a specialized field of inquiry and as a professional area in which to work. Explores institutional missions as well as entities such as administration, faculty, curriculum, and student, in relationship to current issues.

HED 4212 Introduction to Public Policy and Higher Education (4 Credits)
This is an introductory course that gives students an overview of federal and state public policy, current issues, research methods, and practical skills required for the policy formation process. This is the introductory seminar to the Public Policy, Leadership and Organizational Change emphasis area for the master’s program.

HED 4213 Leadership and Supervision (3 Credits)
General leadership theory and its implications for higher education; specific focus on leadership skills, such as conflict resolution, problem solving, use of teams and change advocacy.

HED 4214 History American Higher Ed (3 Credits)
Development of North American higher education from colonial times to the present, focusing on important educators and institutions. Primarily for doctoral students.
HED 4215 Curriculum Dev in Higher Ed (3 Credits)
The purpose of this course is to provide students with the knowledge and understanding of curriculum design, development, and change in higher education.

HED 4216 HED Research Processes (1-5 Credits)
Enables students to explore current research and theories associated with their scholarly interests and resources for doing research, and to address problems in conducting original inquiry and investigations in postsecondary education. Attention is directed to the investigation of a research problem of each student’s interest. Prerequisite: Successful completion of 10 credit hours of research courses or permission of instructor.

HED 4217 Student Affairs Administration (4 Credits)
A review of student services, emphasis on programmatic content and relationship to student development; organization of student service programs and national trends. To further describe the historical development of student affairs work including significant persons and activities and to begin the development of students’ own professional identities as a reflective practitioner and to understand the responsibilities for integrating assistantships/ internships/work experiences to theory and new knowledge.

HED 4219 Introduction to Higher Education (4 Credits)
This course is designed to provide students an overview of higher education as a field of study and practice. The topics covered attempt to equip students with working knowledge of the structures, functions, challenges, concerns, and opportunities within higher education as a social institution. Grounded in values and principles of inclusive excellence, the course take equity and diversity as departure points from which any and all productive understandings of higher education must engage.

HED 4220 Org & Governance of Higher Ed (4 Credits)
Study of theoretical perspectives and empirical research drawn from the social sciences related to higher education organizations and governance with an emphasis on application of theory and practice.

HED 4221 Financing Higher Education (4 Credits)
Financing public and private institutions of higher learning; sources of income, budgeting procedures, funding and control, use of simulated exercises to illustrate principles. Recommended prerequisites: HED 4210, HED 4211 and HED 4214.

HED 4222 Legal Issues in Higher Education (4 Credits)
Review of a broad range of administrative problems with legal dimensions; process for analyzing case law on issues of access, student rights, employment, collective bargaining, church-state relations, private sector and liability. Students gain practical experience (praxis) in analyzing and applying legal concepts to higher education subjects.

HED 4223 Inst Research & Enroll Mgmt (3 Credits)
Explores the important area of institutional research (IR) in a postsecondary setting. Issues relating to how an IR office functions and typical responsibilities of the professionals who staff these offices will be explored. Enrollment management concepts and themes will be highlighted along with data collection and reporting aspects of the college admissions and retention processes. Recommended prerequisites: HED 4213, HED 4217 and HED 4260 for master's students; HED 4213, HED 4220 for doctoral students.

HED 4226 The Community College (3 Credits)
General issues related to community college, such as history, mission, characteristics, students, curricula, teaching and student services.

HED 4229 Student Support in College (4 Credits)
This class will introduce students to basic interpersonal helping skills required in Higher Education settings, including relationship building, listening, giving feedback, problem-solving, and resolving conflicts. Students will become familiar with crisis intervention models and techniques; signs and symptoms of distress and mental illness; strategies for making appropriate referrals to mental health providers; and considerations about self and other when engaged in helping relationships, particularly those with cultural differences. Central to the course will be discussion of the appropriate role Higher Education professionals have in helping students while recognizing their limitations.

HED 4230 Inclusive Excellence in Capstone (1-6 Credits)
The purpose of this course is to promote the integration of the core curriculum with practitioner related experiences in the masters program. Advanced students have an opportunity to use concepts and theories learned in previously complete coursework to understand and analyze current issues facing student affairs. The course is also designed to assist students by facilitating the transition in to professional positions in higher education.

HED 4232 Research Methods in Higher Education I (1-3 Credits)
Introductory research methods course for higher education professionals.

HED 4233 Research Methods in Higher Education II (1-4 Credits)
Introductory research methods course for higher education professionals, part II.

HED 4242 Educational Policy Analysis (3 Credits)
Educational Policy Analysis offers various methods to research public policy enactments by analysis of specific federal and state policies or judiciary decisions. This course explores the nature of policy analysis within American Higher Education while simultaneously learning about educational policy analysis and conducting an analysis on key postsecondary issues. We review the history and the approaches, methods, and tools required to conduct educational policy analysis. The central focus of the course includes: the important of an initial policy statement; what roles environmental analysis as well as boundaries and constraints considerations play, and how one analyzes policy options, reflections on their implementation strategies, and make recommendations.
HED 4246 Issues of Access & Opportunity (4 Credits)
This course addresses theories and research on a variety of issues related to college preparation, school structures, and inequalities in college access. The course will cover different levels of analyses: theoretical, individual levels (i.e., race, ethnicity, and social class), organizational levels (family, geography, high school context, and outreach), and field levels (i.e., policy, testing, rankings, media, and policy). Special attention will be paid to the sociocultural context influencing issues of college access and opportunity for students.

HED 4247 Retention, Persistence, and Student Success in Postsecondary Settings (4 Credits)
This course introduces students to relevant research, theory, and practice related to college student retention and persistence. Students explore cultural, institutional, and individual factors that may impact college student persistence and critically examine theories attempting to explain why students leave college. In addition, students also closely explore the dynamics of oppression at the individual, institutional, and socio-cultural levels and the resulting impact on student retention. Effective retention practices, programs, and assessment procedures are also identified and examined.

HED 4260 Students and College Environments (4 Credits)
This course will serve as an introduction to college environments and the complexity of campus culture. The purpose of this course is to familiarize you with today's higher education settings and provide you with strategies to maximize learning and development, for all students. In line with inclusive excellence, attention will be paid to the impact of campus environments on diverse student populations. Theoretical concepts will help explain, describe, and examine the college environments as a system and its impact on students, faculty, and staff.

HED 4261 College Student Development Theory (4 Credits)
An overview of human development theories relevant to college students, of traditional and non-traditional ages. This application will enhance the ability of student affairs professionals as they work to maximize the affective and cognitive development of students within the college setting.

HED 4264 Psychosocial Dimens of Sport (3 Credits)
Psychology and sociology of sports as related to college and university athletics and wellness. Cross listed with HED 3264.

HED 4270 Student Affairs Internship (1-6 Credits)
HED 4281 Inclusive Excellence Programming and Development (4 Credits)
IE in Programming and Development will provide an overview related to the development and implementation of cultural programming and cultural centers over time. This course will pay specific attention to the role of student activism in creating change on college campuses in the form of cultural programming, centers, diversity curriculum, and inclusive excellence initiatives. The course will also address the challenges and competencies associated with inclusive excellent programming and development.

HED 4282 Characteristics of College Students (3 Credits)
Characteristics to consider in working with adult learners, including aptitude, motivation, cognitive development, psycho-social development, intelligence, learning styles, gender, ethnicity, and social class; practice in analyzing learning characteristics of a specific individual.

HED 4284 Inclusive Excellence in Organizations (4 Credits)
In recent years, major demographic and economic changes in this country and worldwide have contributed to the diversification of the workplace. As a result, the need for understanding how to enhance cultural diversity in organizations has taken on a greater importance. Accordingly, framed through the concept of Inclusive Excellence, this course focuses on the changing demographics of our society, especially related to race and culture, gender, age, physical ability, sexual orientation, and socio-economic status, emphasizing the implications these factors have for leadership and management in a variety of organizational settings.

HED 4287 Critical Race Theory and Education (3 Credits)
The purpose of this course is to provide students with an in-depth exposure to Critical Race Theory (CRT) as it pertains to education. Critical Race Theory is an analytical framework that provides race-based epistemological, methodological, and pedagogical approaches to the study of everyday inequalities in P-20 education.

HED 4288 Gender & Sexual Orientation in Education (4 Credits)
The purpose of this class is to explore the implications of sexual orientation or gender inequality for P-20 education. Feminist theory and queer serve as the foundational theoretical frameworks for this class. Through these theoretical lenses, the course examines the complex ways gender and sexual orientation are related to identity development, curriculum, academic policies, and school climate.

HED 4289 Race & Racism in Higher Education (4 Credits)
This course explores connections between race, racialization, and racism in American higher education. It draws on historical, political, economic, and cultural explanations of racial inequity in educational outcomes and processes. The course uses institutional and systemic levels of analysis to examine racial equity in higher education.

HED 4290 Inclusive Excellence in Praxis (1-6 Credits)
This course assesses and helps students develop critical self-reflection, leadership, and communication skills. Career plans are developed based on personal, academic, and professional goals. An emphasis is placed on applying theories discussed within the classroom to their respective professional roles on campus. Introductory course for all first-year master's students. This course combines the professional development seminar and practicum.

HED 4291 Doctoral Professional Development Seminar (1-3 Credits)
This course is designed to introduce the first year doctoral students to the field and discipline of Higher Education and to prepare doctoral students for their academic study.
HED 4294 Seminar in Higher Education (1-4 Credits)
Advanced seminar to examine timely topics, issues, and problems. The course description is developed each time the course is offered to describe the topics to be investigated.

HED 4295 Internship in College and University Administration (1-6 Credits)
Supervised experience in administration at college or university level. Prerequisites: EDUC 4210, EDUC 4211, EDUC 4220.

HED 4296 Internship in Public Policy (1-6 Credits)
Supervised experience in postsecondary public policy analysis or research, usually at a state or national compact or agency in the Denver-Boulder area. Recommended prerequisites: HED 4210, HED 4211, HED 4212, HED 4221, HED 4242, HED 4243.

HED 4297 Internship in College Teaching (1-6 Credits)
Supervised experience in teaching at college level. Prerequisites: HED 4210, HED 4211, HED 4280 at the doctoral level; HED 4217, HED 4261, HED 4280 at the master’s level.

HED 4991 MA Independent Study (1-10 Credits)
HED 4992 Directed Study (1-10 Credits)

HED 4995 Research - M.A. Thesis (1-10 Credits)

HED 5991 PhD Independent Study (1-10 Credits)
HED 5992 Directed Study (1-10 Credits)

HED 5993 Doctoral Research - EdD (1-20 Credits)
Doctoral research credits for doctoral research project toward the EdD. Prerequisite: Must be an EdD student in HED; must have completed at least 80% of coursework; cannot complete more than five credit hours of HED 5993 prior to passing the comprehensive exam.

HED 5995 Dissertation Research (1-20 Credits)

History (HIST)

Courses

HIST 3350 Social History-Modern Britain (4 Credits)
This course investigates the intersections of class, gender, and race in nineteenth-century British society. During this period, Britain became the preeminent world power thanks to its spectacular industrialization and its even more impressive empire. Such success often fostered smugness and complacency, yet British society was also riddled with dissension as people struggled to cope with the enormous changes they were witnessing. Discussions focus on the ways in which Victorian people themselves understood their society and its problems, and how they attempted to construct solutions to those problems. Who was implicitly or explicitly excluded from British society? As we consider these topics, we use a variety of secondary and primary sources, including fiction; one goal of the course is for us to think about how to integrate different kinds of sources as we analyze historical problems and create our own interpretations. Cross listed with MUAC 3350.

HIST 4991 Independent Study (1-10 Credits)
HIST 4995 Independent Research (1-10 Credits)
HIST 5991 Independent Study (1-10 Credits)
HIST 5995 Dissertation Research (1-10 Credits)

Hotel, Restaurant, Tourism Mgt (HRTM)

Human Resource Administration (HRA)

Courses

HRA 4110 Human Resource: Foundations and Practice (4 Credits)
This course provides a brief history and overview of the HR profession including career options. In-depth functional areas of HR including recruitment and selection, compensation and benefits, performance analysis and appraisal, employee and labor relations, HR technology, and professional development and organizational learning are researched and discussed. Foundational concepts of domestic and international workforce planning and talent management are also included.

HRA 4120 Legal, Ethical and Employment Issues in Human Resource (4 Credits)
This course provides students with a foundation of the major legal and ethical considerations impacting the functional areas of human resource management and its contribution to organizational growth and success. This course is designed to provide knowledge and practical application of employment, anti-discrimination, wage-hour and labor relation laws. The relationship between employment law and business ethics is a major focus of the course and both domestic and global perspectives are considered. Students are strongly encouraged to take HRA 4110, or be familiar with its content before taking this course.
HRA 4130 Finance for HR Professionals (4 Credits)
This course examines financial oversight and budget skills for organizations, including managerial financial, financial statements, cash flow, operating budget, cost-benefit analysis, and capital budgeting.

HRA 4140 Principles and Practice of Human Resources (4 Credits)
This course offers an introduction to HR as a professional field of study, and discusses how HR fits into the workplace. The course presents theories and issues in the HR field, and it defines the HR practitioner as a change agent. The course places HR management in the context of organizational strategy and policy. And it defines the core competencies of HR professionals including recruitment, selection, and placement; job classifications and wage and benefits; employee relations, supervision, counseling, and discipline, and employment law.

HRA 4150 Human Resources Across Organizations (4 Credits)
HR professionals may work in a number of organizational settings and sectors during their careers. This course provides an opportunity to explore how organizations may differ in legal structures, HR models, governmental oversight, records access, type and size, compensation processes, and benefits.

HRA 4160 Human Resources in a Global Economy (4 Credits)
This course explores the proprietorships, partnerships, corporations, nonprofits, multinational corporations, strategic alliances, regulatory agencies, and public organizations that cross sector and national boundaries from an HR-impact perspective.

HRA 4170 The Inclusive Organization (4 Credits)
Employees are coming to organizations with differences in race, ethnicity, gender, age, religion, sexual orientation, disability, and other aspects of diversity. How can organizations create a culture of respect, involvement, and positive outcomes for employers, employees, and other stakeholders with individual differences and group affiliations? This course examines these questions.

HRA 4180 Organizational Politics and the HR Professional (4 Credits)
Many programs developed by HR professionals may be impacted by politics, where decisions are made to further individual interests over the interests of other people. Despite the inclusion of best practices in the recommendations, decisions may be made for political reasons, agendas, or actions, and not always for the benefits of the employees. This course explores why and how politics may enter HR decision making, and identifies links between motivation and leadership.

HRA 4210 Strategic Workforce Planning & Talent Management (4 Credits)
This course explores the process of executing business strategy through the development of talent management programs that align the organization's talent needs with the specific competencies required to effectively execute corporate strategy. Successful execution of strategy requires a workforce that possesses the values, ethics, competencies, and behaviors needed to implement the strategy. The specific skills and professional competencies required will vary as a function of the roles and responsibilities performed, and the position held within the organization's hierarchy. Performance metrics, which focus primarily on operational efficiency or expense management rather than the effect that skills and competencies have on strategy implementation and execution may cause managers to make suboptimal decisions in achieving organizational goals. Workforce and HR scorecards should be based on performance that is tied directly to the achievement of the organization's unique strategy as opposed to standardized industry benchmarks. Effective talent management programs are essential to the maintenance of a firm's competitive advantage and the successful execution of organizational strategy. Students are encouraged to be familiar with HRA 4110 before taking this course.

HRA 4220 Learning: Development and Performance (4 Credits)
Organization, team, individual and management development are critical drivers for organizations succeeding in a global marketplace. Key steps in achieving development goals are: developing a firm understanding of the business needs, effectively engaging the workforce aligned with those needs, implementing effective learning and performance solutions and strategies, and measuring the return on investment (ROI). In this class, students research and examine effective development strategies as well as focus on various learning models, including adult learning. Differences between coaching and mentoring are addressed as they relate to employee or management development.

HRA 4230 Consulting and Human Resource Applications (4 Credits)
HR professionals must be able to turn strategy into action to benefit the organization. This course provides students with models, tools and concepts to effectively build relationships with key stakeholders, identify, analyze and diagnose organizational issues, develop and implement value-added solutions, effectively manage the change process and measure/monitor outcomes. Students apply a consulting model approach in all HR functions.

HRA 4240 HR Technology Solutions (4 Credits)
Technological advances have had a major impact on the use of information for managing human resource functions within both large and small organizations. The quantity of data being collected, stored, and manipulated on computers is growing at a rapid rate. The students in this course strengthen basic technology skills by examining how information is utilized in the functional areas of HR.

HRA 4250 HR Competencies and Talent Management (4 Credits)
In this course, students identify the political, economic and social systems that impact organizations and learn the essential principles for developing, utilizing and retaining human resources. Students will develop plans for staffing and forecasting, recruitment, career development, and succession planning, and they will understand the role of competencies.

HRA 4260 HR Analytics and Research (4 Credits)
This course covers a review of HR metrics, quantitative techniques and analysis. Students will examine HR research and consider a process to develop practical questions for HR use. Quantitative skills for modeling, spreadsheet analysis, process mapping, and workforce management reporting are developed. Human resource information systems (HRIS) and their role in supporting strategic decision making are examined and evaluated.
HRA 4270 Evaluating the Value and Impact of HR Interventions (4 Credits)

In this course, students will determine the long-term and short-term impact of interventions, especially looking at a cost-benefit analysis. The object is to have a practical strategy to provide decision makers the data for human capital investments support.

HRA 4310 Creating a Global Mindset (4 Credits)

Current writing suggests that leaders who develop a global perspective for change throughout their organizations will have a distinct advantage over those who do not. Models of effective global vs. domestic HR leadership skills and views are presented, discussed, and applied within the course setting. Common cultural, communication and diversity issues which can impede progress within organizations are addressed via surveys, assessment, suggestions and practice. Students strive to achieve a wide level of cultural competence.

HRA 4320 Global Human Resource Planning and Development (4 Credits)

Many organizations today are involved in international and intercultural interfaces with employees, customers, and owners. As business becomes more globalized, HR functions become more complex. This course explores global implications for policy development, HR planning, practices in HR functions, and processes that are necessary for effective global HR functioning. Through discussions, readings, research and projects students understand and apply global planning and development processes for human resources.

HRA 4330 Human Resource Challenges in the Global Marketplace (4 Credits)

Best practices within the domestic strategic HR management setting are a focal point for discussion while exploring and contrasting best practices in a global setting. Resulting HR challenges emerge which become the basis for course discussion, research and projects. Sample topics include acquiring, developing, engaging and retaining international talent, emerging markets, centralization vs. decentralization of functions, learning in a global era and international assignment management.

HRA 4340 Human Resource Case Studies and World Issues (4 Credits)

This course explores world events, laws, employment trends, international business topics and other significant issues which directly or indirectly affect the HR professional and the strategic positioning and preparation needed to function in a global HR environment.

HRA 4410 Problem Solving in Human Resource: Current Issues (4 Credits)

This is an advanced seminar covering various topics across the human resources (HR) function. It assumes a basic understanding of the key HR processes: recruiting, selection, on-boarding, training, rewards & recognition, and termination. Because the HR function does not operate separately from the rest of the business we will explore HR in the context of the broader business. This course examines HR issues through the use of case studies and reading of contemporary issues.

HRA 4420 Employee Relations (4 Credits)

The components of a comprehensive Employee Relations function are the focus of this course. Through research, small discussion groups, team presentations and case studies, students learn how the components of an Employee Relations function contribute as a strategic business partner within an organization. Topics include strategic partnering, policy interpretation, complaint resolution, leadership development, succession planning, inclusion, separation plans, business case development, coaching and counseling.

HRA 4430 Compensation and Benefits (4 Credits)

This course explores the world of rewards management, including compensation, benefits, and HR structure? Matching HR structure and policies to organizational strategy is considered.

HRA 4440 Supervision and Managerial Decision Making (4 Credits)

As our economy becomes more complex with domestic and international ramifications, managers and supervisors are increasingly called upon to make crucial decisions leading to organizational effectiveness. Therefore, this course explores objective and subjective decision making models, and develops supervision skills for HR professionals. The rational approach is taught via maximization of expected outcomes and decision tree analysis. The irrational side of decision-making is covered through demonstrations and discussion of decision bias and judgment heuristics. Various supervision techniques are identified and defined (such as contracting, feedback, problem-solving, coaching, motivating others and managing conflict), and methods for modeling, teaching and transferring supervisory skills to others are explored and practiced.

HRA 4500 Organizational Leadership, Team Effectiveness, and Communications (4 Credits)

HR professionals are expected to be organizational leaders, build teams, and develop strong internal communications. The course explores how to lead organizational change, manage organizational crisis, build effective teams, and develop strategic communications.

HRA 4510 Organizational Lifecycles and HR Implications (4 Credits)

This course examines the role of mission, vision, and values. Moving from start-up to mature organizations, the course asks what are HR responses to compensation, benefits, and HR structure? Matching HR structure and policies to organizational strategy is considered.

HRA 4520 HR Change Management (4 Credits)

Human Resources planning is an essential step when designing or implementing a change, small or large, within an organizational culture. The magnitude of change and the organizational culture will impact the change management communication, planning, and process. This course examines those factors.
HRA 4600 Human Relations in Organizations (4 Credits)
The purpose of this course is to explore the quality of work life, which leads to greater retention and employee satisfaction. Using the life cycle of a typical employee, effective communication and the role of interviews and exit interviews will be discussed. Additionally, job enrichment (vertical and horizontal), flexible work schedules, employee assistance programs, drug and alcohol rehabilitation, retirement planning, community service, and other programs will be analyzed.

HRA 4610 Employee Compensation (4 Credits)
This course examines the development and management of employee compensation systems, including motivational, productivity, job classification, and strategic considerations. It explores the history and purpose of a compensation system, today's issues, and key elements of compensation design.

HRA 4620 Employment Total Benefits (4 Credits)
This course develops historical context for employee benefits and the motivational implications. It reviews the wide range of potential benefits and discusses "total rewards" options. The course examines pension plans, social security, ERISA, major benefits legislation, health insurance, flex spending, and budget implications.

HRA 4630 Employment Law (4 Credits)
This course explores current legal issues that affect the HR function in organizations. These include EEO, sexual harassment, managing risk, discrimination, Wage and Hour, at-will employment, and current Supreme Court decisions. These legal issues will be examined from both the employee and the employer viewpoint.

HRA 4701 Topics in Human Resource (4 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues in the field of strategic human resource management, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

HRA 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass.

HRA 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produce a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

HRA 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.
HRA 4910 Research Practices and Applications (4 Credits)
This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through comparing and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master’s degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

HRA 4980 Internship (4 Credits)
The Strategic Human Resource Management Internship is designed to offer students a purposeful experience in a practical, industry related setting. The internship is an individualized learning experience. A training plan is created for each student in conjunction with the internship site supervisor to provide experiences related to the skills and knowledge covered in the certificate and master’s programs as well as professional goals. Students are responsible for finding their own internship site and proposing their internship ideas. University College will send notification to all SHRM students if they hear of internship possibilities. Students may also work through the DU career center to explore opportunities for internship experiences.

HRA 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a credit basis and only may be used by degree candidates. Prerequisite: Admitted degree candidate.

HRA 4992 Directed Study (1-8 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Info & Communications Technol (ICT)

Courses

ICT 4000 ICT Business Foundations (4 Credits)
This course provides an overview of the relationships between business needs and Information & Communications Technology solutions. The course focuses on fundamental attributes of business research and analysis in the ICT field. Applying appropriate research methods is a critical course requirement. Students demonstrate the critical skills required to define a problem, establish a business and technical context, perform appropriate research, propose and analyze alternative solutions, identify decision criteria, and make recommendations based on such considerations as benefits, technical feasibility, costs, risks, and resources. Students assess the relevance of research findings, considering the credibility of the source, relevance to the research question, and validity of the underlying data. Taking into account current industry trends and customer/user needs, students apply the product development process to create a product or service proposal, including business requirements and a detailed business case. The course establishes the professional and academic framework for the ICT master’s degree program, setting a relevant industry context for all ICT concentrations.

ICT 4005 ICT Technical Foundations (4 Credits)
This course provides a substantive review of the technology at the core of the ICT industry. Coverage includes hardware, networking technology, databases, information services, applications, and content in an enterprise context. The application development process is briefly reviewed. A framework is developed around data at rest, data in transit, and data being processed. This framework is used to detail the roles of a variety of hardware and software artifacts, and their use in the production, processing, protection, and use of organizational information. The role of the ICT user interface and web systems in providing user access to content anytime anywhere is reviewed. The security requirements associated with a variety of information types are introduced, along with the current best practices used in information security.

ICT 4010 Enterprise Architecture (4 Credits)
In this course, students learn how to effectively and efficiently integrate information and communications technologies to support business goals. The course provides an overview of the global, enterprise-wide architectural framework that drives business decisions regarding selection and implementation of ICT systems and solutions. Topics include supporting and transforming Global Value Chains, e-business designs; creating enterprise architecture; and the various methodologies, tools and techniques used in the design and implementation of the enterprise architecture. The course encompasses all aspects of information and communications technology, including data networks, applications, operating systems, database systems, telecommunications systems, and hardware components in the context of a total enterprise-wide framework.
ICT 4015 Managing Technology for Strategic Value (4 Credits)
In this course, students acquire an in-depth understanding of the key management skills necessary to manage technology for strategic value. It concentrates on providing in-depth knowledge of strategic planning, the role of technology in business, and business process automation. It also provides students with the management skills and tools to prioritize technology investments, and manage technology products and projects. Topics include strategic planning and business alignment, managing business applications, business process automation, the role of web 2.0 in business processes, technology management, budgeting and capital investment prioritization, and build/buy decision-making in regards to custom-built and off-the-shelf solutions.

ICT 4020 Business Forecasting and Planning (4 Credits)
Business forecasting and planning brings together a wide diversity of skills: economic, financial, marketing, and technical analysis. This course brings together these concepts and extends prior coursework with coverage of budgeting, finance, costing, business planning, revenue forecasting, profit and loss statements, and balance sheet analysis as applied to information systems and services. Coverage includes the economics of software and other intellectual property, network effects, usage and sharing effects, sunk costs and monopoly effects, capacity and resource planning issues, and an introduction to the related regulatory issues. Students develop budgets or business plans for several increasingly difficult scenarios addressing a range of technology applications and services.

ICT 4025 Technology and Innovation Management (4 Credits)
Leaders of innovative firms build commitment to new directions, re-design structures to support new missions, and transform cultures. This course concentrates on the implementation of business strategy through effective structures and systems. Students learn why only 7% of companies are able to revitalize their organization once growth has stalled; students also learn what to do about it. Students analyze key aspects of strategic deployment, including organizational structure, cross-functional teams, product development, business model design, and change management. The course concludes with students developing a strategy for implementing an innovation. In this course students integrate the areas of knowledge covered in the ICT Foundations courses and the Technology Management concentration. It should be taken as the last of the four required courses in the Technology Management concentration. Prerequisites: ICT 4010, ICT 4015, ICT 4020, ICT 4100.

ICT 4045 Information Technology Service Assurance (4 Credits)
In today’s technology-centric work environment, simply delivering IT services is no longer sufficient. Organizations must provide “assurance” that IT services and the underlying data assets are reliable, highly available and secure. IT Service Assurance or IT Quality Assurance includes many functions including IT service delivery, service level management, quality assurance testing and monitoring, change and release management, project management, security, and compliance, all within a risk management framework. This course evaluates these functions as integrated components of a service assurance program and their impact on the organization. It also investigates how service assurance is intertwined with the strategic and tactical initiatives of the organization. The use of case studies and actual IT related challenges and opportunities are utilized to anchor the course concepts. The combined in-class meetings and online course structure lend itself to ongoing interaction, collaboration, and sharing of ideas.

ICT 4100 Principles of Project Management (4 Credits)
This course is designed to provide students with practical skills in project management and the students who are continuing in the Project Management course sequence with a framework for the concepts and tools covered in the remainder of the program. The various elements of the project management processes, tools and techniques are explored, applying the software used in managing projects. Topics include a review of processes to initiate, plan, execute, monitor and control, and close a project. Project integration, scope (including requirements), time, cost management, and planning human resources are emphasized. Students learn project management skills through hands-on exercises using project management tools and techniques and project management software to emphasize the real world of managing a project.

ICT 4105 Project Contracts and Procurement (4 Credits)
This course is designed to provide students with practical skills in project contracts and procurement. This course introduces the various elements of the contract and procurement process, including exposure to procurement plans, Request for Information (RFI), Request for Quote (RFQ) and Request for Proposal (RFP), as well as the various types of contracts and change order procedures. The course builds upon the framework from the remainder of the program. Topics include how to develop a procurement plan, what type of RFs to use and why, selection criteria for vendors, and contract selection. Students learn project management skills through hands-on exercises developing procurement plans, RFX’s and contracts. No prerequisites.

ICT 4110 Project Management Tools and Techniques (4 Credits)
This course introduces students to project risk and quality management and develops advanced skills in applying the project management tools and techniques learned in ICT 4100 (prerequisite course). A focused examination of scheduling, cost, quality, and risk management processes using advanced tools and techniques is included. Emphasis is placed on the project planning, execution, and monitoring and controlling processes. This course is on the Project Management Institute’s (PMI) certification track. Prerequisite: ICT 4100 or equivalent knowledge.

ICT 4115 Project Management Dynamics (4 Credits)
This is an advanced course that applies the knowledge and skills learned in the prerequisite courses to a complex program. The planning, monitoring and controlling, and project close process groups are explored using case analyses of program and project plans. Learning is based on reading case material and the practical application of project management tools and techniques. Students receive hands on simulation experiences in planning and running subprojects, and work in Project Management Office (PMO) roles. Students develop a workable change management system, exercise project integration and communication skills, and demonstrate the ability to keep an overall program on track. They also demonstrate decision making skills, with emphasis on making tradeoffs based on solid business rationale. This course is on the Project Management Institute’s (PMI) certification track. Prerequisites: ICT 4100 and ICT 4110.
ICT 4120 Lean Six Sigma—Getting Started (4 Credits)
Students use Lean tools and techniques to define and scope a problem, determine project objectives and benefits, and create a project charter. The students also learn to define the ‘as is’ process, validate the measurement system and measure outputs, and quantify process performance.

ICT 4125 Lean Six Sigma—Analyze (4 Credits)
Students apply Lean tools and techniques to identify potential causes (x’s), investigate the significance of x’s, identify significant causes, and provide a preliminary definition of process outcomes as a function of causes [y=f(x)].

ICT 4130 Lean Six Sigma: Improve and Control (4 Credits)
Students apply Lean tools and techniques to generate potential solutions, select and test a solution, develop an implementation plan, and create a control and monitoring plan. The students also learn the methods and techniques for implementing a full scale solution and finalizing transition.

ICT 4155 Strategic Alliances in the Technology Sector (4 Credits)
Strategic alliances are key drivers of business success in today’s global economy and have gradually replaced vertical integration as the chief method of expansion. Business-to-business alliances provide organizations with a variety of benefits, including enhancing the capability of organizations and help to extract maximum value from available resources. While applicable to any industry, strategic alliances are particularly important in the technology sector. This course defines and discusses the roles of various types of strategic alliances in the technology sector, including informal alliances, partnerships, joint ventures, and outsourcing arrangements. It also explores strategies for managing profitably and exploring these external business relationships. Case studies are an integral part of the learning experience. Successful alliances such as the Apple-AA&T, Microsoft-Infosys, and Cisco-Intel are analyzed from the perspective of each party, 3rd party vendors, customers, and a variety of other stakeholders. Examples of unsuccessful alliances and the costs and benefits of foregoing alliance participation are also explored. No prerequisites.

ICT 4160 Advanced Methods for Complex Projects (4 Credits)
This course explores the planning and execution challenges that often cause complex projects to fail. The course provides a historical perspective regarding project management practices, and reviews evidence regarding trends in project outcomes. For example, despite the use of commonly accepted methods for project management and systems engineering, the success rate of NASA and DoD programs, as measured by schedule, budget, and requirements performance, is trending downward. The evidence shows similar trends in commercial industries (e.g., the Airbus A380 and Boeing 787 aircraft programs). The course addresses why the methods embodied in the Project Management Institute’s (PMI) A Guide to the Project Management Body of Knowledge (PMBOK Guide) are sometimes insufficient to assure project success. The course then explores remedies drawn from recent research and cases in complex systems development and global teaming case studies. The instructor will host online reviews of readings and discussion. Students will learn and leverage visual modeling and simulation tools for the design of complex projects. Participation is voluntary, but recommended. Methods to handle complex, concurrent, and mutual dependencies across organizations and cultures will be applied. Based on case studies, the instructor will introduce Project Design methods, including student access to TeamPort project modeling and simulation software. The course culminates with teams in an online role play exercise to demonstrate collaborative planning and decision-making using these advanced methods. This exercise will require dedicated, synchronous interaction with other team members. Prerequisite: ICT 4100 or equivalent experience.

ICT 4165 Project Collaboration with SharePoint (4 Credits)
This course focuses on the role of collaboration as a critical success factor in project planning and execution. Complex projects typically entail cross-functional teams that are often geographically distributed, culturally diverse, and require collaboration across both organizational and corporate boundaries. This course covers best collaboration practices and the use of collaborative websites to facilitate communication, create shared understanding of processes and deliverable, and apply tools to achieve successful project completion. Hands-on assignments are used to illustrate how collaborative sites allow a project team to post, edit and jointly work on documents of all types, such as project charters, project plans, WBS, requirements, budgets, schedules, procurement activities and closeout activities. Students collaborate within the course to learn how collaborative sites can be used to control project documentation and enforce the security levels associated with those documents. Students also learn how these sites can be used for such activities as assigning tasks, building a project calendar, setting up logs for gathering information, and performing other typical project management duties. The lab portion of the courses uses SharePoint as a template and shows how to set up a site to create folders, lists, tasks lists, calendars, and set the associated security levels. A SharePoint site is created for each student and students have access to both the class site and their individual sites.

ICT 4170 Agile Techniques and Practices in Project Management (4 Credits)
Is the Agile vs. traditional project management debate over? At least in the world of software development, the debate is largely over, as evidenced by the widespread adoption of Agile methods. For example, according to Gartner, in 2012 Agile development methodologies will be used in 80 percent of all software development projects. As the term implies, however, the techniques and best practices for the successful application of Agile project management processes are not static, they will continue to evolve. And, Agile principles and practices are used across many project domains, each with their own unique characteristics and challenges. So, best Agile project management practices will continue to be dynamic. The Agile debate is now turning from the tactical to the strategic. Realizing the full benefits of Agile (e.g., faster time to market, improved responsiveness to customers, higher quality, and greater efficiency), means more than improving project execution. It requires transforming the business into an Agile enterprise. This course examines both the Agile processes and practices for delivering projects, and the cultural and programmatic challenges encountered in transforming the business into an Agile enterprise. The course content, in addition to reading assignments, uses practical assignments such as case studies, projects, and simulations to provide applied experience with Agile practices.
ICT 4300 Web Enabled Information Systems (4 Credits)
This course is an introduction to the design of web enabled information systems. The course reviews modern design and programming principles, introduces database design and object-oriented principles, and introduces security issues and best practices related to web application development. The course introduces object-oriented modeling methods, including use cases, class, and activity diagrams, that describe the informational and behavioral content of a system's objects. Basic OOM design tools are introduced along with an introduction to database programming and query development. Additionally, web design programming is introduced using hands-on exercises. The class addresses organizational concerns around web applications, exploration of technology in today's market, and retention of data integrity. This should be the first course taken in each of the following specialties: Software Design and Programming, Database Design and Administration, We Design and Development, and Information Systems Security.

ICT 4305 Object-Oriented Methods (4 Credits)
This course introduces the object-oriented view of software analysis, modeling, and design. It defines all of the relevant concepts needed to understand the paradigm. A complete graphical notational scheme is taught for the purpose of diagramming objects and object interactions. The course covers the design, evolution, modification, and test/verification phases of object-oriented development in some depth. Since project management plays a key role in the success of object-oriented development, its relation to the development process is discussed. The course also surveys the various object-oriented languages and tools available.

ICT 4310 Client-Server Applications (4 Credits)
This course provides a practical introduction to client-server applications and programming. The course examines key aspects of client-server computing such as systems requirements for operating systems, middleware, networks, servers and clients. The course develops the student's understanding of alternative client-server architectures to meet business requirements, the selection of application development tools, and the use of object-oriented analysis and design practices to implement client-server applications. Students also develop client applications using a variety of techniques. Prerequisite: ICT 4300.

ICT 4315 Object-Oriented Programming (4 Credits)
This course covers modern programming techniques using object-oriented methods. The course familiarizes the student with development tools and the syntax of a programming language by developing simple programs that use control flow techniques and basic input/output techniques. Basic methods to harden code against malicious attack are introduced, and basic verification techniques presented. Prerequisites: ICT 4300 and ICT 4305.

ICT 4351 .NET Programming with C# (4 Credits)
Students identify and describe the fundamentals of the .NET architecture, explain various .NET components, their respective responsibilities and functions, identify and explain .NET design issues and development solutions; identify and describe the fundamental .NET components; explain CLR execution, and have some familiarity with predominant .NET languages.

ICT 4361 Java Programming (4 Credits)
This course enhances the student's experience in object-oriented design and software development by performing and discussing object-oriented design for re-use of general purpose applications and small Java applications, including using the Java Collection API and Swing user interface classes. Topics include the use of Java as an object-oriented programming language, including encapsulation, simple inheritance, and polymorphism; design of Java classes using Java interfaces and packages; implementation of design patterns in working Java code; and use of Java Base Classes. The course also addresses the use of JAVA IDEs such as Eclipse and NetBeans. Note: This course does not address JavaScript. Prerequisites: ICT 4300, ICT 4305, ICT 4315.

ICT 4400 Database Administration (4 Credits)
This course introduces the roles and responsibilities, as well as the critical knowledge and skills needed to function as a database administrator. The course focuses on Oracle and Microsoft SQL Server, the two dominant global database platforms. Core components include installation and configuration of both database products and implementation of appropriate account privileges. Lab environments are used for hands-on lab assignments in the course, as well as in subsequent courses in the ICT Database Design and Administration concentration. Primary job responsibilities of database administrators are examined, including monitoring, maintaining, and administering database platforms and schemas, while applying best practices in database security. Broader topics, such as metadata, business intelligence, and data warehousing are examined from an organizational perspective. Prerequisite: ICT 4300.

ICT 4405 Database Design & Programming (4 Credits)
This course concentrates on the relational DB model and the conceptual, logical, and physical phases of database design and development. Entity-relationship modeling, data normalization to third normal form, and Structured Query Language programming are core components of the class. It includes additional data modeling techniques and upper Normal Forms (Boyce/Codd, Fourth, and Fifth). It delves into the concepts of database integrity and transaction management, concurrency protocols (locking and time stamping), and security schemes. In addition, emerging data warehouse technologies are introduced. Prerequisites: ICT 4300, ICT 4400.

ICT 4410 Data Warehousing Design (4 Credits)
Organizations with vision and courage are gaining competitive advantage by implementing data warehouses. Under the guidance of an executive sponsor, a team of data administrators, database specialists, and organizational analysts creates these contemporary decision support environments. Building a data warehouse is fundamentally different than building a subject area database for an operational system. In this course students use such data warehouse (DW) concepts as partitioning, granularity, record of source, and metadata as they learn how to build a viable decision support environment. Students further their understanding of such topics as architect development, data migration and integration, use of operational data stores, and transactional systems.
ICT 4415 Database Backup and Recovery with Lab (4 Credits)
This course explores basic database backup and recovery strategies and tactics using an Oracle database system. Topics include preparing backup, recovery and disaster plans, and performing complete and incomplete database recoveries using the Oracle Export/Import utility. Using hands-on activities and labs, students also gain experience with Oracle troubleshooting utilities, RMAN architecture and setting up Oracle standby databases. Prerequisites: ICT 4300, ICT 4400, ICT 4405.

ICT 4451 Database Programming: Oracle PL/SQL (4 Credits)
This course builds on ICT 4405 Database Design and Programming, allowing students to transform a database schema design into a database application prototype using Oracle’s PL/SQL. Topics include advanced SQL DDL, DML, and scripting, PL/SQL constructs, stored procedures, modular design and development, software development processes, views, sequences, cursors, dynamic SQL, error handling, locking, as well as performance and tuning, and database security. Using virtual E-Labs, students design and develop a database and related PL/SQL applications.

ICT 4461 SQL Server with Lab (4 Credits)
This course is an introduction to Microsoft SQL Server for both the DBA and Developer. The key new features of SQL Server are introduced and explored, and the various editions of SQL Server are contrasted. In-depth coverage is provided on how to use the new Microsoft SQL Server Management Studio for both administrative and development tasks. Special emphasis is given to query optimization techniques. An introduction to SQL Integration Services, SQL Analysis Services and SQL Reporting Services is also presented. Prerequisites: ICT 4300 and ICT 4405.

ICT 4462 Transact - SQL Programming (4 Credits)
Transact-SQL is the primary programming interface between applications and the Microsoft SQL Server database. Transact-SQL can be sent from programs or applications to the SQL Server database or can be built into reusable database stored procedures. This course focuses on Transact-SQL in a stored procedure context. Topics include: basic and advanced SQL, SQL functions, stored procedure declaration and execution, cursors, temp tables, error handling, transaction management, security, and performance issues. The course uses a combination of lecture, textbook reading assignments, and hands-on lab assignments to meet its objectives.

ICT 4485 NoSQL Databases (4 Credits)
Relational database systems have been dominant in the market for over forty years, and remain so today. However, the emergence of distributed and cloud computing, as well as the increasing need for storage of large databases (i.e., big data, such as human genome, Google search engine, social media data, Large Hadron Collider), have created the need for alternate data storage solutions. A number of different models/database management systems have been developed, that as a group are being referred to as NoSQL databases. A number of large, well-known companies use such databases, including Google, Amazon, Facebook, Twitter, Adobe, MTV, LexisNexis, the New York Times, Forbes and Netflix. Some companies use more than one variety of NoSQL databases. This course examines different non-relational (NoSQL) data models, such as Key-Value, Document, Column, Graph and the Object-Oriented database models. Students learn about advantages and disadvantages of the different approaches. This class includes hands-on experience with a representative sample of NoSQL databases. Computing developments that spurred the existence of NoSQL databases, such as big data, distributed, and cloud computing are also discussed. Prerequisites: ICT 4300 and ICT 4405.

ICT 4450 Website Design and Management (4 Credits)
This course builds on ICT 4405 Database Design and Programming, allowing students to transform a database schema design into a database application prototype using Oracle’s PL/SQL. Topics include advanced SQL DDL, DML, and scripting, PL/SQL constructs, stored procedures, modular design and development, software development processes, views, sequences, cursors, dynamic SQL, error handling, locking, as well as performance and tuning, and database security. Using virtual E-Labs, students design and develop a database and related PL/SQL applications.
ICT 4540 XML and Data in Application Development (4 Credits)
XML is an open, text-based markup language that provides structural and semantic information to data. This "data about data," or metadata, provides meaning and context to the application using it, and supports manipulation and display. The course focuses on techniques to make this data useful for business applications, as well as for web display. Hands-on experience with the XML formats and manipulation, which includes programming techniques, forms the weekly assignments, culminating in a summary project. Other standards, such as JSON, are discussed, as well as use of CSS for display of XML data. Some JavaScript is introduced to illustrate the document model and techniques for integration of data. Prerequisites: Students should have familiarity with constructing HTML web pages and data concepts. Familiarity with a data manipulation or programming language will be helpful.

ICT 4555 Introduction to Animate CC (4 Credits)
This course introduces students to rich media design, animation, and interactive development for the web, desktop, mobile, and more using Adobe Animate CC. Students learn the fundamentals of working in the Adobe Animate CC authoring environment to produce web assets, small animations, and basic interactive modules for multiple target platforms.

ICT 4560 Web Graphics Production (4 Credits)
This course introduces the fundamental concepts and techniques of digital graphics creation and image processing for both online publication and website interface design. Students learn the basics of correcting and modifying images, bitmap painting tools, vector drawing tools, typography, masking, web production techniques, and advanced image compositing. Integration of images and generated code into a website layout employing CSS is also covered.

ICT 4561 Web Development with PHP (4 Credits)
This course introduces students to programming Web applications using PHP and MySQL. Topics include processing form data, file uploads, object-oriented programming and database access. Students leverage a PHP framework and learn to install and configure a local development environment to test and develop their Web applications. Prerequisite: ICT 4510 or previous programming experience.

ICT 4570 Web Scripting with JavaScript (4 Credits)
This course presents students with the principles necessary to design and develop client-side scripts used to build dynamic websites and applications. JavaScript concepts such as data types, control structures, functions and objects are discussed. Students learn how to write beginner and intermediate scripts. In addition, students are introduced to advanced JavaScript topics, including module development, distributed computing and security. Students are presented with real world examples of JavaScript and build an interactive and dynamic client-side application. Technologies covered in the course include JavaScript/ECMAScript, JQuery (a JavaScript library), JSON (a JavaScript-friendly data format), JavaScript as the J in AJAX, and JavaScript in HTML5 form interaction and validation. Prerequisite: Knowledge of HTLM, ICT 4505, or previous programming experience.

ICT 4576 Native Application Development with Adobe AIR on Mobile Devices (4 Credits)
During this course students learn how to use a set of languages and tools to build business and media-centric applications that run on mobile devices such as laptops, tablets, smartphones, and eReaders running on Windows, MAC OS, iOS, and Android. This course illustrates best practices for reusing code, structuring projects, and submitting applications to app stores. Throughout the course students utilize an IDE such as FDT or IntelliJ, MXML, and ActionScript to build cross-device native applications. Students also learn how to add functionality to their Adobe AIR native applications by leveraging third party Native Extensions to access native features. Prerequisite: ICT 4300 or previous programming experience.

ICT 4580 Mobile Application Development with Web Standards (4 Credits)
This course enables students to take advantage of web standards (HTML5, CSS3, JavaScript) along with various popular frameworks and tools in the generation of both mobile web applications for the browser and packaged mobile applications for devices. We examine the fundamentals behind good user and interaction design when targeting mobile devices and see what is appropriate for implementation on these platforms. We also employ a popular cross-compilation tool to perform distribution onto multiple platforms. Prerequisite: previous programming experience.

ICT 4585 Web Development with Ruby on Rails (4 Credits)
Ruby is a dynamic, general-purpose, object-oriented programming language that has an associated web application framework, Rails. The Ruby on Rails (RoR) web application paradigm is powerful and flexible, and has been widely adopted by other frameworks. It allows for the rapid and agile creation of dynamic web applications with little of the overhead associated with other approaches. The student learns how to quickly develop, test, and deploy dynamic web applications using RoR. The student also learns how to manage both the user experience and a backend database from within the RoR framework. Prerequisite: ICT 4510 or previous programming experience.

ICT 4605 IS Security Principles (4 Credits)
This is a comprehensive Information Systems Security management course covering the ten basic principles of Information Assurance and Information System Security. The course follows the Common Body of Knowledge (CBK) convention established by the International Information System Security Certification Consortium, Inc. (ISC)2. This course serves as an introduction to the ten domains of information systems security with the emphasis on management issues. It provides the foundation of information systems security and the methodologies that organizations apply to analyze and achieve their security goals. Students learn about significant computer security laws and regulations, the development of effective security policies, system access controls, network security, encryption and security models. The course also covers specific security measures to include, but not limited to, physical security controls, network security, telecommunications, and cryptography. Information covered includes contemporary issues of computer crime and contingency planning. A systems approach to security issues to analyze and develop solutions is emphasized. All topics are discussed in the context of a total enterprise-wide framework. Prerequisite: ICT 4300.
ICT 4610 TCP/IP Networks (4 Credits)
This course explores the basic operation of the TCP/IP protocol stack including its history, development, current applications, and future implications. The full range of TCP/IP protocols from IP and TCP to basic RPC issues and application protocols such as SMTP, FTP, and HTTP are studied. Students also study TCP/IP capabilities, alternatives, and performance issues. Security-specific protocols including SSL and IPSec are examined along with the security aspects of all other protocols. Mechanisms for Internet connectivity for homes and businesses are also covered. Prerequisite: ICT 4005.

ICT 4615 Computer and Physical Security (4 Credits)
Controlling access to computers and controlling access to a building can no longer be viewed as two separate worlds. Today, IT access control and physical security need to be integrated if organizations are to be fully protected from threats. This course concentrates on seeing IT access control as integrated with physical security within an organization. Students investigate how various technologies and methodologies can work together to manage access to computer systems; how to manage elements of physical security; and the issues involved in creating a unified and complete enterprise security system. Security technologies to physically protect an organization’s people, facility and resources, access control techniques and administration, identification and authentication techniques and methods of attack are emphasized. Prerequisites: ICT 4300 and ICT 4605.

ICT 4670 Disaster Recovery and Operations Security (4 Credits)
This course focuses on the planning and operations security required to effectively recover from natural disasters and security attacks and to ensure the operations and integrity of computer systems and staff. Topics include defining continuity requirements, choosing appropriate recovery strategies and understanding the key elements of a continuity plan. Students create a Business Continuity Plan including business impact analysis, recovery strategies, and recovery plan implementation. The course also provides an understanding of controls over resources, facilities, hardware, systems, and the people who create, modify, and use them. Control mechanisms and operations security "best practices" are identified.

ICT 4675 Information Systems Security in Healthcare (4 Credits)
This course will introduce students to information security risks facing the healthcare industry. Students will learn how to better protect healthcare organizations and their patients’ data. Students will learn about recent security breaches, the impact of those breaches on healthcare organizations, and all of the key players involved. This course also covers the evolution of healthcare IT and the continuously evolving risk and regulatory landscape. Students will explore the regulations of HIPAA and how they relate to day-to-day operations in healthcare organizations. Additionally, this course will prepare students to support information security initiatives in order to protect the organization while furthering the advancement of healthcare IT capabilities. This is not a technical course, however we will be learning about how security is impacted by technology and what we must do across technology in order to secure our healthcare systems, our organizations, and our patients.

ICT 4680 Principles of Cryptography (4 Credits)
E-commerce has made cryptography a cornerstone of modern information systems security. Cryptology is one of the 10 domains required for the CISSP, and is a core component of all other recognized information security certifications. Surprisingly, it is the least understood of the information security disciplines. This course focuses on the terminology and concepts needed to understand how cryptographic techniques are used to protect sensitive information. Topics include: Advanced Encryption Standard (AES), the Secure Hash Algorithm (SHA), Digital Signatures and Message Authentication Codes, Diffie-Hellman Key Exchange, public key infrastructure (PKI), secure sockets layer (SSL), and IPsec among others. Lecture and reading materials are reinforced by hands-on experimentation with cryptographic software tools. Internet resources are used to tie the course material to current technology trends. No programming experience or advanced mathematical skills are required for this course. Prerequisite: ICT 4605.

ICT 4685 Cloud and Internet Law (4 Credits)
The legal ramifications of Cloud Computing, Cyber and Internet Law are effecting dynamic change in our country and all throughout the world. This course explores the laws of the new paradigm of Cloud Computing, Cyber and Internet Law and describes the types of issues and concerns that exist. Such issues include the civil and criminal laws, rules and regulation, privacy issues, contractual agreements between parties (on many levels from providers in numerous different states and countries), the impact of differing cultural standards and mores from all over the world, and legal methods of protecting companies from these issues and worries in the world of Cloud Computing, the Internet and Cyber Law.

ICT 4690 Computer Forensics with Lab (4 Credits)
This course is concerned with providing an overview of the methods and tools utilized for collecting and preserving electronic digital evidence for the computer forensic process; the forensic examination, analysis, and report writing; and preparing for courtroom testimony about the forensic results. The course is supplemented by hands-on-exercises, case studies, and a moot court exercise in which each student will testify.

ICT 4695 Application Security (4 Credits)
In this course, students explore the security principles and practices that apply to application software development throughout the entire software development lifecycle (SDLC). Topics include characteristics of secure and resilient applications, proven best practices for secure software, and designing for security and resilience. The course also provides an overview of programming best practices. Other topics include testing custom application, testing off-the-shelf commercial applications, implementing development security methodologies, and evaluating the models used to measure the maturity of software development organizations. Prerequisites: ICT 4300 and ICT 4605.

ICT 4701 Topics in Information and Communication Technology (4 Credits)
From time to time a special topics course may be offered that addresses a new issue, a developing concept, industry trends, or new technology.
ICT 4800 Network Communications and the Internet (4 Credits)
This course focuses on the fundamental concepts and technologies of communications networks and the Internet, including the information theory that is the foundation of modern communication systems. It emphasizes application of these concepts to the analysis and design of network solutions to meet various service provider and IT business requirements. Topics include network media, communications protocols and standards, LAN and WAN network architectures, the Public Switched Telephone Network, and current trends in networking via the Internet. Network components, such as modems, routers, switches, and voice communications systems are analyzed. The various transport media of copper, fiber, and wireless infrastructures are compared. Critical thinking is emphasized via discussions of current and future trends in network technology, global regulatory and political issues in voice/data/video communications, and Internet governance. Prerequisite: ICT 3800 or equivalent experience.

ICT 4815 Managing Global Telecommunications Projects (4 Credits)
Set in the context of today's convergence from the traditional telco/telephony world to next generation all-IP networks brought about by the Internet revolution, the course addresses managing across borders, cultures, time zones, and continents. In addition, the course explores managing conflicts of interest between carriers and over-the-top (OTT) players such as Apple, Google/Android and Skype. Related topics include the challenges and opportunities in vendor management between the old telco vendors of the West and their new competitors from the East. Finally, the course analyzes stakeholder management at the C- and SVP-level of the organization. A variety of assignments create opportunities for students to work in teams, and at other times to work individually on a set of real-world case studies derived from typical projects at leading global network operators and telecom vendors. This course applies project management best practices to the typical challenges faced by project managers in today's fast-paced, complex and highly competitive global telecom industry. Case studies are used to exemplify core project management challenges at an advanced level. Prerequisite: ICT 4800 (required), ICT 4830 (strongly recommended).

ICT 4830 Broadband Wireless Networks (4 Credits)
This course examines wireless telecommunication networks with an emphasis on key challenges and approaches to deal with the immense wireless data traffic explosion from devices such as the iPhone, iPad, Android smartphones and connected laptops, as well as services like VOIP and mobile video. The wireless telecom industry is studied from standards, carriers, and technology perspectives. The dominant wireless telecom technologies and protocols are presented, including OFDM, MIMO, mobile IP, WIMAX, LTE, and WPANs. The "triple play" convergence of voice, video, and data over wireless networks is analyzed. Voice over IP is also studied in reference to Quality of Service.

ICT 4835 Advanced Network Technologies (4 Credits)
Technological advancements in networking within the last few years are revolutionizing concepts of networking for both Enterprises and Service Providers. This course demystifies these latest advancements in network technologies. Topics include in-depth coverage of modern networking elements, network requirements, Network Virtualization technologies, Software Defined Network (SDN), and Network Function Virtualization (NFV). Coverage of latest technology requirements includes elastic traffic, big data, mobility, QoS, QoE, and more. The course discusses SDN and NFV components, architecture, protocols, and use cases. Virtualization technologies include VLANs, OpenFlow, VPNs – IPSec and MPLS-based. The course emphasizes deep understanding, analyses, and evaluation of modern network architectures. Prerequisites: ICT 4800 (required), ICT 4830 (strongly recommended).

ICT 4840 Next Generation Wireless Networks and Services (4 Credits)
The rapid innovation in wireless networks that is at the center of today's Information and Communication Technologies industry takes place in the three areas of broadband radio, core networks, and wireless services. This course focuses on the key next generation technologies at the core networks and service layers. First, the Internet Protocol Multimedia Subsystem (IMS) is examined, which is at the heart of many next generation deployments. Basic IMS architecture and important sample case studies are used to highlight core facets of modern network designs. At the service layer, this course explores wireless service architecture, including popular applications such as text (SMS), picture (MMS) and mobile instant messaging, consumer and enterprise mobile email, TV/video and mobile web services. Apple and Android mobile over-the-top (OTT) ecosystems are examined and a SWOT approach taken to analyze strengths, weaknesses, opportunities and threats of controlled vs. open application ecosystems. Finally, the conflict between OTT and network operator based deployment of wireless services is discussed, using pioneering applications such as Skype, FaceTime, and others as case studies. Prerequisite: ICT 4800 or departmental permission.

ICT 4845 Network Security with Lab (4 Credits)
This course examines the key broadband radio technologies at the center of today's rapid innovation in wireless networks. Wireless telecommunications networks are studied with an emphasis on the challenges and the approaches to deal with the immense wireless data traffic explosion from devices such as the iPhone, iPad, Android smartphones and connected laptops, as well as broadband services like VOIP and mobile video. The dominant wireless telecom technologies and protocols are presented, including OFDM, MIMO, mobile IP, WIMAX, LTE, and WPANs. The "triple play" convergence of voice, video, and data over wireless networks is analyzed. The wireless telecom industry is studied from standards, carrier, and technology perspectives. Important radio network concepts are addressed, including network design, cell selections and traffic concepts, mobility handoff signaling, radio resources management, location updates, roaming, as well as authentication and encryption. Prerequisite: ICT 4800 or departmental permission.
technological evolution can use their knowledge to protect themselves against sudden and fatal technological obsolescence.

Emerging Technologies and Strategies investigates new information technologies. Having a broad view of emerging technologies as they relate to business can provide an organization with a valuable strategic advantage. Those organizations that can most effectively grasp the deep currents of technological evolution can use their knowledge to protect themselves against sudden and fatal technological obsolescence.

ICT 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and who can guide the project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of a B- or better is required to pass.

ICT 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produces a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

ICT 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

ICT 4980 Internship (4 Credits)
The ICT internship is designed to offer students a practical educational experience in an industry related setting. The internship is an individualized learning experience that is directly related to the knowledge and skills covered in the ICT master’s degree program. Students are responsible for finding their own internship site and proposing their internship ideas. University College will send notification to all ICT students if they hear of internship possibilities. Students may also work through the DU career center to explore opportunities for internship experiences. The objectives, activities, responsibilities, and deliverables for the internship are defined in a training plan that is developed by the student jointly with the internship supervisor at the sponsoring organization. The training plan is approved by the academic director. Prerequisites: The student must be unconditionally accepted in the ICT degree program, have completed a minimum of 28 hours of graduate coursework, including at least two core courses, and have earned a GPA of 3.0 or better. Enrollment must be approved by the academic director.

ICT 4991 Independent Study (1-4 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a for-credit basis.

ICT 4992 Directed Study (1-4 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Directed Study form and filed the form with all appropriate offices before registering for the directed study. Directed Study is offered only on a for-credit basis.

Info Tech & E-Commerce (ITEC)

Courses

ITEC 4270 Emerging Technologies (4 Credits)
Emerging Technologies and Strategies investigates new information technologies. Having a broad view of emerging technologies as they relate to business can provide an organization with a valuable strategic advantage. Those organizations that can most effectively grasp the deep currents of technological evolution can use their knowledge to protect themselves against sudden and fatal technological obsolescence.
ITEC 4280 Intro Software Engineering II (4 Credits)
A continuation of ITEC 4270, this course covers systems development in a client-server Internet/Intranet environment using the Java programming language. Principles of event-driven systems, remote database access, and building GUI (Graphical User Interface) prototypes for interfacing with desktop systems are included. Prerequisite: ITEC 4270 or instructor's permission.

ITEC 4310 Electronic Commerce (4 Credits)
This course is an overview of electronic commerce (EC) trends and techniques including the underlying technical infrastructure, traditional EDI techniques such as electronic data interchange (EDI) and commerce at light speed (CALS), Internet use for EC, business models for business-to-consumer EC, marketing on the Internet, payment and fulfillment mechanisms, security and regulatory issues, and global implications. Uses lectures, cases, outside speakers from industry and field trips.

ITEC 4320 Networks & Telecommunication (4 Credits)
This course examines network-enabling technologies and concepts, including LANs and WANs. Network design, management, and trouble-shooting issues will be covered. Network design in the age of the Internet will be emphasized, including intranets, extranets, design issues, security and firewalls. Pros and cons of private networks, including virtual private networks, will be discussed. Alternative technologies such as wire line, wireless, satellite and cable will be covered. Cross listed with ITEC 3810. Prerequisite: ITEC 4475.

ITEC 4350 Practicum (1-4 Credits)
This course will consist of an information systems project performed by small teams of students and tailored to individual students' needs. It will be undertaken for a "client" in the business community. Supervised by a faculty member, each project will permit students to apply what they have learned in a live setting and focus on project management planning, reporting, and problem discovery and resolution. Prerequisite: ITEC 4300 or ITEC 4330.

ITEC 4476 Business Process Analysis and Design (4 Credits)
This course starts with the traditional information technology systems analysis and design and broadens this approach to include analysis and design of better business processes - innovative processes which deliver greater value to customers and enterprises alike through creative uses of information technology. We will analyze past and current examples and look for ways to build on and extend these successful exploitations of information technology to other companies and industries. In short, this course is about exploring innovative ways to create greater business value by analyzing and designing not only the systems, but also the business processes these systems are created to support.

ITEC 4477 Database-Driven Websites (4 Credits)
Using state of the art technologies, this course focuses on the development of dynamic web pages. Technologies include PEARL, ASP, ColdFusion, SQL, Access, and Oracle. Cross listed with ITEC 3477. Prerequisite: ITEC 4475 or current enrollment.

ITEC 4478 XML (4 Credits)
This programming course is the second of a five series Web Services course track designed to prepare the student for the certification exam offered by Microsoft in the development of .NET applications. The second module of the series, XML, provides a thorough understanding of the main techniques surrounding the development of XML applications. Up until now, it has been very difficult to communicate and transfer data between different platforms. The surge of XML as a universal text-based standard readable and interpreted by any other system available, has opened the channel to enhance the development of cross-functional applications. Students will learn to write the codes describing the data, processes it and prepare it for presentation, as well as modeling and designing functional components that will later be used to drive the applications. Topics include: creating well-formed and valid XML documents, parsing the documents and creating the format to display it through the client's browser, design functional components and the interconnections among them. Some of the tools that the student will learn to use in this course are XML Syntax, DTD, Schema, CSS, XSL, XSLT, DOM, SAX, SOAP, WSDL, and UDDI. Prerequisite: ITEC 4477 or concurrent enrollment.

ITEC 4480 ASP.NET (4 Credits)
The goal of this course is to provide students with the knowledge and skills that are required to develop XML Web services-based solutions to solve common problems in the distributed application domain. The course focuses on using Microsoft Visual Studio .NET, Microsoft ASP.NET, and Universal Description, Discovery, and Integration (UDDI) to enable students to build, deploy, locate and consume Extensible Markup Language (XML) Web services.

ITEC 4481 C#.NET (4 Credits)
The goal of this course is to provide students with the knowledge and skills needed to develop C# applications for the Microsoft .NET Platform. The course focuses on C# program structure, language syntax, and implementation details. C# was created to be the programming language best suited for writing .NET enterprise applications. C# combines the high productivity of Microsoft Visual Basic with the raw power of C++. It is a simple, object-oriented, and type-safe programming language that is based on the C and C++ family of languages.

ITEC 4486 Information Technology Management (4 Credits)
This course focuses on issues central to the effective management of the IT function including, but not limited to: managing the IT organization, IT's changing role in the enterprise, and managing internal and external relationships.

ITEC 4500 Strategic Info Technologies (4 Credits)
How organizations are using information technologies for competitive advantage.
ITEC 4610 IT Strategy (4 Credits)
Businesses run on information, organized data about customers, markets, competition, and environments. Information systems (interconnected computers, data, people, and processes) are critical to capture, organize, and disseminate that information in ways that provide stakeholder value. This course is designed to help managers, technical and non-technical alike, to explore how to derive greater value and satisfaction, both personally and professionally, from information systems.

ITEC 4700 Topics in Inform. Technology (1-10 Credits)
New topic area discussion in information technology.

ITEC 4980 Internship (0-10 Credits)
Permission of instructor required. Hours and times arranged by student.

ITEC 4991 Independent Study (1-8 Credits)
Individual study and report. Hours and times arranged by student.

ITEC 4992 Directed Study (1-4 Credits)

ITEC 4995 Independent Research (1-8 Credits)

Intermodal Transportation (TRAN)

Courses

TRAN 4010 Introduction to Freight and Passenger Transportation (2 Credits)
This course will provide an overview of the freight and passenger transportation sector of the North American economy, focusing on all of the modes. It will include a discussion of the vision of a transportation system for the future: one that moves people and goods efficiently, economically, safely and securely, and in an environmentally benign manner on an integrated, seamless, ethical transportation system that uses the strengths of all modes and minimizes their weaknesses. The course will discuss how such multi-modal systems for freight and intermodal systems for passengers operate in an impact the development and growth of the US and global economies.

TRAN 4020 Applied Micro Economics for Transportation (4 Credits)
This course will discuss basic microeconomic concepts used in the analysis of transportation with a focus on pricing for the firm relative to costs, market framework, and competitive issues both within the mode and between modes. In addition, the course will involve fieldwork observing and discussing the physical elements underlying the economics of the firm and its pricing.

TRAN 4030 Quantitative Tools for Transportation Management (4 Credits)
This course will introduce the quantitative transportation tools of GIS and statistics; GIS to help solve data management, modeling, and visualization challenges, and statistics for analysis of transportation data to support decisions. GIS addresses (1) the challenge of “big data” which is a current discussion topic in business, (2) modeling (including linear programming) of networks, routing/scheduling, and location analysis, and (3) the visualization output and how it is used for decision making. The statistics component would focus on the framing, tools, and appropriate applications of the statistical processes and how statistics can be correctly used in different data analysis situations in transportation.

TRAN 4050 International Transportation Survey and Analysis (4 Credits)
This course will survey and analyze at a macro level the international freight and passenger operations, policies, and other concepts covered in fundamental courses, as applied to the locations and facilities included in the planned International Transportation Seminar. In addition, this course will explore the specific passenger and freight transportation structure and systems operation for transportation in these international locations and facilities.

TRAN 4060 Transportation Marketing and Sales Tools (4 Credits)
The marketing mix is presented as it relates to both freight and passenger transportation services. Demand forecasting and market analysis for transportation markets. Understanding capacity, marginal costs of capacity market segmentation, pricing capacity and revenue maximization within available capacity constraints will be addressed. Customer service is discussed fully in terms of understanding both the freight- and passenger-customer perspectives and relating this information to marketing and management decision making, especially with regard to the intermodal industry.

TRAN 4070 US and International Law (4 Credits)
This course will survey the main issues facing transportation professionals in managing and operating a safe and secure intermodal transportation system. Particular attention will be given to labor and management practices that have proven effective in addressing these issues and to their potential for intermodal transportation. Topical content will include the history of labor relations, fatigue in transportation, personnel safety, ergonomics, negotiation strategies, ethical issues, security issues, and others.

TRAN 4080 Transportation Law, Policy, and Regulation (4 Credits)
This course addresses the history of transportation and its regulation, constitutional law, regulatory agencies and administrative procedures, railroad regulation, motor carrier regulation, taxicab regulation, air carrier regulation, pipeline regulation, carrier liability (passengers and cargo), labor law, safety regulation, environmental law, antitrust law, and disabilities law as well as issues of intermodalism.

TRAN 4310 Freight Transportation Executives Seminar (4 Credits)
Through the use of transportation executives in the classroom, this course will explore in depth some of the key concepts covered during the course of the program to include topics such as applied transportation finance, shipper transportation metrics/requirements, global freight flows to/from North America, government/military transportation, etc. In addition, in a case study, students will propose options for a real-world challenge using knowledge and data from current-event case material and guest executive presentations.
TRAN 4320 Transportation Management, Leadership and Values (4 Credits)
This course will address personal behavior; understanding yourself as a leader and organizational behavior issues such as organizational structures, motivation, power and politics, culture and change management. The course will focus on ways of dealing more effectively with the organizational upheaval that comes with change, including planning and information-sharing techniques to help keep your team focused on solutions. Developing leaders: creating a vision, gathering resources, motivating others, handling conflict- together with advice about how to create a climate that encourages others to take initiative and develop their own potential will be a vital part of the course. Strategies in human resource with a system level macro focus will be discussed.

TRAN 4330 Principles of Supply Chain: Management and Technologies (4 Credits)
This course will assist students in gaining awareness, knowledge, and understanding of the distribution patterns and relationships that play a key role in determining company success. We will view perspectives within the context of the global marketplace and across both freight and passenger transportation. We will address external value chains and internal value chains; stakeholder relationship management; the supply chain and the demand chain complexities; strategies of E-business; the strategic use of IT; strategic planning to gain a competitive advantage; end-to-end supply chain visibility and the strategies use of technologies in the enterprise-wide system.

TRAN 4340 Freight Transportation in Supply Chains (4 Credits)
As freight can be two-thirds of logistics costs, this course expands on a traditional Supply Chain course, providing detailed concepts and application for freight transportation in supply chains. This will include modal comparisons and contrasts of operational, financial, marketing, and information technology tools/software in the freight industry. Collaboration and competition between and among the modes will be explored to understand specific tactics to improve modal and supply-chain efficiencies in both the global and domestic arenas. Additionally, current trends in freight transportation and supply chain management across the globe will be studied and discussed for strategies and tactics to shape, manage, and respond to those trends.

TRAN 4400 Excellence in Leadership (2 Credits)
This course will provide an integrated exploration of current topics most important for leadership success within the transportation industry. Current best leadership practices will be reviewed, and common leadership challenges within transportation will be analyzed for successful resolution.

TRAN 4410 Executive Management Practices in Organizations (1 Credit)
This course will provide a comprehensive view of best practices for executive management in transportation workplaces. Organizational situations will be assessed from a variety of viewpoints and policies analyzed for optimal execution of strategy.

TRAN 4420 Leading with Integrity (1 Credit)
This course will explore ethical decision making and values-based leadership. Values, ethics and organizational philosophies will be assessed for best application in various corporate settings within the transportation industry.

TRAN 4430 Applied Micro Economics & Pricing (4 Credits)
The course will involve fieldwork and U.S. site visits observing and discussing the physical elements underlying the long-term and marginal economics of the firm and its pricing strategies and policies. In addition, the course will discuss basic microeconomic concepts used in the analysis of business services, including the concepts of market size; marginal, average, short-run, and long-run costs; and production levels as they relate to revenue and contribution with a focus on pricing for the firm relative to its fixed and variable costs, market share framework, and competitive issues both within the mode and between modes.

TRAN 4440 Marketing & Sales Management Strategies (4 Credits)
This course will examine the foundations of marketing as well as the process of developing, assessing and implementing marketing strategies in the transportation and supply chain industries. The foundations are grounded in an understanding of customers’ wants and needs and a commitment to satisfying those needs within the resources of the organization, the long-term benefits of society and the economy, and the highest ethical and moral standards in this global economy. Based on this foundation the students will learn the process of formulating marketing strategies, such as segmentation, targeting, positioning and the four P’s of marketing: product, price, place and promotion.

TRAN 4450 Legal Studies: Contracts & Regulation (2 Credits)
This course will focus on the fundamentals of creating and implementing effective contracts, whether with customers, suppliers, or labor. The contract discussion will be framed by regulatory and policy realities both in domestic and international contexts, including an understanding of federal and international laws, liability, regulations, policies, programs, and agencies impacting contracts.

TRAN 4460 Financial & Managerial Accounting (2 Credits)
This course will cover the basic theory, principles and practice of financial accounting and examine accounting statements including income and cash flow statements and balance sheets. Discussions include managerial use of accounting data useful in making investment and cost decisions, assessing cash flows, and the use of the organization resources to produce profit. Additional topics will include reading and understanding the 10-K, basic accounting standards and practices, and assessing the quality of financial information found in the accounting reports.

TRAN 4470 Financial Analysis & Capital Structures (2 Credits)
Complementing 4460, this course will use ratio analysis to determine relative performance of companies and the industry to enable management to assess operating efficiency, profitability and effective use of capital. Capital structure concepts, fixed and variable cost considerations, the use of operating and financial leverage, and the concepts of business and financial risk will be discussed. The course also includes a basic review of the principle of time value of money.
TRAN 4480 Capital Decision-Making & Capital Markets (2 Credits)
This course will examine the management decision process for making capital expenditures that enhance the value of the firm, cash flow estimation for capital budgeting purposes, decision models for capital budgeting, weighted average cost of capital, decisions in capital constrained situations, sensitivity analysis, and a review of the capital markets.

TRAN 4490 Global Trade & Economics (4 Credits)
This course will examine the World Trade Organization and the regional trade agreements, such as NAFTA, EU, and ASEAN, with regard to their impact on North American transportation, trade, and economy overall including their relationship to account deficits and their significance; and their impact on disputes and how trade disputes are settled. In addition, the course will address the global economy and economics and its drivers, comparing and contrasting North America, China/Asia, the European Union, and selected emerging economies to include impacts on global trade, such as trading patterns, outsourcing, and changing production areas.

TRAN 4610 Multimodal Passenger-Freight Transportation Systems (4 Credits)
The purpose of this course is to explore the multimodal characteristics of transportation systems with emphasis on the interactions between freight and passenger flows. The students will learn about how passenger transportation systems are planned and operated, and the potential impacts on freight movements. At the end of the course, students will have a better understanding of how both public and private sector transportation decisions affect one another.

TRAN 4700 Transportation Roles in Global Trade (4 Credits)
This course will examine the World Trade Organization and the regional trade agreements, such as NAFTA, EU, and ASEAN, with regard to their impact on North American transportation, trade, and economy overall including their relationship to account deficits and their significance; and their impact on disputes and how trade disputes are settled. In addition, the course will address the global economy and economics and its drivers, comparing and contrasting North America, China/Asia, the European Union, and selected emerging economies to include impacts on global trade, such as trading patterns, outsourcing, and changing production areas.

TRAN 4710 Transportation Finance (4 Credits)
This course focuses on the transportation managers ability to understand and analyze financial statements. Topics covered will be the basics of major accounting statements, income and balance sheets, use of operating leverage, ratio analysis to determine relative performance of companies and the industry individual modes and across modes. An emphasis will be placed on time value of money and capital expenditure analysis and decision models for capital budgeting. Exploring markets and the sources of financial capital, securities, public and private financing will be discussed.

TRAN 4800 Analysis of Freight & Passenger Transportation Business Segments (2 Credits)
This course will provide an overview of the freight and passenger transportation sectors of the North American economy, focusing on various modes and their financial profiles, including aggregate revenue, income, market share and investment. The course will include a discussion of the vision of a transportation system for the future—one that moves people and goods efficiently, economically, safely and securely, and in an environmentally benign manner on integrated, seamless, ethical transportation processes using the strengths of all modes and minimizing their weaknesses. The course will discuss how such multi-modal systems for freight and intermodal systems for passenger operate in and impact the development and growth of the U.S. and global economies.

TRAN 4810 Geographic Information Systems (GIS) & Statistics (4 Credits)
This course will introduce the quantitative transportation tools of GIS and statistics that support problem solving with data management, modeling, and visualization. GIS addresses (1) the challenge of “big data,” a significant discussion topic in business, (2) modeling (including linear programming) of networks, routing/scheduling, and location analysis, and (3) visualization output and how it is used for decision making. The statistics component focus is on the framing, tools, and appropriate applications of the statistical processes and how statistics can be correctly used in different data analysis situations in transportation.

TRAN 4820 Principles of Supply Chain Management (4 Credits)
This course will provide an overview of the basic principles of supply chain management, giving students an understanding of supply chain processes from sourcing to finished goods and customers to suppliers, identifying the five core supply chain processes and examining the role that transportation and logistics play in the supply chain. Students will learn the key operating and financial measures of supply chain management that impact the users and providers of services. Additionally, current trends in the technology of supply chain management, including applicable global trends, will be covered.

TRAN 4830 Advanced Transportation & Supply Chain (4 Credits)
Transportation costs and inventory considerations are significant drivers of total logistics and supply chain management costs. This course expands on the earlier Principles of Supply Chain Management course, providing detailed concepts and applications for freight transportation and inventory considerations in supply chains. This will include modal comparisons and contrasts of operational, financial, marketing, and information technology tools/software available in the freight and supply chain industries. Collaboration and competition between and among the modes will be explored to understand specific tactics to improve modal and supply chain efficiencies and competitive alternatives in both the global and domestic markets. Additionally, current trends in freight transportation and supply chain management across the globe will be studied and discussed to consider strategies and tactics to shape, manage, and respond to those trends.

TRAN 4840 Multimodal Passenger-Freight Transportation Systems (4 Credits)
The purpose of this course is to explore the multimodal characteristics of transportation systems with emphasis on shared assets and the interactions between freight and passenger flows. The students will learn how passenger transit and vehicular transportation systems are planned and operated, the concept of external benefits, and the potential impacts on freight movements. By the end of the course, students will have a better understanding of how public and private sector transportation management and investment decisions affect one another.
TRAN 4850 International Transportation & Supply Chain Management Analysis (4 Credits)
This course will survey and analyze at a macro level the international freight and passenger operations, policies, and other concepts covered in fundamental and advanced courses, as applied to the locations and facilities included in the planned International Transportation Travel Seminar. In addition, this course will explore specific passenger and freight transportation management structures and operations for transportation systems in important international locations and facilities.

TRAN 4860 Senior Management-Executives & Issues Seminar (4 Credits)
Through the use of transportation executives in the classroom, this course will explore in-depth some of the key concepts covered during the course of the degree program, to include topics such as applied transportation finance, merger and acquisition issues, shipper transportation metrics/requirements, global freight flows to/from North America, and government/military transportation. In addition, in case studies, students will propose options for real-world challenges using knowledge and data from current events, degree program courses, case material, and guest executive presentations.

TRAN 4870 Individual Leadership Development Project (4 Credits)
This course will guide students through the process of developing and executing individualized leadership development projects to enhance specific leadership skills and goals within their current management structure or an assigned organization. Through work over the six quarters of the program, the leadership projects will provide a unique opportunity for each student to hone critical aspects of her/his leadership, which, in turn, benefits the students, their organizations, and the larger transportation, logistics, and supply chain community.

TRAN 4880 Business Development & Productivity Improvement Planning Project (4 Credits)
This course will guide students through the creation of a comprehensive business development and/or productivity improvement-oriented business plan, with a preferred focus on the transportation industry, to develop a new revenue growth or new service opportunity for their organization or an assigned organization. Through work over the six quarters of the program, this project provides each student with important business planning and development skills to create an implementable business plan, which may provide tangible benefits to their sponsoring organization as well.

TRAN 4890 International Transportation Travel Seminar (2 Credits)
The Seminar will provide an onsite experience for students as they visit and study freight and passenger-related facilities and governmental agencies in major international locations. This international travel seminar will allow students to see new and emerging technologies in action that may provide significant productivity improvements. Students will also have the opportunity to examine the management and operation of transportation and supply chain operations in other countries. Students will meet with executives, government leaders and local managers of these systems to learn directly about the challenges of serving the global economy.

TRAN 4910 International Transportation Travel Seminar (2 Credits)
This course will provide exposure to real-world issues and problems in the intermodal transportation industry through an intensive four-to-seven-day onsite visit to a major transportation facility in North America. The course will include research and data gathering prior to the actual visit and will result in team projects with the final presentations being made during the final Quarter.

TRAN 4920 Leadership Development in Transportation Project (4 Credits)
This course will guide participants through the process of developing and executing an individualized leadership development plan to enhance specific leadership skills in the transportation or transportation-related industry. With work over the six quarters of the program, the leadership plan will provide a unique opportunity for each participant to hone critical aspects of his/her leadership, which, in turn, benefits the participant, the organization, and the larger transportation and supply chain community.

TRAN 4950 Transportation Business Planning Project (1-8 Credits)
This course will guide participants through the creation of a comprehensive transportation oriented business plan to develop a new or enhanced product or service for a transportation related organization. With work over the six quarters of the program, this project provides the participant with important business planning and development skills and an implementable transportation related business plan, which may provide a tangible benefit to the organization as well.

TRAN 4991 Independent Study (1-10 Credits)

International MBA (IMBA)

Courses
IMBA 4141 Managing Exports (4 Credits)
IMBA 4142 Global Management (4 Credits)
IMBA 4500 Global Theory in Practice (2,4 Credits)
IMBA 4700 Topics in International Business Administration (1-5 Credits)
Topics change each term.

International Studies (INTS)
Courses

INTS 4010 Epistemology (5 Credits)
An introductory course covering philosophy and history of science, epistemology, causality, and the logic of inquiry as related to international studies. The relation between theory and practical politics is explored, and differences between empirical and normative theory are examined in the context of foundational principles of politics and social science.

INTS 4011 Comparative Genocide (5 Credits)
This course examines the historical origins, patterns, and legacies of contemporary genocides around the world. We begin with the UN Convention on the Prevention and Punishment of the Crime of Genocide in 1948, which legally codified the definition of genocide and compelled ratifying parties to prevent its reoccurrence. Yet as we'll see, genocide has instead reoccurred with alarming frequency. We will discuss the definitional and analytical challenges facing this subject, as well as academic and policy debates regarding how to define and prevent genocide. We will also explore different approaches to seeking justice and reconciliation in the aftermath. To do so, this class will ground theoretical debates in empirical case studies.

INTS 4028 States & Societies in Africa since 1800: Power, Obligation, Dependency, & Belonging (5 Credits)
This course explores the shifting spectrum of state-society relations in Africa, from the mutual obligations of citizenship to the duties and opportunities of subjecthood. It begins with questions of authority and belonging in kingdoms, chiefdoms, and "stateless" societies prior to the twentieth century. This is followed by the formation of the colonial state, resistance to colonialism, forms of control and the social and political transformations produced under European imperial projects. The emergence of nationalism and associated conceptions of nationalist citizenship lead to the discussion of decolonization, the developmental subject and the modernizing mission. Through the crises of the postcolonial state we consider authoritarianism, patrimonialism, and the problem of citizenship in "failed" states. We conclude with contemporary themes of democratization and political liberalization, drawing together issues of authority, control, belonging and identity across the longue durée.

INTS 4029 International Business: Strategy and Practice (4 Credits)
This course focuses on applied issues in international business. Students will learn to think strategically about international business issues, and will in turn be able to apply that thinking to best practices. The following subject areas will be covered: country selection, entry mode theory, exporting, born-global businesses, organizational structures internationally, negotiation, consumption, culture, and demand. Other potential topics include global supply chain management/sourcing, country of origin effects, etc.

INTS 4030 International Trade A (5 Credits)
This course is the second part of the MIS trade sequence. It covers the basic theory, evidence and policy applications.

INTS 4033 Natural Resources and Armed Conflicts Under International Law (5 Credits)
The course will offer a description and an assessment of how international law regulates the relationship between natural resources and armed conflicts. Attention will be given to principles and rules regulating access to natural resources in the pre-conflict phase; protecting the resources pending the conflict; regulating the exploitation of the resources during and after occupations and international administrations. The role of transnational corporations in fueling conflicts will be considered with reference to recent developments such as certification schemes, the emerging legal framework on transparency in business, and the debate on corporate responsibility for international crimes. The concept of "illegal exploitation of natural resources" will be analyzed in light of the relevant resolutions of the United Nations Security Council. Finally, possible solutions to the issue of armed conflict resources (i.e. resources fueling the initiation of conflicts) will be considered from a legal perspective.

INTS 4034 Topics in Globalization and Postcolonialism (5 Credits)
Rarely used twenty years ago, the term "globalization" has proliferated recently in both popular and scholarly arenas to describe the increasing flows of capital and commodities, migrants and ideas across national borders. Postcolonialism denotes the world conditions after the end of the European colonial empires. More importantly it refers to the critical analysis of the political and cultural legacy of colonialism, as well as the intellectual effort to deconstruct its underlying assumptions. This seminar will essentially consist of discussions of the readings. Its objective is to familiarize the students with some classical works that have contributed to define the field, as well as recent research that has expanded the debate to contemporary issues such as development, humanitarian aid, transnationalism, conflicts, or environment. Some theorists, who have criticized the dominant narrative of the world history to give space to the voices of marginalized and subaltern people, will also be discussed in the class.

INTS 4035 Social Inquiry and Qualitative Methods for Development (5 Credits)
This course seeks to provide students with the concepts, techniques and practical skills to undertake original research for their MDEV theses and beyond. It will begin by critically asking what it means to undertake (inter- or cross-) disciplinary research "on" development, "in" development studies, and/or "for" development work. The bulk of the course will then focus on the design of qualitative studies, before emphasizing the practical skills of data collection (document analysis, interview techniques, observation) and analysis (coding). Offering a comparative perspective on social inquiry across a number of relevant social-scientific disciplines and in relation to quantitative approaches, the course will also touch upon effective writing and presentation skills, evaluations and assessments in practitioner circles, research ethics, and the relationship between the social sciences and public life.
INTS 4036 Mobilities: Critical Perspectives on Forced and Voluntary Migration (5 Credits)
The mobility of people across international borders, be they labeled as refugees or economic migrants, is becoming a crucial debate both within academia and in the public sphere. Migrants are presented as potential promoters of peace and actors of development in their country of origin, but also as a threat to the national cohesion in their country of destination. This course deals with key issues related to the field of migration studies. Building on an anthropological perspective on the predicaments and strategies of people, it will offer a critical scrutiny of existing categories such as the distinctions between forced and voluntary migration, between situations of conflict and development. At the conceptual level, the course questions the narrow framework of the nation-state to relocate migration processes in all their complexity and proposes new approaches that take into account ongoing circulation and the existence of transnational ties. At the practical level, it stresses the normality and potential of human mobility throughout history to renew the policy debates of states and international organizations.

INTS 4037 International Security (5 Credits)
This course provides an introduction and (partial) overview of International Security studies: the (construction of) threats and use of force by states and non-state actors to achieve political and military objectives. It will deal with some of the discipline’s “classical” debates and foundational texts (alliance theory, deterrence, and the causes of war) as well as explore a variety of international security issues. Questions addressed will include: the systemic impact of violent conflict, cooperation under the security dilemma, communal and intra-state conflicts, the political economy of conflict, and new security issues. The reading list includes a variety of concepts and approaches to encourage attention to different strategies for research. The approach is eclectic, and broad enough to allow students to explore a range of conceptual and practical issues within contemporary security studies.

INTS 4038 Climate Change and International Law (5 Credits)
This course explores the role that international law plays in devising ways to mitigate further climate change, and to adapt to those impacts that are already inevitable. The course includes an examination of the current international legal framework on climate change, notably the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. Particular attention is paid to the upcoming UN Climate Change Conference in Paris in November/December 2015; one of the main objectives of this conference is to achieve a legally binding, universal agreement on climate change. As the effects of climate change are widespread, the course also addresses other relevant areas of international law - including human rights law, trade law, biodiversity, and migration - and explores developments in climate change litigation and the concept of climate justice. The course will enable students to understand and critically assess the role of international in addressing climate change.

INTS 4039 Violence, History and Memory in Twentieth Century Africa Law (5 Credits)
This course offers historical, theoretical and empirical perspectives on the impact of conflict in the modern history of Africa. Opening with a guided discussion of broad debates over models of warfare and violence that apply social, cultural, materialist and instrumental theories of causation, the course then proceeds through a series of case studies in seminars. These include colonial wars of decolonization in Algeria and Kenya, the Biafran War of secession and its repercussions in Nigeria, contrasting genocides in Burundi and Rwanda, the Red Terror in revolutionary Ethiopia, liberation struggles in Southern Africa, the ‘African World War’ in Congo, interlinked conflicts in Sierra Leone and Liberia, and other cases of contemporary significance. In each case, students will be encouraged to consider the means of violence employed, the causes and motivations of conflict, issues of gender, youth, religion, politics and ethnicity, the personal and communal impacts of experiencing and witnessing various forms of violence, and the transnational dynamics of conflict. Throughout, questions of culpability, ethics and moralities will be tackled in relation to the various approaches to transitional or retributive justice, the problem of ‘living together again’ dominated by the pressures of memory, silence, memorialization and mythico-history.

INTS 4050 Statistical Methods I (5 Credits)
An introductory course featuring statistical reasoning, probability, sampling, statistical inference, nominal and ordinal measures of association, and correlation. Open only to students with no prior background in statistics.

INTS 4051 Statistical Methods II (5 Credits)
This course is a continuation of Statistical Methods I, covering the fundamentals and primary methods of statistical inference. Topics include two-sample hypothesis testing, analysis of variance, chi-square goodness-of-fit tests, chi-square contingency analysis, correlation, simple regression and multiple regression. Emphasis will be on problem solving, computer applications (using Stata) and interpretation of results. This course is offered in the Winter quarter only. Prerequisites: INTS 4050.

INTS 4052 Statistical Methods III (5 Credits)
This course will serve as continuation of Statistical Methods II. This will be an applied, non-calculus based course on statistical techniques used in nonparametric and multivariate analysis. Emphasis will be on applications and data analysis using the statistical software package SAS. Prerequisite: INTS 4051 or INTS 4057.

INTS 4056 Information Management in Humanitarian Crises (5 Credits)
Accurate, reliable and timely data collection, processing, analysis and dissemination (four steps in information management) are critical for the effective implementation of both development and humanitarian programs. In humanitarian responses, there are numerous challenges to managing information in what may be a rapidly evolving situation. This course introduces students to the theory of information management and its application in the humanitarian context.
INTS 4057 Statistics for International Affairs (5 Credits)
This is a fast-paced course which serves as an introduction to basic and intermediate concepts in statistics and probability, as well as the primary methods of statistical inference. Topics include data collection, presenting data in tables and charts, summarizing and describing numerical data, basic probability, discrete probability distributions, normal distribution, sampling distributions, confidence interval estimation, single-sample and two-sample hypothesis testing, analysis of variance, chi-square goodness-of-fit tests, chi-square contingency analysis, simple regression and multiple regression. Emphasis will be on statistical reasoning, problem solving, computer applications (using Stata), and interpretation of results. This course is offered in the Fall quarter only. Prerequisite: Strong quantitative background and a minimum quantitative GRE score of 148 or permission of the instructor.

INTS 4058 Applied Time-Series Analysis (5 Credits)
This course serves as an introduction to time-series analysis and panel data analysis techniques. Topics include moving averages, exponential smoothing, time-series decomposition, model identification and estimation, Box-Jenkins method, ARMA and ARIMA models and VAR analysis. Panel data analysis includes fixed effects and random effects models. Emphasis will be on computer applications (using Stata) and interpretation of results. This course is offered in the Winter quarter only (and occasionally in the Spring quarter instead of Winter). Prerequisites: INTS 4051 or INTS 4057.

INTS 4087 Tch Conflict & Nuclear War (0 Credits)
This course is offered in the Winter quarter only (and occasionally in the Spring quarter instead of Winter). Prerequisites: INTS 4051 or INTS 4057.

INTS 4110 Food & Nutrition Security for Sustainable Development (5 Credits)
This policy-oriented course will examine structures and processes that result in varying food security outcomes across space and time. Food security outcomes reflect interactions among political, economic, socio-cultural, and physical environmental systems. These systems, which are both dynamic and permeable, give rise to particular forms and patterns of food production, distribution, and consumption, and to more or less environmentally-sustainable uses of the natural resources critical to food and nutrition security. Ultimately, food security is realized when all people within a population consume sufficient nutrients to live active and healthy lives. This normative focus on human health and well-being, as the metric by which food security outcomes will be measured, is critical to the framing of this course. Political, economic, and social institutions—positioned at scales encompassing global, national, “local” (micro-regional, community), and household—are simultaneously charged with producing food in particular physical environments and/or making food available and accessible to their populations, and with protecting environmental resources and public health in ways that contribute to nutritional components of human development. The term “political ecology” has been used to describe an analytical framework that explicitly focuses on the interactions among the structures of political economy and those of physical/biological ecologies (including human), together with the socio-cultural contexts that influence structural impacts and help to explain outcomes. This framework incorporates both an explicit navigation among scales (of power and of analysis) and a long-term perspective. Cumulatively, the readings and exercises of this course will build a political ecology of policy domains central to improving food security and nutrition outcomes in both global north and south. We will examine policy issues and constituencies, institutional approaches, theoretical perspectives, and empirical analyses. You will have opportunities to engage with institutional approaches through structured exercises, including a mid-term graded exercise. You will also have an opportunity to produce an independent project that will include your own policy recommendations.

INTS 4141 Domestic/Int’l Conseq:Drug War (5 Credits)
Domestic and international policy and the impact of the drug war on both.

INTS 4142 After the Fall: Russia & China (5 Credits)
Provides analysis of the historical rise of Russia and China, and their complex inter-relationship and interaction with the United States and the world.

INTS 4147 American Govt & Pol. Making (5 Credits)
Examines governmental fragmentation affects and policies and examines how policy issues engage different segments of the government.

INTS 4151 History, Culture and Conflict (5 Credits)
An introductory course examining how and why historians develop diverse interpretations of events and periods. Methods of analyzing evidence, selecting research material, and supporting arguments are discussed and evaluated in assessments of selected historical cases. Methodological ties between the historiographic approach and social sciences including anthropology and psychology, as well as the study of gender are also drawn.

INTS 4200 Water & Sanitation in the Global South (5 Credits)
The current water governance systems are intertwined with politics and power and prioritize some groups and water uses over others. Worldwide, there are 750 million people who lack basic water access and 2.5 billion who lack sanitation access. Water is life. It sustains ecosystems, it fuels energy and industry, it enables livelihoods, it is essential for food security, health and nutrition, and it is central to many social and spiritual practices. Inadequate access to safe drinking water, sanitation facilities and hygiene practices deepens income poverty, weakens health, undermines education and exacerbates gender inequality. This interdisciplinary course will explore water and sanitation issues in the Global South. Political ecology and the hydro-social cycle will be introduced as concepts for moving beyond technical water and sanitation planning to consider how water is related to broader issues of power, politics, culture, and society. We will learn about practical and applied approaches for planning water, sanitation and hygiene (WASH) programs, discuss interactions between society and water, and critically examine constructions of water scarcity. In this process we will move between scales at the community, river basin, regional and global level. Several special topics will be explored including gender and water, multiple use water services, water privatization, water and culture, WASH technologies, sustainability, health and behavior change. This course will focus on the water needs of communities in the Global South from a perspective of social justice.
INTS 4220 Political Economy of Energy & Sustainable Development (5 Credits)
The main purpose of this course is to understand critically the conceptual and empirical issues underlying the linkages between energy and sustainable development within the current global political economy (GPE) and Geopolitics. What is sustainable development? What are the global dimensions of sustainable development? What are the linkages between energy and sustainable development? How does the discourse of the linkages between energy and sustainable development relate to the underlying political economy and geopolitics of global capitalism? How does the discourse of the linkages between energy and sustainable development relate to the underlying causes of inequality and poverty in the world? In order to do this, we will look at the relationships among energy, geopolitics, geoeconomics, economic growth, poverty and inequalities in several different dimensions.

INTS 4221 India in the Global Economy (5 Credits)
The main purpose of this course is to understand critically the conceptual and empirical issues underlying the linkages between Indian economic development and the world economy within the current global political economy (GPE). What is sustainable development? What are the global dimensions of sustainable development? What are the linkages between Indian strategy for development and sustainable development? Is the Indian strategy for development sustainable? How does the mainstream Indian development discourse relate to the underlying political economy of global capitalism? What are the deep underlying causes of inequality and poverty in India? In order to do this, we will look at the relationship between India’s development strategy, energy, economic growth, poverty and inequalities in several different dimensions.

INTS 4222 Slavery & Genocide: A Comparative Analysis (5 Credits)
This course attempts to examine the similarities and differences between slavery and genocide by using comparative techniques. Since both slavery and genocide studies have definitions problems we will work toward clarity since politics has played a major role in naming events. Beyond definitions, we need to take a close look at the political economy of both slavery and genocide.

INTS 4223 Global Dynamics & Local Threats in Agricultural Development (5 Credits)
Many low- and middle-income countries in which agriculture plays a key role for development are characterized by high levels of socio-economic inequality, a mixed human rights record and a dominance of transnational corporate power in domestic agricultural export markets. At the same time, these countries face processes of environmental degradation through anthropogenic and natural drivers of change that affect the availability of ecosystem services and thus shape agricultural development and human wellbeing. This course offers an in-depth study of the political, socio-economic and social-ecological conditions for sustainable agricultural development in low- and middle-income countries. We explore the political economy of agricultural production and trade in countries that depend to a significant extent on the export of agricultural commodities as a source of foreign revenue. We examine the design and implementation of global policy frameworks, international agreements, and national strategies for agricultural production and trade, with a particular focus for the governance of natural resource use. Our goal is to assess the relevance and effectiveness of current governance structures for agriculture to respond to local-, regional- and global-scale environmental changes and socio-economic challenges in ways that address current and future human needs. Through case studies from selected agricultural sub-sectors and diverse countries from across Asia, Africa and Latin America, we investigate local strategies for natural resource use in the context of poverty, inequality, and environmental change. The course provides a comprehensive coverage of the political economy of agricultural development and an introduction to social-ecological systems analysis as a theoretical framework for interdisciplinary research in the field of sustainable development.

INTS 4224 Trade Unions in the Global Economy (5 Credits)
Trade unions are major influences in the political economy of most nations, even as they face apathetic or hostile governments and increasingly powerful multinationals. As globalization has created common employers across national boundaries, trade unions have struggled to establish institutions and mechanisms to defend workers and build global power. The course will familiarize students with the underappreciated role of trade unions in the global economy. Having a grasp of the subject matter is essential to anyone working in the international arena for governments, corporations, non-governmental organizations and trade unions.

INTS 4225 Civic Strategies for Fighting Extremism (5 Credits)
This course will teach students hands-on community organizing, technology and intervention strategies for action to help combat extremism. The students will spend time working directly with community and government agencies on security strategies, identifying online risks, and learning about social media strategies for intervention. Some of the skills covered include network analysis, resource management, cognitive behavior change and political psychology, public narrative, power mapping, asset-based community development, and group facilitation.

INTS 4226 Social Entrepreneurship & Global Poverty (5 Credits)
This course provides an overview of the role of social entrepreneurs, innovative small firms, and entrepreneurial NGOs in sustainable development and poverty alleviation. Market-driven strategies are increasingly important for all organizations, in government, public, or private sectors, to encourage local solutions that are sustainable and do not require ongoing subsidy. Entrepreneurial NGOs and small firms are a great source of local innovation and adaptation, identifying potential strategies that can be scaled up through partnerships with governments, social purpose organizations, or private capital. These market-driven strategies are based on a good understanding of customers, the value provided, and how to best deliver products and services to vulnerable populations in a responsible way. Further, a strong customer and market focus ensures that all social purpose organizations (both for-profit businesses and NGOs) meet customer needs effectively and develop new products and services efficiently.
INTS 4260 Global Dynamics & Local Threats in Agricultural Development (5 Credits)

Many low-income and middle-income countries in which agriculture plays a key role for development are characterized by high levels of socioeconomic inequality, mixed human rights record and a dominance of transnational corporate power in domestic agricultural export markets. At the same time, these countries face processes of environmental degradation through anthropogenic and natural drivers of change that affect the availability of ecosystem services and thus shape agricultural development and human wellbeing. This course offers an in-depth study of the political, socioeconomic and ecological conditions for sustainable agricultural development in low-income and middle-income countries. We explore the political economy of agricultural production and trade in countries that depend to a significant extent on the export of agricultural commodities as a source of foreign revenue. We examine the design and implementation of global policy frameworks, international agreements, and national strategies for agricultural production and trade, with a particular focus for the governance of natural resource use. Our goal is to assess the relevance and effectiveness of current governance structures for agriculture to respond to local, regional and global-scale environmental changes and socioeconomic challenges in ways that address current and future human needs. Through case studies from selected agricultural sub-sectors and diverse countries from across Asia, Africa and Latin America, we investigate local strategies for natural resource use in the context of poverty, inequality, and environmental change. The course provides a comprehensive coverage of the political economy of agricultural development and an introduction to social-ecological systems analysis as a theoretical framework for interdisciplinary research in the field of sustainable development.

INTS 4270 Gender, Security & Human Rights (5 Credits)

This course examines the gendered dimensions of security and human rights, with a particular focus on periods of violence and insecurity. Gender inequality has been at the heart of human rights and development efforts over the past half-century. Governments and multinational organizations have created legal and normative instruments to address the ongoing marginalization of women and girls around the world, such as the 1979 Convention on the Elimination of Discrimination Against Women (CEDAW) and the 1995 Beijing Platform of Action. More recently, these same actors have turned their attention towards the importance of “gendering” discussions of international security. For instance, UNSCR 1325, passed in 2000, is a landmark legal framework that aims to secure women’s inclusion in post-war peace processes. Despite these formal achievements, gender-based violations and insecurity continue persist around the globe. Moreover, there remain profound gaps between legal provisions aiming to promote women’s equality and the lived experience of women on the ground. Drawing from critical feminist analyses, this class will introduce you to the concepts of gendered security and security, challenge you to think about intersectionality as a lens through which to understand “rights,” and increase your understanding of the contemporary human rights and security crises unfolding around the world today.

INTS 4280 Contemporary Peace Operations: Disarmament, Demobilization, & Reintegration (5 Credits)

Disarming, demobilizing and reintegration (DDR) of former fighters in the aftermath of conflict is as old as war itself. Tens of thousands of soldiers were voluntarily DDR(ed) during the Roman-Etruscan wars in the 3rd century BC and virtually every conflict since. In fact, no fewer than 60 DDR initiatives have taken place globally since the UN and major bi-lateral engagement the late 1980s. While most were launched in the wake of international or civil wars as part of an internationally mandated peace support operation, shifting conflict dynamics and emergent caseloads over the last decade continue to alter the landscape in which DDR operations are implemented. Whether occurring in a humanitarian crisis, as an outcome of a peace accord or during active conflict, DDR represents a voluntary civilian led non-violent policy option for peacebuilding and human security for the international community. Often applied in a post conflict environment, the global caseload in 2014 was estimated at approximately 250,000 DDR candidates spread across more than 20 planned or ongoing DDR operations. Presently, DDR targets persons in combatant and non-combatant roles from statutory armies and non-state armed groups. It is not uncommon for DDR to serve as tool for security sector reform and transformation efforts aimed at downsizing and legitimizing armed forces under civilian control. In doing so DDR is a unique policy tool that enhances the resilience of local, national and regional actors, by addressing various peace consolidation issues spanning the civilian and security sectors. The course will utilize illustrative global case studies to examine 3 distinct and clearly identifiable ‘generations’ of DDR since the late 1980s. Tracking the evolution of DDR in contemporary peace operations, the course will demonstrate the critical role DDR continues to play in peacebuilding and recovery in settings as diverse as the Balkans and Philippines where DDR is used to facilitate the ‘normalization of relations,’ to the Sahel, the Horn of Africa, South America and the Middle East where DDR addresses mercenaries and terrorism. DDR’s current role in stabilization efforts in the Ukraine, Afghanistan and The Sudan will be juxtaposed with political stability and development issues in Central America and Southern Africa where gang violence and veteran’s concerns are related to DDR outcomes. The first generation of DDR occurred in the wake of the Cold War. Typified by verifiable caseloads under unified command and control, these occurred regionally in Latin America and Southern Africa. In the mid-2000s a 2nd Generation policy approach emerged in response to the perception by the international community that DDR, and reintegration specifically, was not achieving intended development aims. This led to a broad range of initiatives targeting communities as a means to facilitate enabling conditions for DDR. Presently, DDR is undergoing a 3rd shift. The monetization of DDR is creating a cottage industry for former fighters traveling across international borders rejoining armed groups as mercenaries. At the same time peace operations are receiving DDR mandates in areas where conflict is ongoing and insurgent groups slated for DDR are associated with ‘terrorist’ organizations complicating the legal and political environment.

INTS 4290 Gender, Environment, and Development (5 Credits)

This course is concerned with how and why gender matters in producing environmental, economic, and social outcomes of planned and unplanned development. It is also concerned with gender as a human rights issue and the equity and ethical dimensions of environmental and related economic planning. Beyond these practical implications of gendered environments, the course will engage theoretical and ideological underpinnings for the gendered structures of environmental control and management encountered in a wide range of physical environments.

INTS 4303 Econometrics for Decision Making I (5 Credits)

The first course in a two course sequence in Applied Econometrics. Introduces basic probabilistic techniques for the quantitative analysis of economic and social data and their application to international public policy decision making. Prepares students to: compile and analyze data sets; build and test regression models; interpret and critically evaluate applied econometric studies; and conduct their own applied econometric research using computerized statistical packages. Prerequisite: INTS 4051 or INTS 4057.
INTS 4310 International Trade (5 Credits)
An intermediate course analyzing causes and consequences of international trade. Classical, neo-classical, and product-cycle models included. Topics include international specification, terms of trade of developed and less-developed countries, distribution of gains from trade, instruments and uses of commercial policy, nominal and effective protection, and theory of customs unions and economic integration. Prerequisites: macro and microeconomics.

INTS 4318 Applied Research in International Economics (5 Credits)
The purpose of this course is to critically review the literature in political economy and introduce students to some recent empirical work to analyze data and test relevant theories and hypotheses in political economy, IPE and related social science disciplines. The course provides students with the tools necessary to conduct and critically evaluate empirical analysis in these fields. Two data sets are handed out during the course and students analyze them. The final paper deals with a substantive empirical issue.

INTS 4319 Governing the Global Economy: The Effectiveness of Multilateral Economic Institutions (5 Credits)
Multilateral Economic Institutions are the primary mechanisms by which the global economy is governed when it is governed at all. This course examines the institutions and theoretical foundations that are at the center of this system of global governance by studying their history, sources of authority, and ideological underpinnings. Simultaneously, each multilateral economic institution/regime is examined from an empirical perspective in order to determine the impact of these institutions and whether or not they are accomplishing their respective tasks in the governance of the global economy. The course is both theoretical and empirical and there is a bias to the course - it is that the MEIs are among the most written about and least understood institutions in the global economy. In addition, the course also examines the practical reality of multilateral economic negotiations through an examination of recent attempts to govern segments of the global economy; including international trade, finance, and climate.

INTS 4320 Int'l Monetary Relations (5 Credits)
An intermediate course examining history of the monetary system, foreign exchange rates, balance of payments analysis, and adjustment processes under different exchange systems, current status problems, and prospects for reform. Prerequisites: macro and micro economics.

INTS 4324 Int'l Political Economy (5 Credits)
The course examines 3 contrasting visions of international political economy: economic security, trade and finance.

INTS 4327 Advanced Issues in International Relations and Comparative Politics (5 Credits)
The purpose of this course is to train students in advanced research in the fields of International Relations and Comparative Politics. The course achieves these ends through an investigation into a particular empirical theme (of the professor’s choosing in any given year). While due emphasis is placed on the major findings of the specified literature, as much or more attention is given to the research design, methods and evidence of the selected literature. Students will learn what constitutes a falsifiable hypothesis and what the alternatives to falsifiability are, examine various scholars’ methods of operationalization and measurement, consider the merits of treating rival explanations to one’s own, and judge the veracity of findings by these and other criteria. In addition, students will apply such knowledge gained by writing their own original research paper during the quarter. The course aims to assist primarily PhD candidates in their abilities to carry out research, to assess the quality of other scholars’ research, to teach in the fields of International Relations and Comparative Politics, and to excel in their comprehensive exams. Please note that this course is offered only once every other year. Thus PhD candidates must enroll in the first year it is available in their course program.

INTS 4330 International Business Transactions (5 Credits)
INTS 4332 Data Analysis and Development (5 Credits)
INTS 4333 International Project Analysis (5 Credits)
INTS 4334 Int'l Policy Analysis (5 Credits)
INTS 4335 Applied Research in International Economics (5 Credits)
INTS 4336 Applied Research in International Economics (5 Credits)
INTS 4337 Applied Research in International Economics (5 Credits)
INTS 4338 International Financial flows and Development (5 Credits)
INTS 4339 Microfinance and Sustainable Development (5 Credits)
This class provides an overview of the principles of microfinance and its role in sustainable approaches to international development. The course introduces students to the main business models of microfinance, leading microfinance institutions (MFIs) around the globe, typical products and services, and how microfinance has evolved over 25 years. In addition, we examine both NGO and for-profit organizational structures, and how they balance development and financial sustainability. Topics include: How "microcredit" evolved in poverty alleviation, and how it became "microfinance;" Lending methodologies that allow MFIs to deliver credit at large scale to poor clients; Challenges to measuring social impact and development outcomes; Commercialization of microfinance, and how the push to access private sector capital has financed global expansion and competition; How social entrepreneurship continues to innovate new strategies around the globe; Whether NGO microfinance organizations can serve the poor as efficiently and at the same scale as profit-driven MFIs, and conversely, whether for-profit MFIs can achieve the same development impact as NGOs; How different target clients and organizational structures influence the business choices microfinance organizations make to balance financial sustainability and development; Challenges and opportunities, including those facing NGOs that blend microfinance with other development approaches. While many see microfinance as a powerful tool for eradicating global poverty, questions remain about its impact, efficacy, and whether it will continue targeting the poorest of the world’s population as an increasingly market-driven strategy. We review the fundamentals of microfinance, how commercialization has created more efficient and sometimes regulated financial institutions, and the distinction between “financial services for the poor” and “microfinance as poverty alleviation.” In addition, we review microfinance’s appeal to donors, its growth and expansion around the globe, and the challenges of such growth for individual MFIs. Each week, we examine a different microfinance organization (MFI) to understand its development strategy (target clients, products and services, organizational structure), and its business strategy for reaching financial sustainability. In addition to the readings and case studies, we have occasional guest speakers from the industry. Students work in small groups to research an individual MFI and present it to the class.
INTS 4341 Illicit Markets in the Americas (5 Credits)
This course applies the understandings of International Political Economy (IPE) to the study of illicit market activity in the western hemisphere. While sociologists, criminologists, legal scholars and law enforcement agencies have all contributed substantially to this area of study, IPE has only recently been applied. So what can this approach contribute? Through IPE, we can place illicit market activity within the larger structure of trade and monetary relations, the rise of the informal sector and the existence of economic and other inequalities in particular regions. We can consider the nature and impact of North-South relations and the process of structural adjustments as advised by international financial institutions. Further, we can evaluate the overall function and effectiveness of law enforcement, governing institutions and international organizations in controlling illicit market activity. Finally, through IPE, we can consider the ideational context of participation in illicit market activity.

INTS 4342 Project Management (5 Credits)
Course introduces the skills and techniques to be a successful project manager.

INTS 4345 The Art of Forecasting (5 Credits)
Course defines forecasting techniques and expert systems. Will cover Delphi techniques, expert systems, modeling and economic forecasting.

INTS 4349 Comparative Public Policy and Finance (5 Credits)
Course aims to provide in-depth treatment of the question "why do size, form, financing, and distributive outcomes of government differ so greatly across nations?.

INTS 4350 Economic Development (5 Credits)
This course combines an introduction to the theories and key issues in economic development with a rigorous analysis of empirical evidence from low- and middle-income countries in Asia, Africa, and Latin America. The course enables participants to develop an in-depth understanding of diverse local, national, and regional patterns of economic development, and to critically assess the design and potential social and economic consequences of global policy frameworks and national economic development strategies. The course starts with providing an outline of global trends in poverty, inequality and growth, including a discussion of key concepts and ways of measuring economic development. Part I focuses on classical, neoclassical, and institutional theories of economic development. Linkages between the intellectual basis of different theories and major political currents and ideologies, and the associated policy design, are assessed. In part II, core themes in economic development are explored, including agriculture, trade, industrialization, labor, and the environment. The analysis of diverse country studies illuminates how historically specific social, political, and institutional conditions shape development outcomes. In part III, we examine the design and implementation of economic development policy through an analysis of international aid agendas and institutional modalities of ODA, with a particular focus on emerging donors. We investigate the strength and weaknesses of national economic development policies through an in-depth study of selected country case studies. Please note that a mastering of quantitative economics is not a requirement for this course.

INTS 4355 Finance and Development (5 Credits)
An advanced course which examines the relationship between financial system organization and economic performance. The political economy of financial innovation, liberalization and globalization, state-finance-industry relations, micro-lending, stock markets and regional financing are discussed with reference to Latin America, Asia and African countries.

INTS 4362 Gender and Health (5 Credits)

INTS 4363 Discrimination, Minorities, and Rights of Indigenous People (5 Credits)

INTS 4364 Global Poverty and Human Rights (5 Credits)
This course explores the many dimensions of global poverty and human rights and well-being of people around the world. Three particular areas are emphasized and explored in detail. The first is the exact dimensions and extent of globalization. The second is the exact nature of another complex thought called poverty. The third area explores the connections between globalization, poverty, and human rights. After rigorous discussion of the conceptual foundations, we focus on the U.N. millennium development goals for poverty reduction in particular. At the end we will be able to explore the analytical foundation of alternative policies, strategies and evaluate these for formulating alternative strategies addressing human rights issues and global poverty reduction.

INTS 4366 Reproductive Health (5 Credits)
This course introduces students to the wide tangle of social issues surrounding reproductive and sexual health today. We begin with an in-depth look at the historical and cultural variations in definitions of reproductive and sexual health in order to provide important background for the various medical, legal, ethical, political, issues that inform reproductive health programs and policies. We end with a topical focus on HIV/AIDS and a look at international health programs designed to address reproductive health in "vulnerable" populations. The course necessarily vacillates between examining the local and the global at both micro and macro levels in order to cover both the current knowledge about sexuality and reproduction and the broader social impact of advances in reproductive health technology.

INTS 4367 Global Health Affairs (5 Credits)
Introductory survey class for all students interested in intersection of international affairs and global health and security, development and economics.

INTS 4368 HIV & AIDS in International Affairs (5 Credits)
Upon completion of the course, students will understand (a) the concept of global health security; (b) HIV/AIDS as an epidemiological phenomenon; (c) the political, economic and social contexts of HIV/AIDS in specific regions of the world; (d) HIV/AIDS as a threat to security and gender; (e) security considerations of HIV/AIDS impacts in development and as a human right.
INTS 4369 Political Economy of Global Poverty & Inequality (5 Credits)
The main purpose of this course is to understand the underlying causes of inequality and poverty in the world. In order to do this, we look at the relationship between economic growth, poverty, and inequalities in several different dimensions. First, the process of sustainable growth itself is analyzed. Second, the implications of different types of growth for income distribution and poverty are studied. Finally, the implications of such inequalities for human welfare in developing economies in particular are studied. After an initial exploration of the income-based measures of poverty and inequalities we focus on the more recently developed social capabilities approach developed by Amartya Sen and others.

INTS 4370 Political Economy of Globalization (5 Credits)
An introductory course on the nature of global economic integration in the postwar period, including contending theoretic perspectives, and several applied issues and policy dilemmas such as the evolving nature of firms (e.g. globalization of production), the "new international of labor," and the status of national sovereignty/policy autonomy in an integrated world economy, politics and markets, and current trends in political economy.

INTS 4372 Great Books in Political Economy (5 Credits)
This course investigates several contemporary approaches to Political Economy, ranging from institutionalist to Marxist, anti-essentialist, and (postmodernist) feminist thought. Rather than attempt to survey quickly a lot of literature, we carefully read a limited number of influential (and provocative) texts that present a range of perspectives with which most students are largely unfamiliar. These are very challenging texts, and students must be prepared to spend a good bit of time on the assigned readings weekly.

INTS 4374 The Ethical Foundations of Global Economic Policy (5 Credits)
This seminar course explores the contending ethical theories that underlay contemporary debates over global economic policymaking. We explore the ethical foundations of neoclassical, Austrian, institutionalist and Marxian and economic theory (including utilitarianism, welfarism, libertarianism and egalitarianism) in order to better understand why and how these diverse economic theories generate distinct policy prescriptions. For example, we examine the controversy over "free trade" versus "fair" trade that is now at the center of policy debate in the U.S. and across the globe, and explore the contending ethical theories that inform this debate. This is a reading intensive seminar. We examine central works of Amartya Sen, Milton Friedman, Robert Nozick, Michael Walzer, and other leading economists and political theorists.

INTS 4378 Terrorism, Transportation, and Homeland Security (5 Credits)
This course is designed to introduce students to the critical role that transportation plays in homeland security. Transportation is one of the most important critical infrastructures because society and economy are totally dependent upon the efficient movement of freight and people. Not surprisingly, terrorists, on numerous occasions and in many countries, have launched attacks against aircraft, ships, railway stations, airports and other transportation facilities. In the U.S. the devastating 9/11 attack proved to be a turning point and led to fundamental changes in the struggle against terrorism, including the largest governmental reorganization in many decades, the creation of the Department of Homeland Security and its Transportation Safety Administration. In this course, students analyze the degree to which a safe and secure transportation system for goods and people has emerged. Accordingly the course deals with such topics as the contemporary structure and role of transportation, the nature of the terrorist threat, including the potential of the weapons that are or might become available (ranging from WMD's to suicide bombers to cyber-attacks), the difficulties inherent in safeguarding such facilities as airports, rapid transit, railroads, and seaports, the efficacy of the policies that have been implemented and the kinds of changes that might further enhance transportation and homeland security.

INTS 4379 Gender and Development (5 Credits)
This course is concerned with how and why gender matters in outcomes and impacts of planned and unplanned development. It is also concerned with gender as a human rights issue and the equity and ethical dimensions of development planning. Beyond these practical implications, the course engages theoretical and ideological underpinnings for the gendered structures of economic, political, and social power encountered in a wide range of economic and social development contexts. Throughout the quarter, the class examines interactions among structural and cultural (including ideational) factors that together comprise and construct gendered environments. Structural and cultural factors are, at the least, mutually reinforcing, and may be mutually constitutive. The class interrogates the ways in which each set of economic and social transformations broadly encompassed within a human-rights or human-development approach to international development. The class also engages interacting dimensions of change, including economic, social, political, physical environmental, and human biological dimensions. The class explicitly examines all interactions across scales from global to local. If we were looking for a label for this approach, it could be called "gendered political ecology." We could also use a term coined by Dianne Rocheleau and others, "feminist political ecology," which suggests the need to examine the responsibilities, freedoms, and control of resources, together with the varying forms of agency, strategy, and tactic deployed by women (often in partnership with men) to redress these inequalities. The class considers numerous cases from the Global South, and some from the Global North. These case studies immerse us in the diversity and complexity of gender and development interactions and in the "grounded agency" (Radcliffe 2006) through which women and men attempt to secure livelihoods – that is, "making a living and making living meaningful" (Bebbington 2000) – to enjoy long and healthy lives, and to participate in full citizenship. These cases also illustrate myriad patterns of gender construction across ethnicity, class, age, marital status, and other differences among women and men. This is a policy-oriented course. The class explores the ways in which the gendered division of labor and resources, and the socio-cultural construction of masculinities and femininities, influence perceptions, formulation, and implementation of development policies and practices. The class traces the differential impacts of development policies and initiatives on women, men, and gender relations in the developing world as well as efforts to target women through more gender-sensitive development initiatives. Ultimately, this course considers how ideologies and institutions of global development might yet enable women’s empowerment and facilitate equity in a deeply unequal and interconnected world.

INTS 4384 Middle East and U.S. Security (5 Credits)
The course will examine current US strategies toward the Middle East, terrorism, and how Homeland Security in US will respond.

INTS 4386 Transnational Migration in the Americas (5 Credits)
The course examines movement of various nationalities from other nations into North, South and Central America.
INTS 4391 Financial Management and Fundraising of Non-Profits (5 Credits)
This course will introduce students to the legal, governance and financial structures that enable non-profit organizations to function effectively. It will also provide a practical orientation to financial management issues, such as budgeting, financial reporting, and independent audits. Finally, a comprehensive presentation will be given of the fundraising methods needed to sustain the viability of non-profit organizations. These methods include: annual campaigns, direct mail, special events, major gifts, corporate fundraising, foundation grants, and planned giving. The course combines exploration of the general conceptual issues with an emphasis on practical "how-to's" and skill building.

INTS 4394 Non-Profit Issues & Techniques (5 Credits)
Nonprofit management issues and techniques looks at current NGOs and issues in working with corporations.

INTS 4396 Education and Development (5 Credits)
Education is a major component of the human capital. It is both an indicator and a driver of an improved quality of life. Developed economies have already achieved high in terms of the average education of their populations. Most of the middle income and some low-income countries have also succeeded in enrolling a high percentage of their children in elementary schools, thanks to the internationally coordinated emphasis in this sector in the sixties and seventies of the last century. On the flip side, some of the developing regions are still struggling to provide basic education to a large share of their school age population. Research on economic growth and development has established a close connection between the economic performance of a country and the level of education of its population. These results have prompted a resurgence of focus on education in the global development agenda. From the Jomtien conference on Education for All (EFA) in 1990 to the Millennium Declaration, the world community has set targets on universal primary and gender balances at the higher levels of education. Despite the thrust on national commitment on education, supported by international efforts like the EFA/Fast Track Initiative, there still remains some inertia and uncertainties on issues like equity of access along different dimensions of deprivation - gender being an important one, balancing the demand and supply of education, the relative importance of basic education for capability creation and social cohesion versus mid-level education for knowledge diffusion or higher education for knowledge generation. Discussion of these issues in a regional comparative context is important in understanding and suggesting education policies for developing countries. This course is primarily intended for students who have a broader interest on human capital development, and specific interest on educational policies and their outcomes. Students with a general interest on development policies and developing economies would also find the course beneficial. It is expected that, after actively participating in the course, the students gather or enhance their understanding of the major education policy issues and debates in the context of developing countries. Students will also identify the best practices by analyzing the national education policies of some of the high performing countries and regions in the developing world. Students use this knowledge to examine the national and international education policy initiatives and develop their own recommendations as necessary.

INTS 4397 The Environment, The Economy, and Human Well-Being (5 Credits)
In this course we will explore the role of the environment plays in society and the determination of human well-being, and how this can be addressed from an economic perspective. A core premise of the course is that the human economy is embedded within the broader context of human society, which in turn is embedded within a natural environment. The natural environment provides a variety of goods and services, which, through interactions between the environment, individuals, and society, contribute to human well-being. Some of these services are directly used by people. Others contribute indirectly by allowing for the continued provision of other services. As such, any discussion of human well-being and development that ignores the natural environment is inherently problematic. We will specifically adopt an economic perspective, but one that goes well beyond that of conventional neoclassical economics.

INTS 4399 Issues in Global Economics and Financial Security (5 Credits)
The course discusses global economic and financial security issues through the prism of the current crisis and its aftermath. We begin by developing the analytical framework and then applying it to key countries/regions. We consider the causes, the policy responses and prospects. We look at ways of ensuring global monetary and financial stability, including appropriate policies to ward off financial crises and asset prices bubbles. Other key topics, including food and energy security and the role of finance in promoting development, are also discussed as time permits. The focus is on applied economics and finance, and their importance as analytical tools in policy discussions on economic security and development. This course is less narrowly technical, more policy and political economy oriented, but nonetheless appropriate for students concentrating in global markets, development, finance and trade. These are a few guest speakers on special topics, in addition to answering questions about career choices and professional development.

INTS 4423 Introduction to Epidemiology (5 Credits)
Decisions and policy related to global health are based on data from various disciplines such as demography, medicine, and epidemiology. Therefore, it is crucial to correctly understand and interpret what health data and the data in general tell us. This course provides the knowledge and skills required to critically assess data, and understand both strengths and limitations of data and research. This course covers the basic principles and concepts of descriptive and analytic methods in epidemiology and their application to research and practice in public and global health.

INTS 4427 The Political Economy of Sustainable Development in Africa (5 Credits)
This course introduces the political economy of sustainable Development in sub-Saharan Africa (SSA). It uses a multidisciplinary approach that draws on literature from development economics, international relations, comparative politics, sociology, and anthropology, as well as a broad range of country case studies. We engage with the main theoretical and empirical debates on sustainable economic and human development in SSA and examine a diverse range of country case studies. The topics covered include past and current political and economic conditions for economic growth and the improvement of human welfare levels, sustainable agricultural development and governance of natural resources, increased resilience - socially and economically - to rapid environmental change, and the role of foreign aid in African development. We explore the region's integration into the global political economy and examine the role of the state in Africa's development today. The course helps students to understand the major development challenges facing African societies today by illuminating patterns as well as diversity in development trajectories across the region.
INTS 4428 Political Economy of Human Rights (5 Credits)
What does one mean by human rights? What can be the political economy of such rights? These are the two central questions that we will explore in this course. The goal is to understand the underlying social, political and economic processes that led to the present human rights discourse. The nature and implications of economic rights will be given special attention. In particular, the implications of such rights for human wellbeing in both advanced capitalist and developing economies will be studied. The social capabilities approach to rights developed by Amartya Sen and others will be extended to the understanding of human rights.

INTS 4435 Health and Development (5 Credits)
Looks at how health status of populations affects culture and environment, and also how successful development affects health.

INTS 4437 American Public Opinion & Foreign Policy (5 Credits)
This course examines American public opinion and its impact of foreign policy. The course begins with an investigation of what is public opinion in general and how it is collected, analyzed and used. The primary sources of American public opinion data and analyses are identified. The course proceeds to outline the controversies of American public opinion related to foreign policy decision-making using historical perspectives and the most recent challenges from the first Iraq War to the Arab Spring. Although foreign policy is often a secondary issue for the public compared to domestic issues, in recent times it has been mostly responsible for the transition from a Republican-dominated era to the Democrats’ ascendance. A series of principles that have informed practitioners and foreign policy experts concerning American opinion related to foreign policy is examined and affirmed or debunked. Also, media and its persuasive power in opinion formation are considered. At the conclusion of the course, students should be familiar with a selection of foreign policy challenges that America has confronted in the modern era, the role of public opinion in the national decision-making and the existence of guiding principles of public opinion and their exceptions.

INTS 4438 International Public Opinion and Foreign Policy (5 Credits)
This course examines international public opinion and introduces the major international opinion trends that impact foreign affairs. The course first reviews international public opinion worldwide, then by major regions and finally a selection of leading countries. The theoretical question is how public opinion influences foreign policy in countries around the world, and if and when it does, under what conditions. Also, how international opinion affects American foreign policy, including the views of foreign publics toward America and its policies, is also examined. The course begins with an investigation of the history of collection and diffusion of international survey research, the quality of the data and the techniques used to collect it. The relationship of public opinion research and democratic government and media freedom is examined. The second part of the course outlines some of the public opinion benchmarks, their variations and similarities among countries and regions, and their change over time. A variety of the best sources of opinion data are used. Benchmarks include: level of satisfaction with the direction of own nation; satisfaction with and preferences for form of government; satisfaction with and preferences for economic system, the role of government intervention and entrepreneurial values; nationalism and approach to neighbors; attitudes toward Americans, American leadership and foreign policy; and impact of cell phones and Internet on opinion formation and collection. The course’s orientation is both from an American foreign policy perspective and from the perspective of key international organizations, such as the UN, OAS, EU, etc. At the conclusion of the course, students should be familiar with the history and sources of international public opinion research, the major similarities and differences in international and regional public opinion, and the impact that it has on both American and international, multinational organization foreign policy decision-making. When available, there are guest speakers concerning the impact of public opinion on foreign policy decision makers.

INTS 4447 Making of Chinese Foreign Policy (5 Credits)
This seminar course examines and analyzes the making of foreign policy in China, a rising power in the 21st-Century. We look at and identify major driving forces behind China’s foreign policy-making, including ideological sources (historical legacy, strategic culture, communism, and nationalism), domestic and institutional sources (foreign policy making institutions, elite politics and key players), and international sources (international system and regimes). We also examine China’s strategic relations with major powers and its Asian-Pacific neighbors. This course is aimed to equip students with sophisticated understanding of the ongoing debate about the role that a rising China has played and will play in world affairs.

INTS 4450 Democracy and Militarism in Latin America (5 Credits)
Many note that even as democratization has taken place throughout Latin America, there has been a persistent and evolving role for the military, police and private security forces in many cases. The purpose of the class is to explore this apparent contradiction by examining the various internal and external pressures that have come to bear on these societies. Through approaches derived from comparative politics and international political economy we study domestic factors such as interest groups, political parties, social movements and governing institutions on one hand, and the role of international relations and organizations on the other. From this standpoint, the state becomes a mediator of internal and external pressures and is shaped by these pressures in turn. In the first half of the class, we specifically apply institutions, political realist, class analytic and market globalization perspectives to the study of the military. In the second half, we look at the interplay between democratic development and security issues in a changing global environment. This includes a study of the nature of democratization in Latin America, so heavily applauded by scholars, politicians and others, the impact of the truth and reconciliation process that emerged after the bureaucratic-authoritarian era, and the role of civil society and international organizations. In the final part of the class, we turn to the issue of citizen security amid high levels of crime, gang activity, and drug trafficking with a focus on Central America.
INTS 4453 Political Economic Development in Latin America (5 Credits)
In the first five weeks of the class we consider various theories of political economy. These include dependency, hegemonic stability, class conflict, neoclassical economic theory, and the study of institutions and international regimes. Each approach is illustrated through and examination of a historic issue in development - patterns of land ownership, the role of the military, the rise or revolutionary politics, neoliberal development and the promotion of democracy. During this time, students are asked to choose a theoretical framework as a foundation for the required research paper. A term paper prospectus including a description of the framework is due week five. In the second five weeks of the class we consider specific topics in political economic development in the last three decades or what is often called the "global era." These topics include the emergence of "uneven" development, the rise of social movements and role of civil society, transnational migration, the rise of illicit networks of trade, and U.S. foreign policy considerations. Students are encouraged to draw from this or closely related material for the subject matter of the research.

INTS 4459 Global Business, Governance & Corporate Social Responsibility (4 Credits)
In an increasingly globalized world, civil society, states and businesses are trying to discern how to govern business conduct across the borders of nation-states. Many of the issues our society faces today—global financial crises, environmental degradation, and corruption, to name a few—are impossible to tackle within a given country. This course will dive into contemporary global governance mechanisms to better understand the opportunities and challenges that states, business, and civil society face when in engaging with issues such as global financial crises, labor standards, respect for human rights and the environment.

INTS 4460 Politics of China's Modernization (5 Credits)
After more than a century of decline and stagnation, China is reemerging as a great power in the twenty-first century. China’s rise to the glorious has never been easy and still faces many changes in the year ahead. This course is designed to provide students with a comprehensive understanding of China’s rise in the context of its political development. We examine how revolution, nationalism, communism and liberalism have all affected the development of modern China with a focus on the political dynamics of the People's Republic of China (PRC) and the politics of post-Mao economic and political reform. We start by analyzing the rise of the Chinese Communist Party and its state and nation building efforts in the early years of the PRC and move on to examine the Mao's failed socialist transformation and political campaigns (the Hundred Flow Campaign, Great Leap Forward, and the Cultural Revolution). The remainder of the course explores political dynamics of post-Mao economic and political reforms and the prospect for a democratic China. This course course aims at equipping students with an analytical perspective for understanding contemporary Chinese politics.

INTS 4465 Population and Society (5 Credits)
Population can play a key role in defining the fates of societies, yet Auguste Comte's notion that “demography is destiny” has been subject to two centuries of oversimplification, misinterpretation, and manipulation. This course seeks to reverse key misconceptions and open up new avenues of inquiry through an in-depth look at the key elements of population - population size and growth, demographic events, and population structure - and their relationship to development, security, health, the environment, and human rights. The course begins with a look at theories on the relationship between population and the fates of societies from Malthus to Marx to the present day. In doing so, we move from thinking of population change in aggregate to considering the impact of three demographic events - birth, death, and migration - that occur according to highly measurable and predictable age and sex patterns. Armed with a powerful conception of demographic change as a product of population structures and events, we explore the implications of demographic shift and long-term demographic structures for national and global outcomes under a range of political, economic, and social conditions. We will use case studies to address salient issues such as the limits to the human life span; prospects for reversing or mitigating the effects of very low fertility; the consequences of coercive solutions to population control; prospects for global migration; and the impact of HIV/AIDS on society.

INTS 4468 Politics of Development (5 Credits)
Course explores political factors and parties which affect developing nations and hinder new development.

INTS 4483 Practical Applications in Global Health (5 Credits)
This course is designed for students interested in a career in Global Health with a focus on low resource settings including humanitarian settings. This course focuses on analyzing and developing solutions to global health problems in a systematic and creative way. Students are introduced to a problem-solving paradigm and, working in small groups, apply this model to a global health issue of interest to them. In addition, we cover other critical issues that need to be considered in addressing global health issues including equity, social determinants, and health systems as well as leadership, innovation and working in multidisciplinary teams. At the completion of the course, students should be able to: apply a methodical approach to problem solving in global health; analyze the range of factors that contribute to global health problems and understand the importance for finding solutions; examine critically the implications of policy or programmatic solutions to global health problems; develop and present a program proposal.

INTS 4484 Agriculture and Sustainable Development (5 Credits)
This course provides an overview of world agriculture and an introduction to agricultural populations, politics, policy paradigms, and institutions. It contain modules in: the history of agricultural production for economic growth and food security; global distributions of (1) agricultural production regimes, (2) land (including historical and contemporary “land grabs”) and other productive factors, and (3) uses of agricultural products for food, fuel, feed, fiber, and agro-based construction materials; effects of agricultural trade on economic growth, livelihoods, and food security; relationship between humanitarian food aid and agricultural production and food security; social organization of agriculture and related productivity and human development issues, with special attention to gender; environmental constraints to agricultural sustainability and agricultural constants to environmental sustainability (climate change, water demands and conversation, agricultural energy production and consumption, causes of soil loss and degradation); technological change and innovation in agriculture; and culture and agriculture.

INTS 4485 International Economic Negotiations (5 Credits)
The purpose of the course is to explore the challenges confronting international trade and economic policy, as well as current negotiations designed to address these circumstances.
INTS 4492 Health and Humanitarian Aid (5 Credits)
According to the World Health Organization, "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." In order to address health in humanitarian settings we must therefore respond to a range of needs and consider the diversity within affected populations. In this course, students will have the opportunity to explore some key sectors of humanitarian aid and how they relate to health. By following a specific ongoing crisis throughout the quarter, each student will have the opportunity to gain a better understanding of the particular challenges inherent in humanitarian assistance and to analyze how the "theory" is actually implemented in practice. Whether the student's future is in the field or at headquarters, internationally or at home, he or she will likely need to quickly and critically review and summarize available information in order to inform decision-making.

INTS 4493 Humanitarian Aid in Complex Emergencies (5 Credits)
This course will focus on the evolution of humanitarian actions, in the context of the international system, since World War II. Complex humanitarian emergencies will be the focus. Themes will include: disasters, conflicts and humanitarian action; the political economy of conflicts and humanitarian aid; civil-military cooperation; and the impacts of humanitarian intervention on the delivery of aid. Vulnerability analysis, capacity analysis, and risk analysis will be key tools. The structure and function of EWS (early warning systems), especially in the context of famine, also will be key.

INTS 4495 Civil Wars and International Responses (5 Credits)
Throughout the post-cold war period and into the 21st century, the scourge of war today is seen in mostly internal conflicts fought along ethnic, religious, ideological, or economic lines that divide societies and lead to devastating armed conflict. This course investigates the problem of contemporary civil wars. This course explores theories, concepts, and empirical research in the analysis of contemporary civil wars and in-depth, student-led evaluation of specific cases. The course covers these themes: evaluation and patterns of armed conflict and war termination in the 1990s and early 2000s with a focus on methods for systematic, multi-causal conflict assessment methodologies; exploration of the processes of escalation in armed conflict and of concomitant peacemaking by international mediators; and evaluation of the concepts of "peace processes" and scrutiny of the terms of negotiated settlements in armed conflicts today. The principle learning outcomes for the course is to gain a complex and detailed understanding of the modal form of contemporary armed conflict-civil wars and concomitant international intervention by the international community (particularly the United Nations) to this form of armed conflict. Students who successfully complete the course gain an understanding of contemporary civil wars, issues in conflict duration and processes of war termination, and introduction to the scholarly and policy-relevant literature that has developed in the last two decades related to challenges of conflict prevention and of "peacekeeping" or negotiation and mediation of civil war conflicts.

INTS 4496 Field Operations for Humanitarian Assistance (5 Credits)
Within a disaster response, various interrelating factors determine the ability of the humanitarian community to adequately respond. From coordination among governments, donors, non-governmental organizations (NGOs) to internal working components within an agency that drive programmatic support, the realm of humanitarian operations is a complex system that should be understood by anyone with an interest in supporting relief efforts. The main focus of this course is concentrating on the practical, specific systems that drive field operations - namely security, logistics, finance, monitoring and evaluation, human resources, administration, and advocacy that support program planning and implementation. Through understanding these components, the challenges that are encountered, and how each interrelates within an organization and the wider response community students gain a balanced understanding of humanitarian operations. While each emergency response comes with varying contextual challenges, the humanitarian imperative mandates the relief community to respond in a neutral manner based on need. Doing so, places strains on the operational systems that need to be overcome to provide quality interventions. Through this course we take an in depth look at both theoretical and practical ideals for humanitarian assistance.

INTS 4497 International Campaign Management (5 Credits)
This course will examine the principles of political campaign management and their application in a number of international political, public affairs and human rights campaigns. It will be an introduction to the tools of political campaign management: message development, survey research, audience targeting, paid and earned communications, fundraising and organizational structure. Case studies of campaigns in countries such as Sweden, the UK, and Australia will be used as examples of these techniques. Class will be comprised of lectures, discussion and some simulation exercises. Efforts will be made to bring outside specialists and experts to the class or by teleconference. Readings may include contemporary journals, periodicals, newspaper reports and excerpts from major studies of campaign and organizational management.

INTS 4498 Global Community Health (5 Credits)
The aim of this course is to explore global health challenges and solutions from the perspective of community and networks. Faculty presentation, global field exemplars, active participant dialogue, and students' presentations comprise the teaching-learning strategies.

INTS 4499 National Security and Defense Transformation (5 Credits)
Change brings with it challenges – at the individual, organizational, and systemic levels. It involved behaviors and cultures with often deep-seated traditions. This course explores the scope and magnitude of the transformational forces at work in our national security and defense establishments. By its nature the course is about warfare – how the nation goes about the business of preparing, equipping, and training itself to deter and if necessary to fight traditional wars and the new kinds of challenges that might lead to armed conflict. It is also about sociology, bureaucratic politics, the role of the media, economics, healthcare, power....
INTS 4500 Social Science Methods (5 Credits)
This course focuses on issues and techniques in qualitative research methodology. This is not just an abstract course about competing conceptions in the social sciences. It is an advanced course in the practical matters and issues that underpin all research activity. It provides students with the essential basic training they will need for critically analyzing political and social science research conducted by others and, most importantly, for engaging in their own research design and prospectus and dissertation writing. For those Ph.D. students already advanced in their own research, it will allow for a critical evaluation of their own research designs and strategies. The course covers the following topics: what is a question or ‘puzzle’ in political and social science; what makes a research project feasible; causation and explanation in social science; causality and casual inference; the qualitative-qualitative debate; theory, concepts, operationalization and measurement; concepts and concept formation; the comparative method; case-oriented versus variable-oriented comparisons; identifying dependent, independent and mediating variables; selecting cases and establishing an explanation; conducting case studies; problems of selection bias; the importance of skepticism and rival hypotheses; research design and the classics: Barrington Moore, Toqueville, Skocpol.

INTS 4501 Comparative Politics in the 21st Century (5 Credits)
This is a core course in the Graduate School of International Studies curriculum; it is designed to provide a basic foundation of knowledge essential to expertise in contemporary international affairs. The course critically explores theories, approaches and research methods for analyzing political processes within countries and societies around the globe. The point of departure is new approaches to governance - a term that refers to how governments and societies interrelate to manage social problems in the globalized 21st century. Why is the “inside-out” perspective of comparative politics so important to today’s interdependent world? How do domestic social forces interact with political institutions and how do these interactions affect prospects for democracy, development, and conflict management? Which emerging theoretical approaches offer the most explanatory power in today’s rapidly changing world? Through readings, instructor presentations, guided discussion, and multimedia curriculum resources (including an Internet-based module) the curriculum facilitates a broad overview and critical assessment of the current state of comparative politics. We explore how cutting-edge comparative politics research offers us bedrock theoretical and methodological skills for interpreting contemporary international affairs and for making policy prescriptions. Pedagogically, learning is encouraged through assignments and exercises designed to improve students’ practical skills to interpret research findings and apply them to current events and policy concerns. Another feature is the extensive use of case studies to illustrate concepts and theory in today’s most intriguing societies. The knowledge base gained in this class enables students to undertake more advanced graduate-level study in a wide range of topics such as development and international political economy, human rights, democratization, ethnic conflict, environmental politics, public policy, and contemporary problems of war and peace in deeply divided societies.

INTS 4502 Comparative Revolutions (5 Credits)
An intermediate course focused around the major revolutions that occurred in England, France, 19th century Europe, and in Russia and China during the 20th century. Emphasis is placed on historical facts, key theoretical debates generated during the various social upheavals, and diverse interpretations seeking to understand the nature and causes of revolutions and their impact on societies. Prerequisites: INTS 4702.

INTS 4509 Food Security, Nutrition, and Sustainable Development (5 Credits)
This policy-oriented course will examine structures and processes that result in varying food security outcomes across space and time. Food security outcomes reflect interactions among political, economic, socio-cultural, and physical environmental systems. These systems, which are both dynamic and permeable, give rise to particular forms and patterns of food production, distribution, and consumption, and to more or less environmentally-sustainable uses of the natural resources critical to food supply.

INTS 4513 Political Science and International Affairs (5 Credits)
Major intellectual contributions to international relations during the past century will be placed in their historical contexts, and the emergence of challenges and new theoretical syntheses will be examined in this course. Theories about international security and international political economy will be given particular attention, but the formation of political community (at the sub-national, national, regional, global, and transnational levels) and global environmental issues will also be considered. The course will proceed through the past century in approximate chronological order, beginning with the end of the nineteenth century and continuing through 1990s efforts to define the post-Cold War period. It will conclude with a discussion of the post September 11 world and consider contemporary debates about power transition and global governance.

INTS 4514 Population, Environment, and Development in Latin America (5 Credits)
This course engages the complex and interlinked dynamics of changes in population, systems of production, and the physical environment. Navigating among scales from global to local, we examine the interactions of trade regimes, markets, natural resource tenure systems, migration, livelihoods, technologies, health, and natural resource stocks. Taking a political ecology perspective, we will interrogate the distributions of wealth and power that affect control of natural resources, human well-being, and environmental sustainability. We also investigate the multiple social and cultural meanings of “natural resources” to actors who are variously positioned in terms of class, ethnicity, and gender. These dimensions of the population/environment/development nexus are examined for the following sectors: water conflicts and watershed management in the Andes; colonization, cattle, and energy development in the Amazon; non-traditional agricultural exports and aquaculture development in Central America; and forests throughout Latin America.
INTS 4516 Major Diseases in Global Health (From Pathophysiology to Action) (5 Credits)
As future global health practitioners and policy makers, it is imperative that we each have a complete and solid understanding of the mechanisms, physiology, epidemiology, transmission patterns, and clinical impact of the major diseases affecting global health. How and when does a person transition from simple HIV infection to full-blown AIDS? Why is dracunculiasis so readily amenable to eradication whereas filariasis is not? For what populations is co-infection with HIV and TB or HIV and malaria so critical and why? What are the vulnerable populations and how does disease manifest so differently in resource-poor versus resource-rich or urban versus rural settings? Who are the vulnerable populations and how does disease impact them physiologically? What is the nature of social science and the knowledge that it produces? This course, which is intended to complement INTS 4500 Social Science Methodology and INTS 4010 Epistemology, introduces students to the leading mainstream perspectives on the philosophy of social science. Special attention is given to Positivism and Post-Positivism, Post-Structuralism, Pragmatism, and Scientific Realism.

INTS 4521 International Development in Cross-Cultural Perspectives (5 Credits)
Explores cultural dimensions of economic and social change from perspectives of actors who create, promote, negotiate, and resist different agendas from global to local.

INTS 4522 Philosophy of Social Science (5 Credits)
What is the nature of social science and the knowledge that it produces? This course, which is intended to complement INTS 4500 Social Science Methodology and INTS 4010 Epistemology, introduces students to the leading mainstream perspectives on the philosophy of social science. Special attention is given to Positivism and Post-Positivism, Post-Structuralism, Pragmatism, and Scientific Realism.

INTS 4525 Religion-State Relations in Comparative Perspectives (5 Credits)
This seminar course provides an introduction to the key readings, concepts and debates on religion-state relations. While the focus is on the Western political tradition we explore the case of India and the Islamic world at the end of the course. Themes such as freedom of belief, the role of religion in the public sphere and debates over the political construction, location and meaning of secularism are examined.

INTS 4526 Modern Islamic Political Thought (5 Credits)
This seminar course explores the key writings of Muslim thinkers who have shaped Islamic political thought during the 20th Century. We begin with the writings of Jamal Eddin Al Afghani and his Egyptian disciple Muhammad Abduh. We then proceed to read from the selected writings and speeches of Hassan al-Banna (founder of the Muslim Brotherhood), Sayyid Qutb (radical Egyptian Islamist theoretician), Adul Ala Maududi (Pakistani Islamic thinker and founder of Jamaat-i Islami) and Ayatollah Ruhollah Khomeini (leader of Iran's 1979 Islamic Revolution). We also investigate some of the writings of Islamic reformist thinkers such as Abdolkarim Soroush, Nasser Hamed Abu Zayd and Khaled Abou El Fadl. The emphasis in this course is on understanding the historical and political context which has shaped Islamic political thought during the 20th Century.

INTS 4534 Topics in Middle East Politics (5 Credits)
The 2011 Arab Spring is widely viewed as a turning point in the modern politics of the Middle East and North Africa. Longstanding authoritarian regimes and dictators have fallen while others cling to power in the face of popular protests. The region is headed for uncertain waters with Islamist parties on the ascendance, liberal and secular forces struggling to assert themselves while a Western world watches these developments with a combination of hope, concern and consternation. This course is devoted to examining the Arab Spring revolutions and more broadly the changing politics of the Arab-Islamic world. We do so by collectively reading one book per week on the Arab Spring and other situations in the Middle East. Specific themes that are analyzed include the legacy of authoritarianism, the process of democratization, religion-state relations, the role of external powers and the transformation of Islamist politics. Part of the course looks at how these books have been reviewed both in intellectual and scholarly journals. This class is designed for students who seek a deeper grasp of the Middle East and a more refined understanding of the politics and history of this region. This is not an introductory course on the Middle East, Islam, or the Arab world and previous course work is assumed. Those uncertain about their status should consult with the instructor before enrolling.

INTS 4536 Economics: Fundamental Knowledge, Global Applications (5 Credits)
This course provides an introduction to the methods used to analyze contemporary global economic events by examining the environment in which individual economic agents interact. We analyze what the economic problem is, how consumers and business firms make economic decisions, how markets work and how they fail, and how government public policy decisions affect individual and aggregate behavior in both domestic and international markets. A special feature of the course is the application of economic principles to real world problems.
INTS 4539 Food Security in the United States and the World (5 Credits)
This course discusses: food security in the United States (community food security, food insecurity); stunting and chronic nutritional deficiencies; global water crisis; land degradation; land deals; climate change; dictatorship and kleptocracy; economic approaches (westernized view, food justice, food sovereignty); World Food Summit; achieving food security (the agriculture-hunger-poverty nexus, biotechnology for smallholders in the (sub)tropics); risks to food security (fossil fuel dependence, genetic erosion in agricultural and livestock biodiversity, hybridization, genetic engineering and loss of biodiversity, price setting, treating food the same as other internationally traded commodities); access to basic food supplies; infant feeding; determining nutritional status; supplementary feeding; therapeutic feeding; malnutrition, nutrient requirements and sources.

INTS 4543 Religion and International Studies: The Apocalyptic Tradition (5 Credits)
The relationship between religion and international politics is an important and understudied topic. For year, religion was, at best, a handmaiden to international relations as scholars focused on state actors only. Since 9/11 this has changed in dramatic fashion because of the rise of radical Islam, the importance of the religious right in the United States and its role in Middle East politics, and a growing awareness of how religion can divide populations within states and in many regions of the world. This course begins with an evaluation of the thousand year history of religious conflict before 1648 when faith and international politics were inseparable. We study the struggles between Islam and Christianity as well as "heresy" in both of these religions which lead to events like the Protestant Reformation. We explore the role of religion in politics from the eighteenth to the twentieth centuries and conclude with readings on such topics as suicide bombing, shifting religious values, demographics, and projections on how religion will shape international politics in the 21st century.

INTS 4549 Managing Microfinance: Balancing Business with Development (5 Credits)
This course builds on the topics in "Introduction to Microfinance" and delves more deeply into the challenges of managing microfinance institutions (MFIs) and effective social entrepreneurship. How do MFIs make sure they stay in business (with good risk management and financial management) and make sure they have real social impact? How can they innovate financial services and other market-based solutions that create lasting economic opportunity or social change? Whether a market-oriented NGO or a socially-motivated business, an MFI needs a clear development strategy, a clear business strategy, and the operational tools to implement both strategies well. Regardless of legal structure, both NGO and for-profit MFIs need good management and financial information to meet both sustainability and social goals. Whether used for poverty alleviation or and banking services for the poor, there are shared characteristics among successful microfinance organizations, as well as common pitfalls and challenges. As organizations figure out the "business" side of providing loans and savings, they also need to figure out which development services have greatest benefit for clients, choose strategies for social change (e.g. basic education, health care, business skills), and assess how well those strategies are working. For example, large-scale MFIs in India and Latin America have been very successful financially, but have only recently focused on their social impact. Smaller NGOs may serve the poorest and provide many development services, yet struggle to find a viable business strategy and sustainability. MFIs share challenges faced by many development organizations: (1) How do we balance our financial and impact goals; (2) How do we choose where to invest resources for greatest impact (e.g. financial services for many or in-depth assistance for fewer?); (3) What information do we need to ensure financial transparency and accountability; (4) How do we assess social and financial performance to keep improving our business strategies? This class will use weekly readings and case studies of specific microfinance organizations to: Illustrate business challenges and specific business risks in microfinance; Review basic financial statements and key financial measures to assess financial performance and risk, for both for-profit and non-profits; Review different approaches to answering the question "are we making a difference?"; Analyze management situations of "too much profit" and "too much development"; Compare pros and cons of for-profit and NGO legal structures, and implications; Discuss governance and boards of directors, compare and evaluate approaches; Highlight examples of social entrepreneurship powering market-driven change in microfinance and other areas (mobile banking, small-scale solar electricity, etc). Cases include Adelante Foundation, BRAC, Fonkoze, Kenya Women's Finance Trust, ACCION's Center for Financial Inclusion, and others. The first half of each class focuses on a real MFI case study to highlight the issues and understand the topic; the second half on the financial implications of these risks, the financial principles involved, and how well the tools work. Students gain a better understanding of financial statements, MFI operations (with case studies from around the globe), and credit risk, as well as key principles of financial management and good governance that apply to any non-profit or social business.

INTS 4555 Professional Communications (5 Credits)
INTS 4557 Cross-Cultural Communications (5 Credits)
This course is designed to prepare graduate students for careers as international professionals by focusing on the cultural factors that influence communication in international relations as well as the rules that describe and prescribe behavior. The course emphasizes culture and will explore how different cultures: perceive and interpret their surroundings, and create and communicate a shared, cultural construct of reality and identity; develop unique communication rules; and evolve culture-specific verbal and non-verbal communication behaviors. Students will immerse themselves in a particular culture (its history, values, world views and associated thought processes, religion, gender and social perception, language, and nonverbal communication) and research its communication conventions, practices, standards, core metaphors, terms, cultural premises, and meaning systems. Students are expected to demonstrate a critical and informed awareness of cultural content and identity, as well as the communication imperatives and procedural issues in their country through class presentations, discussions, and a long paper. The course rationale is that cross-cultural communication is inevitable, and without an understanding of the cultural communication imperatives, it is very difficult, virtually impossible to understand, work with, manage, or influence individuals from another culture. The course will involve theory and proven models, but will primarily focus on cultural immersion, skills development, practical applications, and case studies—exploring how culture both influences and reflects communication dynamics, how to communicate effectively in a multicultural environment, and how to manage and resolve cross-cultural conflicts.
INTS 4566 Global and Sustainable Development (Case of Coffee & Chocolate) (5 Credits)
In recent years, the issue of sustainable development has received considerable attention from academia, governments, and international organizations. Of particular concern are countries that are heavily dependent on the export of commodities. Can sustainable development be achieved by such countries? Chocolate (cocoa) and coffee are not only among the world's most popular little pleasures, they are also among the most traded commodities. Originating in Latin America and Africa respectively, their global diffusion has influenced the culture, society and politics of developed and developing countries for decades and continues to do so today. Coffee exports (the primary source of foreign exchange for many poor countries such as Ethiopia) are valued at about 9 billion annually. 25 million people in Asia, Latin America, and Africa struggle to earn a living through coffee production, it too is a major source of income for many countries in Latin America and West Africa. Yet, many problems have been identified such as farmers unable to earn a survival wage, the exploitation of child labor, and the damage that production processes inflict upon the environment. In short, these important commodities are apparently contributing little to sustainable development. Various organizations and individuals are involved in efforts to change this situation by promoting the establishment of specialty, organic and fair trade coffee and chocolate products. The degree to which these efforts can help turn the existing situation around remains unclear but the lives of millions of people and the future of many countries hangs in the balance. This seminar is designed to address such issues. We explore the meaning of sustainable development and consider the nature of globalization and the ways in which it has shaped the cultivation and consumption of coffee and chocolate over time. In order to understand this linkage, we utilize the concept of the "commodity chain", an approach that allows us to conceptualize the nature of the international linkages, their key nodes, the distribution of power, and the ways in which external factors influence a country's development efforts. The course is divided into three parts. In the first, we cover the basic concepts and seek to answer such questions as: 1) How have the coffee and cocoa commodity chains been shaped by globalization? 2) What has been the role of key actors - producers, local traders, governments, and multinational corporations - in shaping production and consumption patterns over time? In the second part we consider three basic forces that have shaped the commodity chains - the state and its policies, culture and consumption patterns, and entrepreneurs and technology. Here the questions are: 1) How have the policies of producing and consuming states affected the commodity chains? 2) How have changes in consumption patterns reflected in the growth of Starbucks influenced the situation in developing countries? 3) How have external technologies such as transportation and communication technologies as well as internal technologies such as instant coffee changed the chains? In the third part, we focus explicitly on two dimension of sustainable development - the environmental and the socio-economic. We seek to answer such questions as 1) To what extent are contemporary patterns damaging the environment? 2) What is condition of producers and how have these changed over time? 3) How effective are fair trade and other campaigns designed to promote sustainable development?.

INTS 4567 Democratization in Africa (5 Credits)
Since the mid-1970s, the world has seen an ongoing wave of democratization. Some 70 countries have undergone transitions to democracy since the 1970s, with some 40 countries having gone through such a transition in the 1990s and early 2000s. Perhaps nowhere is the “third wave” more fully felt than in sub-Saharan Africa, which has seen since the 1990s a myriad of transitions from one-party states to multiple-party democracies, as well as war-to-democracy transitions as countries today raise a number of important retrospective questions about the underlying drivers of democratization, the various paths that countries go through on the road to democracy, whether such changes are sustainable over time (and why or why not). The very word "transition" is rightly questioned: Is there a proverbial point of no return when democracy is "consolidated" and country goes from the transitional category to a fully formed democracy? While democratization may lead to peace over time, the actual process of political reform is destabilizing for societies, and that in the short term there may be real and direct threats to peace in democratizing societies as a result of the uncertainty and competition that democracy introduces into restive social environments. In Africa, despite celebrated transitional elections and a few clear success stories (such as Namibia), democratization has been fraught with challenges, from elections as the spark to civil war or massive political violence, to corruption, fraud, and rent-seeking by elected elites, to widespread discontent over the inability of democratically elected regimes to foster socio-economic development. As well, there is a critical concern that electoral processes in Africa are often accompanied by widespread political violence. Thus, Africa's experience with democracy lies between the powerful force of liberation that guided the continent's politics in the formative years, and the uneven, non-linear, and for the most part elusive goal of "consolidation.” The course explores democratization - the means and methods by which countries in recent years have moved form a non-democratic to democratic regime type. What theories, concepts, and methods should be used to understand democracy and democratization in today’s complex, multiethnic societies? How does the Africa experience relate to broader theories and perspectives on democratization?.

INTS 4569 Migration (5 Credits)
Migration is a fundamental feature of our lives. Indeed, every aspect of our civilization and our self-conception is shaped by the exodus of all humans from our origin as a species in Southern Africa 200,000 years ago. In our own era, the aging of western populations, the rise of new economic powers, and dramatic improvements in human capital have given rise to an era of labor migration unparalleled in magnitude and diversity, though not entirely unique. New technologies have risen to facilitate further migration, enable the transmission of resources and knowledge across borders, and create new transnational patterns of residence and livelihood that challenge our notions of nation, identity, and even the very meaning of the term migrant. To put it simply, migration is the human face of our modern era of globalization, entailing incredible costs, risks, and returns for migrants along with important impacts for host societies, and the global system. Migration comes in many varieties in terms of destruction, permanence, and level of coercion, yet common theoretical, empirical, and policy unite these different forms of mobility. This course offers a holistic view of the migration process from multiple perspectives, at multiple levels of analysis, and on multiple aspects of our world today. As a uniquely individual behavior, migration has proven over time to be notoriously unfriendly to policy, which is often ineffectual or even counterproductive. We explore this cross-cutting concern through case studies illustrating the promise and pitfalls of migration policy.
INTS 4575 Systems Thinking for Social Scientists (5 Credits)
The purpose of this course is to introduce students to systems thinking as an approach for understanding and analyzing real-world issues. In addition to introducing the basic principles of systems thinking, questions that will be addressed include: Why do systems behave the way they do? Why do systems resist change and often end up getting worse when we try to change them? How do you find points of leverage within a system? This course uses examples drawn from a range of issues across the field of international studies. In doing so, it illustrates how a systems perspective can allow you to see parallels between seemingly disparate issues. This course introduces both qualitative and quantitative approaches for analyzing systems and discusses the benefits and limitations of each. Quantitative, computer-based modeling is used in this course, but no background is required.

INTS 4576 Seminar: Community-Based Research Methods (5 Credits)
This course offers a weekly seminar in methods for community-based research in health, development, population, and humanitarian assistance. The course is intended as preparation for students preparing for a community-based research partnership in Delhi, Nairobi, Jerusalem, or Iquitos, Peru but is open to all students preparing to go to the field. Focus is on practical methods for gathering quantitative and qualitative data at the individual, household, village/neighborhood, facility, and total community level including "windshield observation", key informant surveys, household surveys, and gathering of secondary data from census and other government and non-government sources. Methods of data collection include Geographic Positioning System (GPS), facility/provider surveys, community governance/needs assessments, and knowledge-attitude-practice (KAP) behavioral surveys. Topics of particular emphasis include maternal and child health (MCH), water and sanitation (WASH), and primary health care (PHC). Students learn to design, revise, collect, enter, and analyze basic surveys using Excel and the Stata statistical software package. The final project for the course includes a community "desktop assessment" document and a plan for further data acquisition and analysis for the student's focus community.

INTS 4579 International Futures (5 Credits)
Futures forecasting involved decisions about priorities. Decisions require forecasting the trajectory of a society with and without interventions of various kinds. This course involved students in the forecasting and analysis process. In the lab, students learn to use the International Futures (IFs) forecasting system. This system represents multiple issue areas (demographics, economics, energy, agriculture, education, health, socio-political, and environment subsystems) and is supported by a very large database. Students study the structure of each of these modules, learn how they represent the underlying subsystems, how they are linked to other subsystems, and what they tell us about the processes of change globally and in countries and regions around the world. Students use the system for forecasts and analyses of their own.

INTS 4581 Introduction to Humanitarian Systems (5 Credits)
The Humanitarian field has changed significantly since the founding, in 1863, of what is now the International Committee of the Red Cross. Since the early 1990s there have been efforts to improve coordination between humanitarian actors and to improve the quality of international humanitarian response. High profile humanitarian crises such as the Rwandan genocide, the 2004 Indian Ocean Tsunami, and the Haitian earthquake have highlighted weaknesses in the system and spurred reform efforts. Through readings, class discussions, guest speakers, group work and individual assignments, students gain a better understanding of the development of humanitarian systems and policies and how these affect current humanitarian practice. Key debates in the humanitarian system are also discussed and students have the opportunity to grapple with some of the key ethical dilemmas facing humanitarians today. At the completion of the course, students should be able to: Discuss the history of humanitarianism; Recall key components of the humanitarian infrastructure; Describe the humanitarian principles, their interpretation and application; Identify ethical issues which may arise for humanitarians; Discuss the implications for humanitarian practice of key emerging challenges.

INTS 4583 International Protection in the Humanitarian Context (5 Credits)
At the conclusion of World War II after witnessing the horrific and historic loss of life, and in an effort to save future generations from the direct impact of war and conflict, the Western powers created several important legal instruments to protect civilians. These instruments are largely derived from human rights, refugee, and international humanitarian law. These initial legal instruments were later combined with additional instruments, both regional and international in scope, and are collectively and cumulatively considered the legal framework for "International Protections." After sixty years of the progressive legal and theoretical development of international protection and its practical implementation, a slow but evident shift has developed over time. Theoretically speaking, a shift from the end of the Cold War's position of absolute sovereignty to the ideals of the 1990s and the "responsibility to protect" which developed in direct response to the failed efforts of the international community to protect in Bosnia, Rwanda and other conflicts. As a result of the changing nature of conflicts, confusing mandates, ambiguous definitions, and political will, we have witnessed the failure of international protection in numerous humanitarian settings.

INTS 4591 Advcd Fundraising Workshop (5 Credits)
This course compliments INTS 4391, in which an overview of non-profit fundraising - along with financial management - is given. In this course, we take an in-depth look at the major methods of non-profit fundraising, namely, annual giving, special events, corporate fundraising, grant writing, major gifts, and planned giving. The teaching methodology to be employed is that each 3 hour class session is, in effect, an intense workshop on a specific fundraising topic. During each class session, a fundraising professional from the community, who is actively engaged in the particular fundraising activity being discussed, joins the professor in leading the workshop. Due to the advanced nature of this course, enrollment is limited to those who have already been introduced to the major methods of fundraising through the previous completion of INTS 4391, the concurrent enrollment of INTS 4391, or previous fundraising experience or educational pursuit in the fundraising field that is judged by the professor to be sufficient to be an active participant in this course.
INTS 4624 Private Actors and Conflict (5 Credits)
Knowledge plays a critical role in improving human welfare. Rapid progress in science and technology in the recent times and an increasingly interconnected world facilitated by such progress have raised the potential for using knowledge in bringing development everywhere in the world within foreseeable future. This course examines the role of science, technology and innovation in achieving economic and social development through creation, diffusion, transfer and adaptation of knowledge within and across national boundaries. Course participants examine the role of knowledge and innovation in fostering economic growth and social development. They scan the modern science and technology challenges and opportunities especially those useful for development. They also study the various activities, institutions and policies that can help developing countries devise (or strengthen) and maintain a state of the art knowledge system. They have hands-on experience of designing a knowledge policy plan for a developing country or region. The course brings in material from various disciplines though the major focus remains on international development. It can be cross listed as a development, a technology policy or a GFTEI course. No prerequisites.

INTS 4622 Global Governance (5 Credits)
This course surveys a range of arguments about how, whether, and/or the conditions under which global or transnational issues are governed. It examines different ways of thinking about governance and the governance process. It unpacks the variety of authorities that govern transnational issues. This course also considers different arguments about how the variety of actors engaged in a particular issue affects to the amount and type of governance possible. The course is intended for both masters and PhD students.

INTS 4624 Private Actors and Conflict (5 Credits)
General approaches to conflict focus on violence between the military forces or states. The conflicts of the last two decades, however, involved a variety of other actors: private military companies training or fighting with armies, relief workers trying to mitigate the impact of conflict on non-combatants, environmental NGOs working to lessen the impact of conflict on endangered species, multinational corporations trying to continue their business dealings, paramilitary and/or other citizen groups trying to defend their private property or other rights, criminal networks working to exploit conflict for personal gain, and terrorist networks. How do these different actors behave in conflict situations? Does their presence alter the way conflict unfolds, strategies of conflict (and conflict resolution), and/or the prospects for long-term security (peace, stability and development)? How? How do we decide whether these actors are public or private? How do today’s “private” actors in conflict compare with the past? Is this a new phenomenon or simply a return to what has been typical at numerous points in history? This course explores the questions presented by the variety of actors involved in conflict today, compare today’s situation with the past, and examine the way states and non-state actors are coming to terms with each other in conflict situations.
INTS 4625 East African Development and Human Rights (5 Credits)
For our purposes, East Africa encompasses the countries of Sudan, South Sudan, Ethiopia, Eritrea, Djibouti, Somalia, Kenya, Uganda, Rwanda, Burundi, and Tanzania. This course begins with an introduction to the cultural richness and diversity of East African societies, with an overview as to how tribes, chiefdoms, and states function. Religious influences are noted. This history of development, as externally conceptualized, begins with the Berlin Conference of 1884/85 and the so-called “scramble for Africa.” If features socio-economic and socio-political processes. 20th- and 21st-Century external development programs are covered, most recently exemplified by the former Soviet Union, the United States, and China. Principles of induced development and participatory development are contrasted. Regarding the latter, indigenous innovations are stressed. The history of human rights, as externally conceptualized, begin much later, with the 1969 refugee-related innovations of the Organization of African Unity (now, the African Union). The “classic” issues of tribalism, corruption, and resource exploitation are covered, as well as the “late-breaking” issues of food security, refugee repatriation, and child soldier rehabilitation. Conceptually and theoretically, the course is grounded in disciplinary understandings derived from cultural anthropology, political science, ecology, and history. Resource use, in the context of socio-cultural systems development, are foundational. Special projects are featured, exemplified by those involving University of Denver personnel in Kibera, Kenya (water and sanitation); Mai Misham, Ethiopia (literacy); and Juba, South Sudan (indigenous leadership). At the broadest level, examples are most often drawn from the water/sanitation, agricultural, and health/mental health sectors.

INTS 4626 Civil Resistance (5 Credits)
Civil resistance is the application of unarmed civilian power using nonviolent tactics such as protests, strikes, boycotts, demonstrations, without using or threatening physical harm against the opponent. This method of struggle occurs worldwide in places as diverse as Russia, Moldova, Serbia, Spain, Egypt, Iran, Maldives, the Niger Delta, the West Bank, Thailand, and Burma, among many others. As a consequence of the growing use of civil resistance, the foreign policy community has become interested in understanding the causes, dynamics, outcomes, and consequences of civil resistance campaigns. This course serves as a primer on the topic of civil resistance, introducing students to the primary texts in the field, as well as the policy implications of empirical research on the topic. This five primary goals of this course are to: (1) present leading theories and concepts for understanding civil resistance; (2) explore international history to evaluate theories of civil resistance; (3) apply these theories to analyze current trends and make predictions about future development; (4) provide students with opportunities to synthesize their knowledge in a major written assignment; and (5) allow students to deepen their knowledge about several historical cases around the globe.

INTS 4627 African Security (5 Credits)
This is intended to be an advanced political science graduate course examining African politics and (in)security. The aim of this course is to introduce students to theoretical frameworks that, in turn, facilitate their understanding of African politics, conflict and security issues – especially as they pertain to human security. Importantly, this class takes a critical look at the concept of sovereignty as it relates to security. Through the reading, students become familiar with major analytic frameworks and debates in the analysis of contemporary African politics; students become conversant in relevant political, civil-military and human security issues as they relate to sub-Saharan Africa. The focus of this course is for the student to develop an analytical framework by which to make sense of context. Context is important, but without a cohesive theoretical framework to inform the practitioner it is insufficient. With the understanding that modern elites benefit from the existing structures and associated incentives, this course seeks to understand the modern African state in order to best engage said structures/élites to further development and, most importantly, individual security. Of note, it is clear that security is a fundamental condition for effective governance and development. Further, whereas it is true that weak empirical states, interstate wars, and conflicts over natural resources have proliferated throughout the continent and that ethnic, religious and regional violence is a common syndrome, we often forget basic (human) security needs. Specifically, we overlook that importance of access to potable water or an individual’s ability to pursue economic gain without fear of violence. At the heart of security lies the individual. Weak states or elites might affect inter-state relations and security (e.g. militant groups in under-governed spaces), but it is the individual who suffers. Thus, security in this context seeks to understand issues that affect individual lives.

INTS 4628 Soc Movements: Latin America (5 Credits)
The past year has been witness to Tahrir Square and Occupy, reminding us of the power and innovation of popular sectors making their voices heard. Latin America is a particularly useful place to explore popular movements, as it has long been the site of popular protest and national revolution, and it is currently a region governed by a significant number of Leftist governments with important ties to social movements. This course addresses major theories of social movements, including classical, structural, and new social movement theories. These theories have attempted to answer fundamental questions of what triggers mobilization among excluded groups, how they facilitate their action, and what changes they potentially trigger to basic rights and identities. The course also places social movements in their broader context, locating them the political, social and economic structures that have shaped exclusion in Latin America over time. In the process, the course explores the role of popular movements in broader processes of democratization, economic development, and citizenship. We examine traditional and well-studied examples of social movements, including movements among workers, indigenous, women, environmentalists, and advocates for democracy and human rights. We also explore newly emerging and transnational movements, including those that articulate alternative models of globalization. The course takes an interdisciplinary approach, drawing on economics, sociology, anthropology, and political science. It places special emphasis on the political economy of popular organization, acknowledging the contested nature of development and the ongoing struggle for deeper democracies and more equitable societies.
INTS 4629 Cultures of Globalization: Networks, Commodities, Affections (5 Credits)
This course explores the effects of neoliberal globalization on the lives of individuals and their communities. In an increasingly interconnected world, how do everyday people and communities negotiate the opportunities, dislocations, and/or disjunctures engendered by neoliberal globalization? Does globalization contribute to increasing global homogeneity or does it restructure difference and inequality in new ways? We explore how a ground-up view of globalization can highlight some of its contradictory effects. We discuss how globalization influences increasing inequality, restructures individual and group identities, as well as the relation between globalization and migration. From a ground-up perspective, we attune to growing global connections to understand how transnational commodity circuits intersect with individual lives and communities. We ask: How are commodity chains also cultural objects that shape, and are shaped by, how we see the world? Moreover, we pay attention to the development of grassroots networks and social movements that forge connections across borders to channel and/or challenge the current trajectory of globalization. We also find it imperative to understand the affective dimension-how do human beings think about their emotional relationships, families, and identities in relation to changing global dynamics? We end by examining alternatives to thinking in terms of neoliberalism, while examining its ramifications in the current economic context. A central question we ask is: As everyday life becomes increasingly commoditized, how do people cope, find support and value, and reveal alternate ways of conceptualizing how we can all connect to one another.

INTS 4630 Civilian Protection in Armed Conflicts (5 Credits)
Studies of armed conflict tend to focus on the production of violence to the neglect of how civilians might instead be protected. In this course, we will study how to limit violence against civilians. We will begin with an overview of theories of violence and legal and ethical frameworks governing the use of force. We will then consider how various actors throughout society, from state actors, to international actors, to illegal arms actors, to NGO's, to civilians and their communities—the would-be victims of violence—can either promote or restrain the use of violence. We will also consider the conditions under which the protection of civilians is most feasible as well as research methods for analyzing populations and their protection strategies. In their final projects, students will analyze the threats of violence faced by a particular population and design appropriate protection strategies and polices to deal with them.

INTS 4631 The Politics of Civil Society (5 Credits)
Every intractable problem of politics, many significant changes in regimes and much of the pressure on government for good or ill, depending on the point of view, emerges from the civil association of citizens. There are limits, however, to what people can and cannot do. In this way, the overall objective of this class is to explore how people exert political power outside of the formal political structures. Towards this end, student gain a greater understanding of the make-up and roles of civil society, beginning with its origins and definitions and working up to current thinking, including the post-Berlin Wall opening up of civil society. The class considers the linkages between social and political objectives, studying how both formal and informal forms of associations limit and open up the possibilities of people’s power.

INTS 4632 Qualitative Research Methods: Working with the Denver Immigrant Community (5 Credits)
This course provides training in ethnographic and engaged research methods while giving students the opportunity to apply their skills to the local Denver immigrant community. This class requires a commitment to doing fieldwork outside of the classroom and to organizational partners in the community. Students should expect to spend 3-4 hours a week in the field and 1-2 hours on their field note write-ups. Students will work on the Wage Theft in the Denver Construction Industry project being led by Professor Galemba and Professor at the Sturm College of Law in collaboration with El Centro Humanitario, a day laborer center in Denver. The project examines wage theft experienced by Latino day laborers who work in the construction industry, especially in light of a January 2015 law that stiffens penalties for wage theft. Students will conduct collaborative rapid assessment ethnography in teams to study day laborers, employers and employer associations, lawmakers, non-profit stakeholders, and trade unions. They will gain experience with participant observation, qualitative interviews, data security protections, data coding and qualitative date coding software, analysis, and writing. The course culminates in a public presentation to share results with the community. Spanish skills are a plus, but are not required for all students.
INTS 4633 Intl Project Evaluation (5 Credits)
It is important that those planning careers in multilateral and bilateral development agencies, non-profit organizations, private-sector companies, and professional services organizations have an understanding of the many considerations involved in development interventions and the competencies of a project manager to lead teams in carrying out these interventions. The school currently offers three courses that are organized around the traditional international project cycle. This cycle includes six sequential but not necessarily linear phases: identification/selection, preparation, appraisal, implementation, completion/transition, and evaluation. Future project managers managers working at various stages of the project cycle need to develop technical, leadership/interpersonal, personal/self-management, and international development specific competencies. The purpose of the International Project Evaluation course is to provide students with a better understanding of and practical tools for designing, implementation, and reporting project evaluations. Project managers rely on evaluation at various stages of the international project cycle. They use evaluation during the implementation of development projects to determine causes of any observed variance between project milestone targets and actual progress, and to support the formulation of corrective actions. They also use evaluation to determine the extent to which a development project has met its desired outcomes at completion, and also the causes of any shortcoming. Finally, project managers use evaluation to determine the impacts of a development project several years after its completion, and the extent to which the project outcomes can be attributable to desired changes in the conditions of the target population or area. In all cases, a good evaluation design and implementation allows the project manager to identify supportable findings, conclusions, and recommendations. These recommendations can be directed to decision makers to support changes necessary to correct project deficiencies or to provide lessons learned for designing subsequent development interventions. Moreover, a project manager should use evaluation as a way to build evaluation capacity and appreciation among intervention stakeholders, which is known to further the attainment of desired outcomes and produce more sustainable impacts. More specifically, this course covers the approaches that four organizations use to evaluate project, programs, and policies: the U.S. Government Accountability Office (GAO), the World Bank, United Nations Development Program (UNDP), and the United States Agency for International Development (USAID). Each of these organizations has developed templates for the design of an evaluation, similar methods and techniques for data collection and analysis, and common elements in reporting evaluation findings. The latter two organizations also have protocols to contract out evaluations to other groups through the preparation of statements of work. In this course, we have the opportunity to compare evaluation approaches and to apply these approaches in preparing evaluation projects. Small student teams produce a statement of work for an evaluation, as well as develop and present plausible findings, conclusions, and recommendations based on the evaluation design. Out of necessity, these are plausible results, as there is insufficient time to implement an evaluation design during the 10-week quarter.

INTS 4634 Practical Public Diplomacy (5 Credits)
When Madeleine Albright spoke at the Korbel School, she made a plea for more courses on the nuts and bolts rather than the theory of diplomacy. This course is a response to that plea; drawing on 28 years of experience as a Foreign Service Officer and practitioner of public diplomacy. In this hyper-connected world of ours, public diplomacy has taken on ever more importance. It is essential to use the traditional tools of public diplomacy, such as exchanges, cultural centers, language courses, etc., and meld them with the new tools of social media and social networks. The course is a combination of lectures and student presentations as well as talks by numerous experts in various aspects of the practice of public diplomacy.

INTS 4635 Civil-Military Relations (5 Credits)
Who guards the guardians? has been a long-standing dilemma in international politics. How can we make sure that military leaders enjoying the control of coercive power submit to civilian political authorities? How can military organizations be powerful enough to counter external threats without becoming themselves a threat to the political community they should protect? How can hierarchical institutions created to exert physical violence be compelled to respect human rights and democratic values? These questions lie at the heart of civil-military relations theory. Analyzing the different ways in which military organizations, political authorities and the broader society interact is crucial to understand political outcomes such as state-building, democratization and the outbreak of war. This course provides students with a comprehensive understanding of the problems surrounding civil-military relations. Besides looking at the theoretical foundations of the field, it offers a comprehensive overview of civil-military relations over time and across countries. Specifically, it focuses on some topical and yet poorly understood cases and phenomena, such as the impact of the rise of private military and security companies on control over the use of force and the role played by military in Middle Eastern countries such as Turkey, Egypt, Syria, Libya, and Pakistan.

INTS 4637 Comparative State building (5 Credits)
The modern state is of central interest to students of political science, Latin America, development, sociology, and public policy. For some, the state is an instrument of repression and domination; for others it is the shepherd of development. For all, it has been the fundamental unit of national political authority for at least the last two hundred years. This course explores the nature of stat authority and the processes by which different types of states emerged at different moments in world history and in different regions of the world, as well as how the nature of states has evolved over time. We explore the modern states that emerged first in Western Europe, and then the transplantation, imposition, and emergence of state authority in other regions, including Africa, East Asia, and Eastern Europe. The second half of the course focuses entirely on Latin America, highlighting the way in which states emerged and shifted over time in that region through close study of particular cases. We end the course with a consideration of the nature of state authority in the current world characterized by more intense flows of people, goods, capital, and ideas.

INTS 4638 Modern Iranian History and Politics (5 Credits)
The Islamic Republic of Iran remains a mystery for many in the West. The policies of the Iranian regime represent one of the greatest challenges to U.S. foreign policy today, as reflected in the global debate about Iran’s controversial nuclear program. War seems inevitable and Iran and the West are in confrontation on a number of fronts around the world. How did we get to this point in global affairs? What is the relevant historical background needed to understand Iranian culture, society, politics and foreign policy at a deeper level? What are the key moments in modern Iranian history that have shaped the contours of the current conflict between Iran and the United States? These are the overarching questions that this course seeks to examine. The course is the first of a two course sequence that seeks to demystify Iranian politics and society. Themes explored include the origins of Iran’s troubled relationship with the West, the emergence of the modern Iranian state, the construction of Iranian national identity, the tension between religion and politics, the struggle for democracy and the persistence of authoritarianism and the roots of the 1979 Islamic Revolution.
INTS 4639 Post-Revolutionary Iranian Politics (5 Credits)
The focus of this course is on Iran's post-revolutionary period. The goal is to provide students with an objective examination of Iranian society and politics. Several themes are explored: the rise of religious politics and the consolidation of clerical rule, the nature and interaction between Iranian state institutions, civil-military relations, the Iranian economy, the domestic opposition and the prospects for democracy, the crisis in US-Iranian relations, and the role of women in Iranian society.

INTS 4640 Global Financial Crisis (5 Credits)
This course provides an in-depth and critical analysis of the global economic crisis of 2007-2009. The goals of the class are to provide: a) an understanding of the causes of the crisis, b) an overview of the onset of the crisis, including its similarities and differences with past crises, and c) a critical appraisal of the policy response to the crisis, including financial bailouts, monetary policy, fiscal policy and regulatory reforms since 2009. The class will take both a US and a global perspective, and will conclude with an outline of the aftermath and general lessons to be drawn. This course goes well beyond a historical treatment of the global economic crisis and provides general analytical frameworks that can be used to understand economic crises more generally. Each class will be organized around one or two topics related to a theoretical understanding of economic crisis and will apply them to an understanding of the 2008 crisis. The frameworks draw from the fields of microeconomics, macroeconomics, finance, international relations, global political economy, real estate and international economics, integrating and extending the knowledge obtained from other economic and policy courses. Basic Macroeconomics and Microeconomics, while not strictly a prerequisite, is highly recommended. Basic economic concepts will be used repeatedly during the class and basic knowledge of economics will be assumed. The format of the course is a classroom discussion of the reading and class debate. As such, it is imperative that you come well-prepared, having done all of the readings as this course entails a substantial amount of readings to prepare for class. The instructor has a point of view, but challenging that point of view will be encouraged, and even required. Lively class participation will be essential to the success of the course. Visitors from the worlds of finance and policy will contribute on occasion and will be announced.

INTS 4641 East Asia in the Global Political Economy (5 Credits)
The main purpose of this course is to understand critically the conceptual and empirical issues underlying the linkages between the East Asian Regional Economy and the Global Economy. What is the role of the East Asian Regional Economy within the current global political economy (GPE). What is sustainable development in the East Asian Regional Economy? What are the global dimensions of sustainable development in the East Asian Regional Economy? What are the linkages between technology and sustainable development in the East Asian Regional Economy. After an initial exploration of these issues we focus critically on the more recently developed social capabilities approach developed by Amartya Sen and others. In particular, we explore the limits of policies under the existing institutional arrangements and examine the need for fundamental changes in the global political economy and the East Asian Regional Economy. For this purpose we try to find the approximate but deep casual structure of GPE and the place of the East Asian Regional Economy within this GPE.

INTS 4642 Environmental Security (5 Credits)
This course surveys the expanding literature on the complex interrelationships between the environment, natural resources, conflict, and human security. Since the dawn of agriculture (~7000 BCE), but rapidly accelerating in the industrial age (1750 CE to present), humanity has conducted an uncontrolled experiment in bending the natural environment to fit human needs and desires. Despite the perceived distance that technology has placed between our physical environments and our daily lives, human interactions with our natural environment are still fundamental. Since the end of the Cold War, much attention has been paid to the role of natural resources and environmental scarcity as a source of conflict, ranging from “water wars” between states sharing a common river basin to communal conflict between pastoralists and farmers in the Sahel. This course will survey the expanding literature on environmental impacts on conflict, as well as conflict impacts on the environment, and the potential for making co-management of valuable natural resources and wildlife a source of cooperation, rather than conflict, between communities and states.

INTS 4643 Japan in East Asia: Economic, Business, and Trade Relations (5 Credits)
This course presents an overview of Japan’s economic, business and trade relations in East Asia (ASEAN plus China, South Korea and Taiwan). The focus is on the evolution of Japan’s economy and big business and its shifting role and impact in East Asia. The course is organized to provide a backdrop to understanding: (a) the growth of big business in Japan; (b) the rise of the ‘developmental state’ in Japan and its impact on East Asia; (c) the experience of Japanese multinationals with foreign direct investment in East Asia and creation of Asian production networks; and (d) the current trend of free trade agreements and other emerging trade arrangements in East Asia. Students work i groups to explore, for example, the experiences of major Japanese companies in East Asia or a period or specific event connecting the economy of Japan with those in East Asia.

INTS 4644 Human Rights Research Methods (5 Credits)
This course is about how social science research can be used as a tool to understand and promote human rights. The field of human rights is bedeviled by several challenging obstacles to research, including reporting bias, hidden abuses, missing data and politicization of the facts. To deal with these obstacles, we learn about various methodological tools and how they are applied for the analysis of special human rights topics. By the end of the course, students are equipped to compile and present information to highlight patterns of rights abuses and identify patterns of cause and effects.
INTS 4646 European Integration: States in Transition (5 Credits)
Not only have the global financial turmoil threatened by the Eurozone crisis and the negotiations of a trade agreement between the European Union (EU) and the United States made the study of EU integration increasingly important for students of International Relations. As a unique political entity distinct from both states and traditional international organizations, the EU remains an unidentified object, whose development has challenged the traditional paradigms of both international relations and political science. Besides providing an in-depth knowledge of a crucial political and economic actor, the study of the EU integration process, its drivers and its shortcomings will therefore enhance students' understanding of some of the most crucial theoretical debates underlying today's international studies. This course intends to provide students with a comprehensive knowledge of the politics and institutions of the EU, analyzing its development from its origins until the present day and beyond. It will do so by focusing on the following core issues: Firstly, it will briefly analyze the history of the EU, seeking to identify the rivers of the integration process and explain why, after the end of World War II, European countries have set aside their centuries-old antagonism and embedded themselves within an ever close political Union. Secondly, it will examine what the EU is and how it functions, analyzing its key institutions, the architecture of its system of multilevel governance and its policy-making processes. Thirdly, it will investigate some key consequences of European integration, focusing on topical debates such as whether and to what extent the shifting of national decision-making powers at the EU level has created a democratic deficit, what is the impact of EU enlargement on both the Union and the institutions, societies and economies of new member states and what have been the economic and political consequences of the introduction of a single currency. Finally, the course intends to engage students in a debate on what is the future of the European Union in light of the latest development brought about by the entering into force of the Lisbon Treaty and the economic and financial crisis suffered by Southern European member countries. Prerequisite.

INTS 4647 Critical Issues in International Humanitarian Assistance (5 Credits)
In recent decades, the humanitarian system has undergone significant changes related to developments in global governance, lessons learned and relationships between agencies (UN/NGO), governments (donors, affected countries), as the nature of crises themselves the contexts in which they occur and actors involved in crisis response continue to evolve, the humanitarian system and those that work within it must contend with new challenges and critiques. Through readings, class discussions, guest speakers and assignments, students have the opportunity to gain a better understanding of the major emerging policy issues and internal and external challenges facing the international humanitarian system. The class discusses important debates in the humanitarian system and students have the opportunity to grapple with some of the key ethical dilemmas facing humanitarians today. This course is aimed at those with an interest in humanitarian policy as well those who wish to explore the challenges that may face them as they prepare to work in the humanitarian field. Prerequisite: INTS 4581.

INTS 4648 Theories of Security in World Politics (5 Credits)
In the 40 years following World War II, the study of security assumed a divide between international relations (the politics between states) and domestic politics (the politics within states) and gradually became separated from studies of international economics. International or national security largely centered on one empirical and two different theoretical enterprises. The empirical enterprise explored the relationship between the US and Soviet Union, focusing particularly on deterrence and the effect of nuclear weapons. The theoretical enterprises explored the likelihood of conflict between states in different systems and scenarios (does conflict occur? When is stability more likely?) and examined the causes and consequences for actors of pursuing different strategies (What determines which strategy states will choose and what are the consequences for security – i.e., war, conquest, security gain, security loss, etc. – of different choices). After the end of the Cold War debates about the meaning of security joined change in the prevalence of intra-state conflicts and growing attention to terrorism in ways that led many scholars to question the usefulness of assumed differences between international and domestic politics, and, to a lesser extent, between security and economics. Also studies of conflict and stability have increasingly focused on a variety of transitional and global actors that do not fall into the realm of the nation, the state, or even the “international” system at all. This course focuses on this post-Cold War security agenda. The class begins with a (rather old by now) debate over the definition of security, then consider the role of states and other actors and finally turn to a list of prominent questions. In examining these questions, the class reads studies based in a variety of explanations, research strategies and methods. Students are encouraged to think about prominent explanations that stretch across the questions in different weeks. Students should also consider the costs, benefits, and alternatives to the research strategies and methods that individual authors have chosen. While the focus is on the substance of debates in security studies, the professor hopes to also spend time each session talking about how to frame productive questions and research strategies. In the way of background, if students have never read Kenneth Waltz, Man, the State, and War, they are recommended to do so. It would also be useful to have some familiarity with some basic texts in political theory, particularly Hobbes, Machiavelli, Kant, and Weber.

INTS 4649 Human Rights and the Middle East (5 Credits)
This course is shaped in three parts; each focuses on a set of critical human rights questions drawn from different phases of the Arab uprisings. Part I focuses on the Arab Uprising and Promises of Human Rights Progress and asks: 1. What can we learn from past contagion of human rights struggles, while the class analyzes the Middle Eastern social transformation? 2. What are the main causes that shook the Arab Middle East? 3. What was/is the role of major social actors? Part II covers the Rise of the 2012 Islamist tides, which gained new momentum after the electoral victory of the Muslim Brotherhood in Tunisia and Egypt and asks: 1. Are these religious trends consistent with human rights efforts? What accounts for waves of contagious revival of religious fundamentalism in the Middle East and North African region before and after 2012? 3. What is the impact of religious fundamentalism and nationalism among Israelis and Palestinians? Part III analyses the Possible Paths of Democratization and Human Rights in the Middle East and explores: 1. What accounts for different Revolutionary Arab Paths? 2. Is there a human rights answer to the Israeli/Palestinian quandary regarding one or two state solution? What are the current and possible roles of external forces for the region (international and/or regional)?.
INTS 4650 Globalization and Economic Crime (5 Credits)
This course explores the policy issues raised by international economic crime, a phenomenon that has mushroomed with globalization and now accounts by some estimates for one-fifth by value of all international commerce. But who gets to define “crime?” Are there standards applicable globally to all situations? Nation states, corporations, nongovernmental organizations and political advocacy groups have issued multiple and often conflicting definitions of acceptable and unacceptable behavior and have been free in affixing blame on other sectors. To assess the part played by economic liberalization in the increase of crime, readings focuses attention on the political, technological and economic factors that encourage criminal activity and on the direct and indirect economic costs of activities such as identity theft and counterfeiting; mislabeling and trade in illicit goods; political corruption; money-laundering; and securities and accounting fraud. The class discusses activities posing definitional challenges to policymakers, such as currency and commodity speculation, re-export, gray marketing and state sponsorship of organized crime. This class also looks at policy options available when state-supported criminal economic activity is deemed to violate peremptory norms, create a substantial domestic effect, or constitute an act of war. This course examines self-help programs such as due-diligence and know-your-customer rules as well as statutory regimes such as the U.S. Foreign Corrupt Practices Act, and the movement toward transparency and uniform financial standards.

INTS 4651 Field Knowledge for Agriculture and Sustainable Development (5 Credits)
Agriculture across the globe faces numerous challenges: feeding a growing population; adapting to climate change; reversing environmental degradation; and adapting to changing food consumption patterns, natural disasters, resource scarcity, global trade agreements and political pressure. Farmers and related businesses must deal with these challenges while also maintaining livelihoods and contributing to economic growth. These economic, environmental, social and political challenges shape the entire agricultural system. These challenges influence what the farmers grow and other important production and marketing decisions; these challenges also can discourage fundamental change. Farmers must negotiate tradeoffs that have negative consequences in one area to gain benefits in another. This class will analyze sustainability in agriculture through a regional lens, engaging with agricultural people and systems along the Front Range. We aim to understand the economic, environmental, social and political issues that regional farmers face while taking a fine-grained look at critical components of farming: land, labor and water.

INTS 4652 Contemporary Issues in Refugee Studies (5 Credits)
This course is designed to provide a stimulating interdisciplinary environment in which students explore contemporary issues in refugee studies. Through examination of relevant international instruments, research, case studies, agency policies and reports, students will begin to develop the skills necessary for understanding refugee-serving agencies and associated programs in large scale refugee operations. Specific emphasis will be given to recent developments in - refugee terminology, refugee status determination, urban refugee populations, refugee camps, durable solutions, and extremely vulnerable refugees. Throughout, the course will focus on humanitarian assistance and protection frameworks, including analysis of guiding principles and associated policies of refugee-serving organizations such as the United Nations High Commissioner for Refugees (UNHCR). The importance of reliance on refugee voices to frame the debate will also be emphasized. At the end of this course students should be able to integrate and apply knowledge of innovation policy and practice to begin to address contemporary challenges faced by humanitarian agencies working with refugee populations.

INTS 4653 Political Economy of the Resource Curse (5 Credits)
This course is about one of the more curious findings/non-findings in the history of economics and international relations; that valuable natural resources, such as oil, natural gas, and other mined commodities are not, in the main, associated with better development outcomes and may even depress long-run rates of economic growth and discourage democratization and effective governance. Common sense would seem to suggest that if one finds oneself sitting on a gold mine, then one should mine gold (or drill oil, as in the example above). But countries that have specialized in the production of extractive or "point-source" resources, such as mined commodities like gold, diamonds, and oil, tend to be poor, creating a nagging sense that specialization in extraction is a losing proposition in the global division of labor, condemning countries to be the "hewers of wood and drawers of water." This course briefly reviews the basic economics of the resource curse before turning to a discussion of its effects for deeper institutional determinants of long-run development outcomes: democracy, gender equality, state capacity, and civil strife. It then moves into the realm of interstate politics, examining the ways that resource wealth shapes the foreign relations of resource exporters and major importers, principally the United States and China. The last third of the class investigates both domestic and multilateral attempts to address the resource curse through policy interventions, including civil society-led good governance initiatives like the Kimberley Process and the Extractive Industries Transparency Initiative. This course presumes no deep knowledge of economics but will be of interest to students across the realms of security and development.

INTS 4654 Understanding Diplomacy in Peace and War (5 Credits)
The role of the US in the world has changed greatly in the past half-century. The purpose of this course is to examine how the practice of that change has been both informed by, and informs the scholarly political science literature. This course draws on several broad themes in international relations - democratic peace, balance of power, civil-military relations, war and its termination-and relates them to experiences in the practice of diplomacy worldwide.

INTS 4655 Political Economy of Brazil and India (5 Credits)
This course deals with two emerging powers, Brazil and India. We trace the political economy of both countries over time, and spend particular time exploring their historical trajectory, current emergence, challenges they face, and the significance of emerging powers for the international political economy. The course is organized around an understanding of their insertion into the international economy, the implications of international insertion for domestic transformation, and the politics of incorporating newly mobilized domestic social and political actors, especially as this plays out in existing political institutions. Students help define some areas of concentration for the course by identifying policy areas in which concentrated research will occur. This course takes an interdisciplinary approach by drawing on political science, economics, and sociology, and we are concerned to understand the potential for emerging powers to alter international relations, as well as the implications of different strategies of international insertion for domestic social sectors, especially those that have traditionally been excluded.
INTS 4670 Gender, Security & Human Rights (5 Credits)
This course examines the gendered dimensions of security and human rights, with a particular focus on periods of violence and insecurity. Gender equality has been at the heart of human rights and development efforts over the past half-century. Legal and normative instruments have been created to address the ongoing marginalization of women and girls around the world, including the 1979 Convention on the Elimination of Discrimination Against Women (CEDAW) and the 1995 Beijing Platform of Action. More recently there has been increasing attention to the importance of “gendering” discussions of international security. For instance, UN Security Council Resolution 1325, passed in 2000, is widely seen as a landmark framework for ensuring women’s inclusion in the post-war peace process.

INTS 4675 Advanced Topic: Defense & Security Policy Lab (5 Credits)
This is an advanced topics course centered on International Security students gaining, developing, and practicing their professional skills (specifically research and analytics, integration of creativity, academic material, and analysis, peer to peer leadership and coordination, project management and collaborative tools, and communications) via engagement with material/techniques associated with as well as the actual development and execution of a group based professional grade defense/security policy analysis. While the class will contain some traditional academic elements to provide all participants with an enhanced tool kit of skills and analytic options, the bulk of the class takes place through the development of the group defense/security policy analysis executed by 6 person student Project Teams that will be developed through an iterative process over the course and then presented to a group of defense and security professionals for their appraisal. Through this process, security students will be able to get a sense of how real world projects are developed and executed as well as the challenges that confront the production thereof.

INTS 4680 Introduction to Political Theory (5 Credits)
Political theory analyzes and interprets the foundations of political life and evaluates its principles, concepts and institutions. It is fundamentally concerned with the normative political relationships among human beings that revolve around the organization and basis of government. This course provides an introduction to Western political theory through key texts and thinkers that are essential reference points in the social science literature. The focus will be on the Enlightenment tradition and the approach will be geared toward understanding how the seminal texts and thinkers of this period have shaped—and continue to shape—our understanding of political ideas and norms. This course will also have a pragmatic component, where the books and ideas under consideration will be applied to contemporary international debates and issues. Please note that this course is geared toward students without a strong background in political theory. No previous knowledge is required or assumed. All that is needed is an open mind and willingness to work hard. Professor Nader Hashemi will be the course coordinator and guest lectures will be delivered by several Korbel faculty members. For more information about the study of political theory at the Josef Korbel School, go to: www.du.edu/korbel/politicaltheory/.

INTS 4700 United States Foreign Policy (5 Credits)
An intermediate course on issues and perspectives for evaluating American foreign policy. Topics discussed include theories of foreign policy; historical epochs in Superpower relations: the Cold War, Dente, and confrontation; America’s role in the post-Cold War; war, peace, and trade in relation to U.S foreign policy planning and assessment.

INTS 4701 US National Security Policy (5 Credits)
An intermediate course which examines the post-war history of U.S. policy and America’s response to the post-Cold War environment. Current issues include alternative strategies in nuclear deterrence and arms control; and security policy toward the Third World, Europe and the Atlantic Alliance, and Japan. Prerequisite: INTS 4702.

INTS 4702 Major Issues in International Security Policy (5 Credits)
This course focuses on contemporary challenges to global security. It seeks to familiarize students with the nature of these challenges and analytical tools with which to make sense of (and consider potential responses to) them. In the context of thinking about general issues, students learn about prominent individual instances (or “cases”) of problems, think about problems through different theoretical lenses, and consider both logic and empirical evidence in evaluating different arguments. Beyond the substantive focus, the course also encourages students to develop analytical skills and their ability to communicate their analyses effectively.

INTS 4703 Security & Strategy (5 Credits)
This course will focus on the array of factors, options, and realities associated with the creation and execution of Strategy in order to achieve security objectives. The course begins with and centers on the classic works, concepts, and thinkers associated with strategy and then seeks to apply the foundational ideas to a range of current security challenges.

INTS 4704 Globalization and Security (5 Credits)
Course uses historical approaches to evaluate connections between economics and security and how views on security have been shaped.
INTS 4706 Topics in Int'l Studies (1-5 Credits)
INTS 4708 Topics in Int'l Studies (1-5 Credits)
INTS 4709 Topics in Int'l Studies (1-5 Credits)
INTS 4710 Topics in International Studies (5 Credits)
INTS 4711 Topics in Int'l Studies (5 Credits)

INTS 4713 Advanced Quantitative Methods for Spatial and Big Data Analysis (5 Credits)
This course provides a basic introduction to two areas of quantitative research methodology with increasing relevance for social scientists. In the first module, students are familiarized with spatially disaggregate data, spatial polygons, and point data. As a concrete application, the course will provide students with a hands-on introduction to evidence-driven computational modeling, a technique that makes it possible run simulations on representative geographic topologies of real world cases. A second module of the course will focus on the analysis of Big Data. In particular, how data gleaned from social media sites may be used for substantive social science research. Emphasis will be placed on the limitations of current research and general difficulties in using data from various social media sites. The course will serve as a point of departure for students (and faculty) interested in applying these methodologies to their own research. A good understanding of basic quantitative methods is a prerequisite; knowledge of advanced quantitative methods is an asset.

INTS 4715 Problems and Challenges of Democratization in Contemporary Democracies (5 Credits)
This is a course in the field of comparative democratization studies. The class covers political science perspective topics such as the transition to democracy, consolidation of democracies, how and why democracy has spread around the world and the debates on the virtues and perils of democracy and on the nature and quality of the resulting representative democracies. The class focuses on the major explanatory factors for democratization: the case study/actor-centric approach, the statistical/structure-centric approach, and the region-centric approach. Additionally, the class studies many of aspects that might influence the process of democratization such as: institutional design and institutional functioning, political culture, democratic support and the structure of the party system. The geographical focus is global, due to the comparative nature of the theoretical discussion, but it will be mostly focused upon the Southern, Eastern European, and Latin American cases and the time frame is concentrated to the so-called “Third Wave of Democratization” that it started with the Greek and Portuguese transition during the mid-1970s.

INTS 4720 Capital Markets in Africa (5 Credits)
Capital markets – the buying and selling of equity and debt – are vital to the functioning of an economy. Using a comparatives study of capital markets in America and Africa, we will explore how they work, and how inefficiencies and structural challenges can inhibit private investment and access to capital among middle and lower classes in emerging economies generally. The tools in this course will also allow students to assess the efficiency of capital markets in emerging economies throughout the world. The course comprises five modules: 1) Banking and microfinance; 2) Mortgage and housing finance; 3) Private equity (including venture capital); 4) Stock markets: 5) Mobile money. For each module, we will begin with a study of how the industry functions in the United States, which is widely regarded to have the most efficient capital markets. We will then compare the US model to markets in Africa, examining the structural and practical limitations that impede those markets in sub-Saharan Africa (and, by extension, other emerging markets). The course will not attempt a comprehensive analysis of specific African countries, although examples will be drawn from specific markets. Instead, we will focus on many of the structural challenges to the development of mature capital markets in sub-Saharan African countries (mostly excluding South Africa). We will explore questions such as, Can microfinance be profitable? Why isn’t housing finance widely available? What types of “mobile money” systems are developing in Africa, and what are their business models? Why aren’t there more IPOs in Africa? Class participation is important, as the subject matter will range beyond the readings.

INTS 4723 Citizens in Representative Democracies and Comparative Political Behavior (5 Credits)
Citizens’ behavior and attitudes are fundamental for understanding the nature of the relationship between citizens and the state, and for assessing the QUALITY OF representative contemporary democracies and the nature of modern citizenship. This course focuses on the core aspects of citizens’ behavior and their core political attitudes. First, departing from a classification of the different modes of political participation, the class discusses some of the most important aspects that might influence the individual act of participating. Second, departing from the classic models of voting behavior, the class discusses how citizens make up their mind when they vote and the theoretical implications of that process. Third, departing from Easton’s and Almond and Verba’s seminal works, this course studies the key dimensions of political support and political attitudes and the relationship among them. This class deals extensively with key concepts such as democratic support, political disaffection, political disengagement, political discontent, and social capital. The study of the factors influencing the different levels and evolution of these attitudes across countries are also covered. This course and its materials refer to studies using survey data and survey indicators, so some basic knowledge of statistics is recommended, although it is not a must.

INTS 4730 Introduction to Homeland Security (5 Credits)
This course will examine the post-1945 history of United States efforts at homeland security, and include an overview of other national efforts (e.g., by the Soviet Union, Switzerland, and Israel.) It will then turn to identifying and analyzing the spectrum of issues associated with U.S. homeland security, in the context of evaluating the United States post-9/11 response to date. Those issues include: framing homeland security, prevention, response and recovery overview, foreign actors and issues, domestic actors/issues, problems of intelligence, terrorism vs. violent crime, public expectations, role of the media, funding and resources, and how to address broad spectrum threats.

INTS 4731 Homeland Defense: Prevention & Mitigation (5 Credits)
This course will examine the following issues: political leadership, foreign and domestic intelligence organization and functions, role of intelligence, principles of indications and warning, legal/civil rights issues: balancing human rights and security, law enforcement, Public health, and the role of various U.S. federal agencies: Department of Energy, Environmental Protection Agency, the INS, border security among others, plus the role of first responders in prevention/detection, and establishing indicators and reporting procedures.
INTS 4738 Current Issues in Strategic Intelligence (5 Credits)
Advanced seminar which investigates current issues relative to strategic intell within international studies.

INTS 4739 Defense and Security Quantitative Analysis (5 Credits)
This course is the follow-on to INTS 4735 Defense and Security Methods and is designed to engage students in a professional conversation about the applicability of quantitative analysis and big data based analytics for the execution of defense and security analysis/research. Continuing the development of the students’ individual research design proposal, but now introducing an array of quantitative ideas, options, and methods, this course begins with the foundational realities of coding and descriptive statistics before introducing students to bivariate and multivariate analysis, index/scale construction, and hypothesis testing techniques. In addition, the course continues to develop the students ability to engage with and understand real world defense and security research, in this case particularly quantitative analysis. Prerequisites: INTS 4735.

INTS 4742 International Weapons Proliferation (5 Credits)
This course explores the worldwide proliferation of weapons and military hardware. Special attention is given to weapons of mass destruction including fundamental principles of weapons development and deployment; unique characteristics and effects of nuclear, biological, and chemical weapons; and delivery systems. Capabilities and strategies to counter this international problem are developed.

INTS 4744 Gender and International Security (5 Credits)
In this course we will pay particular attention to the gendered dimensions of human security as they relate to war and political violence. We will talk about how security is a distinct concept from human rights or human development, but will also discuss how all are necessary and related. We will explore feminist approaches to international security and critically engage concepts like militarization, peacekeeping, and intervention. We will emphasize the importance of looking at structural cases of insecurity and at the linkages between various forms of insecurity. We will pay particular attention to the agency of local actors and to the strategies employed by women and women’s movements to oppose war, secure peace, and promote human security. We will cover landmark international resolutions—such as R2P and UN Resolution 1325—in order to breakdown the impact these resolutions have had on gendered power dynamics in conflict zones, as well as to identify areas were more attention is needed.

INTS 4746 Gender and Human Rights (5 Credits)
This course examines the gendered dimensions of human rights, with a particular focus on human rights during (and after) periods of violence and insecurity. Gender equality has been at the heart of human rights and development efforts over the past half-century. Legal and normative instruments have been created to address the ongoing marginalization of women and girls around the world, including the 1979 Convention on the Elimination of Discrimination Against Women (CEDAW), the 1995 Beijing Platform of Action, and the 2000 UN Security Council Resolution 1325. Indeed, measures to prevent discrimination based on sex have been ingrained in nearly every human rights treaty since the United Nations Charter in 1945. Yet, gender-based rights violations continue to occur around the globe with alarming pervasiveness and frequency. Drawing from critical gender analyses and postcolonial feminist thinking, this class will introduce you to the concept of gendered rights, challenge you to think about intersectionality as a way of considering “rights,” and introduce you to many of the contemporary human rights crises unfolding around the world today. Critically, this class takes an inclusive view of “gender,” examining the human rights of women, men, queer, trans, or gender non-conforming people.

INTS 4750 The Policy Making Process (5 Credits)
Governments make public policies through a complex process, which varies in its details from country to country and even from issue to issue within the same country. In this course we study various parts of those processes and some of the inputs into them. In addition, we play close attention to problem framing or problem definition in those policy processes. Within all these disparate policy processes political actors must have some notion of what problem they are trying to solve and what constitutes the set of feasible solutions to those problems. These ideas about problems and feasible solutions are not given exogenously, are not some fact of nature, but instead arise from complicated interactions among actors and institutions in the policy process. The quest we ask throughout the course is how policy problems and solutions could be framed differently, how we can learn to look outside the conceptual box that partisans to policy debates try to draw for us. Students write a series of papers during the course following a policy issue of their choice through the policy process.
INTS 4751 European Foreign and Defense Policy (5 Credits)
The focus of this course is on foreign and defense policies of key states and international organizations in modern Europe, from the Atlantic to the Urals. After introducing Europe as a cultural, political, and geographical construct, we focus on the North Atlantic Treaty Organization and the European Union before turning to a comparative analysis of six leading European states. Security in an increasingly globalized world deals not only with defense issues, but also with economics, human rights, and questions of identity. We focus on Germany, France, the United Kingdom, Italy, Russia, and Turkey, underscoring their bilateral and multilateral associations with other European states, the United States, and the European Union, NATO, OSCE, and Council of Europe. We conclude with considerations of what “Europe” really means, and what the future holds for this vital content.

INTS 4753 Intelligence and National Security (5 Credits)
Focuses on the craft of U.S. Intelligence and its role in the making and implementation of national security policy.

INTS 4758 Pol Economy of Development (5 Credits)
This course will introduce students to the framework of political economy and to the various applications of political economy to examine the challenges and opportunities of international development. The course will provide students an understanding of the different strands of development theory and the debates regarding political economy within each of these strands. This will be followed by an evaluation of the impact of these theoretical approaches on our understanding of the following key concepts in international development: growth and human development, poverty and inequality, trade and services, industrialization and technology, rural development and agriculture, labor and migration, biodiversity and climate change. These various areas of international development will be further interrogated by an examination of global agendas such as Millennium Development Goals; international agendas of International Financial Institutions; and national concerns of state sovereignty and domestic resource allocation. The course will provide students the tools to engage with current development debates on the different trajectories followed by early and late developers, on policy responses to development dilemmas, and the relationships between political, economic and social dimensions of development.

INTS 4759 Globalization/ Postcolonialism (5 Credits)
Rarely used twenty years ago, the term “globalization” has proliferated recently in both popular and scholarly arenas to describe the increasing flows of capital and commodities, migrants, and ideas across national borders. Postcolonialism denotes the world conditions after the end of the European colonial empires. More importantly, it refers to the critical analysis of the political and cultural legacy of colonialism, as well as the intellectual effort to deconstruct its underlying assumptions. This seminar will essentially consist in discussions of the readings. Its objective is to familiarize the students with some classical works that have contributed to define the field, as well as recent researches that have expanded the debate to contemporary issues such as development, humanitarian aid, transnationalism, conflicts, or environment. Some theorists who have criticized the dominant narrative of the world history will also be discussed in the class.

INTS 4760 Russian Foreign and Defense Policy (5 Credits)
Course explores Russian foreign and defense policy from Vladimir Lenin to Vladimir Putin - heavy focus on security policy.

INTS 4765 Natural Resources and Armed Conflict under International Law (5 Credits)
The course offers a description and an assessment of how international law regulates the relationships between natural resources and armed conflicts. Attention is given to principles and rules regulating access to natural resources in the pre-conflict phase; protecting the resources pending the conflict; regulation the exploitation of the resources during and after occupations and international administrations. The role of trans-national corporations in fueling conflicts is considered with reference to recent developments such as certification schemes, the emerging legal framework on transparency in business, and the debate on corporate responsibility for international crimes. The concept of “illegal exploitation of natural resources” is analyzed in light of the relevant resolutions of the United Nations Security Council. Finally, possible solutions to the issue of armed conflict resources (i.e., resources fueling the initiation of conflicts) are considered from a legal perspective. Registration by departmental approval only; restricted to students participating in the Geneva travel program.

INTS 4766 State Building and War Making in the Developing World (5 Credits)
This course examines the challenges of state-building and the manifestations of armed conflict in the contemporary world. Surveying different cases and contexts, the course focuses on the role of state and non-state armed groups, the drivers of communal conflict, the historical dimensions of multifaceted state-building processes, and the legacy of colonial rule. Particular attention is paid to conflicts in the Middle East, North Africa, and Sub-Saharan Africa. The purpose of the course is to equip students with a comparative understanding of the complex causes, characteristics, and manifestations of conflict in the developing world and its cross-cutting relations to contemporary international governance. Registration by departmental approval only; restricted to students participating in the Geneva travel program.

INTS 4767 Cultures of Capitalism (5 Credits)
This seminar lays the theoretical foundations for a cultural critique of capitalism. With an eye towards colonialism, modernity, and globalization, readings are devoted primarily to different schools of thought parsing out capital as a social relationship, object of value, and form of mediation. The purpose of this class is to establish temporal and spatial commensurability across tendencies and discontinuities in capitalism by i) locating the phenomenological, ontological, and epistemological conditions of possibility for the reproduction of value and ii) asserting history, experience, and embodied praxis as productive features in the imagined abstraction of economic life and market discourse. More than an attempt to historicize the contemporary moment of deregulation, precariousness, or flexible accumulation, the course is designed primarily to unveil concurrent theories of value and the work of abstraction and reification, morality, and power, labor and materiality foregrounding the processual logics of capitalism. To do so, this course explores the theoretical stakes of production, circulation, and consumption occurring in time-space relations of commodity exchange, markets, and global finance in late capitalism. How to account for the increasing disconnect between the “real” economy and the “fictitious” value of virtual markets, financial derivatives, and futures trading? How to make sense of the work of mediation - or perceived gaps therein - between consumers and producers, the labor of abstraction and the concrete reification of economic objects? Registration by departmental approval only; restricted to students participating in the Geneva travel program.
INTS 4768 Introduction to a Critique of Market Society and its Solidarity Alternatives (5 Credits)

This course is taught in French. Le séminaire propose d'introduire ou de conforter une vision "indignée" de l'hégémonie des marchés en s'appuyant principalement sur la lecture socialiste et chrétienne de l'économie par Karl Polanyi et ses critiques en particulier d'Adam Smith et de Karl Marx. Ceci se réfère surtout au concept de marchandise fictive (appliqué aux ressources naturelles comme au travail humain et à la monnaie), de richesse commune partagée et d'interdépendance économique (appliquée aux mécanismes complémentaires et antagoniques de concurrence, de redistribution, de solidarité et de partage). Une large part de cette réflexion interdisciplinaire doit ressortir des propres expériences des étudiant(e)s et de leurs recherches. Elles doivent aussi permettre de comprendre l'élaboration des alternatives, leurs potentialités et leurs limites. La situation de Genève, capitale des spéculations sur les matières premières sera notamment interpellée. Registration by departmental approval only; restricted to students participating in the Geneva travel program.

INTS 4769 Public Policy, Economic Development and Gender (5 Credits)

This course considers a number of topics associated with the links between gender empowerment, economic development and public policy. Topics include the role of gender in shaping political, economic and social opportunities; leadership; the role and global plan of action of international organizations; gender gaps in education, economic participation, health and political opportunity; conflict, HIV/AIDS; property rights; urbanization, international migration; global processes as well as the evaluation of specific policies and interventions, all within the broader context of development economics. The course is applied-oriented and open to students with little background in economics. By the end of the course, it is hoped that participants will be able to critically assess policy documents on the topics covered that are commonly produced by international organizations. Requires departmental approval; registration restricted to students participating in the Geneva travel program.

INTS 4770 The Politics and Economics of International Energy (5 Credits)

Although it is becoming increasingly evident that the world does not face an imminent shortage in the availability of fossil fuels, access to energy resources and security of energy supply remain important preoccupations for governments and companies alike. Utilization of fossil energy resources will be increasingly constrained by environmental considerations and the threat of global warming. Energy will remain a key concern in international relations for the coming decades and will influence the perception of national interest and the pattern of international exchanges and interdependence. The course aims at providing students with the critical knowledge and skills to avoid superficial generalizations and stereotypes - which unfortunately remain all too common. Requires departmental approval; registration is restricted to students participating in the Geneva travel program.

INTS 4771 Trade and Development (5 Credits)

Development, trade and their interlinkages are among the most controversial topics of today. Economics has much to say concerning these issues, and constitutes a powerful tool in terms of debunking commonly held misperceptions. This course considers a number of topics associated with the links between international trade and development. A particular emphasis is placed on the consequences of trade openness on outcomes in developing countries, i.e. on inequalities, growth and poverty, institutions and financial development, the impact of export instability and countries' specialization, terms of trade, financial crises, trade and environment. The course is applied-oriented: after reviewing basic theories associated with each topic, each lecture involves presentations of recent empirical papers. By the end of the course, it is hoped that participants will be able to intelligently read and critically assess policy documents on the topics covered that are commonly produced by international institutions. Requires departmental approval; registration is restricted to students participating in the Geneva travel program.

INTS 4772 International Business (5 Credits)

The objective of this course is to better understand how national and international political and economic factors shape the business environment, firm strategies, and associated performance in the contemporary global economy. Even though this course draws on a number of different academic disciplines including economics, political science, and international relations, the goal is always to draw out the implications for forms. This firm-based perspective is what differentiates this course from traditional academic courses on globalization. The firm-based perspective, however, should be of interested to those interested in public policy as well. After all, one cannot effectively design state interventions without examining how firms and other relevant actors will respond. What differentiates this course from one in international business strategy is that the implications for national policy design and regional global governance initiatives are given particular consideration. In so doing, this course seeks to be true to the multidisciplinary nature of an international affairs program. Furthermore, the focus in this course on matters of considerable contemporary relevance should help prepare international affairs and other students well for job market interviews. The class covers eight important topics. Supporting each topic are online lectures that are posted in advance. Students are responsible for watching these online lectures before the class meets. Failure to do so detracts considerably from the learning experience of all concerned. In class discussion focus on the application of tools in case studies and matters of contemporary policy and business relevance. Registration by departmental approval only; restricted to students participating in the Geneva travel program.

INTS 4773 Violence, History and Memory in Twentieth-Century Africa (5 Credits)

This course offers historical, theoretical and empirical perspectives on the impact of conflict in the modern history of Africa. Opening with a guided discussion of broad debates over models of warfare and violence that apply social, cultural, materialist and instrumental theories of causation, the course then proceeds through a series of case studies in seminars. These include colonial wars of decolonization in Algeria and Kenya, the Biafran War of secession and its repercussions in Nigeria, contrasting genocides in Burundi and Rwanda, the Red Terror in revolutionary Ethiopia, liberation struggles in Southern Africa, the ‘African World War’ in Congo, interlinked conflicts in Sierra Leone and Liberia, and other cases of contemporary significance. In each case, students are encouraged to consider the means of violence employed, the causes and motivations of conflict, issues of gender, youth, religion, politics and ethnicity, the personal and communal impacts of experiencing and witnessing various forms of violence, and the transnational dynamics of conflict. Throughout, questions of culpability, ethics and moralities are tackled in relation to the various approaches to transitional or retributive justice, the problem of ‘living together again’ dominated by the pressures of memory, silence, memorialization and mythicohistory. Registration by departmental approval only; restricted to students participating in the Geneva travel program.
INTS 4775  Droit diplomatique international (5 Credits)
Ce cours vise à combler une lacune, l’enseignement du droit diplomatique ne faisant généralement l’objet que de développements à titre incident, ce malgré l’importance sémiculaire de ce domaine du droit international. Axé sur l’évolution de la pratique étatique des relations diplomatiques (y compris les relations avec les organisations internationales) et la jurisprudence pertinente de la CIJ, le cours se propose d’analyser les grands thèmes du droit diplomatique, tels que le droit de légenation, la création et l’extinction des relations diplomatiques, les fonctions et droits/obligations liés à la mission diplomatique, le contenu et les limites des immunités des personnes, biens et locaux diplomatiques, ou encore les mécanismes sanctionnant les violations du droit diplomatiques. Il fera finalement une place à la pratique récente relative aux immunités des Chefs d’État et Ministres des affaires étrangères. Registration by departmental approval only; restricted to students participating in the Geneva travel program. Students must be fluent in French; course is taught in French only.

INTS 4776  Financial Crises (5 Credits)
This is a seminar designed to go over the literature on the sources, channels, characteristics and impacts of financial crises. The sessions are devoted to the study of papers, some older fundamental contributions and some very recent early analyses inspired by the crises that started in 2007 and is not yet over. The seminar is primarily designed for second-year Master and PhD students. Students from other programmes and departments may attend if they have a strong background in economics. Registration by departmental approval only; restricted to students participating in the Geneva travel program.

INTS 4777  Governing Global Threats: Expert and Legal Regimes (5 Credits)
This course examines major threats to human security (from climate change to nuclear proliferation and terrorism, and the global financial crises), and how these threats can be prevented by legal, political and social mechanisms. Theoretically, this course focuses on various socio-historical approaches to law and expertise in transnational settings. It focuses specifically on the role that legal regimes (either made of treaty-based rules or soft-law regulations articulated by experts) play in contemporary modes of global governance, which go beyond the forms of state authority that are traditionally called upon to interpret and enforce these rules. We will survey different disciplinary approaches to the topic and to illustrate their approach by research.

INTS 4778  Rise and Fall of the “Third World (5 Credits)
This seminar explores ideas and movements for colonial unity and solidarity since the late-19th Century and the programs for solidarity they inspired amongst nations emerging from decolonization. Where and who did these ideas originate? How effectively did they translate into political programs? How were such ideas and programs deployed in changing international contexts? What wider influences did they exert? In what ways did the international system deal with these ideas and programs? What prospects exist for such solidarities in the contemporary world? These and similar questions will be explored in this seminar.

INTS 4779  International Human Rights and Humanitarian Action (5 Credits)
This course addresses the origins, communalities and differences between international human rights law and humanitarian action. While human rights law view ‘others’ as holders of rights and duties, humanitarianism regards the ‘other’ as subject of suffering or injustice. These two approaches are mixed in modern frameworks, such as ‘human security’ or the ‘Responsibility to Protect.’ The first part of the course covers the foundations of the interplay between human rights and humanitarianism, including (i) their history and context, (ii) approaches towards core legal concepts (e.g., sovereignty, responsibility, relationships between human rights and humanitarian law), (iii) methods of protection, as well as (iv) evaluation of action. The second part of the course examines specific sites of interaction based on case studies. The focus will be placed on (i) responsibility of intervening agencies (e.g., peace operations), (ii) peace settlements and (iii) transitional justice.

INTS 4780  Terror in History: Challenges and Responses (5 Credits)
Terrorism has been a feature of political relations for more than 2000 years and has a history that reaches back far beyond 9/11. This seminar will look at the historical evolution of terrorism and anti-terrorism as well as the different stages they have gone through since antiquity. The main focus, however, will be the past 150 years, with the emergence of what David C. Rapoport calls "modern terror." The course will 1) highlight the difficulties of defining the phenomenon; 2) explore the different experiences with and debates about terror-anarchist/social-revolutionary, ethnic, religious, "lone wolf," state (-sponsored) terror—in various regions and countries since the 1880's (such as Russia, Italy, Germany, the US, Spain, Ireland, Israel/Palestine, Namibia, Algeria, etc.); and 3) address how the countries concerned and the international community at large dealt with the challenges deriving from terrorism (e.g., at the League of Nations and the UN).

INTS 4781  Mobilities and Migration: Critical Perspectives on Forced and Voluntary Migration (5 Credits)
The mobility of people across international borders, be they labeled as refugees or economic migrants, is becoming a crucial debate both within academia and the public sphere. Migrants are presented as potential promoters of peace and actors of development in their country of origin but also as a threat to the national cohesion in their country of destination. This course deals with key issues related to the field of migration studies. Building on an anthropological perspective on the predicaments and strategies of mobile people, it will offer a critical scrutiny of existing categories such as "third world," "tied," and "illegal." The course aims to address some of the wider questions that lie behind the study of migration, such as: 1) The human right to mobility; 2) The role of migration in the economy; 3) The impact of migration on the receiving society; 4) The impact of migration on the sending society; and 5) The role of governments in regulating migration. The course will also touch on some of the social and cultural implications of migration, such as the impact of migration on the family, the impact of migration on the individual, and the impact of migration on the community.

INTS 4782  Law without the State (5 Credits)
This course discusses situations, theoretical and empirical, in which law is made primarily outside state power. It reviews instances of private ordering and governance that enjoy a relatively important autonomy from state law. The absence of the state as a possible cause of ethical issues will be entertained. Other parts of the course will proceed at a higher degree of abstraction, asking for instance whether the quotidian identified properly deserve to be called law. It will thereby delve into preliminary questions, too often neglected, that influence how the debate is framed on the whereabouts of non-state law: Why does 'being law' matter? How do definitions of what law is matter? What makes a definition of law of good definition? Can something be relatively law but not fully? Who decides on what law is and for whom such pronouncements are authoritative?
INTS 4783 Economics and Development (5 Credits)
The course provides a broad overview of the sort of topics that development economists work on, both on the micro and on the macro side. On the macro side, we will cover fundamental topics such as household consumption, insurance, credit, land markets, and migration.

INTS 4784 Foreign Policy of Major Powers (5 Credits)
This course is designed to review and analyze leading puzzles of foreign policy, based on the substance of foreign policies of major countries in the present time and the recent past. The objective is to develop analytical skills to use when confronting new foreign policy puzzles. Much emphasis will be given in this course to the relevance of foreign policy scholarship to understanding real-world, contemporary world affairs. It is important that students make themselves aware of what is happening in the world.

INTS 4785 Modern China: Reform and Revolution (5 Credits)
This course introduces the modern Chinese history since 1840s. The focus is on the historical, cultural, political, and economic interactions between modern Chinese state and its people and between China and the outside world. The modern fate of China has been alternating between revolutions and reforms, internal wars and external conflict had been the norm rather than exception until recent decades. It examines the features of modern Chinese political system, economy and social and cultural identities. It also traces the roots of recent reforms in China that have transformed the country in a fundamental way. The relationships between state and society, between politics and economy and between China and foreign powers will be discussed in detail.

INTS 4786 Planning & Assessment in Complex Environments (5 Credits)
The primary mission of this course is to provide participating students grounding in the planning methodologies, approaches, and expectations used within the US government in both military and civilian agencies as well as increasingly in the security related private and non-profit sectors. The starting point for this effort is Operational Art & Design and the military’s Joint Operational Planning Process (JOPP) as well as related literature. Military planning serves as the starting point both because it is the most mature and sophisticated government planning methodology and because most other US government planning practices are direct, contextually appropriate derivatives of DoD planning mechanics.

INTS 4787 Civil-Military Practices in Humanitarian Responses (5 Credits)
Changing U.S. national security priorities following 9/11, including updated Department of Defense doctrine, have led to U.S. military actors prioritizing humanitarian assistance as a central component of theater security cooperation arrangements. This trend includes not only considerations of protection of civilians during military operations but also planning for natural disaster response and steady state engagement to build the capacities of host nations to address crises, including natural and man-made disasters. Through readings, class discussions, group work and individual assignments, students in this course will gain a better understanding of the issues and roles of civilian and military actors in the humanitarian space, with a specific focus on how legal and policy guidance impacts the decision to utilize U.S. military forces in disaster response situations. While this course will focus specifically on how the U.S. government approaches humanitarian activities and the role of the U.S. Department of Defense assets, it will locate this discussion within the broader about the appropriate use of Military and Civil and Defense Assets in international humanitarian community.

INTS 4788 To Save and Defend: The History of Politics of Humanitarian and Security Organizations (5 Credits)
This interdisciplinary seminar looks at the policies and politics of humanitarian and security organizations. We will critically explore and contrast the concepts of ”protection,” ”save,” and ”defend.” We will focus on the perspective of those who save and defend as well as on those who are supposed to be saved and defended. Attention will be given to theories, practices, geographies, organizational cultures and underpinning ideologies of saving and defending.

INTS 4789 Violence, Memory, Cinema: Comparative Perspectives on Latin America & the Middle East (5 Credits)
This seminar aims at investigating the role of cinema (documentaries and fiction) in (re) shaping the collective memories of societies living in a context of armed conflict, post-civil war or political transitions from authoritarian rule. We will focus in particular on the role of the different generations of film directors as social actors in these processes; on the effects of censorship (the State-sponsored one, the forms of self-censorship and its indirect forms through distribution and production); and on the role of film festivals as arenas of power and of circulation of ideas. The first part of the seminar will develop problematically the relations between memory and history through present debates related to the visual arts and the politics of memorialization in Latin America and the Middle East. The seminar topic being at the crossroad of several disciplines, we will explore different anthropological, political, and historical paradigms, including the contributions of film studies. In the second part of the seminar we will focus on the specific topic of ‘exiles and refugees’, their representation through cinema and the contribution of fictions and documentaries in forging national identity and in keeping the memory of those who left and came back or for whom the return has become not an option anymore. In parallel to the main seminar, a series of 3-4 workshops will be organized for watching movies, with the presence of external lecturers. Finally, the seminar is conceived in the larger framework of the contribution of arts to reconciliation and peace-building, an emerging field of academic interest and policy investment.

INTS 4790 International Law and Development (5 Credits)
The course aims at providing a systematic overview of the main issues related to sustainable development from the standpoint of public international law. It strikes a balance between theoretical and practical questions, focusing on primary sources and international decisions. After a concise discussion of the basic principles and notions of the international legal order, the course deals with the evolution of development law from the United Nations resolutions on the New International Economic Order to the Monterrey Consensus and its follow-up. Particular attention will be paid to the attempt to conciliate economic growth with the protection of the environment and human rights. The course is then completed with the examination of (a) the activities of the World Bank Group and the International Monetary Fund in the field of development; (b) the participation of developing countries in international trade; and (c) the promotion of foreign investment as a vehicle for economic growth and development.
INTS 4793 Development Economics (5 Credits)
The course covers major issues in development economics from both the macro and micro perspectives. Topics where research is active will be covered. The focus is on acquiring the necessary theoretical and empirical skills to understand the challenges related to the socio and economic transformation in developing countries.

INTS 4794 Inequality in Latin America and the Caribbean (5 Credits)
This course will examine the historical roots of inequality in Latin America and the Caribbean. It begins by introducing students to the concept of inequality and the social construction of race, ethnicity, gender, sexuality, and class. It then explores how these structures have been shaped by a variety of forces including Spanish and Portuguese colonization, labour systems, cultural practices, and religion. We will also explore how various actors have attempted to challenge this inequality at different points in time through everyday resistance and revolutionary, populist, feminist, black nationalist, and liberation theology movements. This course will approach these issues using a mix of historical and anthropological case studies from across the region that allow us to consider not only how inequality is created, maintained, and challenged on a large scale, but also how it has been experienced in the day to day life of Latin American and Caribbean people.

INTS 4802 Foundational Ideas in Social Science: Marx and Weber (5 Credits)
Marx’s is the most striking and complex theory of revolutionary change. It has inspired millions of workers, peasants, soldiers, students and intellectuals in three large international movements (the International Workingmen’s Association, the Second International, the Third International). “Capital” is perhaps the most striking depiction of how factories and capitalist society operate, from the point of view of workers, of any modern economic theory. It is a theory which profoundly explains the tensions in the experience of most non-University educated people between their work experience and the current Washington “consensus” about free markets and democracy. It has motivated and empowered striking democratic movements, often across national boundaries, of the oppressed against the privileged. Where successful, however, Marxian movements both brought about significant, common good oriented improvements and failed to withstand external and internal attacks or resolve basic problems in radicals’ vision of a new society. Further, Marx’s vision has often been interpreted as, except in the immediate unfolding of the revolutions themselves, having little to do with democracy. In radical movements as well as in capitalist societies and academia, Marx has been fiercely attacked. For much of the Cold War, not having read Marx permitted one to expatriate on what Marx’s views are; reading Marx was, until the late 1970s and early 1980s a disqualification even in teaching, let alone in the media. Marx’s views are often misrepresented, dismissed without investigation as “obviously wrong.” This course provides an opportunity to read the first volume of “Capital” and some of Marx’s other main works and test them, in whatever depth desired, against Max Weber, the dominant theorist of American sociology and political science.

INTS 4804 Realism and Democracy (5 Credits)
Course answers questions such as: Can democracy check international cruelty? Why, according to Kant, Doyle, and Rawls, are democracies unlikely to go to war with other democracies? We discuss democratic individuality and Vietnam, democracy, and Realism as well.

INTS 4820 Democracy and War (5 Credits)
This course explores Socrates’ speech at his trial and decision to go to his death as, surprisingly, initiating two central features of modern democratic theory. First, Socrates is often depicted as simply hostile to the many, looking down on Athenian democracy. But what he in fact looks down on is tyrannical mob rule, the “democracy” of a particular interest arbitrarily enforced (what we might call a demented Joe McCarthy-kind of democracy). In contrast, Socrates also incarnates the idea of asking questions in a democracy, that is, dissent (prefiguring what is sometimes called today deliberative democracy). That makes a democracy capable of realizing, sometimes, a common good. Second, Socrates provides a paradigm for modern civil disobedience or satyagraha in Gandhi - we read Gandhi’s translation of Plato’s Apology - and Martin Luther King’s letter from the Birmingham City Jail. Nonviolent civil disobedience is necessary in a modern democracy because party-competition focuses mostly on personality issues and not on fundamental injustices. Further, this kind of protest promises major change even in dictatorships (consider Erica Chenoweth and Maria Stephan, Why Civil Resistance Works). Thus, this emphasis is a novel interpretation of Plato as opposed to, in scholarship and politics, Plato’s supposed link to authoritarian “commander-in-chief” power (Heidegger, Leo Strauss and William Kristol for example) which we also contrast in this course. The course explores the subtlety of these dialogues - the question of what Plato intended to teach his long-standing students like Aristotle who studied with him for 20 years - but leave the main points of Gandhi’s and King’s interpretation intact. Third, the course explores Thucydides, History of the Peloponnesian War and Plato’s response to it in the Republic in terms of modern critiques of Empire building and the “unhinged” wars by American democracy (we look at W. Robert Connor’s elegant break with previous understandings of Thucydides during Viet Nam and John Mearsheimer’s striking criticisms of post-Cold War American policy, echoing Obama’s 2013 speech at the National Defense University, in “America Unhinged.” Thucydides is a far deeper account of imperial expansion and the corruption of and threat to democracy at home than modern realist and neo-realist gestures at him. Neo-realists methodologically attempt to separate global politics from its domestic consequences as supposedly different levels of analysis; this interplay is the heart of Thucydides’ argument and deepest insight into the meaning of war and democracy.

INTS 4822 Contemporary Political Thought (5 Credits)
An examination of current 21st century political theory and how the events of the 20th century helped mold these ideas/concepts.
INTS 4835 Global Dynamics and Local Threats in Agricultural Development (5 Credits)
Many low- and middle-income countries in which agriculture plays a key role for development are characterized by high levels of socio-economic inequality, a mixed human rights record and a dominance of transnational corporate power in domestic agricultural export markets. At the same time, these countries face processes of environmental degradation through anthropogenic and natural drivers of change that affect the availability of ecosystem services and thus shape agricultural development and human wellbeing. This course offers an in-depth study of the political, socio-economic and social-ecological conditions for sustainable agricultural development in low- and middle-income countries. We explore the political economy of agricultural production and trade in countries that depend to a significant extent on the export of agricultural commodities as a source of foreign revenue. We examine the design and implementation of global policy frameworks, international agreements, and national strategies for agricultural production and trade, with a particular focus for the governance of natural resource use. Our goal is to assess the relevance and effectiveness of current governance structures for agriculture to respond to local-, regional- and global-scale environmental changes and socio-economic challenges in ways that address current and future human needs. Through case studies from selected agricultural sub-sectors and diverse countries from across Asia, Africa and Latin America, we investigate local strategies for natural resource use in the context of poverty, inequality, and environmental change. The course provides a comprehensive coverage of the political economy of agricultural development and an introduction to social-ecological systems analysis as a theoretical framework for interdisciplinary research in the field of sustainable development.

INTS 4851 Theories of Non-Violence (5 Credits)
Can a state be non-violent? Course explores topics such as the distinction between power and violence; whether nonviolent politics is possible; the distinction between an ethic of responsibility and an ethic of intention; is capitalism consistent with democracy? This seminar is interactive and class participation is required.

INTS 4855 Geopolitics of South Asia (5 Credits)
This class explores the overlapping sub-national and regional conflicts threatening to destabilize Afghanistan and Pakistan and severely intensify Indo-Pakistan tensions. The seminar analyzes and assesses U.S. efforts to assist the Kabul regime to strengthen national support, reduce corruption, improve services and accelerate economic development. The nature of the Taliban, the dangers of increased poppy production, ongoing cross-border insurgency are studied. Similarly with regard to Pakistan, the seminar examines growing instability, the regional demographics of support and opposition to the current government, the role of the military, including the ISI, and socio-cultural challenges to modernization. The impact of the evolving conflicts in Pakistan and Afghanistan on India’s interests and India’s response are also treated.

INTS 4856 Global Sustainability and Public Policy (5 Credits)
This course considers the interaction of environmental, economic, and energy issues on global ecological systems. It offers an overview of relevant international legal frameworks and national governance systems, the state of major ecosystems – forests and species habitats; wetlands, oceans and rivers, and the atmosphere and selected policy issues related to each. Emphasis is less on “what” to think than “how” to think about and formulate policy responses to complex, multidimensional issues.

INTS 4875 Human Rights and Foreign Policy (5 Credits)
Global human rights issues and how those issues help mold foreign policy decisions.

INTS 4890 Revolutions and State Building (5 Credits)
Marx’s is the most striking and complex theory of revolutionary change. It has inspired millions of workers, peasants, soldiers, students and intellectuals in three large international movements (the International Workingmen’s Association, the Second International, the Third International). "Capital" is perhaps the most striking depiction of how factories and capitalist society operate, from the point of view of workers, of any modern economic theory. It is a theory which novelly explains the tensions in the experience of most non-University educated people between their work experience and the current Washington "consensus" about free markets and democracy. It has motivated and empowered striking democratic movements, often across national boundaries, of the oppressed against the privileged. Where successful, however, Marxian movements both brought about significant, common good oriented improvements and failed to withstand external and internal attacks or resolve basic problems in radicals’ vision of a new society. Further, Marx’s vision has often been interpreted as, except in the immediate unfolding of the revolutions themselves, having little to do with democracy. In radical movements as well as in capitalist societies and academia, Marx has been fiercely attacked. For much of the Cold War, not having read Marx permitted one to expatiate on what Marx’s views are; reading Marx was, until the late 1970s and early 1980s a disqualification even in teaching, let alone in the media. Marx’s views are often misrepresented, dismissed without investigation as “obviously wrong.” This course provides an opportunity to read the first volume fo “Capital” and some of Marx’s other main works and test them, in whatever depth desired, against Max Weber, the dominant theorist of American sociology and political science.

INTS 4900 International Politics (5 Credits)
Topics on discussion include: levels of analysis; realism; neo-realist structuralism; international society and the English school; international anarchy; process variables and international institutions; international security institutions; rationalism, constructivism, and the purposes of theory; norms and ideas; gender and identity; and postmodernism and post-structuralism.

INTS 4903 Social Construction of International Society (5 Credits)
Examines recent theoretical work in the field of international relations that treats international society and its practices as social constructs.

INTS 4905 War and Peace (5 Credits)
An intermediate course which examines the historical relationship of war to politics, such as the military profession, military organizations, economics of defense planning, limited use of force, demobilization, war reconstruction, military rule, and civilian control. Current world trends toward democratization focus attention on the issue of creating a democratic army for a democratic state. Readings cover western industrialized, communist, post-communist, and 3rd world countries.
INTS 4906 Classics of International Theory (5 Credits)
Professor will choose various books by classic political theorists for students to read and discuss in class.

INTS 4907 International Terrorism (5 Credits)
This course will examine the literature on international terrorism both before and after 9/11. It will include an overview of the origins, history, goals, strategies, and capabilities of significant terrorist groups (emphasizing Al Qaeda). It will also examine the history of United States and international efforts to combat terror, focusing on post 9/11 debates over grand strategy and tactics (e.g., the relationship between offense and defense, active vs. passive defenses, intelligence reform, multilateralism vs. unilateralism, the relationship between "rogue states" and terror, etc.).

INTS 4912 African Conflicts: Causes and Conflicts (5 Credits)
Twenty years after the "Third Wave" of democratization first swept across the African continent, African states have experienced a wide range of successes and problems in seeking political development through democratic models. Common to nearly all African states, however, is the fact that they were created by colonial powers, forcing many formerly independent people to live under one political roof. Thus before they could go about the business of governing, African states at independent first had to address their artificial natures by building coherent nations out of the many peoples living within their borders. Democratic political systems were seen as the best solution to this governance problem by allowing the many peoples of African states flexible institutions through which they could negotiate their differences, and so govern effectively. Within several years of independent, however, most of the early African democracies had collapsed under the weight of their deep ethnic and religious differences. Decades of authoritarian rule did little to address the problems of governance, and exacerbated ethnic chauvinism and clientelism. Bankrupt and often near collapse by the late 1980s, and under pressure from Western governments, many African states turned back to democracy in the 1990s. Yet their deep ethnic and other divisions remain, as do clientelistic patterns of political behavior. These fundamental conflicts over the state and its governance have characterized African politics since independence. This class reviews the problems of state development in Africa, and the extent to which democratic solutions can resolve those problems. We do so by examining these issues from both the perspective of political science and of conflict resolution. Classes draw primarily on the perspectives of practitioners from the relief and rehabilitation community. Guest lectures include representative of government agencies, international organizations, and NGOs.

INTS 4914 Statecraft and Smart Power in the Digital Era (5 Credits)
This course examines new approaches to the practice of statecraft in an era of rapid global change. Globalization is upsetting traditional international order and institutions, and changing the pace and intensity of decision making. Nation-state governments, while still the primary actors, must adjust to new sub-national, regional and transnational forces and players in a far more complex global arena. Digital Communication is revolutionizing relationships and interaction in the global arena. More groups and the general public are involved or mobilized in public participation than ever before. Vastly more information flows ever more quickly. Partisanship rises with segmentation, threatening fragmentation in public life. The new era reflects the imbalances and strains of major demographic change, especially the impact of an expanding tech-savvy younger generation. A significant youth bulge in volatile developing nations fuels reform efforts, but also creates the potential for conflict arising from continuing injustice and unmet expectations. Foreign policy institutions and decision makers here and abroad are increasingly subject to cross-pressures from competing domestic and transnational interests. In the U.S. the Inter-Agency must balance influential single-issue stakeholders and constituencies here and abroad. The course explores how the U.S. and other governments are responding to the new global challenges. Participants see to frame new "rules" of statecraft in the digital era.

INTS 4920 Conflict Resolution (5 Credits)
An introductory course which identifies the collective factors leading to successful reconciliation or agreeable compromises in conflicts; analyzes the role and influence of cultural norms, gender conditioning and different bargaining strategies on the resolution process; applies the practical fundamental of negotiation on particular problem-solving techniques.

INTS 4924 Democratization in the Middle East (5 Credits)
The promotion of democracy process and its implementation of democracy have emerged as a major goal for U.S. and world policy makers and have attracted the attention of many scholars. Democracy is now widely regarded as a political system that minimizes conflict, promotes sustainable development, and is a vital tool in the struggle against terrorism. However, the results of efforts to create democracies in various countries, including Iraq and Afghanistan are a clear illustration of the difficulties involved in making transitions to democracy. In this seminar, we shall focus on what is known about democratization, consider the nature and role of Islam, examine the state of democracy in key countries of the region, and consider the ways in which the U.S. and other external actors might strengthen democratic forces in the region.

INTS 4928 Torture (5 Credits)
This is a reading/seminar course. Students are asked to be well-prepared and contribute to the discussion. We explore mostly modern forms of torture. The use of torture has not abated in the last 100 years despite conventions, treaties and watchdog organizations. What has occurred is that torture has become "stealth", to use Professor Rejali's term. These "stealth" techniques leave no mark and have been developed equally by democratic states and totalitarian regimes. It is also clear that the U.S. has engaged in state sponsored torture (see The Constitution Project bi-partisan report of April, 2013). An important question before us is if there is any place for torture in the 21st century and if torture is an effective means to gather intelligence. If the answer to both questions is "no," and torture violates the most basic ethical, moral, and legal norms of humanity, they why does it persist?.

INTS 4931 International Organizations (5 Credits)
An intermediate course on approaches to the study of international organizations, including institutionalism, neofunctionalism, complex interdependence, international regimes, and epistemic communities. Case studies examining collective security and peacekeeping, human rights, Antarctica, and the environment are discussed.
INTS 4934 Intervention: Policies & Pract (5 Credits)
Procedures, policies and practices of international organizations and the roles they play in helping resolve internal issues and conflicts.

INTS 4935 International Humanitarian Law of Armed Conflict (5 Credits)
This course is a theoretical and practical introduction to international humanitarian law (IHL). IHL is known by many other names such as "humanitarian law," "law of conflict," and "laws of war." All these terms refer to the rules regarding the treatment of civilians and non-combatants in areas of armed conflict and the rules of engagement for soldiers and combatants. These "rules" are especially important to know if you eventually work for an IO or NGO that finds itself in areas of armed conflict. Cross listed with CPSY 4560.

INTS 4936 International Law and Human Rights (5 Credits)
An introductory course examining the concept of human rights, including political, economic, social, and cultural rights. International, regional and national institutions, norms and procedures to protect individual and group rights are discussed. Recommended prerequisite: INTS 4940.

INTS 4939 Human Rights: Genocide (5 Credits)
An introductory course examining the concept of human rights, violations. From violence and brutality in classical antiquity, slavery in America, terror in the Soviet Union under Stalin, World War II and the Holocaust, and the Cambodian massacre in the 1970s. The course is designed to understand the extremely diverse conditions of regimes that used mass violence for political ends.

INTS 4940 Introduction to Human Rights (5 Credits)
An introductory course focused around historical and theoretically relevant texts in human rights. First and second generation rights are emphasized. Early liberal, conservative, and socialist understandings of human rights are highlighted against their respective historical background.

INTS 4941 Human Rights and International Organizations (5 Credits)
An introductory course exploring the changing roles of international organizations in their efforts to protect and promote human rights. Examination of both the global and regional levels of human rights activities of international intergovernmental organizations are discussed. Recommended prerequisite: INTS 4940.

INTS 4951 Comparing International Societies (5 Credits)
Course explores variations in societies of states across time and place.

INTS 4954 Human Rights Research and Design (5 Credits)
The purpose of this course is to acquaint students with graduate level research and writing strategies that facilitate the composition of concise, articulate, and informative pieces of scholarly and policy-oriented work. We explore an array of research options and techniques and look critically at the ways in which different uses of language are constitutive of meaning and structure in written works. This is considered a "skills" course which is designed to allow students to explore in depth a sub-topic of interest within a broader topic in the field of Human Rights. The topic varies each term. The work completed by students is edited minimally, and published in the Human Rights and Human Welfare Digest, the Josef Korbel School’s online human rights journal. This digest is intended to serve as a resource for policymakers, non-profit organizations, and human rights advocates, by presenting concise and reliable information that is both informative and accessible. In the first half of the class, we focus on building practical research strategies, including: determining the parameters of research; identifying and accessing appropriate sources of information; using bibliographic management software; and compiling an annotated bibliography. The second half emphasizes the development of writing techniques that culminate in the production of an analytical essay and annotated bibliography of publishable quality. Attention is paid to grammar, syntax, structure, stylistics, and appropriate language use.

INTS 4955 Human Rights Clinic I (0 Credits)
Students in the Human Trafficking Clinic will be asked to undertake a case study on a human rights violation and provide an advocacy report (roughly 5000 words, i.e., 20 double-spaced pages) that includes (a) a synopsis of relevant facts, (b) pertinent domestic (usually constitutional) law of the country where the violation occurs as well as relevant regional and international human rights law, and (c) a recommended course of remedial action using the rule of law. Non-graduating law and JKSIS students may seek an overseas assignment in order to either advance their research or initiate the recommendations in their advocacy report. Additional internship or independent research credit may be available for these overseas ventures.

INTS 4956 Human Rights Clinic II (5 Credits)
Students in the Human Trafficking Clinic will be asked to undertake a case study on a human rights violation and provide an advocacy report (roughly 5000 words, i.e., 20 double-spaced pages) that includes (a) a synopsis of relevant facts, (b) pertinent domestic (usually constitutional) law of the country where the violation occurs as well as relevant regional and international human rights law, and (c) a recommended course of remedial action using the rule of law. Non-graduating law and JKSIS students may seek an overseas assignment in order to either advance their research or initiate the recommendations in their advocacy report. Additional internship or independent research credit may be available for these overseas ventures.

INTS 4965 Technology and Sustainable Development (5 Credits)
Technology has always been a major influence on cultures and societies, national and international. Today, all countries recognize the key role that technology plays in achieving sustainable development and are striving to harness its potential while minimizing its negative impacts. New technologies such as robotics, genetics, information and communication all promise transformations that can greatly improve the quality of life of peoples everywhere. At the same time, they can also develop in ways that do not lead to as sustainable a future. Thus, they generate controversy and difficult policy choices for governments and peoples everywhere. Accordingly, it is essential to understand the nature of technology and its role in social and political change as well as the ways in which it can be controlled and harnessed for positive ends. In this seminar we will focus upon the relationship of technology to sustainable development and pay special attention to emerging technologies and to such issues as technology transfer, the relationship between technology and democracy, technology assessment and control, the role of appropriate technology, and how developing countries can develop modern scientific and technological capabilities that promote sustainable futures.
INTS 4966 Applied Field Methods (5 Credits)
An introductory course for students planning to conduct research in developing countries. Practical information is presented on transforming hypothesis into a fieldwork setting, questionnaire construction and administration, and interviewing techniques.

INTS 4972 Global Environmental Governance (5 Credits)
Global environmental problems pose seemingly intractable problems for international relations and policy. In this seminar, we probe some of the practical and theoretical difficulties associated with solving such problems. These problems include: How can sovereign nation-states agree to cooperate on environmental problems and how can such cooperation include businesses and civil society? No international institution can legitimately coerce nations into such cooperation. Therefore, international institutions must get them to agree to cooperate, must find ways to bring business and civil society into those agreements, and then find ways to monitor and enforce the agreements. This task is harder than it might seem, and we explore both theories and cases that illuminate it.

INTS 4981 Internship (0-5 Credits)
The Josef Korbel School of International Studies (JKSIS) recognizes the importance of practical experience as an integral component of a student’s education. An internship should both complement the student’s academic field of study and relate to his/her career goals. Through internships, students will: Apply acquired academic theory, knowledge, and skills to professional practice; Further develop knowledge and skills needed to work effectively in the field; Gain greater understanding of the private, public, or nonprofit/NGO sectors; Build a network of professional contacts; and Develop career-related skills applicable to the future job search. The course is open to currently enrolled Korbel MA candidates. Registration is by instructor approval after review of materials.

INTS 4987 Forced Labor and Human Trafficking (5 Credits)
This course looks at a brief history of slavery, especially as it pertains to the British, West African, West Indies, and American triangle. We then look at contemporary issues of forced labor, human trafficking and contemporary slavery. Human trafficking is a very complex problem that requires a sophisticated, inter-disciplinary critique.

INTS 4989 North American Defense and Security (5 Credits)
This course will challenge students to analyze the evolving North American Defense and Security environment since 1945. The course will begin by focusing on the history of the Canada - United Status (CANUS) defense and security relationship that began in the wake of World War Two and was predicated upon protecting the North American continent from Soviet attack with the formation of the Permanent Joint board on Defense (PJBD), Military Cooperation committee (MCC), and North American Air Defense Command (NORAD). However, the end of the Cold War and subsequent terror attacks of 9/11 dramatically changed the North American Defense and Security environment and created the need for enhanced cooperation between the United States, Canada, and Mexico.

INTS 4991 Independent Study (1-15 Credits)
A special individual arrangement for students to pursue more advanced work beyond that available through regular courses. Such study is arranged between professor and student prior to registration. Academic grades are assigned for course performance. Tutorial Record Form required.

INTS 4992 Directed Study (1-5 Credits)
INTS 4993 International Students Writing Lab (0-1 Credits)
Emphasizes aiding international students in perfecting their English writing skills as well as assisting them in developing ideas and solutions for specific course papers. Students receive advice on writing logic and structure as the instructor individually reviews draft papers and provides written comments. Classroom sessions provide students with the opportunity to share ideas as well as problems. An online portion will provide students with samples of scholarly writing, exercises, and classroom discussion supplements. Former participants are welcome to attend as part of independent study. Course can be taken for 0 or 1 credit and may also be repeated.

INTS 4995 M.A. Thesis Research (1-10 Credits)
This course allows a student to receive credit for research and writing undertaken as part of the master’s thesis or SRP preparation. Such study is arranged between professor and student. Academic grades are reassigned for course performance. Tutorial Record Form required.

INTS 4996 Substantial Research Paper (0-5 Credits)
A Substantial Research Paper (SRP) is a problem-focused paper designed to engage student in the process of applied research. In contrast, an independent study tends to be a more general research project, while an MA thesis involves in-depth academic research typically undertaken by students interested in pursuing a PhD. An SRP is typically shorter than an MA thesis, and does not require a review committee or an oral defense. Rather, the SRP will be supervised and graded by a single appointed faculty member.

INTS 5991 Independent Study (1-15 Credits)
INTS 5992 Directed Study (1-5 Credits)
INTS 5995 Ph.D. Dissertation Research (1-10 Credits)
This course allows a student to receive credit for research and writing undertaken as part of the doctoral dissertation preparation. Grades of “P” (pass) are assigned after the dissertation is accepted by the committee. Prerequisite: Ph.D Candidacy (passing Comprehensive exams).
Courses

JUST 3023 Great Thinkers: Maimonides-Politics, Prophecy and Providence (4 Credits)
Using "The Guide for the Perplexed" as our central text, we explore the complex philosophical ideas of Moses Maimonides (1135-1204), one of the central figures in medieval philosophy and Jewish thought. Our study includes analyses of his ideas on: principles of faith, human perfection, intellectual vs. "imaginational" approaches to truth, pedagogy and politics, reasons for the commandments, the nature of God and divine will, the limits of human knowledge, the mechanics of prophecy, and the parameters and implications of providence. Cross listed with PHIL 3023 and RLGS 3023. Prerequisite: junior standing or instructor's permission.

JUST 3024 Maimonides: Greek, Islamic, and Christian Encounters (4 Credits)
Using the "Guide of the Perplexed" as our central text, we explore the complex philosophical ideas of Moses Maimonides (1135-1204), a central figure in the history of philosophy and in the history of Jewish thought. In this course, we examine in depth the relationship between Maimonides' core ideas and various Greek, Muslim and Christian thinkers, including: Aristotle, Plotinus, al-Farabi, Avicenna (Ibn Sina), al-Ghazali, Averroes (Ibn Rushd), and Aquinas. Topics to be explored include: what is "metaphysics"?; God's unity and essence as existence itself; the mystery of knowing and not knowing God (including a consideration of God's ways as well as "negative theology"—viz. the extent to which we do not know God); God as pure intellect; the nature of the cosmos and the "separate intellects"; creation vs. eternity vs. emanation: philosophical and religious perspectives on the origins of the universe and implications for "living in the world with/out God." In our study, we will also address the methodological implications of cross-religious and cross-language analyses, and how to spot and address (in your own work and in the work of others) tacit cultural biases at play in the interpretive process. Cross listed with PHIL 3024 and RLGS 3024. Prerequisite: Junior standing or instructor’s permission.

JUST 3152 Philosophy Meets Mysticism: A Greek, Jewish and Islamic Neoplatonic Journey (4 Credits)
Neoplatonism is a unique genre—somewhere between philosophy and mysticism. In this course, we investigate some of the leading themes of Neoplatonism, tracing the Greek ideas of Plotinus (the thirdcentury "father of Neoplatonism") into later Jewish and Islamic textual traditions. As part of our journey, we investigate a host of philosophical writings, including the Theology of Aristotle and the Liber de Causis, as well as works by Plato, Plotinus, Proclus, Ibn Tufayl, Avicenna, Isaac Israeli, Solomon Ibn Gabirol, and Abraham Ibn Ezra. Themes to be covered include emanation and creation, apophatic discourse, divine desire, the theological significance of imagination, inward reflection, and the call to virtue. Cross listed with PHIL 3152. Prerequisite: junior standing or instructor’s permission.

JUST 3700 Topics in Judaic Studies (1-4 Credits)
Topics vary reflecting the interdisciplinary nature of the department and studies of the faculty.

JUST 3702 Colloquium in Jewish Studies (1-4 Credits)
Topics in Judaic Studies reflecting the interdisciplinary nature of the department and studies of the faculty.

JUST 3703 Topics in Judaic Studies (1-4 Credits)
Topics vary reflecting the interdisciplinary nature of the department and studies of the faculty.

JUST 3704 Topics in Judaic Studies (1-4 Credits)
Topics vary reflecting the interdisciplinary nature of the department and studies of the faculty.

JUST 3740 Bodies and Souls (4 Credits)
This course examines the unique place of the body in biblical religion. We ask how the Bible and its interpreters have shaped current views on sex and the gendered body in Western society. How has the Bible been (mis)used in relation to current understandings of the physical body? Is the saying that a "human" does not have a body, but is a body as true for the Hebrew Bible as the Christian New Testament? How has Judaism and Christianity (de)valued sexuality, procreation, and celibacy? How do the biblical traditions shape our modern opinions about the ideal physical body and body modifications? How can we understand "out-of-body" experiences and notions of death and afterlife in Western religion? Students are encouraged to interpret the Bible and their own beliefs from a uniquely embodied perspective. Cross listed with GWST 3740, RLGS 3740.

JUST 3743 Modern Jewish Literature (4 Credits)
Stories, novels and memoirs by 20th-century Jewish writers; consideration of issues of generation, gender and idea of Jewish literature as a genre. Cross listed with ENGL 3743.

JUST 3891 Justice: A Biblical Perspective (4 Credits)
This course explores the ways in which the Bible has been applied to questions of social justice in contemporary society. In addition to studying major theological and philosophical theories of justice, students read a variety of biblical texts related to major issues of social and economic justice such as world hunger, the poor, revolution, just war theory and pacifism, environmentalism, and the role of government. This course includes a service-learning component. Cross listed with RLGS 3891.

JUST 3982 Internship (1-5 Credits)

JUST 3991 Independent Study (1-5 Credits)
Prerequisites: HEBR 1003 or JUST 1003 or equivalent and instructor's permission.

JUST 4700 Topics in Judaic Studies (1-5 Credits)
Topics vary reflecting the interdisciplinary nature of the department and studies of the faculty.

JUST 4701 Topics in Judaic Studies (1-5 Credits)
Topics vary reflecting the interdisciplinary nature of the department and studies of the faculty.

JUST 4702 Topics in Judaic Studies (1-5 Credits)
Topics vary reflecting the interdisciplinary nature of the department and studies of the faculty.
JUST 4991 Independent Study (1-10 Credits)

**K-12 Administration (ADMN)**

**Courses**

**ADMN 4700 Special Topics in K-12 Administration (1-5 Credits)**

**ADMN 4810 School Administration: Case Studies (3 Credits)**
Focus on current critical aspects of work of effective superintendents and other administrators in key decision-making roles; includes reading, discussions and guest presenters who are practicing administrators; problem scenarios presented for resolution.

**ADMN 4812 Perspectives in District Administration (3 Credits)**
District leaders absolutely must focus their actions on the common goal of improving student learning, and school systems must be organized to make this the fundamental priority. The purpose of this course is to examine district-level leadership, policies, and practices that support a school community committed to and focused achievement gaps, providing resources, monitoring and using accountability data, and working with the community and school board leadership.

**ADMN 4817 Superintendency Internship (1-6 Credits)**
Opportunity to be supervised in on-the-job experience to better prepare school administration students for administration careers. Superintendent's office placement.

**ADMN 4819 Organization Theory & Behavior (3 Credits)**
Educational institutions are complex, political organizations with a wide variety of constituents and many layers of sometimes competing cultures, systems, and explicit and implicit goals. Leaders who work with these systems must find ways to make meaning of the organization and the context in which work occurs. This course will look at organizational behavior from several points of view, with the goal of understanding major theories that have been developed and learning to apply these theories in the management and study of organizations. The roles and responsibilities of various members of the organizations will be examined as well as the governance and control issues surrounding education. Organizational analysis will be viewed through the lens of structural, political, human resource and symbolic frames.

**ADMN 4820 School Administration: Program and Evaluation (3 Credits)**
The purpose of this course is to review theories of program evaluation, evaluation designs and analysis, and current trends in evaluation. Program evaluation aims to determine whether a program, regulation, or policy is achieving its objectives by ascertaining whether it had the desired effect on intended outcomes. The evaluation process may include evaluation of programs, products, personnel, policy, performance, proposals, technology, research, theory, and even of evaluation itself. The course equips students with basic evaluation tools and understandings necessary to be thoughtful consumers and effective users of program evaluations in improving policy outcomes and designing more effective programs and policies. It is designed to provide students with the meaning and methods of program and policy instrument evaluation in education with the intent to contribute to informed decision making and enlightened change. Students analyze evaluations of the effectiveness of a variety of programs through discussion, field work, and case studies.

**ADMN 4821 School Reform and Current Educational Issues (3 Credits)**
An introduction to contemporary issues and theories of educational administration. Overview of major educational administrative and organization trends currently unfolding. These trends are analyzed for validity, education soundness, and leadership implications. Students will also take a closer look at the concept of school reform and the various efforts towards this endeavor.

**ADMN 4822 Leadership in Complex Systems (3 Credits)**
Roles, responsibilities and behaviors of successful leaders in complex systems; development of understanding and skills that can be used in dealing with many complex issues that face school administrators of the 21st century; functioning effectively in a complex environment where leadership is an interaction between leader, followers and situation and where power and influence affect leader-follower relationships.

**ADMN 4823 Educational Policy Making in the United States (3 Credits)**
Designed to give educational leaders a foundation in understanding how policy is created. The course examines decision making and the growth of state and federal powers and policy making; the role of state board, the governor’s and legislature’s significance; the role and power of associations and their impact on decision-making; the changing nature of local boards of education; law making and setting of educational policies using Colorado and legislative process as examples.

**ADMN 4827 Foundations of Educational History and Philosophy (3 Credits)**
This foundational course examines the various theoretical, ethical, historical and philosophical perspectives that will inform educational leaders as policy and change strategies are formulated.

**ADMN 4828 Leadership for the 21st Century: Using Creativity to Build Effective Schools (3 Credits)**
Designed to assist leaders, at the district or building level, in the implementation of standards-based education to improve student learning and achievement. Primary emphasis is given to applying strategies for addressing critical issues in sustaining the equitable access to learning in a standards-based educational organization.
ADMN 4834 Seminar in Multicultural Issues (3 Credits)
Extends understanding of complex systems' operations and responses by examining multicultural issues in the historical and social context and complexity of schools and school districts. Opportunities will be provided for students to develop an understanding of issues of diversity and the relationship of these issues to the roles and work of school/district administrators. The exploration of multicultural issues will occur through the examination of various themes relative to school/district administration such as curriculum, administration, human resources, policy and reform. Particular emphasis will be given to the exploration of the historical and future purposes of schooling in a democratic/pluralistic society in an effort to help students to develop critical knowledge and skills essential for providing leadership in 21st century schools.

ADMN 4835 Curriculum Instruction and Student Achievement (3 Credits)
This course will examine educational practices that are meeting success as schools and districts attempt to learn, grow, and reinvent themselves using the principles of organizational learning. Participants will understand basic systems theory and gain practical and theoretical tools to improve curriculum development, instruction, and student achievement.

ADMN 4836 Improving School Culture (3 Credits)
School culture is a complex and challenging issue for most school leaders to shape and manage. The culture of school means many things that will be addressed in this class including school climate, parent engagement, teacher engagement, student connectedness, culturally competent practices, positive youth development, and the quality of human relationships in the school environment. This course will enable school leaders to look in depth at their schools in order to assess its culture, develop specific plans to create a climate of authentic relationships among students, parents, staff, and community.

ADMN 4840 Strategic and Transformative School Leadership (7 Credits)
Effective school administration is guided by research and best practices which inform governance, vision, leadership, and implementation processes. Effective principals base their work on commitment to moral principles, core values, and the many dimensions of effective theory and practice. Understanding personal values, developing leadership skills and building a strong knowledge base regarding research and best practice are a key focus of the course. In addition, this course also examines strategies for visioning, mission building and branding; defining and assessing value and quality; developing competitive strategy; building networks and partnerships; assessing risk and gauging opportunity; building systems and sustainabilty; recruiting and developing staff, boards and stakeholders; engaging communities; and acquiring sources of funding. Students must be accepted into an ELPS certificate or MA program.

ADMN 4841 Instructional Leadership for Equitable Schools (7 Credits)
This course serves aspiring principals in the development and application of skills and knowledge associated with standards-based instructional practices, curriculum planning and development, assessment, and program evaluation. Students are assisted in developing and understanding issues of diversity and multiculturalism and their influence on the development and supervision of the instructional program. Although the major focus is on local aspects of standards-based education, some attention is given to the national role in this area. School leaders need to apply quantitative and qualitative research skills in a variety of ways to understand and improve the work of schools. This course reviews methods, applications, and data sources, including assessments and large-scale datasets, for continuous school improvement and program evaluation. In addition to the issues of instructional leadership, considerable attention is given to the examination of the needs of the individual student in the learning environment as well as research on learning styles, learning theories and models of teaching. Primary focus areas are supports for special education students, English language learners, gifted students, and students in poverty. Students must be accepted into an ELPS certificate or MA program.

ADMN 4842 Human Resource Leadership (5 Credits)
This course focuses upon specific content relative to helping the principal effectively manage human resources within the school setting. It provides examination of organizational dimensions, planning, recruitment, selection, placement and induction, staff development, appraisal, rewards, collective bargaining, and practice of negotiation skills. The course includes study and application of a variety of approaches for supervising and evaluating instruction, including approaches to classroom observation; adapting, adopting, and designing various evaluation systems; advantages and problems of various student achievement and engagement indicators; induction, mentoring, and peer support systems; and leading professional development for self and staff. It includes the relationship of supervision and evaluation of teachers to the improvement of student learning, instruction, assessment and professional development. The legal and technical aspects of teacher evaluation are discussed, while outlining the role and responsibilities of the licensed evaluator in the annual process. Formal and informal classroom observations and conferencing with practicing teachers are part of the requirements for this course. Students must be accepted into an ELPS certificate or MA program.

ADMN 4843 Strategic Resource Management for School Leadership (5 Credits)
This course focuses upon specific content relative to helping the principal effectively manage human resources within the school setting. It provides examination of organizational dimensions, planning, recruitment, selection, placement and induction, staff development, appraisal, rewards, collective bargaining, and practice of negotiation skills. The course includes study and application of a variety of approaches for supervising and evaluating instruction, including approaches to classroom observation; adapting, adopting, and designing various evaluation systems; advantages and problems of various student achievement and engagement indicators; induction, mentoring, and peer support systems; and leading professional development for self and staff. It includes the relationship of supervision and evaluation of teachers to the improvement of student learning, instruction, assessment and professional development. The legal and technical aspects of teacher evaluation will be discussed, while outlining the role and responsibilities of the licensed evaluator in the annual process. Formal and informal classroom observations and conferencing with practicing teachers are part of the requirements for this course. Students must be accepted into an ELPS certificate or MA program.

ADMN 4844 Cost Benefit Analysis for Educational Systems (4 Credits)
This course introduces students to theories and methods of analyzing resources used and benefits gained from educational programs, policies, and organizations. Prerequisites: Introductory Statistics; acceptable Program Evaluation course.
**ADMN 4845 Network and Systems Analysis for Educational Settings (4 Credits)**
This course works with a variety of applied research methods for analysis of networks, systems, and program and policy impacts, with a focus on education and community/social services settings. Prerequisites: Introductory Statistics; acceptable Program Evaluation; acceptable Policy course.

**ADMN 4848 Business Design and Innovation for School Leaders (4 Credits)**
A school district is a large and complex business organization. By design, the course has a broad focus ranging from legislative issues, to manners and matters of local governance, to school finance, capital planning and budgeting concerns to more directed school and district support services. The course demands practitioners become aware of and demonstrate critical thinking as to what constitutes an effective and equitable use of people, time, technology and money in order to ensure achievement for all students. Being able to think differently, create a culture of innovation, and lead a systematic approach to implementing new ways of doing things is one of the most critical aspects of being a school leader. This course will be enhanced with a design thinking framework that takes a human-centered design approach to helping organizations innovate and grow.

**ADMN 4849 Action Research for School Leaders (4 Credits)**
This course emphasizes the use of research methods which are linked to research needed in schools. Students will learn to identify, analyze and solve problems. Some of the action research methods include focus groups, interviews, observations, school records and surveys. Capstone project will relate directly to the improvement of school policy and practice.

**ADMN 4859 Action Research Capstone (1 Credit)**
Provides support for students as they develop their action research project into the Capstone for the Masters in Educational Administration.

**ADMN 4860 Principal Internship (2 Credits)**
The purpose of a formal internship with a principal is to participate in supervised practical training in many of the aspects of school building administration. It is imperative that an applicant have as many first hand experiences as possible in all phases of building administration which focus upon the standards set for principals in Colorado. Must be accepted into an ELPS certificate or MA program.

**ADMN 4991 MA Independent Study (1-10 Credits)**
**ADMN 4992 Directed Study (1-10 Credits)**
**ADMN 4995 Research - M.A. Thesis (1-10 Credits)**
**ADMN 5900 Research Planning & Design (3 Credits)**
This course is designed to support doctoral students to design research and successfully defend a research proposal for their culminating project/dissertation.

**ADMN 5991 PhD Independent Study (1-10 Credits)**
Special projects in the field of education, taken by arrangement of Educational Administration faculty.

**ADMN 5992 Directed Study (2-10 Credits)**
**ADMN 5993 Doctoral Research Seminar (1-4 Credits)**
The Doctoral Research Seminar is designed to prepare students to undertake the completion of doctoral research or a dissertation. The research process can often be confusing and overwhelming, especially for students coming from a cohort-based program. This course assists students in turning a research idea into the EDD doctoral research project or a polished dissertation proposal and provides students strategies for making the process manageable and enjoyable.

**ADMN 5995 Dissertation Research (1-10 Credits)**

**Law and Society (LAS)**

**Leadership (LDRS)**

**Courses**
**LDRS 3991 Independent Study (1-5 Credits)**

**Liberal Studies (MALS)**
Courses

MALS 4020 Graduate Research and Writing (4 Credits)
Critical thinking, accomplished through solid research and clear writing, is paramount to success in one's academic and professional pursuits. This course enables students to develop clear analytic and rhetorical writing skills at the graduate level; these skills are utilized throughout the curriculum in all degree areas. Each student organizes and produces a focused paper on a topic related to the student's degree field that contains a continuing argument centered around a clear thesis statement supported by the work of experts. Sources are evaluated for validity and incorporated in the paper with regard to the absence of plagiarism and proper Turabian author-date documentation. Focusing on the thesis statement, students research and analyze current data and trends in the field, build a rhetorical argument, and draw conclusions. The course stresses editing and revision for mechanics, style, and language. It is designed to improve writing and communication skills for use in academic and professional settings. This course is required of all degree seeking students and should be taken in the first two quarter of enrollment. A final grade of B or better must be earned in this course to meet degree requirements.

MALS 4030 Philosophy and Spirituality (4 Credits)
Throughout time human beings have used systems of thinking and belief to grasp at the big questions of life, including the search for meaning, the existence of God, and whether we are truly free or living according to a predetermined path. This core course examines various wisdom traditions, sets of spiritual belief, and schools of thought from throughout the world. In it, students will draw upon diverse wisdom and spiritual traditions and apply good critical thinking to contemporary ethical situations. Students will demonstrate an ability to comprehend and use key terms in philosophy and spirituality and learn to develop a discerning attitude toward systems of thought and spirituality. They will also recognize methodology used in philosophical and spiritual discourse, and contemplate how to apply philosophy and faith to problems and situations in today's world.

MALS 4045 The Human Condition (4 Credits)
Within the rich tradition of the liberal arts and humanities lies the study of the social sciences, the academic undertaking of viewing and understanding the human condition. It is important for the humanist scholar to think about who we are, and how we are doing as people. This core class focuses on the disciplines that gauge how individuals and groups live, learn and grow - sociology, psychology, gender and sex studies, marriage and family, anthropology, and related subjects. The class uses case studies to examine how people live and react to their circumstances.

MALS 4050 World Visual & Performance Art (4 Credits)
This course draws upon global artistic traditions of visual art and performance in conveying how human beings express ideas, themes, and emotions. Students view and experience artistic forms and movements throughout history and from a variety of traditions across the world, critically analyzing art movements and forms across time. They synthesize ideas across cultures, traditions, and types of creative expression and make connections and distinctions between genres and art forms. A different, rich, artistic theme is the focus each time the course is taught.

MALS 4070 The Writing Life: Concepts, Practices, and Professionalism (4 Credits)
This course aims to provide aspiring writers a basic knowledge of the creative and professional tools they will need to succeed, whatever their individual goals or life situation. This course tackles questions and challenges common to all writers at one time or another. Primary considerations include: What exactly does it mean to be a writer? What are my motivations for wanting to write? How can I identify and prioritize writing projects? How do I move my writing projects forward from concept to completion? These primary challenges require writers to narrow their creative focus and to cultivate habits of thought and behavior that sustain creative efforts in a world full of distractions, obligations, and competing claims on their time.

MALS 4080 Literary Genres for Writers: Drama, Fiction, Creative Nonfiction, Poetry (4 Credits)
This course deals with the four core literary genres: Drama, Fiction, Creative Nonfiction, and Poetry. These genres are distinguished from one another in two ways: first, by the relative weight each genre gives to the key cross-genre elements, and secondly, by each genre's distinctive approach to structure and form. Within each genre, subgenres have evolved over time, each recognizable by particular patterns, each playing by a distinct set of rules. Whether writing within or across or even against those rules, writers need to understand how literary genres work in order to write effectively. This course aims to foster that understanding and prepare students to shape their writing in ways that align with their creative vision.

MALS 4090 Writing for the Stage: Fundamentals of Writing Drama (4 Credits)
This course uses readings of dramatic texts, brief lectures, writing assignments, and the performance of those writings to develop the skills required to write for the stage. Students learn the essentials of drama, including the design of effective plots, the creation of vivid characters, and the writing of performable dialogue. Students also explore the effects of drama's necessarily collaborative process and varieties of stagecraft on the way playwrights shape their texts. Examples illustrate successful uses of key dramatic techniques and help students explore various approaches to expressing themselves fully and clearly through a range of open-ended exercises. Students also develop practical critiquing skills with the aim of helping themselves and their classmates create compelling plays that appeal to both theater professionals and theatrical audiences.

MALS 4120 Writing Non-Fiction (4 Credits)
This course concentrates on the craft of writing nonfiction, which includes genres and approaches such as memoir, the personal essay, narrative nonfiction, travel writing, humor, criticism, and experimental forms. Class discussions involve some lecture but are structured more as a workshop. Students learn about writing and write about learning. Members of the class are expected to express their ideas about the craft and to workshop their writing. The class is a safe place for writers to share their work with others and to learn from one another.

MALS 4130 Fiction Fundamentals (4 Credits)
Effective, powerful writing requires skills that can be acquired. This course is a combination of workshops and lectures focusing on the interplay of plot, characterization, and pacing. Students learn to turn personal experience into story structure and tap the psychological well-spring which enables writers to sustain momentum. The instructor utilizes literary examples to illustrate successful uses of these concepts. Students are invited to bring material at any stage of development to the first class. During the course, development and critique of each student's material is encouraged.
MALS 4150 Poetry: The Voice Within (4 Credits)
This course is a combination of readings in poetry and poetics, brief lectures, and open discussions focused on the interplay of image, metaphor, rhythm, emotions and ideas in the expressive form of writing called poetry. Students learn to tap the imaginative sources that all creative writing springs from and flow those energies into poetic form. Examples illustrate successful uses of key poetic concepts and help students explore various approaches to expressing themselves fully and clearly through a range of open-ended exercises. Students develop practical critiquing skills with the aim of helping themselves and their classmates write with greater subtlety and power.

MALS 4163 Writing the Screenplay (4 Credits)
Screenwriting is the art of telling a story in images. This class focuses on elements of form and structure, with particular emphasis on format, character development, plot and dialogue. Movies are studied to illustrate genre, fixed and fluid characters, tragic flaw, the dynamic of relationships, development of protagonist and antagonist, and other screen elements. Numerous in-class exercises, discussions, workshops and screenings enable students to find the dramatic essence of stories, write a detailed film synopsis, treatment, and the first act of a feature-length screenplay.

MALS 4175 Literary Translation (4 Credits)
Translation is essential for a genuine exchange of ideas between people of different linguistic and cultural backgrounds. Besides being an essential service for cultural understanding, literary translation is also a form of creative writing. This course includes readings in the history, theory, and practice of literary translation, along with analysis of sample translations by leading translators. Students will also practice translation of literary texts, including poetry and short works of fiction and nonfiction. While increasing the student’s awareness of the art of literary translation as an end in itself, the course also demonstrates translation’s value in enriching a writer’s development in his or her own work. Students should have basic skills in the source language of their choice, but full fluency is not required.

MALS 4190 The Writer’s Workshop (4 Credits)
A writer writes” is the universal mantra of the writing life, but one of the critical steps in developing a work in progress is getting constructive feedback. Unfortunately, all too often, a writer ends up disappointed because the feedback received is superficial, too polite, or little more than proofreading. This course teaches students to workshop in a meaningful way, responding to content, focus, coherence, and organizational issues. Students learn to elicit more feedback from their workshop colleagues, demonstrating the relationship between reader and writer. The class explores a variety of genres, and each student produces short exercises and longer projects that demonstrate a grasp of various aspects of the writing craft. Periodically, guest authors with different writing specialties join the class to discuss the writing experience and shed light on the workshop process.

MALS 4240 Memoir & Personal Essay (4 Credits)
Personal essays and memoirs are forms of writing that attempt to arrive at universal truths through self-exploration. Students examine the work of several modern essayists and analyze a literary memoir. Through course readings, writing, workshop, and discussion, students analyze and apply what makes this writing work. By incorporating literary elements such as conflict, characterization, dramatic structure, and transformation, students turn their personal experiences into meaningful nonfiction narratives. As V.S. Pritchett said of the memoir, “It’s all in the art. You get no credit for living.” Personal essays need not deal with the author’s biography at all, only with his or her experience in a limited way. This course combines reading, writing, analysis, and discussion facilitation.

MALS 4260 Writing the Short Story (4 Credits)
The dramatic elements of the short story are distinct from any other form of fiction. This workshop is for writers who plan to seriously study the form of the contemporary short story, and to apply their learning to their own projects. Students focus equally on reading published works and writing/revising an original short story, as well as discussing aspects of publishing. Weekly writing exercises, readings, and workshops of student stories are combined to provide the most direct, effective training in this dynamic form. Prerequisite: MALS 4130 (Fiction Fundamentals).

MALS 4270 Writing & Healing (4 Credits)
Many writers attest to the emotional, spiritual, and even physical benefits of writing. In this course, we explore a variety of ways written expression can help us navigate the human journey. Students learn leading theoretical models of journal and poetry therapy (interactive bibliotherapy), assess poems for use in personal growth contexts, and participate in experiential discussions and writing exercises. Students focus on the writing and healing process rather than their own self-explorations of healing through writing. Students submit a portfolio of reflection writings, as well as complete a final paper on a writing topic that intersects with a personal growth experience or interest.

MALS 4280 Funding the Arts and Program Development (4 Credits)
Arts organizations must always consider funding when developing programming. Organizational strategic planning is analyzed, and fundraising is examined as a major component of that planning. Various tools and techniques for fundraising, including communication and planning skills, are analyzed and applied to case studies. Students explore different forms of fundraising and their implications for programming, which may include private or public grants, governmental funding, fundraising events, and private donations.

MALS 4281 Event Planning (4 Credits)
Events and festivals play a large role in promoting the arts and developing links between the arts community and wider audiences and patrons. Students address various topics associated with event and festival planning and management, such as program development, marketing and audience development, venue considerations, and building partnerships. Students create an event program and plan.

MALS 4283 Marketing the Arts: Audience Development and Retention (4 Credits)
This course provides a strategic approach to audience and markets. Students study basic principles of marketing and audience identification. They build strategic marketing plans that are cohesive with the mission and programming of the organization, utilizing various forms of media. Audience characteristics are examined from various perspectives, and theories of creating commitment to the arts are studied. Students create an arts marketing plan for an organization or event.
MALS 4284 Arts and Culture Entrepreneurship (4 Credits)
In any sector of the Arts and Culture field, whether government, non-profit, or for profit, it is essential to be able to develop programs and/or organizations from conception through implementation and assessment. This development requires the clear communication of what is needed to develop, implement, and sustain this plan over time. In this course, students take an entrepreneurial approach to develop a program or organization in the arts and culture field. Students develop and present a comprehensive business plan to define, map, structure, and assess the program / organization in either the non-profit or for profit sector.

MALS 4440 Artists on Art (4 Credits)
This course explores the professional life of the artist, including how artists conceive of a vision for their work, organize their time and space, and communicate about their art. Students read significant works (diaries, correspondence, and essays) by and about artists, and have opportunities to interact with working artists. Students keep and produce a journal to explore ideas, plan projects, and describe methods and media to be used in their current or proposed work.

MALS 4442 History of Methods and Media (4 Credits)
This course provides a review of selected periods and movements in the history of art with special attention to the methods, materials, media and design techniques used by artists of different eras. Students explore the relationships of available technologies and media to the purpose and social influences that created particular stylistic periods and movements. Through careful study of images and by completing several brief assigned projects, students explore typical artistic problems and generate creative responses.

MALS 4444 Emerging Trends in Art (4 Credits)
This course focuses on what is “going on” in the arts: contemporary trends, what’s hot, what’s not, and why. Selected themes in modern and contemporary art are reviewed to help students discover how their art will fit into or counter emerging trends in art. The latest cutting edge developments in art are explored, and students are challenged to describe the place and purpose for their work.

MALS 4448 Studio Art: Drawing (4 Credits)
This studio course explores essential components of drawing including composition, line, value, proportion, shape, positioning, and perspective. Materials to be covered include pencil, charcoal, pastel, and pen and ink. Light source, shading, and value are also addressed. Drawing styles and techniques explored in this course vary each session.

MALS 4450 Studio Art: Painting (4 Credits)
This studio course is designed for students working beyond the beginning level in painting and will involve extensive experimentation with materials and techniques to address individual painting problems identified by faculty and students. The organization of ideas and development of personal imagery are addressed. Painting styles and techniques explored in this course vary each session.

MALS 4452 Studio Art: Ceramics (4 Credits)
This studio course focuses on the use of the potter’s wheel as a ceramic tool. Work will include simple to complex thrown and altered forms. Hand-building techniques and non-traditional approaches to use of materials, glazing and firing are also studied. Styles and techniques explored in this course vary each session.

MALS 4454 Studio Art: Sculpture (4 Credits)
This studio course addresses core issues of three-dimensional form. Students learn about the processes of modeling, casting, carving, and construction of armatures. Emphasis is placed on discovering where images and ideas come from, how they develop, and how they interface with various materials and techniques for sculptural representation.

MALS 4455 Into the Future: Global Trends and Forecasting (4 Credits)
Why is learning about the future important today? How do we look into the future and analyze the dynamic global environment that is changing on a daily basis? This course will challenge student to look into the future and examine the following seven important trends: Globalism, Human Genome/Cloning, Migration/Generational Change, New Energy Processes, Religion/Ethics, Security/Terrorism, and Technological Change. Each student will write a research paper analyzing a future trend or issue and give a class presentation about their findings. In so doing, they will demonstrate an awareness of the pitfalls and opportunities for humanity in this interlinked, globalized, 21st century world.

MALS 4456 Studio Art: Photography (4 Credits)
This course explores the techniques and aesthetics of artistic photography, including a thorough overview of old and new methods. Instruction includes camera use, picture processing, and presentation. Assignments provide a context for developing technical skills and exploring personal interpretation.

MALS 4458 Studio Art: Printmaking (4 Credits)
This course introduces intaglio and relief printmaking methods in addition to paper lithography. Intaglio techniques include copper plate etching and engraving. Relief printing includes linoleum cut and woodcut methodology. Single plate black and white and multiple plate color methods are reviewed. Students focus on work in one of these media for a class project.

MALS 4460 Studio Art: Digital Art (4 Credits)
This course lays the groundwork for design literacy and digital art making. Class objectives include understanding how meaning is formed and learning digital applications in art reflecting cultural, social, political and psychological contexts. Students are expected to complete pre-course work to gain software literacy and attend a post-course critique; class time is spent on creating digital art works.

MALS 4462 Studio Art: Mixed Media (4 Credits)
This course explores the techniques and aesthetics of mixed media in visual art, including an exploration of innovative media use. Instruction includes method and media processing and presentation. Assignments provide a context for developing technical skills and exploring personal interpretation.
MALS 4470 Arts and Culture: History, Context, and Trends (4 Credits)
This course examines the significant and growing economic, social, and educational impact of the arts in today's rapidly changing environment. Discussion of current and historical trends in the visual, performing, literary, and media arts provide a context for practical applications in the field.

MALS 4480 Arts and Culture: Best Practices and Practical Skills (4 Credits)
This course provides a comprehensive overview of nonprofit best practices with specific applications to arts and culture organizations. Governance, budget planning and management, organizational development, advocacy, marketing and fundraising, community and rural development, event planning and facilities management are discussed using exemplary and diverse arts organizations as case studies.

MALS 4490 Cultural Participation and Program Planning (4 Credits)
In this course, students explore changing attitudes and participation in the arts and the need for innovative approaches to engage audiences. Audience development and involvement is explored, especially in terms of arts education. The connection between cultural participation and program planning is closely examined. Various models are discussed on a theoretical level, and diverse arts organizations serve as case studies for practical applications.

MALS 4530 China and The Pacific Rim (4 Credits)
This course is an introduction to the rich cultural traditions of Asia, past, present and future--its religious and philosophical systems, artistic and literary contributions, and patterns of political, social, and economic development. It will also investigate the shared experiences of Asian Americans in the U.S. with an emphasis on people of Chinese, Japanese, Korean, Southeast Asian, Pacific Islander and South Asian ancestry. Contemporary Issues such as ethnic association, discrimination, intercultural conflict, generational differences, and gender roles and relationships also will be covered. Students are expected to gain from this course and appreciation of the cultural complexity of Asia and Asian-American communities.

MALS 4544 The Middle East (4 Credits)
The Middle East has been referred to as the "World Trouble Spot," but it is also a region of vibrant cultural traditions and a rich past, present and future. Students in the course examine the impact of the Middle East's history - and its unique artistic, literary, and cultural contributions - on the present day. They also study the current Middle East peace process, the oil economy, and radical Islam as it relates to jihadism and terrorism.

MALS 4546 Africa (4 Credits)
This course focuses on the study of literature, politics, and culture of Africa from pre-colonial times to the present. The course begins with an examination of Africa as the "navel of the world" with a discussion of some key moments in African history. Students explore the four regions of Africa with country or region-based examples of culture and politics - colonial rule in East Africa, war of independence in North Africa, military rule in West Africa and Apartheid in Southern Africa. In each case, historical accounts as well as literary representations will be presented in political, social, and economic contexts.

MALS 4552 India and Pakistan (4 Credits)
India and Pakistan hold core beliefs that are almost diametrically opposed. India advocates Democracy, religious freedom, non-violence and technology. Pakistan exemplifies the rise of radical Islam, return to Sharia law, and promotion of Jihad. In this course, students will explore the themes of religious freedom, Dharma, non-violence, and Democracy as taught by Emperor Ashoka, Gandhi, and Nehru. They will also explore the establishment of Sharia law in Pakistan and Jihad as a military strategy to deal with India (Kashmir) and Soviet Union (Afghanistan and the Taliban).

MALS 4605 Sustainable Development (4 Credits)
Economic development, ecology and democracy are three volatile forces in the world today. Players in the tension between them include nations, large corporations, and a groundswell of farmers, workers, and ordinary people. This course looks at the model of sustainable development as a way for countries to make long-term and ethical decisions about how to use resources: earth, water, air, energy, as well as the most important resource, people. Contrasts will be drawn between Western economies humming along in the Digital Age and the emerging world attempting the leap from an agricultural paradigm to industrialization, while trying to avoid falling into the Malthus trap of overpopulation. Students will develop an understanding of the complex, intertwined relationship between economic growth, environment and humanity.

MALS 4701 Topics in Literature (4 Credits)
The content of this course varies each term. The topics may include time-sensitive issues in the area of literature, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

MALS 4702 Topics in Writing (1-4 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues in the areas of writing and literature, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

MALS 4703 Topics in Film (1-5 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues from the film industry, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.
MALS 4704 Topics in Art (1-5 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues from the film industry, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

MALS 4705 Topics in Liberal Studies (1-5 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues from the film industry, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

MALS 4740 Natural Science and Literature (4 Credits)
The natural sciences have inspired some of the most entertaining, creative and provocative works in international literature. Writers like Thoreau, Gould, McPhee, Kingsolver and others have explored some of the most complex theories that explain the majesty of the physical world. Students read and analyze many works in this popular genre. Specifically, the class looks at how these writers use story to shape their work, how they introduce and explain multifaceted theories for the layperson, and how recent scientific theory has shaped our culture. Students also have an opportunity to write about scientific subjects in their own voice.

MALS 4745 Children's Literature (4 Credits)
This course is an introductory study of all levels of children's literature for the student who is interested in literature, the student who is planning to teach, and for those who are or will be parents. This course introduces students to types, genres, and varieties of literature for reading to children as well as reading by children. The main focus is to remember the joys and wonders of reading as a child and young adult, and to approach the literature selected not as "just a kid's book," but as literature with real quality standards and room for critical and analytical discussions.

MALS 4750 Literature to Film (4 Credits)
In this course, we examine the adaptation of literary works into films. We closely study selected modern literary works and the film interpretations of each work. Focusing on the transition from one narrative form to another, the course aims at enhancing the critical skill of students as well as their creative ability. Therefore, we also have mini scripting workshops as a way of imaginatively highlighting the sort of considerations that go into the making of the film script.

MALS 4755 World Literature (4 Credits)
In this course, students take a literary tour of the world in 70 days. Stops along the way include classic works of the 20th-Century from Africa, Asia, Europe, and Latin America - fiction, nonfiction, and poetry. As with any whirlwind tour, students learn a little about "the other" and a lot about themselves. An emphasis can help us see our own literary and cultural assumptions with new eyes. Students are also asked to reflect on thematic relationships and differences among texts from different times and places.

MALS 4880 From Romance to Realism (4 Credits)
Nineteenth-century Britain witnessed wide-scale social, political, and cultural upheaval: the French Revolution, the expansion of empire, naval dominance, massive political reforms, and ongoing debate about women. This course explores the great writings of the period, examining the transition from the Romanticism of the early part of the century, characterized by the writing of William Wordsworth, S. T. Coleridge, Jane Austen, and Sir Walter Scott, to the realism of the later century employed by such writers as Charles Dickens, George Eliot, Robert Browning, and Alfred, Lord Tennyson. We explore the tensions, gaps, and overlaps between these two categories - Romanticism and realism - and their place in the writing of the authors whose works are frequently labeled as Romantic or realist. The course emphasizes both the literature itself and the cultural forces from which the literature developed.

MALS 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass.
MALIS 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The student produces a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The seminar is independent of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

MALIS 4903 Creative Capstone Seminar (4 Credits)
The Creative Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating creative work and a paper that critically addresses its context in the degree field of study. In the creative paper, the student presents writing and content motivations of the creative work, supports those motivations with professional and academic work in the field, analyzes the creative work in the context of the writing and literature fields, and reflects upon the creative process. The seminar is dependent upon collegial discussion of student writing process and drafts under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. The course structure, facilitated by the faculty member, guides the students through the creative process and writing of an analytical capstone paper; the instructor provides intensive feedback on the capstone process and papers. Students are responsible for generating the course content through ongoing discussion of and peer feedback on the capstone process and individual work, as well as the analysis and contextualization of focused student creative work and papers within the wider degree field of study. Students will professionally and academically communicate their creations and findings through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

MALIS 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

MALIS 4905 Graduate Social Research Methods (4 Credits)
Graduate Social Research Methods is an exploration of the methods and purposes of social science research from the perspective of the researcher as well as that of the informed professional and consumer of information. Students will learn about the process of research, including the development of research questions, the purpose of various social science research methods, the role of professional ethics, and general approaches to the analysis and interpretation of data. Students will develop the ability to read and critique basic social science research articles and to implement simple research designs. Students will develop and write a research proposal around a specific research question informed by a review of the literature. Technical requirements include the ability to read and modify Microsoft Excel documents. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

MALIS 4915 Research in Humanities (4 Credits)
Graduate Social Research Methods is an exploration of the methods and purposes of social science research from the perspective of the researcher as well as that of the informed professional and consumer of information. Students will learn about the process of research, including the development of research questions, the purpose of various social science research methods, the role of professional ethics, and general approaches to the analysis and interpretation of data. Students will develop the ability to read and critique basic social science research articles and to implement simple research designs. Students will develop and write a research proposal around a specific research question informed by a review of the literature. Technical requirements include the ability to read and modify Microsoft Excel documents. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

MALIS 4920 Portfolio Capstone (4 Credits)
The Portfolio Capstone course provides students the opportunity to reflect upon the work they have done throughout their graduate studies at University College and synthesize their learning. Students in the Portfolio Capstone produce deliverables that include: (1) a thorough annotation of their portfolio, a process requiring critical and creative thinking about their educational experience, and (2) a pinnacle project that identifies, analyzes, and elaborates significant themes in their program experience, evaluates their accomplishments, connects their coursework to their professional goals, and assesses those goals in the context of their chosen field. Students must complete the Portfolio Capstone with a grade of B or better.
MALIS 4980 Internship (4 Credits)
The internship is designed to offer students a purposeful experience in a practical, industry-related setting. The internship is an individualized learning experience and a training plan is created for each student in conjunction with the internship site to provide experiences related to the skills and knowledge covered in the certificate and master’s programs.

MALIS 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent Study is offered only on a credit basis and only for degree candidates.

MALIS 4992 Directed Study (1-8 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Library & Information Science (LIS)

Courses
LIS 4000 Foundations of Library, Archival, and Information Science (4 Credits)
An overview of the theoretical and conceptual foundations of library, archival, and information sciences and an introduction to the information professions, including principles, values, professional organizations, publications, current and future challenges.

LIS 4010 Organization of Information (4 Credits)
This course introduces basic concepts in the theoretical, practical, and technological aspects of information organization. It provides an overview of the methodologies for organizing and representing information resources in the library, archives, and museum settings.

LIS 4011 Information Access & Retrieval (3 Credits)
Information retrieval is defined as the process of searching for (and retrieving) relevant information within a document collection. The document collection could be textual (bibliographic records), structured and unstructured data, library databases, web based information resources, multimedia resources, and numerical data. This course introduces students to important access and retrieval tools and technologies used to retrieve information that are relevant to a user’s information need. In addition to the underlying principles and processes revolving around access and retrieval such as text operations, indexing, query languages, and searching, the course covers relevant topics such as library discovery systems, web based information retrieval technologies, and enterprise search systems.

LIS 4015 User and Access Services (4 Credits)
Overview of human information processing and user services in the changing information environment and different communities of practice. This course introduces the concepts of user information needs, seeking, and processing as a foundation for understanding users and designing user-centered information services. The course examines both traditional reference and current/emerging information services in different settings and populations. Course also introduces the concepts of information literacy, user education, and assessment of information services. Recommend prerequisite: LIS 4015.

LIS 4040 Management of Information Organizations (4 Credits)
An introduction to current theory and practice of management in information organizations through the study of organizations, communications, decision making, planning, leadership, human resources and budgeting. Prerequisite: LIS 4000 or instructor approval.

LIS 4050 Library and Information Technologies (4 Credits)
A foundation course on the applications of information and communications technology in libraries and information agencies. Integrated library systems and the acquisition, evaluation, and implementation of library automation solutions, including electronic resource management systems are explored. The course further introduces database design, Internet technology, web services, cloud computing, computer networks, telecommunications, and computer security. Hardware, software, and other productivity tools and utilities from organizations such as OCLC, Amazon, and Google are discussed.

LIS 4060 Reference (3 Credits)
Information resources include a number of different kinds of reference materials in a wide variety of formats. These include guidebooks, encyclopedias and dictionaries, indexes and abstracts, handbooks, bibliographies, biographical finding tools and biographies, data sets and much more. Many of these resources are available on-line, as well as in print and other digital formats. This course will help students identify and evaluate the most likely resources for information queries in particular settings. It will also provide the opportunity to find answers to real research questions. The course will cover the primary resources for the broad disciplines of business, humanities, sciences, social sciences and government publications in print and electronic formats. Class exercises will reflect the multidisciplinary and multicultural interests and characteristics of library users. Prerequisite: LIS 4015. Recommended prerequisites: LIS 4000 and LIS 4011.

LIS 4070 Cataloging & Classification (3 Credits)
LIS 4110 Teaching and Learning with Technology (3 Credits)
A foundation course about the science of effective teaching and the role of technology and media to enhance learning outcomes. This course engages students with skills and knowledge required to incorporate effective media and technology to support the teaching and learning activity. The course primarily explores a wide-range of appropriate educational media and technology that facilitate preparation, presentation, and delivery of content. Most importantly, tools and educational technologies that promote best practices in both classroom interaction and expanding the learningscape outside the classroom are explored. Theories, principles, and strategies supported by the science of learning to improve the learning outcome are discussed.

LIS 4206 Web Content Management (3 Credits)
This course will include instruction in web page creation, selection, and evaluation of web content as well as web site management. Selection of web page content will be discussed in the context of organizational knowledge management and competitive intelligence needs. Differences in information needs for provision of public information and competitive intelligence on Internet pages versus the organizational information needs of Intranets in knowledge management will be explored. This course also will address human-computer interface design to allow web page designers to create effective web pages according to established principles of design.

LIS 4208 Usability (3 Credits)
This course provides an overview of usability analysis and user experience research and introduces students to practical methods and techniques in conduction usability evaluation. The focus of the course will be on the selection of appropriate evaluation methods, as well as planning, designing, and conduction usability evaluations of information services. In addition, the course will discuss the methods and tools of user-experience research, the theoretical underpinnings of usability, and the role of usability in iterative design and the development of information systems.

LIS 4209 Information Architecture (3 Credits)
The web is a complex information environment consisting of billions of web pages, users, and clicks and interaction every single day. This course introduces students to the fundamentals of web information architecture (IA) - a discipline that aims to understand the information needs and activities of web visitors and create design elements to help users find their way around in the complex information environment with ease. The course will cover various strategies and skills, in which information architects structure, organize, label, navigate, and search for information on large websites. A service learning component is built into this course so that students can transfer their IA knowledge and skills to a real-world project. The course is designed following a project management approach and students will be exposed to different activities from start to finish.

LIS 4320 Outreach (3 Credits)
Outreach as a library service is evolving at a rapid pace. This course will examine the history, current practice, and future promise of outreach across all kind of library organizational settings. Topics addressed in this course will include competencies for outreach librarianship; practices in outreach services; definition and scope; planning, designing and budgeting for services; environmental scanning, key performance indicators, and barriers; developing and maintaining partnerships.

LIS 4321 Collection Management (3 Credits)
Topics addressed in this course include collection development and access policies, selection methods and practices, collection assessment, preservation and conservation, de-selection, treatment of rare material, manuscripts and archives, U.S. government publications, non-book and digital formats management, juvenile, and other special materials.

LIS 4330 Library Instruction (3 Credits)
This course provides an introduction to the principles of library instruction and information literacy including a historical overview of their place within the profession. Emphasis is on instruction within an academic setting, but students will learn important educational theories that can be applied to a variety of settings. ACRL and AASL standards will be examined as well as types of instruction, instructional design, collaboration with faculty, various competencies, assessment, and lifelong learning. The class has a strong emphasis on public speaking, communication skills, and the practical application of educational theory.

LIS 4350 Adult Materials & Services (3 Credits)
This course provides the student with an opportunity to explore readers advisory service from a customers perspective. Students study the readers advisory literature and examine all types of genre fiction. Lecture, readings and class discussion will focus on specific genres and authors within them. Students will also be required to read in all the genres.

LIS 4362 Government Publications Resources (2 Credits)
The U.S. government is the world's most prolific publisher, both for tangible and electronic formats. This class will cover the origin, nature, and scope of federal publications and issues related to management, organization, access, and reference services in a federal depository library. Technical/managerial aspects will cover acquisitions, organization, maintenance, bibliographic control, and technical processing. The reference component will cover congressional, presidential, executive branch, and judicial publications in all formats, together with their finding aids.

LIS 4370 Database Searching (2 Credits)
Nearly all historic, traditional search and retrieval tools such as library catalogs, indexes, microform guides, and archival finding aids have migrated to web-based systems. This course explores the complexities of searching for materials in an online environment. Topics to be covered include database and field structures; controlled vocabularies and indexing schema; search syntaxes, reference linking; data exploring and manipulation; non-textual database searching including numerical, image, and multimedia data; metasearch and web-scale discovery technologies.

LIS 4372 Medical Librarianship and Resources (3 Credits)
Overview of information sources and services in health sciences libraries. Principles and practices of medical librarianship as well as sources and services in consumer health information, evidence-based resources, drug and chemical information, systematic reviews and guidelines are covered. In addition, concepts related to health informatics, including search tools and technologies for gene and protein information are discussed.
LIS 4374 Law Librarianship and Resources (3 Credits)
This course provides students with an opportunity to explore the unique challenges that reference services pose in a legal environment. Lecture, readings, and class discussions as well as practical experience allow students to synthesize course content. Prerequisite: LIS 4060.

LIS 4404 Metadata Architectures (3 Credits)
Provides an overview of the principles and theories of metadata development in the digital environment. Focuses on the design and application of metadata schemas for distinct domains and information communities, issues in metadata interoperability, vocabulary control, quality control and evaluation. Examines international standards, activities and projects. Prerequisites: LIS 4010.

LIS 4508 Early Childhood Materials and Services (3 Credits)
This course prepares librarians to work with infants, toddlers and preschoolers, from birth to age five, and their parents and caregivers, in libraries and pre-school settings. Topics include child development, picture books, materials selection, collection development (print and non-print), programming, story time techniques and promotion. Skills for incorporating early literacy information into early childhood programs and services using "Every Child Ready to Read" methods are introduced and appropriate materials to teach and model the skills are emphasized. Students practice story time techniques and methods for engaging children and adults in pre-literacy skills.

LIS 4510 Children's Materials and Services (3 Credits)
This course is designed to prepare librarians to work with children (ages birth to 12 years) in school and public libraries. Topics covered include children's development, reading interests and needs, materials selection, collection development (including print and non-print materials), discussions of specific genres, reading motivation skills, designing a children's area, and developing various programming ideas. Students read/view/listen to and evaluate a wide variety of materials for and about this age group, prepare and present booktalks and stories, become familiar with review sources, and design a one-year plan for youth services in a school or public library.

LIS 4511 Storytelling (2 Credits)
This course teaches librarians the skills, techniques, and procedures for developing and implementing a storytelling Program for children, young adults, or adults. The history of storytelling, its place in the school or public library, and in our culture as a whole, will be included. Students will read a wide variety of stories, learn techniques to adapt them to various settings and groups, demonstrate their ability to tell stories and to develop storytelling programs for two different age groups.

LIS 4520 Young Adult Materials & Services (3 Credits)
This course prepares librarians to work with young adults (ages 12-18) in school and public libraries. Topics covered include young adult development, reading interests and needs, materials selection, collection development (including print and non-print materials), and discussions of specific genres, reading motivation skills, designing a YA area, programming, and intellectual freedom issues. Participants will read/view/listen to and evaluate a wide variety of materials for and about this age group, prepare and present booktalks, become familiar with review sources, and design a one-year plan for a YA department in a small school or public library.

LIS 4535 School Libraries (2 Credits)
This course is a study of school libraries and the characteristics that make them different from other types of libraries. There is an emphasis on information literacy and educational technology standards as they apply to school libraries, the collaborative instructional process, and standards-based instruction including summative and formative assessment revision techniques. Collaborative planning and curriculum development through the school library program is addressed, as well as an understanding of networks and instructional delivery systems. Various strategies to improve students' reading will be addressed, as well as a variety of methods for promoting children's and teen literature through collaboration with classroom teachers. Administration of the school library is addressed in a review of mission statements, goals and objectives, strategic planning, policies and procedures, and communication with school administration. The discussions will create an awareness of the important of leadership and professionalism through educational and professional organizations, lifelong learning, educational research, and mentoring. Most of the concepts in this class will have been introduced in other courses. This class will specifically tie the concepts to the school library setting.

LIS 4610 Alternative Careers-Librarians (3 Credits)
This course will explore the many different types of jobs and careers open to individuals with library-type skills. It will cover both traditional library jobs, for example, law librarianship, archivist work, corporate librarianship, school librarianship, and records management, as well as non-traditional career choices such as information brokerage, publishing, and information advising.

LIS 4700 Topics in LIS (1-5 Credits)
This flexible library and information science course will provide students with the opportunity to explore issues of current importance in the field. Topics and credit hours will vary and will address subjects such as emerging technologies, new methodologies, specific reader services, standards and practices, and social and economic trends in the profession. Prerequisite courses may be recommended or required as determined by the content of the specified course.

LIS 4701 Reference Topics (1 Credit)
This course provides the student with an opportunity to explore information resources in specific subject materials. Lecture, readings, class discussions, and exercises will address all formats of materials including print, electronic, and web resources.

LIS 4702 Type of Library: Topics (2 Credits)
This course is a study of specific types of libraries, such as public libraries, academic libraries, and special libraries, and the characteristics that make them different from other types of libraries. Specific topics covered will depend on the type of library, but may include collections, management, budgets and funding, as well as professional competencies.
LIS 4800 Intro Archives & Records Mgmt (3 Credits)
This course provides an introduction to the objectives and methods of the archival and records management professions including an overview of terminology, issues, and common practices. The systematic control of records throughout their life cycle from creation through processing, distribution, organization, retrieval and archival disposition will be covered. Prerequisites: LIS 4000 and LIS 4010; or instructor permission.

LIS 4805 Records Management (3 Credits)
This course covers the establishment of information maintenance plans, evaluations and audits of records and information management Programs, the records and information survey, retention policies and legal requirements, and techniques for integrating automation to records and information management.

LIS 4806 Advanced Archives (3 Credits)
In this course, students will be given the opportunity to put into practice basic archival principles and functions. Students will perform the actions of appraisal, accessioning, arrangement, description, and access solution review for both analog and digital archival collections. Additionally, students will be given the task of providing solutions for new paradigms in archival processing such as creating a web archive, processing email collections, and capturing social media content. The course will be a combination of lecture, demonstration, lab time, discussion, and projects.

LIS 4810 Digital Libraries (3 Credits)
This course provides a theoretical foundation for the study of digital libraries and discusses the technological, organizational, social, and legal issues associated with the development and use of digital libraries. Through this course students develop an understanding of digital library components and explore theoretical and practical approaches to constructing, maintaining, and evaluating digital libraries. Topics examined include digital library definitions, design and architecture of digital libraries. Topics examined include digital library definitions, design and architecture of digital libraries, information access in the digital library environment, digital library users and user services, data repositories, digital curation, digital preservation, digital library evaluation, and digital librarianship.

LIS 4820 Digitization (3 Credits)
The course offers an introduction to issues and trends in planning, developing and managing digitization projects at libraries, archives, and museums. The focus of the course is on the conversion process of analog materials into the digital format, online delivery, and preservation of master files. The course discusses collection development policy for digital projects, copyright, digital imaging technology, digitization standards and best practices for text, images, audio, and video, metadata for cultural heritage collections, delivery platforms, preservation, project management, sustainability, documentation, promotion, and evaluation of digital projects.

LIS 4830 Building Digital Collections (3 Credits)
This course provides a theoretical foundation and practical experience in building interoperable digital collections. It will introduce students to all aspects of building digital collections, including planning, user needs analysis, selecting standards and content management systems, creating digital objects and metadata, designing user interface, preservation of digital objects, and management and evaluation of digital collections. Topics covered include content creation standards and best practices, metadata, interoperability, sustainability, scalability of management systems, and concepts related to designing access tools and delivery systems. Discussion of technology and its application to digital library practices will be a major theme. The course will be a combination of lecture, discussion, and problem solving. It requires participants to conduct independent research and writing. Critical reading of course materials is essential to stimulate active participation in class discussions.

LIS 4850 Digital Preservation (3 Credits)
Students will learn the principles and practices of preserving access to information encoded in digital form. They will learn how to assess digital preservation needs within an institution, write digital preservation policies, and how to collect and present data to make a case for acquiring funds for digital preservation activities. Students will learn the basics of digital information encoding as it applies to the technological aspects of digital preservation, and will learn about current tools and practices used to preserve access to digitally encoded information over time. The course will be a combination of lecture, discussion, and problem solving. It requires participants to conduct independent research and writing. Critical reading of course materials is essential to stimulate active participation in class discussions.

LIS 4901 Capstone Course (4 Credits)
Students in this course will design and complete a project to demonstrate the ability to integrate and synthesize their masters course work and apply their knowledge to a topic. The class meets with an instructor regularly over the nine-week summer quarter. The instructor monitors and guides the students to ensure that they complete the phases of the project in accordance with the proposed timeline and goals. Evaluation will be based on individual performance, with respect to the quality and professionalism of the research, the management of the project, and analytical and writing skills. Prerequisite: Minimum of 45 quarter hours of graduate LIS course work completed, including all core courses, a proposal approved by the academic advisor and faculty permission.

LIS 4902 Internship (1-4 Credits)
This course will offer up to 4 credits for an internship position in libraries and archives. Students are encouraged to gain practical experience.

LIS 4910 Culminating Internship (4 Credits)
This course is designed to supplement the classroom experience by giving students practical experience working in a library or information agency. Various options are available to students depending on their areas of interest and specialization. Opportunities for experience include fields of medicine, law, art, public, and academic libraries. It is the responsibility of the students to select a practicum site and a field supervisor, who must be approved by LIS faculty. One hundred hours of service over a 10-week quarter are required. The student, faculty, and field supervisor will determine specific requirements for the final paper or report. Students must notify the LIS academic advisor one quarter before enrolling in Culminating Internship. Prerequisites: Completion of a minimum of 38 quarter hours of graduate LIS coursework, including all core courses.
LIS 4911 Elementary School Culminating Internship (2 Credits)
This course is designed to provide elementary school practical experience for teacher-librarians by working a minimum of 80 hours in an elementary school library. Prerequisite: Students must have completed most of the required coursework for the degree before enrolling in the Practicum.

LIS 4912 Secondary School Culminating Internship (2 Credits)
This course is designed to provide secondary school practical experience for teacher-librarians by working a minimum of 80 hours in middle or high school library. Prerequisite: Students must have completed most of the required coursework for the degree before enrolling in the Practicum.

LIS 4920 Service Learning in LIS (1-4 Credits)
This course is designed to supplement the classroom experience by giving students an opportunity to participate in a service learning project. Students will propose an independent study component highlighting the learning aspects of the project. The experience should provide practical work in a library or information agency. Various options are available to students depending on their areas of interest and specialization. Opportunities for experience include many areas related to the information needs of an underserved population. It is the students responsibility to select a site and a field supervisor. The student, faculty coordinator, and field supervisor will work together to establish the goals and objectives of the experience. A minimum of 40 hours of service is required for two quarter hours of credit.

LIS 4991 MA Independent Study (1-10 Credits)
Independent study projects allow students more in-depth investigation of the many facets of library and information science. Students must work with an approved faculty advisor and submit a proposal outlining the objectives, scope, outcomes, and evaluation criteria. The faculty advisor and the department director must approve proposals. Prerequisites: Completion of a minimum of 30 quarter hours of graduate LIS coursework, including all core courses and a minimum GPA of 3.0.

LIS 4992 Directed Study (1-10 Credits)

**MBA - General (MBA)**

Courses

**MBA 4000 Business Speaking Lab (4 Credits)**
Provides students whose primary language is not English the opportunity to enhance their English language skills. No credit toward degree.

**MBA 4001 Business Writing Lab (4 Credits)**
Provides students whose primary language is not English the opportunity to enhance their English language skills. No credit toward degree.

**MBA 4010 Business Speaking Lab II (1 Credit)**
Provides students whose primary language is not English the opportunity to enhance their English language skills. No credit toward degree.

**MBA 4011 Business Writing Lab II (1 Credit)**
Provides students whose primary language is not English the opportunity to enhance their English language skills. No credit toward degree.

**MBA 4050 Bus Innovation Challenge I (4 Credits)**
Apply business skills to a live project in the form of a competition. Learn to work with remote teams using virtual collaboration software. Learn to use brainstorming and innovation techniques to design, recommend, and build break-through solutions to solve a problem or take advantage of an opportunity.

**MBA 4060 Bus Innovation Challenge II (4 Credits)**
Apply business skills to a live project in the form of a competition. Learn to work with remote teams using virtual collaboration software. Learn to use brainstorming and innovation techniques to design, recommend, and build break-through solutions to solve a problem or take advantage of an opportunity.

**MBA 4110 Enterprise Challenge (2 Credits)**
In recognition of the special value that comes from deep immersion into a subject, students in this course will start a business. Students will incorporate their business, put together an advisory board, identify customers, write an executive business summary, and have a professional business presentation. The final class will consist of presentations to entrepreneurs, representatives from the financial sector, and industry representatives. Students will learn about business by starting a business. This is a highly unstructured class. Students have to structure their projects and present to investors just as an entrepreneur would do.

**MBA 4120 Strategic Transitioning from Uncertainty to Risk (2 Credits)**
Strategically Transitioning from Uncertainty to Risk is a course that introduces the student to the confluence of entrepreneurship and strategic management. Students will use an organized approach to rapid design leveraging their business ideas created for the Enterprise Challenge in order to develop a sustainable competitive advantage based upon iteration of the business model. Iteration that is discovered through an analysis of the existing business model and the competitive landscape that includes consideration of competitors, customers, suppliers, substitutes, and new entrants. Opportunities to create competitive advantage are analyzed through the design of generic competitive strategies in domestic and international markets, alliances and partnerships, and corporate diversification.

**MBA 4130 Corporate Financial Reporting (2 Credits)**
The purpose of this course is to provide students with an understanding of the financial statements issued by companies to external parties, such as shareholders and creditors. The course covers the fundamentals of accounting, from recording economic events in the accounting records to the preparation of the company’s financial statements, as well as major transaction categories and accounting policies of business firms and their financial statement implications. In addition, the course introduces students to publicly-traded companies’ Form 10-K annual reports.
MBA 4140 Ethics in Practice (2 Credits)
The fundamental purposes of the course is to 1) engage students in ongoing reflection and dialogue about their responsibilities as managers and leaders, 2) understand cognitive, behavioral, and principled approaches to ethics, and 3) advance your job prospects by focusing on ethical skills, practices, and exercises that will make you better managers and leaders. Of particular emphasis are the ethical and social responsibilities of managers and leaders, especially as it relates to numerous stakeholders. This course focuses on a systems-oriented approach to the ethical and social relationships of business leaders and business organizations in their communities. These roles will be examined by analyzing a variety of representative issues that characterize current concerns with business ethics. The goal is to provide students with generalized understanding and skills that can be employed in dealing with other issues that may emerge in their business careers. While the core of the curriculum will strengthen foundation business and management skills and competencies, the assumption of this course is that all of these skills and competencies must be grounded in a solid ethical and social commitment to values and principles. This course attempts to explore these values in various business contexts.

MBA 4150 Understanding Your Market (2 Credits)
This course focusing on “knowing your customer” through the Segment, Target and Position Model. The STP Model consists of three steps that help you analyze your offering(product or service) and the way you communicate its benefits and value to specific groups. STP stands for: Step 1: Segment your market. Step 2: Target your best customers. Step 3: Position your offering. This model is useful because it helps you identify your most valuable types of customer, and then develop products and marketing messages that ideally suit them. This allows you to engage with each group better, personalize your messages, and sell much more of your product. This course explores the development, evaluation, and implementation of marketing strategy in complex environments. The course deals primarily with an in-depth analysis of a variety of concepts, theories, facts, analytical procedures, techniques, and models. The course addresses strategic issues such as: -In what environment do we operate? What impact will the environment have on marketing decisions? -How should the market be segmented for best return on investment? -Which market should be targeted to achieve highest profitability? -How shall we position the offering in the minds of our customers? -Which marketing models are most appropriately applied to the business problem at hand?

MBA 4160 Opportunities with Data Skills I (2 Credits)
Develop an understanding of the basic concepts of probability and statistics, and how they relate to managerial type problems and decision making. Develop experience performing and interpreting standard data analysis methodologies. Obtain familiarity with a statistical software package.

MBA 4170 Navigating the Global Economy (2 Credits)
Businesses today, whether domestic or multi-national, are part of a complex global economy. The challenges firms face today—global financial crises, corruption, and finite resources, to name a few—are impossible to tackle without a solid understanding of the broader political and economic institutions and environment. This class will provide a foundation to students’ understanding of the international political economy, international institutions, and trends and patterns across developed, emerging, and developing countries. Students will explore some of the myths of the global economy, the variations of capitalism that exist across time and space, as well as the role of international institutions and emerging economies in shaping the business environment.

MBA 4205 Strategic Career Management (4 Credits)
Strategic Career Management offers graduate business students a theoretical and practical understanding of career management within the context of the current and projected labor market. The course facilitates the development of personal short- and long-term career action plans, and provides students with the tools and frameworks for developing other employees’ careers once they are in managerial roles. This course is offered in conjunction with the Suitts Center for Career Services. Major components of the course include in-depth self-assessment, labor market assessment (macro and micro), creating a career development and action plan, positioning and branding oneself within the marketplace, and lifelong career management. Prerequisite or Corequisite: BUS 4610.

MBA 4210 Foundations I (4 Credits)
Language, theoretical concepts, quantitative tools that are foundations for business decisions; theory/practice of tools from financial accounting, microeconomics, financial management, information systems in logical sequence. Successful completion of any pre-courses.

MBA 4214 Creating Community Capital: The Social Good Challenge (2 Credits)
Creating Community Capital: The Social Good Challenge is a Challenge Driven Educational (CDE) course that builds off prior foundational and experiential courses. The course is a practicum designed to address social issues; its purpose is to provide the opportunity for students to address a social issue with the discipline of business tools and techniques. Through the Challenge experience, students learn first-hand how to use business skills for social change as they design organizational initiatives to address social problems. The goal for students will be to create a novel response to a social problem that is more effective, efficient, sustainable, or just than current responses. The course emphasizes learning by doing, supported by intensive faculty coaching and field work. A small number of formal class sessions will provide structure in the course, and will focus on collaborative problem solving; the remainder of time students will engage with community for-profit, non-profit, and government organizations to design and execute a social good initiative.

MBA 4220 High Performance Management I (4 Credits)
High Performance Management I focuses on development of management skills that affect individual and group performance in organizations. This course brings together concepts from organizational behavior, organization dynamics, change management and dispute resolution. Through creative instruction and experiential learning, students will develop expertise and understanding of organizational effectiveness through planning, motivation, negotiation, team-building, and leadership.
MBA 4222 Leading Effective Organizations (2 Credits)
This course introduces the human side of organizations. Its theme is leading people and organizations for high performance in changing times. It includes traditional organizational behavior concepts such as motivation, power and politics, organizational design and culture. The global context of business is emphasized as a central factor in leading organizations; and the course includes integrating themes of sustainability, engagement, and inclusion – creating organizations that are sustainable, that attract and engage talented people, and that exemplify inclusive excellence. Critical and analytical thinking skills are developed and reinforced throughout the course.

MBA 4230 Managing Cost Information (2 Credits)
Integrates technical knowledge and managerial skills, with key business issues; in-depth cases, diverse topics such as financial planning, market segmentation, budgeting, strategy development, operations management, information systems; breadth of case studies address decision-making in small start-up firms to large multi-national organizations; internal aspects of organization, external forces affecting organizational performance. Prerequisites: MBA 4211, 4210.

MBA 4235 Profit Planning and Measuring Performance (2 Credits)
Profit Planning and Measuring Performance provides students with the necessary skills to effectively perform planning and performance evaluation processes. In this course, students will learn how to prepare operating and capital budgets, analyze budget variances, identify key performance indicators, and design management control systems. Prerequisite: MBA 4234. Concurrent enrollment allowed.

MBA 4250 Values in Global Marketplace (4 Credits)
This course examines the ethical, legal, and public policy dimensions of business in the global marketplace. Prerequisite: BUS 4200.

MBA 4260 MBA Internship (0–8 Credits)
The internship typically is taken in either the third or fourth quarter of the MBA program and is a fulltime work experience (roughly 400 hours of work) at a sponsoring company. A participant can register for additional courses beyond the internship with approval of the sponsoring company. Prerequisites: MBA 4220, MBA 4231, BUS 4300.

MBA 4270 Integrative Challenge (4 Credits)
Field study experience at end of MBA program to provide students with exposure to current, relevant and challenging issues faced by Colorado businesses; practical application of business knowledge, managerial skills, professional competencies designed to integrate all graduate program elements and provide distinctive advantage in career development. Prerequisites: MBA 4221, 4232.

MBA 4280 Mastering Managerial Financial Competencies I (2 Credits)
This course and Mastering Managerial Financial Concepts II discusses basic principles of finance and provides practical tools for financial decisions and valuation. The purpose of these two courses is to give students a thorough introduction to the basics of finance. You will learn how to value distant and uncertain cash flows. You will learn how to apply the tools to make investment decisions for a firm. You will also survey the fundamental drivers of financing policy in a corporation and learn how financial markets interact with businesses. Unless you understand finance, you cannot have a thorough understanding of a company’s decision-making process. Prerequisites: MBA 4130. Concurrent enrollment allowed.

MBA 4285 Mastering Managerial Financial Competencies II (2 Credits)
This course and Mastering Managerial Financial Concepts I discusses basic principles of finance and provides practical tools for financial decisions and valuation. The purpose of these two courses is to give students a thorough introduction to the basics of finance. You will learn how to value distant and uncertain cash flows. You will learn how to apply the tools to make investment decisions for a firm. You will also survey the fundamental drivers of financing policy in a corporation and learn how financial markets interact with businesses. Unless you understand finance, you cannot have a thorough understanding of a company’s decision-making process. Prerequisites: MBA 4280. Concurrent enrollment allowed.

MBA 4290 Economics for Decision Making (2 Credits)
MBA 4290 emphasizes the standard tools of microeconomic analysis for the business manager. The focus is on managerial decision-making, and to emphasize real world economic decision makers for firm managers. The goal is for students to understand the current business environment and possess the tools to make sound managerial choices. The course will emphasize analytical problem solving to highlight the decisions managers must make under constrained conditions. There will be a series of short quizzes to emphasize these skills based on class lectures and homework. We will also use case studies to develop practical insights into managing the firm’s resources to achieve competitive advantage.

MBA 4310 Experiencing Strategic Management through Corporate Challenges (2 Credits)
Experiencing Strategic Management through Corporate Challenges is a Challenge Driven Educational (CDE) course that builds off several previous foundational and experiential courses. Students will leverage the content from accounting, finance, management, marketing, economics, globalization, business stats and analysis in order to engage with corporate partners to examine real-world problems. Students will address issues involving vision / mission / values of the organization, the key industry forces that influence the corporate environment, ways of maintaining and sustaining a core competency, and critical strategy implementation issues that lead to a competitive advantage. The course will be offered in a work-shop atmosphere in which students will meet in class once a week and the remaining time outside of the classroom where students are expected to apply the various aspects of strategic analysis and management.

MBA 4340 Creating Sustainable Enterprise (2 Credits)
All students should be able to demonstrate an understanding of: (1) the concept of sustainability as a decision-making model; (2) the environmental, cultural, social justice, equity, and economic issues inherent in principles of sustainability; (3) the intra- and inter-generational aspects of sustainability; (3) the interconnectedness of individuals, societies, eco-systems, cultures and cultural products in understanding issues of sustainability; and (4) the roles that multiple academic disciplines and perspectives play in identifying, understanding, and addressing issues of sustainability. All students should be able to demonstrate the ability to: (1) apply critical thinking and analysis toward understanding and solving problems related to sustainability; (2) communicate about issues of sustainability across academic disciplines and to non-academics.
MBA 4350 Bien’s Int Bus Exp in Europe (1-4 Credits)
The objective of this course is to provide an international experience to our students who are interested in international business. This is achieved through field trips, academic and professional presentations, journaling and cultural immersion. Students reflect on similarities and differences in business practices and broader cultural issues that exist between the U.S. and Scandinavian countries.

MBA 4351 Doing Business in Europe (4 Credits)
The objective of this course is to expose students to issues of international business and cultural diversity through field trips and academic and professional presentations in four Scandinavian countries. Topics to be covered include managing production and operations, international marketing, the European Union, personnel development, cross-cultural aspects of international management, and the role of government. The course includes office visits and plant tours of both large and small production facilities and presentations by industry management. The course is intended also to be an interesting and informative cultural experience with visits to a Viking museum, a ship museum, several castles, and with time for individualized travel in Europe after the course is over. A research project of 15-20 pages is required and due at the end of the summer quarter.

MBA 4360 Opportunities w/ Data Skill II (2 Credits)
Develop an understanding of more complex concepts of probability and statistics, and how they relate to managerial type problems and decision making. Develop experience performing and interpreting complex analysis methodologies. Obtain further familiarity with statistical software packages. Develop experience integrating data skills with project for Corporate Challenge. Prerequisites: MBA 4160.

MBA 4410 Global Challenge I (2 Credits)
This course provides you with the opportunity to apply what you have learned in the first year of your Denver MBA program with a live client. You will work on a project focused on entrepreneurship, social good, or a corporate partner. Scoping the project will be a key learning outcome, as will learning about cross-cultural issues.

MBA 4415 Global Challenge Trip (2 Credits)
This course provides you with the opportunity to apply what you have learned in the first year of your Denver MBA program, plus what you learned on the ground during your travel, on a project with a live client. You will work on a project focused on entrepreneurship, social good, or with a corporate partner. The key learning outcome is how to pivot based on your learning while in the host country.

MBA 4470 International Business Theory in Practice (2 Credits)
International business is its own field of academic study with rich theories and frameworks. Facing a dynamic, and increasingly chaotic, external business environment, business students need to understand both the theories and how they can be applied. To that end, this course draws on the rich international business writings to better understand global business practices and to ultimately make better business decisions. Students will actively explore current international business issues, will interact with local international business leaders, and learn specific concerns facing key regions or countries globally. Prerequisite: MBA 4170.

MBA 4490 Global Macroeconomics (2 Credits)
Managerial macroeconomics covers the theory and practice of modern macroeconomics. It teaches students how private market forces and government policy decisions drive fluctuations in the global economy and affect the business environment. It explores issues related to inflation, interest rates business cycles, and monetary and fiscal policies. The course will use case studies to analyze real-life macroeconomic issues. Students are encouraged to investigate the potential and limitations of macroeconomic theory with real-world problems, and the goal is to understand the macroeconomic environment. Prerequisites: MBA 4290.

MBA 4510 Global Challenge II (2 Credits)
This course provides you with the opportunity to apply what you have learned in the first year of your Denver MBA program, plus what you learned on the ground during your travel, on a project with a live client. You will work on a project focused on entrepreneurship, social good, or with a corporate partner. The key learning outcome is how to pivot based on your learning while in the host country.

MBA 4540 Business, Government and Society (2 Credits)
This course is a cornerstone graduate course delivering a comprehensive introduction to major topics, theories and issues relevant to business in its interactions with Business & Society.
MBA 4550 Strategic Marketing Decision-Making (2 Credits)
Strategy sets the direction for an enterprise, all of its employees, programs, tasks and activities. All must be planned and executed “on strategy”. Marketing Strategy essentially is the overall company’s strategy applied and executed within the Marketing Department. Deciding upon a strategy offering the best opportunities for the organization to succeed is critical. Being able to implement it effectively is essential. Making informed strategic marketing decisions in the real world is highly complex, challenging and demanding. Choosing among strategic alternatives requires qualitative and quantitative analysis of options, making tough choices and trade-offs, and assessing requirements for executing a bona fide option successfully. Case analysis provides the primary learning methodology for the course. This is a case-based course. This course effectively approaches strategic decision-making through the lens of Marketing; that is, through marketing-focused cases and decisions, although making successful decisions in a marketing context requires evaluating them in a larger strategic perspective and company context. It also requires thorough understanding and application of basic marketing concepts, industry (external) and company (internal) situation analyses, and identification of critical issues and success factors, and the application of basic financial analysis—all of which are foundation blocks for making successful strategic decisions out in the real world. Each case features a specific marketing situation that serves as a “portal” for strategic decision-making. The specific situations include pricing, distribution, new product introductions, branding, communications, sales and distribution and the like. Every case evaluation, like every real-world decision, requires financial analysis. Students must be able to analyze income statements and selective balance sheet factors. Marketing and financial metrics play roles in case strategic decision-making. (Students will be provided with a financial “refresher” package in the first class that includes problems representative of those the cases contain. A student who struggles with the practice financial problems is likely to struggle analyzing cases in the course. The good news is that this course provides a great opportunity to learn how to use financial analytical tools before it really counts—later in your careers. Suggestion: seize this opportunity to improve your financial skill set; you will need it someday.) The course involves identification, synthesis, integration and application of basic marketing concepts within strategic decision-making contexts. Core marketing concepts are reviewed in classes on a high level. (PowerPoint slides on each review topic will be posted in Canvas, and these become the de facto “textbook” and reference for course content.) Prerequisites: MBA 4150.

MBA 4610 Law and Public Policy (4 Credits)
This course is designed as a survey to cover a broad scope of basic concepts, along with their application to three major policy areas in the final weeks of the course. The course begins with an exploration of the role of business in the public policy environment. The course then examines the legal environment of business, including key elements of private law (contracts, agency, torts, and business organization law) and public law (employment law, administrative law, antitrust law, environmental law, and intellectual property law). In so doing, the course finally applies basic concepts from law and public policy, along with some concepts from economics, to examine three crucial policy areas related to business: regulatory policy, competition policy, and natural resource policy.

MBA 4620 Leadership Capstone: Integration and Transition (2 Credits)
This course is a capstone course to integrate the leadership learning and development across the two-years of the MBA. In it, students will explore further their three core areas of development as a leader: 1) Emotional Intelligence; 2) Self-Leadership, and 3) Capacity to Develop Teams. These areas of study are reflective of interconnected areas of development within the Daniels Leadership Development (p3) model. At its core the model investigates purpose, principles, and presence, and in its outer ring explores perspective, partnerships, and practices. Students in this course will deepen their understanding and fluency with the P3 model by exploring the particular areas of emotional intelligence, self-leadership, and team building. They will conclude the course with a study of models of organizational and individual change and transition, in preparation for their own professional transition and deepening of capacity to lead change. The course is designed to be experiential – work will be done in the context of a team – and reflective, with an emphasis on self-reflection and individual learning. The course is organized to provide students with a platform for integrating learning during the last quarter of the MBA.

MBA 4670 Global Issues (2 Credits)
Develop a personal viewpoint regarding the “Global Tilt.” Explore current global issues and their implications for business and careers. Develop future scanning strategy/skills to keep up with global issues. Assess the changing “permeability” of national borders. Prerequisites: MBA 4470.

MBA 4690 Enterprise Solutions (4 Credits)
A practical application of key business and managerial knowledge, skills, and competencies designed to integrate all graduate program elements and provide students with a distinctive advantage in career development.

MBA 4691 Project Analysis 1 (2 Credits)
Capstone class for MBA program. Students should be full-time MBA students in their final 2 quarters of the program or receive faculty permission.

MBA 4692 Project Analysis 2 (2 Credits)
Students should be full-time MBA students in their final 2 quarters of the program or receive faculty permission. Students must have taken Project Analysis 1 to enroll.

MBA 4980 MBA Internship (0-10 Credits)
Denver MBA students have an opportunity to take for-credit internships. You and your supervising professor should develop an internship proposal which contains (a) a description of the experience and why it is important, (b) a detailed outline of the paper you will submit. You may or may not get paid for the internship work.

MBA 4991 Independent Study (1-10 Credits)
MBA 4992 Directed Study (1-5 Credits)

Management (MGMT)
Courses

**MGMT 4201 Persuasive Communications - Digital, Oral, Written (2 Credits)**
Many surveys show that employers want job candidates with strong communication skills. Similarly, success in a graduate program requires the ability to articulate your thoughts clearly and persuasively in all forms. In this course, we study the principles of effective oral, written, and digital communications. We accomplish the learning outcomes of this course by critically examining yours and others’ communications styles, practicing oral and written forms, maintaining effective social media presence, and delivering impactful and persuasive presentations.

**MGMT 4202 Profiles in Leadership and Management (2 Credits)**
This course is a seminar designed to provide exposure to mid- to high-level executives and the decisions they face. A diverse set of speakers are invited to class to describe their career path, views on leadership and management, and particularly challenging decisions they faced during their career. The speakers are selected to represent a variety of business types both for-profit and non-for-profit, career paths, and leadership and management perspectives. The course encourages students to evaluate the speakers in the context of selected dimensions of leadership and management.

**MGMT 4203 Foundations of Strategy (2 Credits)**
Foundations of Strategy is a course that introduces the student to the theory of strategic management. Students will develop the ability to think strategically by examining a firm’s mission, vision, and values, business model and financial health of the organization. After assessing the firm's strengths and weaknesses, the focus is then placed on the industry and competitive environments using a series of tools and frameworks that result in identifying opportunities and threats. Synthesis in the course takes place when the student is able to provide strategic recommendations that generate added value and competitive advantage for the firm. Learning is facilitated through a work-shop atmosphere that uses case studies of industry leaders currently in the news. Principal Content Elements (i.e., modules / weeks): Intro to Strategy Business Models Competitive Advantage Role of Mission / Vision / Values Evaluating a Company’s Resources, Capabilities, and Competitiveness Evaluating the External Environment Generic Competitive Strategies Strengthening a Company’s Competitive Position Strategies for Competing in International Markets Corporate Strategy – Diversification and the Multi-business Company Strategic Alliances and Partnerships Strategy Execution and Implementation Challenges.

**MGMT 4204 Ascend Industry or Topic Ideation and Research (2 Credits)**
This is the first of a three Ascend course series in the Master of Science in Management Program. During this self-directed and faculty supervised project course the student will choose one of the following two options: A. In consultation with the supervising faculty member, the student will choose an industry and thoroughly research and analyze industry conditions using an appropriate theoretical framework, and explore the entry and mid-level career opportunities in the industry. In addition, the student will choose and approach a company in this industry that will provide him/her with a two-quarter internship opportunity. B.

**MGMT 4240 Global Business Imperative (4 Credits)**
Conducting business outside the United States involves a unique set of challenges. Diverse cultures, laws, languages and currencies add to the complexity of putting together and managing international business ventures. This course will help you to prepare for these activities by exploring ten questions, which focus critical aspects of international business. The primary vehicle for accomplishing this will be class discussions built around presentations by the instructors as well as cases and exercises dealing with a range of issues, countries, and industries.

**MGMT 4280 Business Design (4 Credits)**
Each student learns an organized approach to rapid design of a business with a sustainable competitive advantage based upon innovations(s) to the business model. That innovation(s) is discovered through an investigation of the existing business models and the competitive landscape including: suppliers, customers, competitors, substitutes and barriers of entry. Specific opportunities are identified through investigation of the following: industry, market, and competition. Opportunities to create competitive advantages are investigated through the design of strategies in: marketing, sales, operations, human capital, social responsibility, financing, corporate governance and technology. The course offers a workshop atmosphere in which students are expected to apply and discuss the various aspects of business planning. The result is a written business plan and presentation to funding sources reflecting a sustainable competitive advantage and creation of a defensible market.

**MGMT 4301 MS Management Organizational Behavior (2 Credits)**
Organizations can be mysterious places, often very difficult to understand. Spend any amount of time in an organization – large or small, business, not-for-profit, government – and you’ll probably find yourself scratching your head. “Who came up with that idea?” “Why does this always (or never) happen?” In this course you will get a framework that will help you make sense of these questions. You will come to understand how some decisions that seem to make no sense to you, make eminent sense when viewed from a different perspective. You will get a framework for examining behaviors in organizations. You will also learn your particular perspective on organizations and how it can limit your ability to truly understand differing points of view. Drawing on several disciplines – Sociology, Social Psychology, Political Science, Cultural Anthropology, Symbolism – this course will help give you the tools necessary to understand why things happen in organizations the way they do, and how to adapt your style to be a successful and influential member and leader in your organization.

**MGMT 4302 MS Management Human Resource Management (2 Credits)**
A management course for graduate students grounded in a strong foundation of real experiences managing and leading Human Resource organizations. This course is designed to unify strategy, human resource strategy and principles of management in a highly interactive format employing multiple learning methods.
MGMT 4303 Conflict and Change Management (2 Credits)
This course will cover the theory and practice of conflict management, negotiation, and change management in the workplace. Change is an inevitable part of organizational life, and competencies in managing change along with resulting conflicts, is a critical skill set for both new and experienced leaders. Using established models, the course will explore sources of, and strategies for dealing with, conflict at multiple levels: individual, dyadic, team, and organizational. Methods of principled negotiation will be presented and practiced during the course.

MGMT 4304 Project and Budget Management (2 Credits)
This course will introduce the student to the key elements of a successful project delivery system. The project delivery system consists of five components: training, tools, core skills, company support, and a project delivery process. The process is the means by which projects are consistently and efficiently planned, executed, and completed to the satisfaction of clients. The system is aligned with the principles of a total quality improvement program, namely client focus, project manager commitment, evaluation and measurement, corporate support, and continuous improvement.

MGMT 4305 Business Model Design and Innovation (2 Credits)
Each student learns an organized approach to rapid design of a business with a sustainable competitive advantage based upon innovations(s) to the business model. Innovation(s) is discovered through an investigation of the existing business models and the industry landscape including: customers, competitors, substitutes, suppliers, and barriers to entry. Specific opportunities are identified through investigation of the following: industry, market, and competition. Opportunities to create competitive advantages are investigated through the design of financial, marketing, sales, operation, talent, technology, and social responsibility strategies. The course offers a workshop atmosphere in which students are expected to apply and discuss the various aspects of a Business Model and a Business Plan. The result is a written business plan and presentation to a potential funding panel.

MGMT 4306 Virtual Business Management Simulation (2 Credits)
The focus of this course is on gaining new venture experience. Through an online/virtual computer simulation, students will be placed into a very realistic international business setting, where they will start up and run a company through multiple rounds of decision-making. The online simulation allows students to build entrepreneurial firms, experiment with strategies, and compete with other student teams in a virtual business world. Designed to mimic the competitive, ever changing marketplace, the simulation lets students gain experience in market analysis, strategy formulation, and the management of a new venture.

MGMT 4307 Ascend Internship (4 Credits)
The MSM Ascend internship is about learning by doing. Internships in addition to providing an opportunity for hands-on learning, often open the door to the first professional job. Course requirements include an internship report that covers a study of the industry and the organization, and what you learned from your experience. The Ascend internship is a win-win course where you put into practice the management and business acumen you have learned at Daniels, and discover new skills from your colleagues in the organization. Permission of instructor required. Hours and times arranged by the student and the internship granting organization.

MGMT 4340 Strategic Human Resource Mgmt (4 Credits)
This course focuses on the effective management of human resources in order to create sustained competitive advantage. The course covers the major policy areas of employee influence mechanisms, staffing, training and development, performance appraisal, reward systems, and work design so that students are better prepared to provide direction to the creation and implementation of effective management systems. Prerequisite: MGMT 3900 or permission of instructor.

MGMT 4345 Performance & Rewards System (4 Credits)
Measuring and improving human performance, techniques of individual objective settings including MBO, appraisal and feedback systems, creating and managing compensation programs, job design, analysis and redesign of reward systems in various organizational contexts. Prerequisite: MBA 4121 or equivalent.

MGMT 4350 Business Summit Series: Current Business Issues and Topics (4 Credits)
The Business Summit Series is an elective course that provides students with insights into a variety of contemporary business issues and topics with a practical approach to developing business leadership skills and competencies. Before the course commences, students are invited to provide input and help faculty select the topics that are covered in the series. The faculty will develop modules, with each module covering a discrete business topic a workshop format. The workshops are taught in four-hour segments, with some workshops covering more than four hours, depending on content and learning outcomes. Workshops span practical topics that are not covered in-depth during the core PMBA curriculum, and they also include emerging business subjects. Topics include: Go-To-Market Strategy, Business Development Strategies, Mastering Sales Techniques, Business Consulting Skills, Becoming a Manager, Organizational Change Leadership, Franchise Business Model, and Colorado's Marijuana Industry. Other emerging business topics may include the Colorado small business market and new industry segments. Industry leaders may present to the class as subject matter experts.

MGMT 4401 Managing Cross-Cultural and Virtual Teams (2 Credits)
The world is more connected than ever before and culturally diverse virtual teams are a reality in the global marketplace. This course provides an introduction into managing culturally diverse and virtual team work in practice and distinctive features and challenges of virtual working environments. The course covers topics such as: managing cultural differences; knowledge sharing and team communication; managing yourself; engaging culturally diverse employees; managing conflicts in team work; and online tools and digital work.
MGMT 4402 Management Ethics (2 Credits)
The purpose of this course is to introduce students to ethical concepts, theories and issues as they relate to business and managerial decision-making. Consideration of ethics and the social responsibilities of business are relevant both for effective managing and for businesses properly fulfilling their function(s) in the larger society. This is a course in applied ethics. A primary focus will be specific issues related to business and managerial decision-making. The course is also designed to introduce students to more general approaches or ways of thinking about ethics, and students will be exposed to both normative and behavioral aspects of ethics. An important learning outcome of the course is to strengthen the capacity of students to make practically wise decisions in their future careers.

MGMT 4403 Business and Society (2 Credits)
This course examines the role of business in society and explores important issues in the relationships between business, government, and society. These issues are approached from a stakeholder perspective, integrating business strategy with law, ethics, and social responsibility. The obligations of business to its multiple stakeholders are established and applied through analysis of companies, cases, and current events.

MGMT 4405 Strategic Execution and Summit Team Competition and Assessment (3 Credits)
Strategic Execution is a Challenge Driven Educational (CDE) course that builds off several previous MS Management courses. Students will leverage the contents from accounting, finance, management, marketing, strategy, and business analytics to engage with corporate partners to examine real-world problems. This course provides you with the opportunity to apply what you have learned so far in the MSM program with a live client. You will work on a project focused on business and management. Scoping the project will be a key learning outcome.

MGMT 4490 Global Strategy (4 Credits)
Management of multinational enterprises; identification, analysis, and discussion of key policy issues for the international manager within various functional areas; home and host country relationships including assessment of political risk, selection of foreign locations, entry and ownership strategy, personnel and staffing considerations, technology transfer, multinational labor relations, organizing for international operations. Prerequisite: Should be taken in the last possible quarter before graduation and after completion of all advanced requirements and ITEC 3900, MGMT 3900, MKTG 3900, STAT 3910, and FIN 4610.

MGMT 4503 Comparative Management (2 Credits)
Exploration of similarities and dissimilarities of management practices in various cultures, determination of political, economic and cultural factors primarily affecting management theory and practice, transferability of certain management practices to other cultures. Introduction to basic assumptions and approaches of comparative research methodology. Prerequisite: MBA 4121.

MGMT 4515 Introduction to Sport and Entertainment Management (4 Credits)
The purpose of this course is to provide students with a very broad but significant exposure to the business of sports, which represents a global, multi-billion dollar industry. By critically analyzing numerous facets within this business from the perspective of a manager, student come away with knowledge that is wide enough but deep enough to foster a solid understanding of this dynamic and exciting industry. At the same time, this course provides students with specific and valuable insights that foster and stimulate deeper interest in a particular aspect within this industry through subsequent and additional coursework, independent study, and/or internship opportunities.

MGMT 4520 Managing Sport & Entertainment Contracts (4 Credits)
This is a comprehensive and interactive seminar on managing sports and entertainment contracts. The class covers intellectual property; the role of entertainment and sports managers and agents; general contract principles and theory; contract negotiation; management and operating agreements; and sponsorship, endorsement, and licensing agreements.

MGMT 4525 Facility Management (4 Credits)
What is a Public Assembly Facility? Public assembly facilities such as arenas, stadiums, convention centers, and theatres evolved out of the need by social communities to build permanent structures for public assembly, for political and commercial activities, religion, sports, spectacles, artistic expression and for commercial and educational assemblies. This course examines the specific areas of responsibility that one must acknowledge and understand to operate a successful venue of this type. We discuss the core competencies required and the unique areas of concentration that separate a public assembly facility from other venue types. Students realize the significant impact and benefit that facilities like these have on the social, educational and economic environment of communities.

MGMT 4530 Technologies for Sport & Entertainment Management (2 Credits)
This is a specialized course for the MBA student interested in expanding their knowledge of the sports industry as a business and as a world economic force. It provides students with a framework for understanding the scope of the sports business across various venues, as it relates to information technology. Management Sport Technology focuses on understanding the practical uses of computer applications as a tool in sport management activities. Emphasis is placed on demonstrated proficiency in project management, spreadsheet management, database management, and Web page development.

MGMT 4535 Managing Sponsorships for Sport & Entertainment Events (2 Credits)
The purpose of this course is to give students an understanding of sports sponsorship from the perspective of the corporate sponsor and the sports entity. The course identifies and describes the several media distribution channels that are used in corporate sports sponsorship. In addition, students learn how to use sports media distribution properties to create an effective sports marketing plan for corporate sponsors. Students put together a corporate sports marketing plan with a sample sports team.
MGMT 4540 Advanced Seminar in Sports and Entertainment Management (4 Credits)
The purpose of this seminar is to consider current topics in sport and entertainment management. Topics vary by quarter depending on timeliness of topics and interest of students. Potential topics may include public policy questions; ethical issues; current economic impacts and analysis; sport and entertainment management factors and how the various segments (professional, amateur, collegiate, high school, recreational and others) relate; environmental impacts; global issues and other issues that impact the current and future fields of sport and entertainment management.

MGMT 4545 Leadership, Team, and Career Development (2 Credits)
Daniels MBA students are preparing for leadership roles as entrepreneurs, in corporations, and in not-for-profit organizations. In this course we will look at leadership from a variety of perspectives. Once we have reviewed what the experts have to say about leadership, we will turn our focus to helping you develop your personal theory of leadership. You will answer on important questions: How will I lead? Armed with this knowledge, you will be better equipped to handle leadership challenges as you go forward in life.

MGMT 4620 Organizational Dynamics (4 Credits)
In this course, you will: (1) understand and develop a set of management and leadership skills critical for effectiveness in high performance work environments; (2) develop the ability to analyze organizations and environments from multiple perspectives; (3) explore policies and practices for facilitating organizational change; (4) become a valued and effective member of a work team; and (5) learn how to incorporate effective communication, critical thinking, creative problem solving, and technology, into organizational behaviors and processes.

MGMT 4625 Managing Human Capital (6 Credits)
This course focuses on the effective management of people, every organization’s most critical resource. Employees’ knowledge, skills, commitment, creativity, and effort are the basis for sustained competitive advantage. It is people who deal directly with customers, have creative ideas for new products or for process improvements, who devise marketing strategy or take technologies to the next level. In this course, the class approaches the people side of business from a general management perspective, integrating concepts from organizational behavior, human resource management, strategy, and organizational design. Course topics include motivation, reward systems, engagement; feedback; processes by which work is done and decisions are made, including attention to teams, power dynamics, conflict, and negotiations; the structure of the organization and its systems, including job and organizational design and system and policies affecting human capital; the organization’s culture and history; and the external environment within which the organization operates, including legal, regulatory, demographic, economic and national cultural factors.

MGMT 4630 Strategic Human Resources Management (4 Credits)
This course advances the argument that effective human resource policies will create sustained competitive advantage. To that end, this course will address the effective management of human resources in various policy areas: staffing, diversity, training and development, voice and influence, performance appraisal, and reward systems. Rather than taking a traditional, staff personnel perspective, we will discuss human resource management from the strategic perspective of a general manager. Prerequisite: MGMT 4620.

MGMT 4650 Management Consulting (4 Credits)
This course is designed to provide a broad overview of the management consulting profession, including its industry and competitive dynamics, major practice areas, approaches to implementation, management of consulting firms and the future of consulting. In addition, emphasis is given to the practice of consulting through the development of certain high impact skills in evaluation, proposal writing, data gathering and client presentations. The course is relevant to those who: 1) are specifically interested in consulting careers; 2) have job interests that involve staff positions in corporations; 3) want to become line managers who might one day use consultants; 4) wish to develop general consulting skills and familiarity with the consulting industry. The learning process in class will consist of lectures, cases, readings, exercises and guest speakers. This wide variety of learning methods is intended to convey both the necessary knowledge and practical skills necessary for building a sound foundation for becoming a professional consultant. It is essential that everyone comes well-prepared to class, as the learning process depends heavily upon participation.

MGMT 4690 Strategic Management (4 Credits)
This course builds from the premise that managers make decisions that influence the overall success of their organizations. We will concentrate on how top managers create and maximize value for their stakeholders. You will learn about how companies compete against each other in the quest of achieving high performance and market victories. You will learn about how and why some companies are successful while others are not. This course is about strategy. The primary task of strategy is the allocation and commitment of critical resources over relatively long periods of time in pursuit of specific goals and objectives. Strategic decisions take account of the conditions that prevail within the industry environment, both positive and negative, and the resources and capabilities available to managers for meeting environmental challenges. Strategy also requires establishing and managing an internal organizational system that creates and sustains strategic value.

MGMT 4700 Topics in Management (1-4 Credits)

MGMT 4710 Sustaining Family Enterprises (4 Credits)
Family enterprises have a tremendous impact on our local, national and global economies. Today, the definition of the family enterprise extends beyond just the business entity. It includes family offices, family “banks,” family councils, trusts, and family foundations, just to name a few. Further, what happens in, and how decisions are made by, family enterprise affects not only the active family members but other key stakeholders such as inactive family members, in-laws, non-family managers and employees, professional advisors, customers, suppliers and competitors. This course gives students insight into the universe of possibilities that families, enterprises and their advisors face when engaged in systemic transition planning. This highly interdisciplinary course is appropriate for anyone who intends to work in or with family enterprises. This includes family members, accountants, attorneys, estate planners, financial or wealth managers, family office professionals, insurance consultants, business advisors, management consultants, organizational and leadership development experts, international business professionals, psychologists, social workers, and family therapists.
MGMT 4790 Managing Strategic Alliances (4 Credits)
The purpose of this course is to examine and expand upon the current understanding of the challenges of developing and managing strategic alliances. Reflecting the breadth of the novel features of the structure, the course draws from both strategic management and organizational behavioral disciplines. To order the discussion, we take a process view in addressing why and then how to use a strategic alliance. We initially focus on when to use an alliance. We then turn to the formation of an alliance - examining how to select a partner, which structure to choose and how to negotiate. Following, we discuss post-formation issues of partner relationships, management of the alliance, performance evaluation and alliance termination. We conclude the course with sessions devoted towards managing a portfolio of alliances and network management in general.

MGMT 4980 Graduate Internship in Mgmt (0-10 Credits)
Hours and times arranged by student.

MGMT 4991 Independent Study (1-10 Credits)
Individual research and report. Hours and times arranged by student.

MGMT 4992 Directed Study (1-4 Credits)

MGMT 4995 Independent Research (1-10 Credits)

Marketing (MKTG)

Courses

MKTG 4000 Foundations of Marketing (0 Credits)
This is primarily an online course. The purpose of the course is to ensure that all incoming students have some foundational knowledge of marketing. Most of our incoming students have undergraduate degrees in business and work experience in marketing, and so will already have a working knowledge of marketing vocabulary and may be able to pass the self-check exams in this course without further study. Other students will need to do some reading to pass the assessments. Assessments may be taken as many times as necessary to achieve a score indicating that the student has achieved foundational knowledge of marketing. The course will also integrate a few on-campus professional development tasks to ensure that students get an early start on the next phase of their careers.

MKTG 4100 Marketing Concepts (4 Credits)
Ever wonder what’s behind those Super Bowl ads we love to watch? Or, how Apple decides the price of its newest electronic wonder? Did you notice you can almost always find what you are looking for at the grocery store, whether it’s in season or out? How does that happen? This course provides students with a lens through which they may view the world as a consumer and as a marketer, relating marketing principles and models to consumer and business actions. The course investigates marketing strategy and tactics using contemporary examples from the headlines, active class discussion, and a marketing strategy simulation or client engagement.

MKTG 4201 MS Management Marketing Management (2 Credits)
Marketing Management, is a newly developed, hands-on course that is part of the Master of Science in Management degree in the Department of Management. It uses a fresh integrated approach to applying the basic fundamentals of marketing to complex and evolving scenarios. This course also helps graduate students learn skills in a safe environment and leverage their experience and knowledge to investigate business situations and opportunities in a thoughtful and sophisticated manner. This course develops a student’s ability to make sound business planning decisions using marketing theories and tools.

MKTG 4220 Customer Experience Management (4 Credits)
In their best-selling book, The Experience Economy, Pine and Gilmore set the stage for what today’s organizations are facing—customers that connect with brands on the basis of the experiences they receive: products and service are no longer a sufficient differentiator. This course takes the student beyond the ‘better product, better service’ approach to the cutting edge concepts of customer experience management (CEM). It provides an understanding of CEM, its best practices, and the tools for its implementation and evaluation. The course considers the challenges of creating and delivering customer experiences in a variety of settings—in-store operations, branded products, and web-based operations. One of the special features of this course is the use of live, case studies from a variety of companies. Among the companies recently represented by guest speakers are Charles Schwab, Comcast, Starbucks, and others.

MKTG 4230 Financial Aspects of Customer Experience Management (4 Credits)
Successful customer experience management requires knowledge of the tools and techniques to assess the costs, benefits, and return on investment in customer relationships. This course shows students how to conceptualize, design, implement, and evaluate information and financial systems that support successful customer experience operations. A particular focus of this course is the determination of the optimal investment in customer experience, including insights from concepts such as lifetime value of customers. Prerequisite: MKTG 4220.

MKTG 4240 Customer Experience Management Integration (4 Credits)
A key component of every successful customer experience management (CEM) program is the ability to integrate CEM, marketing, financial, and information systems information, concepts, and processes into a successful operation for the customer and the company. This course provides the student with the tools to evaluate the success of customer experience management systems through conducting the CEM Audit. Students apply the CEM Audit to evaluate the level of company achievement of CEM goals and objectives. This course builds on the courses in the CEM and IMC programs (primarily MKTG 4220) as well as other courses in marketing and business. In this sense, it is a capstone course, integrating the knowledge and experience acquired through other courses and your life and business experiences. Developing skills in assessment of an organization against CEM standards is the primary objective of this course. Prerequisite: MKTG 4220.
MKTG 4360 Global Transportation Systems (4 Credits)
Managing a global supply chain involves applying increased discipline to a process with many parts. The key parts of the supply chain over which a company has the least control are the transportation carriers that connect a company with its customers and suppliers in all parts of the world. Global Transportation Systems covers the various modes of transportation including ocean vessel, barge, railroads, truck and air freight. The course will touch on the operating characteristics, service, infrastructure, sustainability, ownership, finances, prices and each mode’s place in the global supply chain both across borders and domestically in several target countries including the U.S. In addition Global Transportation Systems will provide the student with an understanding of how public policy affects transportation infrastructure investment, security, cost and service around the world. The course provides a solid foundation for other supply chain courses. Cross listed with MKTG 3360.

MKTG 4370 Marketing Channels & Logistics (4 Credits)
Of the four Ps (product, price, promotion, and place), MKTG 4370 explores the “place” in a firm’s marketing efforts to gain sustainable competitive advantage. Marketing channels are the routes to market used to sell every product and service that consumers and business buyers purchase everywhere in the world. Logistics is the other half; delivering the right product at the right time to the right place in the right quantities to keep satisfied loyal customers, a crucial element in making the sale. In this course, students learn the design of marketing channels to deliver sustainable competitive advantage while building channel power and managing channel conflict. Sound strategic and tactical channels decisions are taught via an on-line computer simulation. Logistics design and execution includes best practices for demand management, order management, customer service, inventory strategy, transportation, and distribution, all of which are taught through lecture, hands-on exercises, and case studies of the world’s best supply chains. Cross listed with MKTG 3360.

MKTG 4375 Strategic Sourcing (4 Credits)
Current businesses face relentless pressure to provide additional value in an ever more competitive world. Globalization of world markets has reconfigured supply networks across the globe, causing increasing complexities and challenges in sourcing. In this course, the student learns about the strategic sourcing process, from the development of a sourcing strategy to establishing, managing, and optimizing the firm’s supply base. A framework for aligning corporate, business unit and functional department objectives with a sourcing strategy for each commodity purchased by the firm will be presented, along with spend analysis, portfolio analysis, and other best practices (supply base optimization, supplier scorecards, supplier development programs, reverse cost analysis, B2B Auctions, learning curves, value analysis, total cost of ownership, and gain sharing) for improving a firm’s cost and financial performance through improved supply chain performance. Cross listed with MKTG 3375.

MKTG 4380 Supply Chain Management (4 Credits)
Today’s economy of globally sourced manufacturing, developing markets, synchronized e-commerce, international trade lanes, and intertwined economies demand supply chains of global reach to bring goods and services from around the world to local stores or even the consumer’s front door. This course addresses the challenges and illustrates the tools required to build, maintain, and expand global supply chains. The course develops the ability to make sound strategic, tactical, and operational supply chain decisions via an on-line simulation tool, and superior supply chain design and performance is taught through in-depth case studies from the world’s top 25 supply chains. Students are able to connect improvements in supply chain design and performance to the financial performance of a firm. Cross listed with MKTG 3380. Prerequisites: MKTG 4360 and MKTG 4370.

MKTG 4400 Social Awareness & Ethics (2 Credits)
Social awareness & ethics uses a fresh integrated approach to applying the basic fundamentals of marketing to complex and evolving scenarios involving social change and insight, cultural trends and topics, and tricky, often emotional, ethical situations. This course also helps students learn skills in a safe environment and leverage their experience and knowledge to investigate business situations and opportunities in a thoughtful and sophisticated manner. This course develops a student’s ability to make sound business planning decisions using real information from the external environment. This course will combine business ethics’ overarching intent to protect employees, the environment, and their customers with marketing ethics’ principles of honesty, fairness, responsibility, and respect. As part of this, students will learn about and apply Daniels Fund Initiative Principles: http://www.danielsfund.org/_Assets/files/Ethics%20Initiative%20Principles.pdf Prerequisites: Pass foundations exam or MKTG 4100.

MKTG 4501 Client Lab I (1 Credit)
MKTG 4501 is a requirement to be taken concurrently with a distinct marketing class over the duration of your program. In this course, you will be working with a business client to identify and solve a client problem in the area of focus for the companion course. By taking this course and solving three different types of client problems, over the duration of your program, you will have the chance to sharpen your problem identification abilities and to work with marketing professionals, demonstrating your marketing ability.

MKTG 4502 Client Lab II (1 Credit)
MKTG 4502 is a requirement to be taken concurrently with a distinct marketing class over the duration of your program. In this course, you will be working with a business client to identify and solve a client problem in the area of focus for the companion course. By taking this course and solving three different types of client problems, over the duration of your program, you will have the chance to sharpen your problem identification abilities and to work with marketing professionals, demonstrating your marketing ability.

MKTG 4503 Client Lab III (1 Credit)
MKTG 4503 is a requirement to be taken concurrently with a distinct marketing class over the duration of your program. In this course, you will be working with a business client to identify and solve a client problem in the area of focus for the companion course. By taking this course and solving three different types of client problems, over the duration of your program, you will have the chance to sharpen your problem identification abilities and to work with marketing professionals, demonstrating your marketing ability.
MKTG 4510 Consumer Behavior (4 Credits)
What makes consumers tick? This course draws on a variety of sources, including concepts and models from psychology, sociology, anthropology, and economics, to offer helpful frameworks for understanding why consumers buy what they buy. These concepts are applied to real-world situations to give students practice at making better product, promotion, pricing, and distribution decisions based on consumer insights.

MKTG 4515 International Consumer Behavior (4 Credits)
The focus of this course is to introduce the complex role that consumer behavior and consumption plays within an international context. Knowledge of customers is one of the cornerstones for developing sound business strategies, and there is a need to better understand the diverse aspects of consumer behavior that marketers must cater to in the global marketplace. As the study of consumer behavior draws upon marketing, psychology, economics, anthropology, and other disciplines, the added complexity of understanding it beyond one's home market results in additional challenges and opportunities. Consumer behavior attempts to understand the consumption activities of individuals as opposed to markets, and as this course will demonstrate, consumption activities are not universal. The course will focus on both consumer behavior theory, as well as the integration of regional, global, and cultural variables that marketers must account for in developing marketing programs in strategies. Topics such as global consumer culture, values and consumption, international consumer attributes, international social and mental processes, will be used to help comprehend and explain the convergence and divergence of consumer behavior in the global marketplace. The goal of this course is to provide a more concrete understanding of how marketers account for similarities and differences in the development and implementation of marketing practices, in the field of advertising, product and service development and usage, retailing, and communications. Prerequisites: MKTG 4510.

MKTG 4520 Marketing Metrics (4 Credits)
There’s no escape; even marketing managers need to understand financials. This course is designed to introduce MS Marketing students to the principles of financial decision-making and the use of marketing metrics, including customer lifetime value (CLV) and media mix modeling. Students learn how to compute marketing ROI and how to make marketing decisions that enhance the bottom line. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.

MKTG 4530 Marketing Research & Analytics (4 Credits)
Understanding consumers requires careful observation and thoughtful questions. Marketing research represents a methodology for getting the answers needed to be successful in business. This course introduces students to a broad array of marketing research tools, including focus groups, ethnographic studies, survey research, and experiments. Students will learn how and when to apply these tools, as well as how to interpret the results to make sound marketing decisions. Highly recommended students take statistics prior to taking this course. Prerequisites: MKTG 4100.

MKTG 4540 Product and Service Innovation (4 Credits)
Developing and introducing new products and services are the lifeblood for companies and a primary responsibility of product management. This course is focused on the most current innovations in materials, hardware, CPG, and software. This is a travel course and students will be required to travel to the Consumer Electronics Show in addition to attending class on campus. We’ll be using Google Ventures rapid sprint framework to develop/test new product ideas. Prerequisites: MKTG 4510, MKTG 4520, MKTG 4530, and MKTG 4810 or instructor permission.

MKTG 4550 Marketing Planning (4 Credits)
It has been said that “planning without action is futile, and action without planning is fatal.” The objective of this course is to enable students to utilize a rigorous planning process to develop action-oriented marketing programs. This activity involves an integrated application of concepts and theories characterized by the logical use of facts – leading to alternatives – leading to actions. By the end of the course students should be able to develop effective marketing programs, and to understand the strength and limitations of the principal planning tools a marketing manager has at his/her disposal. The skills developed in this class are particularly important because many organizations now use the marketing plan as the basis for developing the business plan. In fact, marketing-developed plans often must precede the subsequent decisions in planning production, finance, and other corporate activities. Each student will apply the planning process, develop an action plan, and identify specific marketing outcomes for an existing or prospective enterprise. The course utilizes current practices, contemporary exemplars, and rigorous communication/presentation platforms. Course must be taken within one quarter of graduation or with instructor’s permission.

MKTG 4560 Pricing Strategy (4 Credits)
This course provides an overview of all aspects of Pricing, a key driver of growth and profitability. As one of the 4 “Ps” of Marketing, attention and interest in Pricing is growing. This is not surprising, given that Price is the one “P” that drives the topline, with a direct impact on revenue growth, customer growth, market share, and profitability. This Pricing survey course examines established and emerging pricing strategies and principles. In addition, students learn some basic analytical tools that can be applied to pricing strategy decisions and explore approaches to optimize the impact of pricing strategies and tactics, including segmentation, addressing the competition, and communicating value. Prerequisites: MKTG 4510, MKTG 4520, and MKTG 4530 or instructor permission.

MKTG 4580 Collaborative Innovation: Designing New Customer Experiences (4 Credits)
Innovation is a driving force of change for organizations and markets. It is becoming increasingly clear that the development of novel and compelling offerings requires the contributions of multiple stakeholders, including customers. Companies such as Apple, Facebook and Google, focus on engaging an ecosystem of partners to develop new value propositions to continually improve customer experiences. This course explores the collaborative processes that drive value creation and innovation. Students will learn to strategically apply design thinking and community-building approaches to innovate customer experiences in ever-changing markets. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.
MKTG 4605 Current Marketing Perspectives (4 Credits)
Like most disciplines, marketing is evolving constantly. One can learn about marketing and its classic terms and notions by reading a textbook. But to familiarize oneself with the current pressing issues, emerging ideas, and innovative applications, one must consult both industry practitioners and academic gurus. In this course, students and faculty will meet and interview several top business executives in the Denver area as well as visit their facilities. Such interaction with the managers and faculty will help the students understand the interface of theory and application. In addition, by identifying the current issues in marketing and learning how to develop strategies to handle them, students add to their preparation for the job market.

MKTG 4630 International Marketing (4 Credits)
The shrinking planet and constant pressure to maintain a firm’s growth mean that global marketing continues to grow in importance. This course introduces the various economic, social, cultural, political, and legal dimensions of international marketing from conceptual, methodological and application perspectives, and emphasizes how these factors should affect, and can be integrated into, marketing programs and strategies. This course provides students with methods for analyzing world markets and their respective consumers and environments, and to equip students with the skills in developing and implementing marketing strategies and decision making in international contexts. It includes a combination of lectures and discussions, case analyses of real global marketing issues, videos and readings from the business press, country snapshots, and a group research project in which student teams launch a discrete product in a foreign country of their choice.

MKTG 4635 International Consumer Behavior (4 Credits)
The focus of this course is to introduce the complex role that consumer behavior and consumption plays within an international context. Knowledge of customers is one of the cornerstones for developing sound business strategies, and there is a need to better understand the diverse aspects of consumer behavior that marketers must cater to in the global marketplace. As the study of consumer behavior draws upon marketing, psychology, economics, anthropology, and other disciplines, the added complexity of understanding it beyond ones’ home market results in additional challenges and opportunities. Consumer behavior attempts to understand the consumption activities of individuals as opposed to markets, and as this course will demonstrate, consumption activities are not universal. The course will focus on both consumer behavior theory, as well as the integration of regional, global, and cultural variables that marketers must account for in developing marketing programs in strategies. Topics such as global consumer culture, values and consumption, international consumer attributes, international social and mental processes, will be used to help comprehend and explain the convergence and divergence of consumer behavior in the global marketplace. The goal of this course is to provide a more concrete understanding of how marketers account for similarities and differences in the development and implementation of marketing practices, in the field of advertising, product and service development and usage, retailing, and communications. Cross-listed with MKTG 3635. Prerequisite: MKTG 4510 or instructor permission.

MKTG 4660 Sports & Entertainment Marketing (4 Credits)
There are few products for which consumers are more passionate than their sports and entertainment expenditures, so this topic is always an exciting one in marketing. This course provides an in-depth look at the processes and practices of marketing sports, concerts, film and other entertainment. The course emphasizes the practical use of advertising, promotion and public relations in creating athlete or entertainer images, providing a quality fan experience, promoting sponsorships or driving event ticket sales. Participation in a current sports marketing project provides context for graduate students to apply theory to practice. Cross listed with MKTG 3660. Prerequisites: MKTG 4100.

MKTG 4670 Competitive Strategies (4 Credits)
This course will examine what is happening in the world of corporate marketing today. Which companies’ marketing strategies are working and why? Which are not working and why? Who is winning in the competitive marketplace and who is losing? How do you know? What is the connection between a company's marketing strategy and its financial strategy? Prerequisites: MKTG 4100.

MKTG 4705 Topics in Marketing (1-4 Credits)
TOPIC CHANGES EACH TERM.

MKTG 4750 Digital Strategies (4 Credits)
We’re 20 years into the digital marketing revolution and the ecosystem continues to evolve. From the birth of the Internet and email to the recent addition of messaging apps and the Internet of Things: It’s a fantastic time to be a marketer. In this class, we will take what you learned in consumer behavior and extend it in the social/mobile/search realm. We’ll utilize lessons learned from cognitive neuroscience combined with qualitative/quantitative data to create one-to-one marketing experiences for B2B/B2C consumers. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.

MKTG 4800 Global Integrated Marketing Communication (4 Credits)
The Global IMC class is for graduates who have worked in marketing communications or have taken marketing communications classes and want to gain an understanding of how use this knowledge in the global marketplace. It helps students to understand similarities and differences between markets and how to most effectively approach them. What are the IMC tools that work best and how do you use them with cultural sensitivity? The class features a number of guest speakers and at least one off-site agency visit. The finale to this high-intensity class will have competing teams creating a global campaign. Prerequisites: MKTG 4810 or instructor permission.
MKTG 4805 Foundations of Digital Marketing (4 Credits)
Knowing how to use digital marketing tools as part of an integrated marketing strategy is critical in today's marketplace. This course provides the knowledge and skills to plan and implement a digital marketing strategy using three powerful digital marketing elements: (1) UX/UI - User eXperience design is one of the most difficult aspects for businesses to define and yet it's essential to map out when creating a holistic strategy. User Interface design is one part of the user experience and we will work together to show you best-in-class examples. (2) Facebook Advertising – Facebook is quickly becoming the hyper-targeted advertising platform for businesses of any size. You will walk through Facebook’s Blueprint Training to help you understand what types of digital advertising are possible. (3) Email Marketing – Email has long been a staple in digital marketing. We will show you the ins and outs of this digital medium and teach you how to take control of this evolving channel. Cross-listed with MKTG 3480.

MKTG 4810 Integrated Marketing Communication (4 Credits)
IMC is a critical component of marketing strategy and is vital to business success in today's economy. Organizational, technological, and social trends of the past few years have considerably impacted marketing communications by necessitating new communication strategies and adding new delivery tools (e.g., digital and social). Thus, it is important to integrate all marketing communication activities into one master plan. This course is based upon the notion that marketing communications include much more than advertising. The course provides students with a foundation in the development and execution of communications strategies for any organization (large, small, public, or private). Primary emphasis is placed on consumer insight, branding, market segmentation and positioning, message strategy, sales promotion and the execution of marketing communications through appropriate media technologies. Students will develop an understanding of marketing communications practice through a real-world project, readings, lectures, case analyses and discussions. Prerequisites: MKTG 4510 and MKTG 4530 or instructor permission.

MKTG 4815 Social Media Marketing (4 Credits)
Social media marketing is an evolving field with consumers driving the changes marketers are seeing. Based on your business model, social media may be more than just distribution and consumers will be a part of your long-term business strategy beyond revenue. We'll illuminate the increasing importance of social media as it relates to consumer behavior, the purchase cycle and the rise of messaging apps as it relates to business success. We will also develop a strategic model for a diverse range of businesses (B2B, B2C, Product, Service, Online, Online with Brick and Mortar) that will empower you as a marketer to determine your best strategy. Cross-listed with MKTG 3490. Prerequisites: MKTG 4100.

MKTG 4820 Brand Management (4 Credits)
"How do leading organizations create compelling brands that inspire trust, build a sense of community, and fuel loyalty? As consumers find their digital voice, how are brands co-created by firms and users alike? And what can brand managers do to insure their brand equity is sustainable throughout the product lifecycle? In this project-based [WINTER] or interview-based [SUMMER] course, you'll learn the underlying principles and theories from brand authorities, then apply them to real-world client challenges. Join us as we create goal-driven brand strategies, harness tactics to build and amplify the brand, foster brand experiences, conversations and relationships, and then learn ways to measure the resulting impact on brand value. Prerequisite: MKTG 4100. Concurrent enrollment allowed.

MKTG 4825 Mobile Marketing (4 Credits)
Smartphones are the device for today's consumer. Mobile usage easily eclipses all other digital venues and you will be learning how to harness this ever-evolving field. Knowledge of mobile search, mobile applications, mobile advertising and location-based services are essential for today's business leaders. This course will enable students to build creative mobile marketing campaigns that complement digital and traditional marketing strategies. This fast-paced course is a must for people interested in marketing. Cross-listed with MKTG 3475. Prerequisite: MKTG 4100.

MKTG 4830 Integrated Marketing Communication Cases (4 Credits)
Using the Harvard case method, students analyze marketing communication and brand building campaigns and processes used to acquire and retain customers, generate sales, and increase profits. The presence (and absence) of IMC strategies and practices are identified and discussed. Course concludes with presentations of cases created (based on working with real companies) by student teams. Prerequisite: MKTG 4810.

MKTG 4835 Search Engine Marketing (4 Credits)
The digital marketing landscape has thousands of tools that marketers can utilize to increase revenue, execute on strategies and develop deep brands. This course will review the most essential of those tools: Google Analytics and Google AdWords. Our goal is to enable students to attain individual certification in Google Analytics and begin the process of getting Google AdWords Fundamentals certified. You will be working with real-world clients, helping them increase revenue! Cross listed with MKTG 3485.

MKTG 4845 Tech in Marketing: Design Tools and Digital Foundations (4 Credits)
"Software is eating the world." That was the quote from Marc Andreessen way back in 2011. His point was now that software had disrupted the tech industry, it was now evolving into every other industry. Agriculture. Mass transit. Construction. Everything. This prediction has become true with companies like Google and Uber. We’re at a point where coding/technology are now a matter of literacy. We are going to work together as a class to make you more literate. We are going to learn how to utilize digital design tools such as Adobe Photoshop and Illustrator to create brand imagery. We'll then move on to learn HTML/CSS and APIs: the building blocks of the Internet. We'll also spend some time prototyping software such as Axure and tap into memes and GIFs. This is a tactical, hands-on class. Cross-listed with MKTG 3945.

MKTG 4850 Integrated Marketing Communication Campaign (4 Credits)
This course builds on all of the courses in the IMC program/concentration as well as other courses offered through the Department of Marketing. In this sense, it is a capstone course, integrating the knowledge and experience acquired through these other courses. Integration is the primary objective of this course—that is, to develop skills in integrating content from other courses into a complete IMC campaign for a brand of the student’s choice. IMC Campaign is a major project course with a single significant outcome, the IMC Campaign. The project is conducted in a team environment with the guidance of the instructor. Prerequisites: MKTG 4810 or instructor permission.
MKTG 4900 Advanced Marketing Strategy (4 Credits)
Making sound strategic marketing decisions in the real world is complex and challenging, even for seasoned executives. Determining sound strategies is critical. Implementing them effectively and profitably is essential. How can managers increase their chances for making better strategic marketing decisions leading to more successful outcomes more often? This course applies concepts, constructs and learning acquired in prior marketing courses to complex strategic decisions. Live cases are at the heart of the course, challenging teams and individuals to make specific marketing decisions in the context of larger strategic marketing and company contexts, including accounting for top- and bottom-line impact. Students are required to be within one quarter of graduation. Prerequisites: MS MKTG students only within one (1) quarter of graduation or with instructor permission.

MKTG 4980 Marketing Internship (0-10 Credits)
We learn by doing. That’s what a marketing internship at Daniels is all about. Recent studies show that one to three internships on a resume go a long way towards landing that first job in marketing. At Daniels, we network with some of the top marketers in Denver and across the US. Our marketing students have worked at National CineMedia, Integer Advertising, Bank of America, Enterprise, Northwestern Mutual Insurance, eBags, Crispin-Porter + Bogusky, Einstein’s, Johns Manville, Ski Magazine, the Pepsi Center, 15 Million Elephants, Flextronics, Merrill Lynch, Dish Network, AEG Live, Altitude Sports & Entertainment, and the list goes on. Not only will students earn school credit, they may very well land a paid internship, and eventually a full-time job. Course requirements include an internship report that covers your experience on the job, a study of the industry, and what they learned from their company. It’s a win-win course where you put into practice the marketing concepts you’ve learned at DU, and discover new marketing tactics from your company co-workers. “Thanks to the University of Denver for fostering this partnership and providing such great students” (NCM Media Networks).

MKTG 4991 Independent Study (1-10 Credits)
Hours and times arranged by student.

MKTG 4992 Directed Study (1-4 Credits)

MKTG 4995 Independent Research (1-10 Credits)

MKTG 4999 Marketing Assessment (0 Credits)

Materials Science (MTSC)

Courses

MTSC 4010 Mechanical Behavior of Materials (4 Credits)
Effects of microstructure on mechanical behavior of material; emphasis on recent developments in materials science, fracture, fatigue, creep, wear, corrosion, stress rupture, deformation and residual stress. Cross listed with MTSC 3010.

MTSC 4020 Composite Materials I (4 Credits)

MTSC 4215 Composite Materials II (4 Credits)
A continuation of MTSC 4210: Strength and toughness of composites, thermal behavior, fabrication methods, examples of applications. Prerequisite: MTSC 4210.

MTSC 4450 Fracture Mechanics (4 Credits)
Topics include stress field at a crack tip, linear elastic fracture mechanics, energy release rate, stress intensity factors, plastic zones, plane stress, plane strain, fracture toughness, Airy stress functions, elastic-plastic fracture mechanics, J integral, crack tip opening displacements, experimental testing, fatigue, life prediction, crack closure, weight functions, failure analysis. Cross listed with MTSC 3450.

MTSC 4800 Advanced Topics (MTSC) (1-5 Credits)
Selected topics (depending on student and faculty interest): fracture mechanics, fatigue, nonlinear constitutive models, dynamic behavior of materials, corrosion resistant design, thermodynamics of solids II.

MTSC 4900 Materials Science Seminar (1 Credit)
Weekly presentations by graduate students, faculty, outside speakers, etc., on research in progress or other topics of interest.

MTSC 4991 Independent Study (1-10 Credits)

MTSC 4992 Directed Study (1-10 Credits)

MTSC 4995 Independent Research (1-16 Credits)

MTSC 5995 Independent Research (1-16 Credits)

Mathematics (MATH)
Courses

MATH 3000 The Real World Seminar (1 Credit)
Lectures by alumni and others on surviving culture shock when leaving the University and entering the job world. Open to all students regardless of major. Cross listed with COMP 3000.

MATH 3010 History of Mathematics (4 Credits)
This course surveys major mathematical developments beginning with ancient Egyptians and Greeks and tracing the development through Hindu-Indian mathematics, Arabic mathematics, and European mathematics up to the 18th century. Prerequisite: MATH 1953 or MATH 1963.

MATH 3040 Lattices and Order (4 Credits)
Ordered sets, lattices as relational and as algebraic structures, ideals and filters, complete lattices, distributive and modular lattices, Boolean algebras, duality for finite distributive lattices. Prerequisite: MATH 2200.

MATH 3050 Set Theory (4 Credits)
Zermelo-Fraenkel axioms, axiom of choice, Zorn's Lemma, ordinals, cardinals, cardinal arithmetic. Prerequisite: MATH 2200.

MATH 3060 Mathematical Logic (4 Credits)
Classical propositional calculus (deductive systems and truth-table semantics), first-order logic (axiomatization and completeness), elements of recursion theory, introduction to nonclassical logics. Prerequisite: MATH 2200.

MATH 3080 Mathematical Probability (4 Credits)
Limit theorems for independent random variables, multivariate distributions, generating functions. Prerequisites: MATH 2080 and MATH 3080.

MATH 3151 Advanced Linear Algebra (4 Credits)
Vector spaces, linear mappings, matrices, inner product spaces, eigenvalues and eigenvectors. Prerequisite: MATH 2060 and MATH 2200.

MATH 3161 Introduction to Real Analysis (4 Credits)
A theoretical introduction to the structure of real numbers, to convergence of sequences and series, and to the topology of the real line, including limits and continuity. Prerequisites: MATH 2080 and MATH 2200.

MATH 3162 Introduction to Real Analysis II (4 Credits)
A rigorous introduction to the analysis of functions of a real variable, including differentiation, Riemann integration, and the notions of pointwise and uniform convergence for sequences of functions. Prerequisite: MATH 3161.

MATH 3166 Group Theory (4 Credits)
Groups and homomorphisms, isomorphism theorems, symmetric groups and G-sets, the Sylow theorems, normal series, fundamental theorem of finitely generated abelian groups. Cross listed with MATH 4166. Prerequisite: MATH 3170.

MATH 3170 Introduction to Abstract Algebra (4 Credits)
Examples of groups, permutations, subgroups, cosets, Lagrange theorem, normal subgroups, factor groups, homomorphisms, isomorphisms, rings, integral domains, quaternions, rings of polynomials, Euclid algorithm, ideals, factor rings, maximal ideals, principal ideals, fields, construction of finite fields. Prerequisite: MATH 2060 and MATH 2200.

MATH 3260 Metric Spaces (4 Credits)
Metric spaces and continuous functions; completeness and compactness; examples including norm spaces; pointwise and uniform convergence; Baire Category Theorem. Cross listed with MATH 4260. Prerequisite: MATH 3161 or equivalent.

MATH 3311 Linear Programming (4 Credits)
Linear optimization models, simplex algorithm, sensitivity analysis and duality, network models, dynamic programming, applications to physical, social and management sciences. Prerequisite: MATH 2060.

MATH 3312 Markov Chains (4 Credits)
Discrete-time and continuous Markov Chains, ergodic theorems, random processes, elementary queueing theory, applications. Prerequisite: MATH 2060 and MATH 3080.

MATH 3400 Introduction to Geometry (4 Credits)
Specific geometrical systems including finite, Euclidean, non-Euclidean and projective geometries. Prerequisite: MATH 2200.

MATH 3451 Chaos, Dynamics & Fractals (4 Credits)
Introduction to one-dimensional dynamical systems, fractals; fixed and periodic points; sources and sinks; period doubling and tangent node bifurcations; chaotic dynamical systems; Sarkovskii's Theorem. Prerequisite: MATH 3161.

MATH 3550 Introduction to Theory of Numbers (4 Credits)
Concepts of nonanalytic number theory and its history; prime numbers, divisibility, continued fractions, modular arithmetic, Diophantine equations and unsolved conjectures. Prerequisites: MATH 2200.

MATH 3651 Ordinary Differential Equations (4 Credits)
Modeling of phenomena by ordinary differential equations; techniques of analysis and solution of such equations; oscillation theory and boundary value problems, power series methods, special functions, Laplace transforms and difference equations. Prerequisites: MATH 2060 and MATH 2070.
MATH 3661 Partial Differential Equations (4 Credits)
First and second order linear equations, Fourier series, the wave equation, the Cauchy problem, the heat equation, maximum principles, Laplace’s equation, Green’s functions. Prerequisites: MATH 2070 and MATH 2080.

MATH 3701 Combinatorics (4 Credits)
The principle of inclusion and exclusion, elementary counting techniques, systems of distinct representatives, partitions, recursion and generating functions, Latin squares, designs and projective planes. Prerequisite: MATH 2200.

MATH 3705 Topics in Mathematics (4 Credits)
Varying selected advanced topics in mathematics, depending on student demand and instructor interest.

MATH 3710 Graph Theory (4 Credits)
Paths, cycles, trees, Euler tours and Hamilton cycles, bipartite graphs, matchings, basic connectivity theorems, planar graphs, Kuratowski's theorem, chromatic number, n-color theorems, introduction to Ramsey theory. Prerequisite: MATH 2200.

MATH 3720 Coding Theory (4 Credits)
Goals of coding theory and information theory, instantaneous and Huffman codes, Shannon theorems, block and linear codes, generating and parity-check matrices, Hamming codes, perfect codes, binary Golay code, Reed-Muller codes, cyclic codes, BCH codes, Reed-Solomon codes, ideas of convolutional and turbo codes. Prerequisite: MATH 3170.

MATH 3851 Functions Complex Variable (4 Credits)
Complex numbers, analytic functions, complex integration, series expansions, residue theory, conformal maps, advanced topics and applications. Prerequisites: MATH 2060 and MATH 2080 and MATH 2200.

MATH 3991 Independent Study (1-10 Credits)
Cannot be arranged for any course that appears in regular course schedule for that particular year.

MATH 3992 Directed Study (1-10 Credits)

MATH 4050 Combinatorial Set Theory (4 Credits)
Beginning with a quick review of ZFC, the standard axioms of set theory, the course covers advanced ordinal and cardinal arithmetic and infinitary combinatorics, including Ramsey theory. Additional axioms such as the Continuum Hypothesis, Martin's Axiom, and combinatorial principles such as Diamond and their consequences for mathematics are studied. Prerequisite: MATH 3050.

MATH 4060 Descriptive Set Theory (4 Credits)
Descriptive Set Theory is one of the main branches of modern set theory. Set theory provides techniques for the precise study of real analysis. This course covers trees as tools for analyzing sets of real numbers, Polish spaces, the Borel hierarchy, Baire-measurability, extensions of continuous functions, separation theorems, and more. Prerequisite: MATH 3050.

MATH 4070 Proof Theory (4 Credits)
Hilbert-style systems, Natural deduction, (simply typed) lambda calculus, combinatory logic, the Curry-Howard correspondence, normalization, cartesian closed categories, Sequent calculi, cut elimination and applications, structural rules; logical systems: classical, intuitionistic, relevance, linear, algebraic semantics. Recommended prerequisite: MATH 2200.

MATH 4080 Algebraic Logic (4 Credits)
Elements of universal algebra, lattice theory and first-order logic; elements of abstract algebraic logic (deductive systems, algebraization, deduction filters, deduction theorems, matrix semantics); sequent calculi for substructural logics, residuated lattices, structure theory for congruences and deductive filters; subvariety lattices (atomic varieties, axiomatizations of joins, translations); algebraic cut elimination; (un)decidability and finite model property. Prerequisites: MATH 3170 and either MATH 3040 or MATH 3060.

MATH 4110 Topology (4 Credits)
Point set topology including topological spaces, connectedness, compactness and separate axioms; preparation for advanced courses in analysis. Cross listed with MATH 3110.

MATH 4120 Algebraic Topology (4 Credits)
Fundamental groups, simplicial homology, Euler characteristic classification of surfaces, manifolds. Prerequisites: MATH 3170 and MATH 3110/4110.

MATH 4162 Rings and Modules (4 Credits)
Ideals, left and right R-modules, simple modules, totally decomposable modules, Wedderburn-Artin theorems, Artinian and Noetherian rings and modules, Hopkins theorem, Hilbert basis theorem, free modules, projective and injective modules, Kaplanski theorem. Prerequisites: MATH 3176 or MATH 4176.

MATH 4163 Universal Algebra (4 Credits)
Universal algebras, congruences, lattices, distributive lattices, modular lattices, Boolean algebras, subdirectly irreducible algebras, Mal’cev theorems, varieties, Birkhoff theorem. Prerequisites: MATH 3170 and either MATH 3040 or MATH 3060.

MATH 4164 Galois Theory (4 Credits)
The fundamental theorem of algebra, field extensions, ruler and compass constructions, normal and separable extensions, field automorphisms, Galois correspondence, solvability and simplicity, calculating Galois groups. Prerequisite: MATH 3176/MATH 4176 and MATH 3166/MATH 4166.
MATH 4165 Introduction to Real Analysis II (4 Credits)
A rigorous introduction to the analysis of functions of a real variable, including differentiation, Riemann integration, and the notions of pointwise and uniform convergence for sequences of functions. Prerequisites: MATH 3161.

MATH 4166 Group Theory (4 Credits)
Groups and homomorphisms, isomorphism theorems, symmetric groups and G-sets, the Sylow theorems, normal series, fundamental theorem of finitely generated abelian groups. Cross listed with MATH 3166. Prerequisite: MATH 3170.

MATH 4168 Lie Groups and Lie Algebras (4 Credits)
Lie groups and Lie algebras, fundamental theorems of Lie, general structure theory; compact, nilpotent, solvable, semisimple Lie groups; classification of semisimple Lie algebras; representation theory of compact and semisimple Lie algebras and Lie groups. Additional topics as time permits: universal enveloping algebras, symmetric spaces. Prerequisites: MATH 3161 and MATH 3170.

MATH 4176 Rings and Fields (4 Credits)
Rings, domains, fields; ideals, quotient rings, polynomials; PIDs, UFDs, Euclidean domains; maximal and prime ideals, chain conditions; extensions of fields, splitting fields, algebraic and transcendental extensions; brief introduction to Galois theory. Cross listed with MATH 3176. Prerequisite: MATH 3170 or equivalent.

MATH 4181 Loop Theory (4 Credits)
Quasigroups, loops, latin squares, 3-nets, isotopy, multiplication groups, inner mapping groups, nuclei, commutant, center, associator subloop, inverse properties, power-associative loops, Bruck loops, Bol loops, Moufang loops, octonions. Prerequisites: MATH 3166 or MATH 4166.

MATH 4260 Metric Spaces (4 Credits)
Metric spaces and continuous functions; completeness and compactness; examples including norm spaces; pointwise and uniform convergence; Baire Category Theorem. Cross listed with MATH 3260. Prerequisite: MATH 3161 or equivalent.

MATH 4270 Hilbert Spaces (4 Credits)
Schwarz and triangle inequalities, Reisz lemma, subspaces and orthogonal projections, orthonormal bases, spectrum of bounded linear operators, compact, self-adjoint, normal and unitary operators, spectral theorem and, if time permits, unbounded operators. Also, if time permits, applications to partial differential equations, physics and engineering. Prerequisites: MATH 3260 or MATH 4260 or MATH 3110 or MATH 4110.

MATH 4280 Measure Theory and Applications (4 Credits)
Definition of Measure spaces; Lebesgue measure; limit theorems; Raydon-Nikodym Theorem; introduction to L_p spaces. Prerequisite: MATH 3260/4260 or MATH 3110/4110.

MATH 4290 Dynamical Systems (4 Credits)
Topological and measure theoretic dynamical systems; properties and invariants of systems; symbolic dynamics; Ergodic Theorems; applications. Prerequisites: MATH 3110/4110 or MATH 3260/4260.

MATH 4300 Graduate Seminar (1-4 Credits)
Students research a topic of their choosing with the aid of a faculty member, and then prepare and present a formal lecture on the subject. Prerequisite: graduate standing or consent of the instructor.

MATH 4400 Differential Geometry (4 Credits)
Planar and spatial curves, global properties of curves, surfaces in three dimensions, the first fundamental form, curvature of surfaces, Gaussian curvatures, geodesics, Theorema Egregium, hyperbolic geometry. Prerequisites: MATH 3170 and either MATH 3110/4110 or MATH 3260/4260.

MATH 4501 Functional Analysis (4 Credits)
Advanced topics in structure of linear spaces; Banach spaces; Hahn-Banach Theorem and Duality; Uniform Boundedness Theorem; Open Mapping and Closed Graph Theorems; Stone-Weierstrass Theorem; Topics in Hilbert Spaces. Prerequisite: MATH 4280.

MATH 4700 Special Topics in Mathematics (1-4 Credits)
MATH 4701 Combinatorial Algorithms (4 Credits)
Basic enumeration techniques; representations of combinatorial objects; algorithms for searching, sorting, generating combinatorial objects, graph algorithms. Prerequisites: MATH 3701 or MATH 3710.

MATH 4705 Special Topics Applied Math (1-5 Credits)
Varying selected advanced topics in mathematics, depending on student demand. Possible alternatives include of variations, partial differential equations, algebraic topology, differential manifolds, special functions.

MATH 4991 Independent Study (1-10 Credits)
Cannot be arranged for any course that appears in course schedule for that particular year.

MATH 4992 Directed Study (1-10 Credits)

MATH 4995 Independent Research (1-10 Credits)
Research projects undertaken in conjunction with a faculty member.

MATH 5000 Doctoral Seminar (3 Credits)
Techniques, methods used in mathematical, computing research. Includes proofs, bibliographic searching, writing styles, what constitutes an acceptable dissertation.
MATH 5991 Independent Study (1-10 Credits)
Cannot be arranged for any course that appears in the regular course schedule for that particular year.

MATH 5995 Independent Research (1-10 Credits)
Research leading to a dissertation.

Media Film Journalism Studies (MFJS)

Courses

MFJS 3120 Media Ethics (4 Credits)
Analysis of problems affecting mass communications profession that result from interaction among governmental, legal, institutional and socioeconomic forces in mass communications systems. Senior standing required.

MFJS 3150 Activist Media: A Historical Overview 1960-Present (4 Credits)
Today’s alternative cultures use internet and mobile technologies to access and circulate mainstream information, but also to rapidly exchange information that exists outside mainstream media channels. Activist movements today with access to digital tools and networks are no longer dependent on newspapers and broadcast networks to represent them and to disseminate their messages. We are, however, just beginning to see how the proliferation of alternative networks of communication, and the content, practices, and identities they facilitate, interact with traditional political and business organizations, as well as with traditional media products and practices. This course focuses on media activism over the past half-century tied to various social movements with an emphasis on contemporary protest movements and their use of new and old media tools and strategies. Cross listed with EDPX 3725, MFJS 4725. Prerequisite: junior standing or permission of instructor. MFJS, SCOM, MDST, COMN, JOUR, MCOM, IIC, or DMST majors only.

MFJS 3160 Networked Journalism (4 Credits)
This course traces the shift that has taken place over the past 15 years from mass-mediated journalism to networked journalism, with emphasis on experiments in citizen and participatory news and on the changing relationship between journalists and their publics. It explores emergent communication technologies and practices and how they are changing the news media landscape. Prerequisite: junior standing or permission of instructor. MFJS, SCOM, MDST, COMN, JOUR, MCOM, IIC, or DMST majors only.

MFJS 3201 Digital Graphic Design (4 Credits)
Students explore digital publication and graphic design, from printed layouts (newspaper and magazines) to digital packages (eBooks and mobile apps). Courses focuses on raster and vector tools to create effective presentations and user interfaces. Laboratory fee required. Prerequisites: MFJS 2140.

MFJS 3203 Women and Film (4 Credits)
This course explores the major intersections of the terms "women" and "film." It is concerned, for example, with the representation of women in film, both in the dominant Hollywood cinema and in alternative filmmaking practices (independent, experimental, documentary, and other national cinemas), with films by women and with women as cinema viewers or spectators. This course examines a variety of feminist approaches (historical, critical, theoretical) relevant to the subject matter. Lab fee. Cross listed with GWST 3203. Prerequisites: MFJS 200 or GWST 1112 or permission of instructor.

MFJS 3204 Film & Broadcast Documentary (4 Credits)
An historical study of documentary film and video, from the films of the Lumiere brothers to contemporary examples. Issues explored include: the nature of documentary and what distinguishes it from fiction, the development of documentary modes or styles, propaganda and ideology in documentary film, ethics, borderline forms that combine documentary and fiction, and documentary’s role in supporting established institutions and regimes and/or promoting social change. Lab fee required. Prerequisite: Permission of instrutor.

MFJS 3205 International & Development Communication (4 Credits)
The course uses a variety of methods and approaches to inspire critical reflection about the complex relationship between communication, culture, media and globalization, (trans)national identity(ies) and development.

MFJS 3206 Film History I: Silent Cinema (4 Credits)
This course explores the international history of film, from the origins of cinema through the late silent period. We examine the ways in which important events such as massive immigration, the Progressive movement, colonialism, World War I, modernism, and the Bolshevik Revolution have altered the face of film history, and look at some of the most important cinematic movements of the period. We discuss film historiography and the special challenges posed by film historical research and writing. Lab fee required. Note: This course is writing-intensive. Prerequisite: Permission of the instructor.

MFJS 3208 Narrative and Longform Journalism (4 Credits)
Students spend time learning the nature and functions of in-depth news reporting for online and print, with a focus on magazine-style feature article writing and editing. Laboratory fee required. Prerequisite: MFJS 2140.

MFJS 3212 Film History II: Sound Cinema (4 Credits)
This course explores the international history of film, from the development of sound cinema through the post-World War II period, 1926-1960. We examine the ways in which important events such as the Great Depression, the rise of fascism, the Second World War, and the Cold War have altered the face of film history, and look at some of the most important cinematic movements of the period. We discuss film historiography and the special challenges posed by film historical research and writing. Lab fee required. Prerequisite: Permission of the instructor.
MFJS 3216 Film History III: Contemporary Cinema (4 Credits)
This course explores the history of film from 1960 to the present. We examine the ways in which important events such as the Cold War, struggles against colonialism, the Vietnam War, globalization, and the rise of religious fundamentalisms have altered the face of film history and look at some of the most important cinematic movements of the period. We discuss film historiography and the special challenges posed by film historical research and writing. Note: Lab fee required. This course is writing-intensive. Lab fee required. Prerequisite: Permission of the instructor.

MFJS 3224 Introduction to 16mm Film and HD Digital Cinematography (4 Credits)
This course focuses on the visual aspects of telling a cinematic Story. Students learn the basics of black and white cinematography using 16mm film cameras and/or the basics of color cinematography using high definition digital cameras. The class emphasizes silent storytelling, using lighting, art design and camera movement to develop character and theme. Students read from seminal film theorists about varying approaches to cinematography and write analyses of their own work. Lab fee required.

MFJS 3229 Video Editing is for Everybody (4 Credits)
The goal for this course is for students to have a basic working knowledge of editing using various media elements (video, audio, photos, music, graphics), developing proficiencies using different editing software, and applying a mixture of editing theories and techniques. This is a summer course only.

MFJS 3301 Culture Jamming (4 Credits)
Culture Jamming describes a set of tactics that certain artists, activists, filmmakers, musicians and journalists use to subvert power structures through appropriation, re-use or re-contextualization of dominant media influences. Students study the cultural context of (to name just a few topics) graffiti art, musical mashups, the re-editing of film and video, flash mobs, media interventions, drop-lifting, and the critical graphic design and journalism of publications like Adbusters.

MFJS 3310 Advanced Newswriting & Reporting (4 Credits)
Application of investigative techniques to interpretive reporting in areas of contemporary social concern. Laboratory fee required. Prerequisite: MFJS 2140.

MFJS 3320 Screenwriting for TV & Film (4 Credits)
This course leads students through advanced scriptwriting formats based on instructor expertise. Lab fee required. Prerequisite: MFJS 2150.

MFJS 3330 Broadcast & Video Journalism (4 Credits)
Students in this course learn and practice the techniques used by broadcast journalists as they write, shoot and edit news packages for television. Laboratory fee required. Prerequisite: MFJS 2140.

MFJS 3501 Web Design & Content Development (4 Credits)
This course covers the building and management of web pages. Students must be comfortable planning, creating and integrating social media and third-party content into web sites, along with analytical tools that measure audience engagement. Laboratory fee required. Prerequisite: MFJS 2140 and MFJS 2240.

MFJS 3504 Advanced Multimedia Storytelling and Publishing (4 Credits)
This course teaches students advanced layout and design for media publications using contemporary software applications for journalists and public relations professionals.

MFJS 3600 Introduction to 3D Modeling (4 Credits)
This course will serve as an introduction to 3D modeling, texturing, and lighting on the computer. Students will complete a series of projects in which the processes of preparing and producing a 3D piece will be explored. Various strategies and techniques for creating detailed models to be used in animation and games will be examined. Additional attention will be spent on virtual camera techniques as well as the use of compositing in creating final pieces. Current trends in the field will be addressed through the analysis and discussion of current and historical examples. Prerequisites: MFJS 2110, DMST 2100, DMST 4100 or permission of instructor. Cross-listed with DMST 3600, DMST 3630, EDPX 3600, EDPX 4600, MCOM 3600, MFJS 3630. MFJS, SCOM, MDST, MCOM, IIC, JOUR, COMN and DMST majors only.

MFJS 3852 Advanced Design, Layout, and Editing (4 Credits)
This course teaches students advanced layout and design for media publications using contemporary software applications for journalists and public relations professionals.

MFJS 3900 Topics in Media Film & Journalism (1-4 Credits)

MFJS 4000 MFJS Graduate Assessment Requirement (0 Credits)
This zero credit hour course is designed to enable graduate students enrolled in the Department of Media, Film and Journalism Studies’ M.A. in Media and Public Communication and the M.A. in International and Intercultural Communication degrees to complete an assessment file prior to their graduation. The requirement does not take place in conjunction with a single quarter but is rather completed throughout the student's academic career according to the required coursework within both the M.A. in IIC and M.A. in MEPC (Media and Globalization or Strategic Communication concentration).
MFJS 4020 Emergent Digital Cultures (4 Credits)
This course introduces graduate students to some of the major historical, cultural, sociopolitical, philosophical, and other critical trends in this field of digital media. The rapid growth of participatory culture online has significant social implications and brings up issues of privacy, consumer power, intellectual property, and the nature of community and public engagement. This class will explore these issues as they manifest in various cases including politics, intellectual property, youth culture, activism, journalism and art. Particular emphasis will be placed on the question of how new media differs from mass media across various fields of cultural production (music, news, advertising, for example) and on what influence new digital products and practices might have on these industries and on cultures and societies more generally.

MFJS 4050 Foundations of Strategic Communication (4 Credits)
Focuses on understanding and implementing public communication campaigns. Central to the course is the exploration of the theoretical social science framework underlying communication campaigns and examination of the ways theories are used to define and explain communication problems and to plan and evaluate campaigns.

MFJS 4055 Media and Cultural Studies (4 Credits)
This course surveys key ideas and authors in the interdisciplinary field of cultural studies with a focus on their contributions to the study of media and communication. Some theoretical concepts to be discussed include: representation, identity, cultural production, ideology, hegemony, intersectionality, and power as these relate to the analysis of media institutions, technologies, cultures, audiences/users, texts, and artifacts. Students will develop an understanding of cultural studies as a theoretical, methodological, and political project, devoted to social critique and transformative praxis.

MFJS 4060 Strategic Messaging (4 Credits)
Continues the focus on learning and applying public relations techniques, emphasizing media relations and media writing. Students develop the ability to formulate and evaluate appropriate communication objectives, strategies, and tactics in response to real-world public relations problems, paying attention to ethical considerations. Students produce a portfolio of written public relations materials. Prerequisite MFJS 4050 or instructor permission.

MFJS 4065 Public Diplomacy and Nation Branding (4 Credits)
Drawing on research from strategic communication, cultural studies, international relations, and marketing, this interdisciplinary course examines how nation-states strive to manage their reputations and increase their influence in the context of globalization and mediatization. Students will learn about the evolution of public diplomacy and nation branding from the Cold War to present day and will discuss current developments and challenges. The course will introduce several theoretical approaches and will use a variety of case studies to help students gain insights into public diplomacy and nation branding as fields of research and of practice.

MFJS 4070 Seminar in Strategic Communication (4 Credits)
Through a combination of course readings, case study analyses and guest speakers, students will observe and learn about the practice of public relations in the health and nonprofit sectors. Students will also learn about the goals, challenges and opportunities specific to these sectors. Prerequisite: MCOM/MFJS 4060 or permission of instructor.

MFJS 4080 Global/Multicultural Campaigns (4 Credits)
Explores aspects of international and intercultural public relations, including intercultural communications issues, international media issues, international corporate PR, cross-cultural and diversity training, international media relations, and international public relations of governments. The class focuses on relevant theories and issues, rather than on techniques. Prerequisite MFJS 4050 or permission of instructor.

MFJS 4140 Issues in Mass Communication History (4 Credits)
This course examines historically the interplay of economic, social, political and cultural aspects of communications technologies, media production and media institutions. The course deals primarily with American media history; some attention will be paid to media history in other countries.

MFJS 4160 Media Theories (4 Credits)
Surveys a number of theoretical approaches to the study of media and mass communication, paying attention to the historical context in which they arise. Students explore the relationships among media technologies, institutions, content, and audiences as well as their impacts on culture and society. The class prepares students to formulate theoretically grounded research questions within the field of media and mass communication.

MFJS 4165 Global Health and Development Communication (4 Credits)
This course will begin with an overview of health communication (which includes but is not limited to health promotion and behavior change). We will discuss individual, social, cultural & technological factors, and relevant theories and concepts in relation to international health communication and development. Students will then learn about the role of communication in international health and development and the way it is practiced in the field. We will also discuss and apply the social and cultural factors that influence the design, delivery, reception, and effectiveness of international health communication programs, the role of international health’s important players big and small (e.g. WHO, UNAID, PEPFAR, Doctors without Borders, pharmaceutical companies, local village leaders, local ministries of health, husbands, mothers, etc.), and the ways in which the use of both upstream and downstream communication is imperative. We will examine case studies and the latest research for international health communication and its effectiveness while we also apply health communication theories from a variety of perspectives.
MFJS 4175 Multicultural Health Communication (4 Credits)
The course will begin with an overview of Health Communication in the United States and the ways in which health and illness are defined through communication, including media. We will discuss existing health disparities and social determinants of health as we examine health communication in multicultural settings in the U.S. We will further examine multicultural audiences and perspectives about health and illness, including diverse meaning systems and their influences on health attitudes and behaviors. Students will learn about cross-cultural concepts of health and disease and how those are represented in communication about health and illness. As students learn about what it means to develop culturally grounded health communication campaigns, they will examine culture-centric messaging in health promotion. We will also discuss the ways in which health care systems are promoting patient-centered, culturally sensitive health care.

MFJS 4200 Topics in Mass Communications (4 Credits)

MFJS 4218 Narrative Film/Video Production I (4 Credits)
This is the first of a two-course capstone sequence focused on the filmmaking process and the completion of a short narrative film. Using an intensive workshop method, the class examines the scriptwriting and pre-production processes, and students finish the quarter with a completed pre-production notebook that includes a shooting script, a producer analysis, a script breakdown, production boards, casting decisions, location scouting reports and a shooting schedule. Likewise, through readings, discussions and screenings, the course is designed to expose students to the larger world of narrative filmmaking. Lab fee required. Cross-listed with MFJS 3218. Prerequisites: MFJS 4450 and MFJS 4470 or permission of the instructor.

MFJS 4219 Documentary Film/Video Production I (4 Credits)
This is the first of a two-course capstone sequence focused on the filmmaking process and the completion of a short documentary film. This course focuses on historical modes and styles of documentary, ethics, and documentary pre-production. Students pitch films, form filmmaking teams and research and write a proposal for their films. Reflective writing about process and outcome anchors student learning. Lab fee required. Cross listed with MFJS 3219. Prerequisites: MFJS 4470 or permission of instructor.

MFJS 4220 Narrative Film/Video Production II (4 Credits)
This is the second of a two-course capstone sequence focused on the filmmaking process and the completion of a short narrative film. The class uses an intensive workshop method to hone work on films pre-produced in Narrative Film/Video I. Specifically, students focus on shooting, directing, editing and sound development for their short narrative film. Lab fee required. Prerequisites: MFJ 4450, MFJS 4470, and MFJS 4218.

MFJS 4221 Documentary Film/Video Production II (4 Credits)
This is the second of a two-course capstone sequence focused on the filmmaking process and the completion of a short documentary film. The course focuses on documentary structure, production and post-production. Additionally, using an intensive workshop style, students critique their own and each other’s work. Reflective writing about process and outcome anchors student learning. Lab fee required. Prerequisites: MFJS 4470 and MFJS 4219.

MFJS 4222 Experimental Theory and Production (4 Credits)
This course is an historical, critical overview of experimental film/video movements; training in experimental projection techniques; production of own experimental projects. Lab fee required. Cross listed with MFJS 3222. Prerequisite: MFJS 4470 or permission of instructor.

MFJS 4223 Advanced Editing (4 Credits)
Building on the basic non-linear editing skills gained in Introduction to Field Production and Editing, this course focuses on advanced editing techniques including image and sound manipulation that utilize rhythmic, graphic, metaphorical, temporal and spatial approaches. In addition, the class addresses advanced sound sweetening and image color correction. Students read from seminal film theorists about varying approaches to editing and write analyses of their own work. Lab fee required. Cross listed with MFJS 3223. Prerequisite: MFJS 4470 or permission of instructor.

MFJS 4229 Video Editing is for Everybody (4 Credits)
Video has become ubiquitous. Whether on YouTube, Hulu, television or a friend's Facebook page, people are exposed to thousands of edited videos every year. From business to anthropology, chemistry to journalism, students in every discipline want to create videos to enhance class projects, aide business plans, promote good works, accompany science processes and create lasting memories. This course is designed to provide students with a basic understanding of television and film editing. When completing this course, the goal is for students to have a basic working knowledge of editing using various media elements (video, audio, photos, music, graphics), editing software and applying a mixture of editing theories and techniques (continuity and montage style editing). There are no prerequisites for this course.

MFJS 4250 Critical Visual Studies (4 Credits)
This graduate seminar introduces students to the major theories of culture and to various critical approaches to media and communication.

MFJS 4255 Space, Place and Globalization (4 Credits)
This class explores how developments in media technologies converge with expanded forms of mobility (migration, tourism, business travel, etc.) to create new practices and experiences with space and place. Responding to a globalizing context where places have become increasingly networked and/or virtual, this course pulls together research at the intersection of communication and geography studies.

MFJS 4260 Qualitative Research Methods (4 Credits)
Surveys interpretive critical theories and methods, which may include participant observation, ethnography, textual analysis, reception or audience studies, historiography, semiotics, and feminist studies. The class also prepares students to write a thesis proposal. Prerequisite MFJS 4250 or permission of instructor.
MFJS 4300 Mass Media Law (4 Credits)
Introduction to freedom of expression and media law. Students learn how the American legal system works and gain an understanding and appreciation of the philosophical foundations of free expression. In addition, students confront many of the issues facing professional communicators today. Topics include incitement, hate speech, student speech, copyright, defamation, and other issues crucial to mass media professionals. The course examines also explores challenges to free expression brought by new(er) communication technologies. The purpose of this class is to give students the knowledge and critical thinking skills needed to be successful in today's rapidly changing communication environment. Cross-listed with MFJS 3040.

MFJS 4310 New Media Law & Regulation (4 Credits)
Examination of current conflicts in mass communications law. Particular emphasis is given the legal problems of communications technologies. Topics may include libel, privacy, obscenity, news gathering, copyright, media ownership and comparative approaches to media law. The course provides insight into how the legal process works and an understanding of the principles and philosophies that underlie the restraints on new communication technologies.

MFJS 4320 Brands and Identities (4 Credits)
Reviews theories and cases of the role and meaning of brands in a consumer society, with a particular emphasis on understanding how brands are implicated in the construction and presentation of personal and group identities. The course combines insights from marketing, social psychology, and cultural studies to explore the importance of brands for both consumers and practitioners. Students master core branding concepts and use them to critically analyze salient social and cultural issues.

MFJS 4450 Scriptwriting (4 Credits)
Utilizing film and written texts, this course examines the fundamentals of narrative scriptwriting. Students produce a short narrative script (10-15 pages) while learning about the various processes involved in this art form. Cross listed with MFJS 2150. Lab fee required.

MFJS 4470 Introduction to Field Production and Editing (4 Credits)
This course focuses on the complete production process: pre-production (planning), production (lighting, shooting and sound gathering) and post-production (editing). The goal of the course is for students to gain a basic understanding of the process involved in producing a field-based production, the skills necessary to complete it and the critical understanding behind all decision. Lab fee required. Cross listed with MFJS 3215.

MFJS 4501 Web Building & Site Management (4 Credits)
An introduction to the fundamental concepts of Web site development and management, including HTML, DHTML, graphical Web-building tools (Macromedia DreamWeaver and others), multilevel site planning and construction, navigation schemes, basic interactivity (via Javascript and CGI), information organization, Web site management and delivery of basic multimedia content.

MFJS 4540 Attitude Change & Persuasion (4 Credits)
A review of the major theories of persuasion, and analysis of their application in public communication campaigns.

MFJS 4550 Media Effects & Consequences (4 Credits)
Examines the psychological effects and sociological consequences of mass communications. The course combines theoretical perspectives from social science inquiry that seek to explain how audiences use the mass media and the effects which media have on audiences. Emphasis is placed upon areas of inquiry which have a bearing on mass communications policy. Prerequisite MFJS 4160.

MFJS 4560 Methods in Communication Research (4 Credits)
Development and application of specific social scientific research techniques to study mass communication. The class surveys both quantitative and qualitative techniques and addresses methods for evaluation.

MFJS 4567 Networked Media and Social Justice (4 Credits)
The course explores contemporary transnational protest movements in the context of new digital-era communication, including the Occupy movement against finance-industry-based expanding economic inequities, the environmental justice movement that seeks to address the production of climate-changing industrial pollution, and the movement to protect online civil liberties related to issues like access and privacy online.

MFJS 4650 Global Media and Communication (4 Credits)
Major theories concerning international communication flows, the impact of globalization and global media, issues of new communication technologies, the rhetoric and media framing of global politics and culture; international marketing and public relations; and national and cultural sovereignty issues related to communication. Prerequisite: instructor's permission.

MFJS 4651 Development Communication (4 Credits)
An overview of major theories in development communication concerning past, present, and future roles of media in economic/cultural development around world. Prerequisite: MFJS 4160 or permission by instructor.

MFJS 4652 Culture, Gender, and Global Communication (4 Credits)
Explore the ways in which culture, gender, and communication intersect and shape a variety of issues from an international and intercultural perspective, including sexuality and gender identity, indigenous and immigration rights, women's rights, and human rights. Using a global feminist perspective, the class examines paradigm shifts in creating social change through social and political movements. Cross listed with MFJS 3652.

MFJS 4653 Language, Power, and Globalization (4 Credits)
This course focuses on scholarly and political debates surrounding the social nature of language, language and (inter)national and individual identity, language policy, multilingualism and linguistic diversity, language and globalization, language and media and communication technologies, and, finally, the future of the global language landscape.
**Modern Languages (MODL)**

**MFJS 4654 Intercultural Communication (4 Credits)**
This course focuses on the intersections between culture & communication, including intercultural communication in interpersonal and mediated contexts at the local, national and global levels as shaped by processes of globalization. It covers major theoretical perspectives and methods, the role of power and privilege in the construction and articulation of culture and cultural identity, and intersections with race, ethnicity, gender, sexuality and class, intercultural training and the role of communication and culture in conflict and conflict resolution.

**MFJS 4655 Multicultural Journalism (4 Credits)**
This course focuses on multicultural approaches to journalism and media, including representations and news coverage related to gender, race/ethnicity, class, and sexuality, disabilities, religion, and nationality, etc.. The class explores culture and intercultural communication and ways to apply these to journalistic writing as a creative process and craft. Prerequisite: Prior journalistic coursework or its equivalent (including writing experience). Cross-listed with MFJS 3655.

**MFJS 4656 Cross-Cultural Travel Seminar: Immigration, Communication, and Border Cultures (4 Credits)**
This is a one-week intensive travel course that takes place in Tucson, Arizona and south to the US-Mexican border region. The focus of this experiential learning class is to study immigration issues, border cultures, and the role of communication and media through testimonies of immigrants, and visits to key sites such as the migrant trail, immigration detention center and courts. Also included are talks by activists and officials involved in the immigration debate. Class meets for two pre-class sessions in spring quarter. Cross-listed with MFJS 3656.

**MFJS 4912 Seminar in Media Film & Journalism Studies (1-5 Credits)**

**MFJS 4980 Internship (1-10 Credits)**
Arrange with internship director to complete internship with Denver-area media organization. Prerequisite: varies; consult internship director.

**MFJS 4991 Independent Study (1-10 Credits)**

**MFJS 4992 Directed Study (1-10 Credits)**

**MFJS 4995 Independent Research (1-10 Credits)**

**Modern Languages (MODL)**

**Music-Academic Classes (MUAC)**

**Courses**

**MUAC 3002 Form and Analysis (4 Credits)**
Analysis of structural elements and stylistic features in solo, chamber and orchestral literature from 1600 to present. Prerequisite: MUAC 2006.

**MUAC 3005 Post-Tonal Theory and Analysis: Set-Theory and Serialism (4 Credits)**
This course has two components: (1) A study of selected analytical techniques for post-tonal music, primarily pitch-class set theory and twelve-tone (serial) theory; (2) Analysis of representative works from the twentieth century, focusing on the music from the first half of the century (Schoenberg, Berg, Webern, Stravinsky, and Bartok). Six credits of Theory 2 or permission of instructor required.

**MUAC 3023 Rhythm & Meter in Tonal Music (4 Credits)**
This course gives a general background, including the history of rhythm and meter, different rhythmic analyses, and various topics (dissonance, ambiguity, Schenker, motives, biology, and perception).

**MUAC 3024 Introduction to Tonal Analysis (4 Credits)**
This course introduces students to various types of musical analysis for tonal music that are more advanced than what is introduced in first- and second-year music theory. Prerequisites: MUAC 2006 and MUAC 2022.

**MUAC 3025 Topics in Analysis: Brahms (4 Credits)**
This course explores a variety of analytical techniques used to understand the compositions of Brahms. We examine works by musicologists and theorists such as Allen Forte, Walter, Frisch, Arnold Schoenberg, Carl Schachter, and David Lewin. Issues discussed include developing variations, rhythm, form, and ambiguity in Brahms. We cover a wide range of repertoire, ranging from piano works to choral works to symphonies.

**MUAC 3030 Seminar-Performance Psychology (2 Credits)**

**MUAC 3036 Internship (1-5 Credits)**

**MUAC 3045 Introduction to Studio Recording (3 Credits)**
A hands-on introduction to recording popular music in the state of the art Lamont Recording Studio. Students will participate in pre-production and recording of a professional four piece rock band. Students will also learn basic audio theory as it applies to the use of microphones, signal processing, and other studio equipment. Topics to be covered include drum sounds, guitar and bass sounds, basic audio theory and acoustics, basic electricity, digital recording, microphones and DI's, signal routing in the studio, tracking with ProTools HD and Logic Pro7, equalization, dynamics, reverberation and delay, special effects, mixing to stereo.

**MUAC 3059 Audio Production II (4 Credits)**
This course covers theory in audio engineering and provides hands-on training in professional audio engineering for studio sessions and live events. Students receive classroom instruction as well as on-site training at Lamont School of Music performances. This is the first sequence in the audio production concentration.
MUAC 3060 Extra-Musical Roles of the Music Director (1 Credit)
Under the supervision and guidance of the director of orchestral studies, students will gain hands-on, actual experience with many of the non-musical tasks that conductors face. These experiences will include managing orchestra personnel, librarian activities, running auditions, and recruiting. Open only to Artist Diploma in orchestral conducting students.

MUAC 3061 Audio Production I (4 Credits)
An introduction to analog and digital synthesis, MIDI sequencing, and DAW software.

MUAC 3064 Audio Production IV (4 Credits)
This course covers theory in audio engineering and provides hands-on training in professional audio engineering for studio sessions and live events. Students receive classroom instruction as well as on-site training at Lamont School of Music performances. This is the third sequence in the audio production concentration.

MUAC 3065 Audio Production V (4 Credits)
This course covers theory in audio engineering and provides hands-on training in professional audio engineering for studio sessions and live events. Students receive classroom instruction as well as onsite training at Lamont School of Music performances. This is the fourth sequence in the audio production concentration.

MUAC 3068 Audio Production for Working Musicians (4 Credits)
In this course, students are taught a solid foundation of basic audio production skills that will enable them to record any style of music. Students are also taught the basics of digital music synthesis and how to create music with digital synthesizers and MIDI. The primary digital audio workstation software used in this course will be ProTools, and each student is required to purchase ProTools (about $250 academic price) and an iLok license dongle (about $40). However, the course has been designed so that skills acquired can be easily applied to any regular DAW platform, such as Logic, Cubase, Ardour, etc. Production techniques for various musical genres will be presented, including Rock, Jazz, Classical, Techno, experimental electro-acoustic, etc. This course will be of great value to performing musicians, singer/songwriters, ensemble directors and conductors, composers, or anyone who wants to record and/or produce music. Students are encouraged but not required to purchase an audio interface and microphone or other input device depending on their area of interest, and are advised in class as to what purchases make sense.

MUAC 3069 Jazz Rhythm Section (4 Credits)
Jazz Rhythm Section provides students with detailed performance practice skills and knowledge. This class may be used to fulfill four hours of Jazz Studies and Commercial Music Area Requirements and may only be taken once for credit. Jazz Studies and Commercial Music Major or the performance ability sufficient to perform on a rhythm section instrument in one of the JSCM ensembles.

MUAC 3092 The Business Side of Music (4 Credits)
A personal and clinical approach to developing music business skills and strategies.

MUAC 3105 Studies in Style: Movement, Mannerisms, Gesture and Physical Comedy (3 Credits)
The exploration of period styles in theatrical and historical genres will be introduced to broaden the singer/actor's repertoire of physical gesture and comedic forms of stage movement. The focus of the course will include studies in rhythm, timing, pacing, musicality and lyricism as these elements apply to heightened expressivity within scene work, character development and ensemble performance. Considerable time will be devoted to the physical practice of related skills as preparation and facilitation of performance projects that will serve as an opportunity for peer observation, group discussion and commentary, and student assessment.

MUAC 3106 The Dynamic Body: Foundations in Movement Methods and Body Awareness Principles (2 Credits)
An introduction to fundamental body awareness principles in relationship to physical performance skills for vocal performance majors. Methods for heightening kinesthetic awareness will be learned in the form of movement explorations, improvisations, structures, and learned phrases to gain somatic insight into the performer’s sense of verticality in all places and dimensions of space. The concepts of the body in motion will be a primary context and focus for the progression of studies or 'etudes,' and for the reflective and analytical processes that include observation, journaling, discussion and peer commentary. Studio activities in solo, partnering, and group work will further the student's knowledge of how to become more responsive, expressive, and communicative when interacting with the surrounding environment and with others. Integrated with the body-mind practice and theoretical study, students will be encouraged to inquire, examine and articulate possible philosophies regarding why the mastery of the performer's physical body requires an essential sense of discipline that is cultivated in the performing arts, and how the somatic practices being investigated can serve his/her performance presence and support one's vocal training and health for the long-term.

MUAC 3124 Composition Seminar (1 Credit)
Composition Seminar focuses on the reading and performance of modern scores by Lamont and recognized composers. Any student composing music or wishing to perform new compositions at Lamont may register and participate. Requirements for composers include the completion, rehearsal and performance of a piece of music at the New Music Ensemble concert each quarter. Non-composers are required to rehearse and perform at the New Music Ensemble concert. Composers enrolled in the ensemble may be required to play compositions submitted as well.

MUAC 3165 Music Theater Survey (2 Credits)
A historical overview of the American Broadway musical, performance technique, audition preparation and repertoire. Must be prepared to sing and perform.

MUAC 3166 Music Theater Survey II (2 Credits)
Fundamentals of music theater performance will be addressed through readings of the text, "Acting in Music Theater" by Joe Dee and Rocco dal Vera. Application of these techniques through performance of musical theater literature will be incorporated during the last number of weeks. Additionally, we will highlight prominent composers and their works throughout the quarter.
MUAC 3196 Advanced Composition Tutorial (4 Credits)

MUAC 3200 Recitative in Opera & Oratorio (2 Credits)
The fluid singing of recitative in German, English, Italian and French will be explored and practiced in this class. Students will harmonically analyze examples, add ornamentation, and perform recitative with a knowledge of the translation and emotional content.

MUAC 3234 Cycle of Seasons-Resources (1 Credit)

MUAC 3235 Preschool Music Workshop (3 Credits)

MUAC 3236 Family Music Workshop (1 Credit)

MUAC 3237 Music Makers at the Keyboard (3 Credits)
This 30-hour workshop presents the keyboard method for groups of young beginners ages 5-9.

MUAC 3238 Music Makers at Home & World (3 Credits)
This 30-hour workshop presents the method for a sequential two-year program that guides the musical development of children ages 4-7. Different world cultures are celebrated through music, songs, dances, stories, and rituals.

MUAC 3240 Vocal Pedagogy (2 Credits)
Psychological and physical aspects of teaching of singing.

MUAC 3241 Voice Pedagogy (2 Credits)
Psychological and physical aspects of teaching of singing.

MUAC 3282 Suzuki Violin Seminar II (2 Credits)

MUAC 3283 Suzuki Violin Seminar II (2 Credits)

MUAC 3284 Suzuki Violin Seminar II (2 Credits)

MUAC 3333 Advanced Vocal Pedagogy (2 Credits)
An advanced study of the science behind the singing voice, including the biomechanics of phonation, identifying systems and changes in the voice, posture and breathing that impact phonation, and a physiologic approach to vocal exercises in preparation for teaching voice. Prerequisite: MUAC 3242.

MUAC 3350 Social History-Modern Britain (4 Credits)
This course investigates the intersections of class, gender, and race in nineteenth-century British society. During this period, Britain became the preeminent world power thanks to its spectacular industrialization and its even more impressive empire. Such success often fostered smugness and complacency, yet British society was also riddled with dissension as people struggled to cope with the enormous changes they were witnessing. Discussions focus on the ways in which Victorian people themselves understood their society and its problems, and how they attempted to construct solutions to those problems. Who was implicitly or explicitly excluded from British society? As we consider these topics, we use a variety of secondary and primary sources, including fiction; one goal of the course is for us to think about how to integrate different kinds of sources as we analyze historical problems and create our own interpretations. Cross listed with HIST 3350.

MUAC 3439 Teaching Note Reading (2 Credits)

MUAC 3460 Suzuki Cello Practicum (1 Credit)

MUAC 3461 Suzuki Cello Practicum (1 Credit)

MUAC 3462 Suzuki Cello Practicum (1 Credit)

MUAC 3463 Suzuki Cello Seminar I (2 Credits)

MUAC 3464 Suzuki Cello Seminar I (2 Credits)

MUAC 3465 Suzuki Cello Seminar I (2 Credits)

MUAC 3466 Suzuki Cello Seminar II (2 Credits)

MUAC 3467 Suzuki Cello Seminar II (2 Credits)

MUAC 3468 Suzuki Cello Seminar II (2 Credits)

MUAC 3470 Suzuki Violin Seminar I (2 Credits)
Comprehensive study of Suzuki philosophy, repertoire and teaching techniques for violin. Offered fall, winter, and spring quarters. May be repeated for credit.

MUAC 3471 Suzuki Violin Seminar I (2 Credits)
Comprehensive study of Suzuki philosophy, repertoire and teaching techniques for violin. Offered fall, winter, and spring quarters. May be repeated for credit.

MUAC 3472 Suzuki Violin Seminar I (2 Credits)
Comprehensive study of Suzuki philosophy, repertoire and teaching techniques for violin. Offered fall, winter, and spring quarters. May be repeated for credit.
MUAC 3477 Suzuki Violin Practicum (1 Credit)
MUAC 3478 Suzuki Violin Practicum (1 Credit)
MUAC 3479 Suzuki Violin Practicum (1 Credit)

MUAC 3497 Studying Music in the Field: Theory and Method in Ethnomusicology (4 Credits)
This course introduces issues that motivate ethnomusicological research and techniques for carrying out fieldwork, the ethno-anthropo-graphic method which has largely come to define the discipline. Our primary texts include Bruno Nettl’s classic text, Given the Field, a seminal volume of essays discussing ethnomusical fieldwork. This course also involves hands-on experience in some of the major fieldwork techniques, including field observation and writing fieldnotes, musical transcription and interviewing. This course culminates in a field research project in a Denver musical community determined in consultation with the professor. Note: this course is not open to freshman; sophomores with permission of instructor.

MUAC 3502 Gender & Genre in World Music (4 Credits)
How are concepts of “maleness,” “femaleness” and other gendered categories constructed, maintained, and contested through musical performance? This course examines the issues explored and debated in recent studies of gender relation to music of various cultures including Western art music, popular music, and other world genres. We focus on reading and discussion of ethno-musicological and anthropological ethnographies, musicological studies focusing on gender and theoretical writings from gender and women’s studies. Lectures and discussions are supplemented by guest lecture-demonstrations, film/video screenings and hands-on workshops. This course is not open to freshman. Sophomores can register with instructor approval.

MUAC 3550 Major Composers-J.S. Bach (4 Credits)
Music of Bach, including chronological development, form and style, studied against background of baroque musical practice and circumstances of Bach’s life and temperament. Prerequisites: MUAC 1621, 1622 and 1623.

MUAC 3570 Major Composers: Beethoven (4 Credits)

MUAC 3578 Advanced Composition (4 Credits)
Advanced composition with students composing works of large scope and using a variety of advanced techniques consistent with interests and abilities; emphasis on imagination and originality of personal expression.

MUAC 3579 Advanced Composition (3 Credits)
Advanced composition with students composing works of large scope and using a variety of advanced techniques consistent with interests and abilities; emphasis on imagination and originality of personal expression. May be taken more than once for credit. Prerequisite: MUAC 3020.

MUAC 3590 Guitar History (4 Credits)

MUAC 3600 The Evolution of Rock (4 Credits)
This course traces the history of rock from the Beatles in the early 60’s to the most recent developments of the 90’s. The course provides a concise overview of this most influential musical phenomenon. Designed for the non-music major, it requires no prerequisites. Classes consist of lectures and listening. All listening examples are available via computer to each student.

MUAC 3630 Basic Jazz Arranging (2 Credits)
A study and practical analysis of the foundational techniques involved with composing and orchestrating for small group jazz ensembles. This course will cover the basics of form, notation, and orchestration in the small group jazz idiom, consisting of one to four horns and/or vocals, guitar, piano, bass, and drums.

MUAC 3650 Orchestral Excerpts-Cello (4 Credits)
This course will explore excerpts from the standard orchestral literature, highlighting favorite audition materials of the major symphony orchestras. Students will be given a list of excerpts and coached on how to prepare them. They will participate in mock auditions and receive feedback. This course will also address the mental aspects involved in taking successful auditions and the expectations demanded of them in the professional world of orchestras.

MUAC 3655 Orchestral Excerpts-Bass (4 Credits)
This course will explore excerpts from the standard orchestral literature, highlighting favorite audition materials of the major symphony orchestras. Students will be given a list of excerpts and coached on how to prepare them. They will participate in mock auditions and receive feedback. This course will also address the mental aspects involved in taking successful auditions and the expectations demanded of them in the professional world of orchestras.

MUAC 3660 Orchestral Excerpts-Violin (4 Credits)
This course will explore excerpts from the standard orchestral literature, highlighting favorite audition materials of the major symphony orchestras. Students will be given a list of excerpts and coached on how to prepare them. They will participate in mock auditions and receive feedback. This course will also address the mental aspects involved in taking successful auditions and the expectations demanded of them in the professional world of orchestras.

MUAC 3661 Orchestral Excerpts Viola (4 Credits)
This course explores excerpts from the standard orchestral literature, highlighting favorite audition materials of the major symphony orchestras. Students are given a list of excerpts and coached on how to prepare them. They participate in mock auditions and receive feedback. This course also addresses the mental aspects involved in taking successful auditions and the expectations demanded of them in the professional world of orchestras.
**MUAC 3662 Orchestral Studies for Brass (2 Credits)**
Study of orchestral literature brass players are likely to be asked to play at auditions for professional orchestras. Undergraduate participants should have passed their Sophomore Proficiency jury with distinction.

**MUAC 3663 Orchestral Excerpts, Viola II (4 Credits)**
Companion course to Orchestral Excerpts Viola I, this section expands the repertoire list beyond the standard works used for auditions today. In addition to further honing basic requisite material from section I, students study and prepare less frequently required works and principle viola solo repertoire. There is more extensive discussion of the audition process and mock auditions as a part of the course. While it is advised and preferable that students complete the first section of this course it is possible to take the course with the approval of the instructor.

**MUAC 3682 Topics-Orchestral Repertoire (4 Credits)**
We explore the history of the orchestra and orchestral literature from the baroque through modern eras, and examine a number of test cases in which conventional understanding has been challenged in recent years. The course concludes with individual research projects and presentations on topics students choose and develop.

**MUAC 3683 History of Chamber Music (4 Credits)**
Chamber music from baroque trio sonata to contemporary electronic works. Prerequisites: MUAC 1621, MUAC 1622 and MUAC 1623. Winter quarter only.

**MUAC 3684 Choral Literature I (2 Credits)**
This course is an analysis of the development of choral repertoire from the Middle Ages through the Baroque era.

**MUAC 3686 Choral Pedagogy I (2 Credits)**
The Choral Pedagogy course focuses on effective choral methods and techniques indigenous to primary schools of thought that have risen to prominence or have proven successful in practice and performance throughout the last 50 years in the academic and professional choral idiom. Through study and analysis of selected works by various composers, effective teaching techniques are explored in performance practice and style interpretation.

**MUAC 3688 Choral Pedagogy II (2 Credits)**
The Choral Pedagogy course focuses on effective choral methods and techniques indigenous to primary schools of thought that have risen to prominence or have proven successful in practice and performance throughout the last 50 years in the academic and professional choral idiom. Through study and analysis of selected works by various composers, effective teaching techniques are explored in performance practice and style interpretation.

**MUAC 3689 Choral Literature II (2 Credits)**
This course is an analysis of the development of choral repertoire from the Classical period until the present day. This course is meant to be taken in sequence after Choral Literature I.

**MUAC 3698 Carillon History and Mechanics (4 Credits)**
A survey of the evolution of signal bells into the musical instrument known as the carillon. This subject is often called “campanology.” The history will be traced from the 16th century in the Low Countries through modern times in Europe, North America, Australia/New Zealand and Japan. Topics will include bell foundries, bell casting and tuning, bell chambers, playing actions, carillonneurs, carillon schools, carillon organizations, the use of the carillon in its various regions and basic carillon maintenance.

**MUAC 3700 Carillon Repertoire (4 Credits)**
A survey of the music expressly produced for carillon from the earliest times through the present. Categories include automatic music (e.g., De Sany, Wyckaert, Eggert), the earliest compositions for manual play (Van den Gheyn and the Louvain manuscripts of the 18th century), and the 20th-century categories: Flemish, Dutch, French and North American. Mainstream publishers as well as incidental publications will be covered. The labs will focus on analysis through recordings and live performances by participants.

**MUAC 3704 Pedagogy & Repertoire Tuba (4 Credits)**
Teaching techniques and survey of literature and teaching materials for the tuba.

**MUAC 3705 Pedagogy & Repertoire Tuba (4 Credits)**
Teaching techniques and survey of literature and teaching materials for the tuba.

**MUAC 3706 Pedagogy & Repertoire Tuba (4 Credits)**
Teaching techniques and survey of literature and teaching materials for the tuba.

**MUAC 3707 Pedagogy & Repertoire Horn (4 Credits)**
Teaching techniques and survey of literature and teaching materials for the horn.

**MUAC 3708 Pedagogy & Repertoire Horn (4 Credits)**
Teaching techniques and survey of literature and teaching materials for the horn.

**MUAC 3709 Pedagogy & Repertoire Horn (4 Credits)**
Teaching techniques and survey of literature and teaching materials for the horn.

**MUAC 3710 Carillon Pedagogy I (2 Credits)**
An exploration of the physical and psychological elements that can lead to effective carillon teaching: technique, handling/pedaling (“fingering” on the piano), and developing an attitude that fosters successful performance.
MUAC 3711 Pedagogy & Repertoire Trombone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trombone.
MUAC 3712 Pedagogy & Repertoire Trombone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trombone.
MUAC 3713 Pedagogy & Repertoire Trombone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trombone.
MUAC 3717 Pedagogy & Repertoire Percussion (4 Credits)
Teaching techniques and survey of literature and teaching materials for percussion.
MUAC 3718 Pedagogy & Repertoire Percussion (4 Credits)
Teaching techniques and survey of literature and teaching materials for percussion.
MUAC 3719 Pedagogy & Repertoire Percussion (4 Credits)
Teaching techniques and survey of literature and teaching materials for percussion.
MUAC 3724 Pedagogy & Repertoire Guitar (4 Credits)
Teaching techniques and survey of literature and teaching materials for the guitar.
MUAC 3726 Pedagogy & Repertoire Viola (4 Credits)
Teaching techniques and survey of literature and teaching materials for the viola.
MUAC 3727 Pedagogy & Repertoire Viola (4 Credits)
Teaching techniques and survey of literature and teaching materials for the viola.
MUAC 3730 Pedagogy & Repertoire Cello (4 Credits)
Teaching techniques and survey of literature and teaching materials for the cello.
MUAC 3733 Pedagogy & Rep Double Bass (4 Credits)
Teaching techniques and survey of literature and teaching materials for the double bass.
MUAC 3735 Pedagogy & Repertoire Harp (4 Credits)
Teaching techniques and survey of literature and teaching materials for the harp.
MUAC 3736 Pedagogy & Repertoire Harp (4 Credits)
Teaching techniques and survey of literature and teaching materials for the harp.
MUAC 3737 Pedagogy & Repertoire Harp (4 Credits)
Teaching techniques and survey of literature and teaching materials for the harp.
MUAC 3738 Pedagogy & Repertoire Organ (2 Credits)
Teaching techniques and survey of literature and teaching materials for the organ.
MUAC 3739 Pedagogy & Repertoire Organ (2 Credits)
Teaching techniques and survey of literature and teaching materials for the organ.
MUAC 3740 Pedagogy & Repertoire Organ (2 Credits)
Teaching techniques and survey of literature and teaching materials for the organ.
MUAC 3741 Pedagogy & Repertoire Trumpet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trumpet.
MUAC 3742 Pedagogy & Repertoire Trumpet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trumpet.
MUAC 3743 Pedagogy & Repertoire Trumpet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the trumpet.
MUAC 3747 Pedagogy & Repertoire Flute (4 Credits)
Teaching techniques and survey of literature and teaching materials for the flute.
MUAC 3748 Pedagogy & Repertoire Flute (4 Credits)
Teaching techniques and survey of literature and teaching materials for the flute.
MUAC 3749 Pedagogy & Repertoire Flute (4 Credits)
Teaching techniques and survey of literature and teaching materials for the flute.
MUAC 3750 Pedagogy & Repertoire Clarinet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the clarinet.
MUAC 3751 Pedagogy & Repertoire Clarinet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the clarinet.
MUAC 3752 Pedagogy & Repertoire Clarinet (4 Credits)
Teaching techniques and survey of literature and teaching materials for the clarinet.
MUAC 3753 Pedagogy & Repertoire Saxophone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the saxophone.

MUAC 3754 Pedagogy & Repertoire Saxophone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the saxophone.

MUAC 3755 Pedagogy & Repertoire Saxophone (4 Credits)
Teaching techniques and survey of literature and teaching materials for the saxophone.

MUAC 3756 Pedagogy & Repertoire Oboe (4 Credits)
Teaching techniques and survey of literature and teaching materials for the oboe.

MUAC 3757 Pedagogy & Repertoire Oboe (4 Credits)
Teaching techniques and survey of literature and teaching materials for the oboe.

MUAC 3758 Pedagogy & Repertoire Oboe (4 Credits)
Teaching techniques and survey of literature and teaching materials for the oboe.

MUAC 3759 Pedagogy & Repertoire Bassoon (4 Credits)
Teaching techniques and survey of literature and teaching materials for the bassoon.

MUAC 3761 Pedagogy & Repertoire Bassoon (4 Credits)
Teaching techniques and survey of literature and teaching materials for the bassoon.

MUAC 3762 Pedagogy & Repertoire Bassoon (4 Credits)
Teaching techniques and survey of literature and teaching materials for the bassoon.

MUAC 3765 Professional Brass Techniques (4 Credits)
This 4-hour per week course will be divided into a lecture/seminar for two hours and performance practicum for two hours. Topics discussed and performed include orchestral playing, sight reading, practice, solo performance, jazz survival, ornamentation, transposition, and warm-up/maintenance routine.

MUAC 3804 Topics in Music (1-5 Credits)

MUAC 3810 Voice Repertoire (2 Credits)
Styles, periods and traditions of vocal repertoire from earliest music to contemporary compositions.

MUAC 3811 Voice Repertoire (2 Credits)
Styles, periods and traditions of vocal repertoire from earliest music to contemporary compositions.

MUAC 3812 Voice Repertoire (2 Credits)
Styles, periods and traditions of vocal repertoire from earliest music to contemporary compositions.

MUAC 3822 Piano Repertoire I (2 Credits)
Performance and analysis.

MUAC 3823 Piano Repertoire II (3 Credits)
Performance and analysis.

MUAC 3824 Piano Repertoire III (3 Credits)
Performance and analysis.

MUAC 3830 Advanced Jazz Arranging I (2 Credits)
A study and practical analysis of small to medium jazz ensemble writing with extended instrumentation. Consisting of nonette-style orchestration including orchestral instruments such as horn, tuba, woodwinds, and voice along with extended electronic textures, this course will cover the basics of notation and orchestration in the 21st Century hybrid small to medium size jazz ensemble idiom.

MUAC 3831 Jazz and Commercial Music Orchestration and Arranging (2 Credits)
A study and practical analysis of large "studio orchestra" type jazz writing with extended instrumentation. Consisting of medium to full orchestral string section, woodwinds, harp, percussion, brass plus jazz rhythm section, voices, and soloists. Exemplified by such modern ensembles as Snarky Puppy with the Metropole Orchestra, this will be a full studio orchestra with modern 21st Century jazz, rock, and pop sensibilities. String bowings and aspects of dynamic ensemble balances in the studio orchestra will be studied, as well as writing for the harp.

MUAC 3832 Jazz and Commercial Music Orchestration and Arranging (4 Credits)
This course offers an in-depth, three term sequence of the theory, forms and styles of commercial music composition. Prerequisite: Satisfactory completion of first- and second-year written and aural theory. Final projects include production of a "studio orchestra" piece and writing for a film, including MIDI and SMPTE technologies.

MUAC 3841 Jazz & Commercial Music History/Repertoire (4 Credits)

MUAC 3842 Jazz & Commercial Music History/Repertoire (4 Credits)
Writing for small and large jazz groups; accompaniment skills; writing for live performance versus writing for recorded performance. Prerequisite: MUAC 3830.
MUAC 3843 Jazz & Commercial Music History/Repertoire (4 Credits)
Writing for small and large jazz groups; accompaniment skills; writing for live performance versus writing for recorded performance. Prerequisite: MUAC 3830.

MUAC 3844 21st Century Artistry I (2 Credits)
21st Century Artistry I is a course of study that examines the full spectrum of attributes and skills necessary for a student to “survive and thrive” in the every-changing landscape of the 21st Century. With a two-fold approach of examining effective strategies for a "modern artistry mindset" along with extensive case studies of successful 21st Century professionals, this course will offer the student a wide array of important recourses to guide their career. The case study aspect of 21st Century Artistry I will be based on multiple evaluations of successful artists in the 21st Century in partnership with local presenters.

MUAC 3845 Writing for The Modern Large Jazz Ensemble I (2 Credits)
A study and practical analysis of the major methods for writing for the modern large jazz ensemble (big band) as exemplified by Frank Foster, Sammy Nestico, Slide Hampton, Bob Brookmeyer and other modern practitioners. Application of analysis will be in the form of a complete arrangement or original composition for modern big band.

MUAC 3846 Writing for the Modern Large Jazz Ensemble II (2 Credits)
A study and practical analysis of the major methods for writing for the modern large jazz ensemble (big band) as exemplified by Bob Brookmeyer, Maria Schneider, Gil Evans, Darcy James Argue, and others. A special emphasis will be placed on creating full works for the large jazz ensemble that uses textures and modern extended form approaches indicative of these artists. Application of analysis will be in the form of a complete arrangement or original composition for modern big band.

MUAC 3847 Hip-Hop: Theory and Practice (4 Credits)
Students in this class will examine the socio-cultural, economic, and political significance of hip-hop as a medium of expression for youth around the world. Through analysis of poplar writing and media, as well as academic texts, we critically explore issues of race, social justice, masculinity, misogyny, censorship, technology, and intellectual property, as they relate to mainstream and underground hip-hip in America. Having discussed hip-hop's roots in the U.S., the remainder of the quarter will be devoted to tracing hip-hop's global routes.

MUAC 3860 Basic Jazz Improvisation (4 Credits)
The study of jazz improvisation techniques and forms. Open to music majors or by instructor permission.

MUAC 3870 Jazz Improvisation & Composition (4 Credits)
Improvisational styles of major jazz soloists studied through transcription and analysis of selected recorded jazz solos; scales and modes; rhythmic styles and devices; practice and development of individual student's improvisational technique. Prerequisites: MUAC 1011, MUAC 1012, MUAC 3830.

MUAC 3872 Jazz Improvisation & Composition (4 Credits)
Improvisational styles of major jazz soloists studied through transcription and analysis of selected recorded jazz solos; scales and modes; rhythmic styles and devices; practice and development of individual student's improvisational technique. Prerequisites: MUAC 1011, MUAC 1012, MUAC 3830.

MUAC 3910 Orchestration (4 Credits)
Techniques of instrumental scoring.

MUAC 3933 Graduate Music History Review (0 Credits)
MUAC 3935 Graduate Music Theory Review (0 Credits)
This course provides an accelerated review of materials from the undergraduate theory core, including analysis and written exercises in diatonic and chromatic harmony, counterpoint, tonal forms, and an introduction to 20th-Century theory.

MUAC 3959 Movement and Expression for Conductors (2 Credits)
Conductors use their whole body to communicate and elicit successful performances from their ensemble. If you have unnecessary tension or lack of ease in your body, this is communicated unconsciously to your ensemble, hindering quality of performance. Additionally, physical tension can prevent your ability to communicate and think clearly under pressure. This course is an exploration of freedom of movement and the physicality of musical expression. Classes will include group activities in free-movement, dance, acting, keeping your cool, poise, balance, tension release, as well as hands-on instruction applying Alexander technique to your conducting.

MUAC 3960 Advanced Orchestral Conducting (2 Credits)
Discussions of and exercises in score study, interpretation, and techniques associated with orchestral conducting. Includes practical experience conducting orchestral repertoire. Required of MM Conducting students with Choral or wind concentrations. Open to other students with permission of instructor. Prerequisite: Permission of instructor (not needed for MM Conducting students with Choral or Wind concentration). Fall quarter only.

MUAC 3961 Advanced Choral Conducting (2 Credits)
Conducting complex choral works, including those with instrumental accompaniment; phrasing, interpretation and score reading. Prerequisite: MUAC 2940. Fall quarter only.

MUAC 3962 Advanced Wind Conducting (2 Credits)
Conducting complex wind compositions; phrasing interpretation and score reading. Prerequisite: MUAC 2970. Spring quarter only.

MUAC 3973 Advanced Wind Literature I (2 Credits)
This course is an overview of wind literature appropriate for junior high school, high school, college and professional programs including strategies in effective programming and creation of appropriate program notes.
MUAC 3974 Advanced Wind Literature II (2 Credits)
An in-depth study of successful compositional techniques by prominent composers of wind literature. Prerequisite: MUAC 3973.

MUAC 3980 Advanced Jazz Improvisation and Composition (4 Credits)
A three term sequence continuing the in-depth study of the theory, performance practices, style, and history of jazz improvisation and composition. Prerequisite: satisfactory completion of the three terms of Jazz Improvisation and Composition or consent of the instructor.

MUAC 3990 Internship in Music (1-8 Credits)
Internship in Music will offer opportunities for music majors to experience actual music related careers within a sponsoring music organization chosen by the student and accepted by the supervising faculty of the School of Music.

MUAC 3991 Independent Study (1-10 Credits)
MUAC 3992 Directed Study (1-10 Credits)

MUAC 4000 Introduction to Graduate Study (2 Credits)
Problems of research in various chronological epochs of Western musical culture; research techniques and sources used in research; formal writing style.

MUAC 4002 Form and Analysis (4 Credits)
Analysis of structural elements and stylistic features in solo, chamber and orchestral literature from 1600 to present. Prerequisite: MUAC 2006.

MUAC 4006 Post-Tonal Theory: Mode/Rhythm (4 Credits)
Works of Stravinsky, Bartok, Satie, Debussy, and others are studied, employing various transformational theories, diatonic set theory, and 20th-century metric theories. Prerequisite: completion of Music Theory I and Music Theory II sequences.

MUAC 4007 Post-Tonal Theory and Analysis: Set-Theory and Serialism (4 Credits)
This course has two components: (1) A study of selected analytical techniques for post-tonal music, primarily pitch-class set theory and twelve-tone (serial) theory; (2) Analysis of representative works from the twentieth century, focusing on the music from the first half of the century (Schoenberg, Berg, Webern, Stravinsky, and Bartok). Six credits of Theory 2 or permission of instructor required.

MUAC 4009 Tonal Counterpoint (4 Credits)
Eighteenth-century counterpoint using J.S. Bach as a model, with two- and three-part fugue writing.

MUAC 4010 Pedagogy of Music Theory (4 Credits)
Materials, devices, techniques of teaching theory. Students must have successfully completed undergraduate music theory or passed graduate review theory.

MUAC 4020 Intro Research in Music Ed (2 Credits)
Foundations in measurement and evaluation of musical behaviors and understanding, using, designing primary research projects in music education.

MUAC 4030 Convocation Attendance (0 Credits)

MUAC 4050 Major Adv Repertoire Guitar (2 Credits)
Bibliographical survey of materials related to particular repertoire chosen by student for MA recital in preparation for major written project at end of year.

MUAC 4051 Major Adv Repertoire Guitar (2 Credits)
Bibliographical survey of materials related to particular repertoire chosen by student for MA recital in preparation for major written project at end of year.

MUAC 4052 Major Adv Repertoire Guitar (2 Credits)
Bibliographical survey of materials related to particular repertoire chosen by student for MA recital in preparation for major written project at end of year.

MUAC 4090 Model Composition (4 Credits)
Students in this course deepen their understanding of musical styles and techniques by composing works that imitate major composers before 1900. Music by each student is performed in a final recital. Prerequisite: Tonal Counterpoint, equivalent coursework from another institution, or permission of instructor.

MUAC 4121 Seminar in Music Theory (4 Credits)
Composition Seminar focuses on the reading and performance of modern scores by Lamont and recognized composers. Any student composing music or wishing to perform new compositions at Lamont may register and participate. Requirements for composers include the completion, rehearsal and performance of a piece of music at the New Music Ensemble concert each quarter. Non-composers are required to rehearse and perform at the New Music Ensemble concert. Composers enrolled in the ensemble may be required to play compositions submitted as well.

MUAC 4161 Topics in 20th-Century Opera (4 Credits)
This course involves the close study of selected twentieth- and twenty-first-century operas, their respective musical styles and their videotaped performances. This study will include such issues as opera and film, opera libretto criticism, and the personal and public politics of the opera.

MUAC 4189 Jazz Performance Techniques (2 Credits)
Individual study of jazz performance techniques in a directed study environment.
MUAC 4196 Graduate Composition Tutorial (2 Credits)
MUAC 4200 Diction-Graduate Voice Majors (2 Credits)
This course is designed to help refine the diction skills of graduate students in voice, with an emphasis on Italian, French and German. Native speakers will be presented, and the student will learn some basic vocabulary and syntactical aspects of the language.

MUAC 4300 Topics in Jazz History (4 Credits)
A seminar focusing on a major figure of jazz history. Detailed examination of a single artist, their life, music and influences.

MUAC 4301 The Michael Brecker Era - Jazz Fusion 1970 to the Present (4 Credits)
An examination of the music of jazz and pop saxophonist Michael Brecker. From the Saturday Night Live Band through performances on over 700 pop, R&B, and jazz recordings, this course will look at the evolution of jazz fusion through this active musical period.

MUAC 4305 Advanced Bebop Concepts (2 Credits)
An in-depth study of the language of bebop jazz improvisation. The course will combine listening, composing and performing skills with theoretical knowledge of the great improvisers of the 1940s and 50s.

MUAC 4350 Talam: Rhythmic Form and Process in South Indian Music (4 Credits)
This course explores the rhythmic system (talam) of Carnatic music, the classical music of Southern India. We begin the quarter with a general introduction to Carnatic music performance, examining its relationship to religious identity, histories of colonialism and nationalism, and social practices of class, caste, and gender. Having contextualized South Indian classical music socio-historically, the remainder of the quarter will focus on theoretical and practical issues in Carnatic talam. Readings and discussions will examine Indian conceptions of time (musical, cosmological, and cultural), the setting of song-texts, the art of improvisation and accompaniment, as well as the relationship between music, dance, and the body. We will also discuss and analyze cross-cultural applications of Carnatic rhythm in the compositions and pedagogies of several rock, jazz, and classical musicians. Weekly modules in solkattu, a system of spoken syllables and patterned hand gestures, will help students build and sharpen rhythmic skills and develop an analytical understanding for the intricacies of Carnatic meter and rhythmic design. Over the quarter, students will learn increasingly challenging exercises and rhythmic compositions in a variety of tala cycles (3, 5, 7, 8, and 9 beats in length). Some class time will be devoted to hands-on instruction in Carnatic percussion, including the mrdangam, the principle drum of South Indian classical music, as well as other hand drums including the khanjira frame drum.

MUAC 4450 Suzuki Group Lesson Practicum (1 Credit)
The Suzuki Group Lesson Teaching Practicum provides an opportunity for Suzuki Pedagogy master's students and Suzuki Teaching Certificate students to receive feedback on their own group lesson teaching skills from the professor. Prerequisites: MUAC 3478 or MUAC 3461.

MUAC 4492 History of Opera: From Monteverdi to Minimalism and Beyond (4 Credits)
This seminar course surveys the history of opera from the invention of the genre c. 1600 to the present day. In addition to assigned excerpts, students view three complete operas during the quarter. Primary and secondary source readings supplement the required text and class lectures. Students write a research paper that may examine some aspect of a particular opera or that may compare a particular aspect found in several operas. With the prior consent of the instructor, students may submit an alternative final project, one that combines performance with some form of written work.

MUAC 4493 Approaches to American Popular Music (4 Credits)
We explore a number of topics involved in the study of popular music, including tensions between analytical and cultural approaches; issues of race, class, and gender; and constructions of authenticity and personae. Listening and reading are wide-ranging, encompassing diverse styles. The course concludes with individual research projects and presentations on topics students choose and develop.

MUAC 4494 Music and Belief in World Cultures (4 Credits)
How does music affect religious experience and how does religion shape musical practice? Why is music vital in some religious rituals and expressly banned in others? If humans use music to create, reflect, and comment upon the worlds they experience and imagine, then the use of music in religious practice is among its most powerful and ephemeral. Students are introduced to a wide range of musical traditions and their relationship to many of the world's religions, including Islam, Judaism, Christianity, Buddhism, Hinduism, Native American belief and the religious practices of Africa and its diaspora. Readings, lectures and discussions are supplemented by guest lecture demonstrations, film/video screenings and hands-on workshops.

MUAC 4498 Music, Dance, and Everyday Life in South Asia (4 Credits)
This course serves as an introduction to a diverse array of performance traditions from the South Asian subcontinent. We examine the significance of music and dance in everyday life, the influence of media technology, and the relationship of performance to issues such as caste, gender, nationalism and globalization. Class discussions are supplemented by guest lectures, hands-on workshops and film screenings. Our study of music outweighs that of dance, and a music background is strongly encouraged.

MUAC 4499 Topics in Musicology (4 Credits)
This course focuses on particular musicology topics determined by the instructor. Course materials may include primary and secondary source readings, theoretical writings from other disciplines, a variety of listening assignments, film/video screenings, guest lecture demonstrations, and hands-on workshops. Students are expected to participate in class discussions and may be asked to write short response papers and/or to give short oral presentations. The course concludes with individual research projects, presented orally and in written form, on topics chosen and developed in consultation with the instructor. Expectations for graduate students enrolled in the course are commensurate with their training and background as compared to undergraduates enrolled in the course. In some cases, with the prior consent of the instructor, students may choose to combine performance with the final research project.
MUAC 4511 Mahler and Musical Culture (4 Credits)
We explore Gustav Mahler's life, historical context, and music, all in relation to one another. The focus is on recent and important scholarly approaches to this conductor and composer. The course concludes with individual research projects and presentations on topics students choose and develop.

MUAC 4512 Stories of Music History (4 Credits)
We explore a number of case studies in which "conventional wisdom" about a composer, repertory, or a period of time turns out to be not universally "true," but instead contingent on cultural context and changing ideologies about music. The course concludes with individual research projects and presentations on topics students choose and develop.

MUAC 4513 Wagner and the Ideology of the Artwork (4 Credits)
We explore Richard Wagner's music dramas, particularly the Ring operas, as well as theories and ideologies surrounding them. The focus is on recent and important scholarly approaches. The course concludes with individual research projects and presentations on topics students choose and develop.

MUAC 4520 Topics in Hindustani Music (4 Credits)
This course explores the melodic system (raga) and rhythmic system (tala) of Hindustani music, the classical music of North India. These conceptual frameworks act both as sound structures to be realized in improvised performance and as aesthetic entities manifested in the related traditions of dance, iconography, and film. A major emphasis of this course will be developing an understanding of raga and tala as musical structures through intensive listening as well as practical instruction. Accordingly, one class each week is designed to incorporate hands-on music-making through singing, rhythmic exercises, and dance. By the end of the quarter, students will become familiar with several ragas and talas and the stages by which they are developed in performance. A second, equally important objective is to learn to appreciate ragas as aesthetic entities. We will analyze their musical characteristics as well as the "extra-musical" characteristics of sentiment (rasa), performance time and/or season and iconographic associations (ragamala painting).

MUAC 4521 Topics in Baroque Music (4 Credits)
Through the study of selected Baroque instrumental, vocal and operatic works, this seminar course considers various approaches to performance practice issues such as "authenticity," the "historically informed" performance, period instruments, ornamentation, continuo realization, and editing. Facsimile editions and primary and secondary source readings serve as the texts for the course. Students write a research paper that examines some aspect of Baroque music with an emphasis on performance practice. With the prior consent of the instructor, students may submit an alternative final project, one that combines performance with some form of written work.

MUAC 4535 Baroque Opera on Stage (4 Credits)
This course will explore aspects of Baroque opera not immediately conveyed by a score - including staging, gesture, scenic design, machinery, theater space, performers response - as they inform our understanding of specific Baroque operas and the cultural context within which they were performed. We will focus on operas by Monteverdi, Cavalli, Purcell, Handel, Lully, Campra and Rameau, among others. Students should expect to participate in class discussions, to write short response papers, to give short oral presentations, and to write a 12 to 15 page paper that examines a Baroque opera or operas in the light of one or more performance considerations. With the prior consent of the instructor, students may submit an alternative final project, one which combines performance with some form of written work.

MUAC 4536 Musics of the African Diaspora (4 Credits)
How have African music-cultures changed in their transitions to new lands? What performative Africanisms have been retained, reconstructed and/or highlighted in the aftermath of legal slavery? And within newer Afro-diasporic communities? What role does musical transmission play in cultural retention and survival? This course will explore the connections and differences in musical practice and worldview throughout the African diaspora. We focus primarily on music-cultures of North, South, and Central America, and the Caribbean, examining traditional forms of music and dance associated with religion and ritual such as Afro-Cuban bata drumming, practices which fuse music and movement such as Afro-Brazilian capoeira, jazz, and popular music such as rap. Lectures and class discussions are supplemented by guest lecture-demonstrations, film/video screenings and hands-on workshops.

MUAC 4541 Mozart's Piano Concertos (4 Credits)
Cultural context, stylistic sources, stylistic development, meaning, and performance issues with regard to Mozart's 30 works in the piano concerto genre. Principles for the creation of stylistic cadenzas, lean-ins, embellishments, "white-spot" fill-ins, and basso continuo realizations. Considerations of means for integration aspects of the concertos' original cultural context into performance for twenty-first-century pianists, orchestral players, and their listeners. Course is designed for both pianists and non-pianists.

MUAC 4542 Beethoven's Piano Concertos (4 Credits)
Cultural context, stylistic sources, stylistic development, meaning, and performance issues with regard to Beethoven's works in the piano concerto genre, including the triple concerto and the choral fantasia with piano. Consideration of means of integrating aspects of the concertos' original cultural context into performance for twenty-first-century pianists, orchestral players, and their listeners. Course is designated for both pianists and non-pianists.

MUAC 4543 Schubert and the Piano: Sonatas and Chamber Music (4 Credits)
Cultural context, stylistic sources, stylistic development, meaning, and performance issues with regard to Franz Peter Schubert's works in the piano sonata genre - whether for two or four hands - and other closely related genres. Consideration of means for integrating aspects of the works' original cultural context into performance for 21st-Century pianists and their listeners. Course is designed for both pianists and non-pianists.
MUAC 4544 Advanced Keyboard Repertoire: 2-Piano & 4-Hand (4 Credits)
In this course, pianists will explore 2-piano/4-hand repertoire, and discuss its historical development and use as a pedagogic tool. Students are required to perform in a collaborative recital, in which the repertoire may extend beyond two pianists. This course is designed for piano students and have no prerequisites. Permission of instructor required for non-piano students.

MUAC 4545 The Making of Romantic Music: Paris and Leipzig in the 1830s (4 Credits)
With a view to identifying the various interdisciplinary factors that led to the making of romantic music, this seminar course focuses on musical life in Paris and Leipzig in the 1830s. Specific attention is paid to the music of Chopin, Berlioz, Mendelssohn, and Robert and Clara Schumann and the personal and musical connections between these composers. Primary and secondary source readings serve as the texts for the course. Students write a research paper that examines some aspect of music and/or musical life in the 1830s. With the prior consent of the instructor, students may submit an alternative final project, one that combines performance or some form of written work.

MUAC 4601 Soundpainting: The Study of the Live Composing Sign Language for the Performing and Visual Arts (2 Credits)
In this course, students will study the soundpainting gestural language, a universal live composing sign language for the performing and visual arts.

MUAC 4602 Free Improvisation Techniques (2 Credits)
Free Improvisation Techniques will explore exercises in Tom Hall's book Free Improvisation: A Practical Guide. We will also explore how those exercises relate to the broader concepts of improvising as discussed in Stephen Nachmanovich’s landmark book Free Play. This class is best suited for all musicians, especially those who are seeking to expand the way they relate to performing and how performing relates to other aspects of their life.

MUAC 4801 Introduction to Schenkerian Analysis (4 Credits)

MUAC 4831 Prof Found-Piano Pedagogy (2 Credits)
Literature in musical aesthetics, educational philosophy, psychology; curriculum development; group teaching processes; interpretation and technique; foundations of educational research in music; practice teaching of children and adults.

MUAC 4832 Prof Found-Piano Pedagogy (2 Credits)
Literature in musical aesthetics, educational philosophy, psychology; curriculum development; group teaching processes; interpretation and technique; foundations of educational research in music; practice teaching of children and adults.

MUAC 4833 Prof Found-Piano Pedagogy (2 Credits)
Literature in musical aesthetics, educational philosophy, psychology; curriculum development; group teaching processes; interpretation and technique; foundations of educational research in music; practice teaching of children and adults.

MUAC 4837 Pedagogy and Repertoire Organ (2 Credits)
Study of teaching techniques, survey of literature and teaching materials from the 20th and 21st centuries. Prerequisite: MUAC 3740.

MUAC 4840 Piano Teaching Practicum (1 Credit)
Guided observations, lesson planning, practice teaching of students of various developmental age groups using foundations and principles developed in Piano Pedagogy.

MUAC 4841 Piano Teaching Practicum (1 Credit)
Guided observations, lesson planning, practice teaching of students of various developmental age groups using foundations and principles developed in Piano Pedagogy.

MUAC 4842 Piano Teaching Practicum (1 Credit)
Guided observations, lesson planning, practice teaching of students of various developmental age groups using foundations and principles developed in Piano Pedagogy.

MUAC 4850 Sem Piano Ped-Preschool Chld (2 Credits)
Designing piano-centered music education offerings for preschool-aged children. Prerequisites: MUAC 4831, MUAC 4832, MUAC 4833 or equivalent.

MUAC 4851 Sem Piano Ped-Elem Children (2 Credits)
Designing piano-centered music education offerings at elementary level for school-aged children. Prerequisites: MUAC 4831, MUAC 4832, MUAC 4833 or equivalent.

MUAC 4852 Sem Piano Ped-Int Children (2 Credits)
Designing piano-centered music education offerings at intermediate level for school-aged children. Prerequisites: MUAC 4831, 4832, 4833 or equivalent.

MUAC 4853 Sem Piano Pedegogy-Beg/Int Adt (2 Credits)
Designing piano-centered music education offerings, including college/university courses, for beginning- and intermediate-level adults. Prerequisites: MUAC 4831, MUAC 4832, MUAC 4833 or equivalent.

MUAC 4854 Sem Piano Ped-Adv Students (2 Credits)
Designing advanced piano instruction for adolescents and adults. Prerequisites: MUAC 4831, MUAC 4832, MUAC 4833 or equivalent.

MUAC 4929 Tutorials-Theoretical Subject (1-5 Credits)
Individual instruction in all areas of music theory with regularly scheduled meetings allowing students to acquire necessary skills to qualify for upper-division and/or graduate courses. Summer session only.
MUAC 4930 Conducting Tutorial (2 Credits)
Private tutorial in orchestral conducting. Open to Orchestral Conducting majors only.

MUAC 4934 Choral Pedagogy (4 Credits)
A comprehensive investigation of the art and science of choral music instruction. Students use philosophical and theoretical learning to develop a practical approach to choral music instruction. Students identify personal strengths in the area of choral music instruction as well as areas for improvement.

MUAC 4991 Independent Study (1-10 Credits)
MUAC 4992 Directed Study (1-10 Credits)
MUAC 4993 Independent Study (1-10 Credits)
MUAC 4995 Thesis Research (1-10 Credits)
MUAC 4999 Graduate Recital (1-10 Credits)
MUAC 5991 Graduate Thesis (1-10 Credits)

Music-Ensembles (MUEN)

Courses
MUEN 3025 Ensemble Block (3 Credits)
Required for all incoming first-year music majors.

MUEN 3028 Album Combo (0-1 Credits)
The study and performance of the skills and practices of collective improvisation and composition.

MUEN 3029 Steel Drum Ensemble (0-1 Credits)
The steel drum music of Trinidad and Tobago as well as other styles of music from around the world are studied and performed by this ensemble. Participation in this ensemble does not require music notation. Participation in the ensemble is limited; therefore, students are selected by a simple audition process.

MUEN 3030 Hard Bop Combo (0-1 Credits)
The Hard Bop Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with Hard Bop jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo’s Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3031 Bebop Combo (0-1 Credits)
The Bebop Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with Bebop jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo’s Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3032 Latin Combo (0-1 Credits)
The Latin Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with Latin jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo’s Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3033 Standards Combo (0-1 Credits)
The Standards Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with standard jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo’s Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3034 Traditional Jazz Combo (0-1 Credits)
The Traditional Jazz Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with traditional (Dixieland) jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo’s Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3035 Fusion Combo (0-1 Credits)
The Fusion Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with fusion jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo’s Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3036 Commercial Music Combo (0-1 Credits)
The Commercial Music Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with commercial music repertoire and performance practices. The combo performs one concert each term on campus and frequent concerts in the community and on tour. Admission is by audition.
MUEN 3037 Vocal Repertoire Combo (0-1 Credits)
The Vocal Repertoire Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with vocal jazz solo repertoire and performance practices. The combo performs one concert each term on campus and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3038 Vocal Jazz Combo (0-1 Credits)
The Vocal Jazz Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with vocal jazz repertoire and performance practices. The combo performs one concert each term on campus and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3039 Modal Combo (0-1 Credits)
The Modal Combo is coached by one of our faculty of performing jazz and commercial artists and is concerned with modal jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo's Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3040 Contemporary Combo (0-1 Credits)
The Contemporary Combo is coached by one of our faculty of performing jazz and commercial music artists and is concerned with contemporary jazz repertoire and performance practices. The combo performs one concert each term on campus, one performance at Flo's Underground Jam sessions, and frequent concerts in the community and on tour. Admission is by audition.

MUEN 3041 North Indian Classical Ensemble (0-1 Credits)
The arts of India are distinguished by their close interrelationship; rhythm, melody and movement are all encompassed by the term "sangeet." In keeping, DU's North Indian Classical Ensemble is dedicated to the practice of all three of these arts, through singing, rhythmic recitation and dance. Participation in this ensemble involves studying the ornate and highly refined systems of Hindustani music and Kathak dance. No prior experience is necessary; all that is required is a positive attitude and a desire to learn!

MUEN 3042 Advanced Vocal Jazz Repertoire (0-1 Credits)
This combo is intended for vocal jazz majors who have completed the first year of Vocal Jazz Repertoire and are ready to progress into more advanced repertoire, as well as composing and arranging for small group settings.

MUEN 3043 Senegalese Drum/Dance Ensemble (0-1 Credits)
This ensemble is dedicated to learning the art of sabar dance and drumming, vibrant traditions of the Wolof people of Senegal, West Africa. In Senegal, sabar drums are played exclusively by griots, a caste of hereditary musicians. Sabar drum troupes perform at a variety of events, baptisms, weddings, wrestling matches, political meetings, and neighborhood dance parties. At most of these events, dance is an essential counterpart to drumming. The drum ensemble consists of numerous parts that come together to create complex polyrhythms. Ensemble members learn various drum parts that form rhythms over which a lead drummer solos, and dance movements that accompany these drum rhythms. They also learn bakks, extended musical phrases played in unison, and songs in the Wolof language. This course may be taken multiple times. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3044 Ghanaian Drumming Ensemble (0-1 Credits)
This class provides a practical and theoretical introduction to the drumming and singing traditions of Ghana, West Africa. Through hands-on instruction and oral transmission, students learn ceremonial and recreational music styles of select ethnic groups. Assigned readings, film viewing, guided listening, and in-class discussion familiarizes students with the social and cultural meanings of the musics performed in class. The course culminates in an end of the quarter concert. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3045 Flex Jazz Ensemble (0-1 Credits)
The Flex Jazz Ensemble is a modern jazz group with open-ended instrumentation. The ensemble consists of traditional jazz instruments and vocalists as well as nontraditional jazz instruments (such as double reed, French Horns, strings, etc). While there is no specific instrumentation for the ensemble, the core of the group will always be the traditional modern jazz rhythm section: piano (keys-synth), bass (acoustic and electric), drums (plus an extra percussionist as needed), and guitar (hollow body and Stratocaster-styles with the full range of pedals and gear. With the addition of non-traditional instrumentation, the ensemble reaches out to the classical side of Lamont to give those students a jazz opportunity. Along with the regular fare of programmed concerts, this ensemble also provides opportunities to other departments (theatre, creative writing, studio art, EDP, etc) to incorporate their disciplines in performances.

MUEN 3710 Opera (0-1 Credits)
Practical experience in operatic performance. One production each quarter; major production in winter quarter. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3712 Lamont Chorale (0-1 Credits)
This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3720 Pioneer Pep Band (0-1 Credits)
MUEN 3730 American Heritage Chorale (1 Credit)
This ensemble will explore through choral music the various ways in which music written by American composers has been influenced and has its roots in music from other cultures and regions of the globe. Special attention shall be given to music by African American composers. American Heritage Chorale is open to all students interested in singing. Prior choral experience is not required. A brief vocal interview will determine appropriate placement within the ensemble. The course will conclude with a performance at the end of the quarter. This course counts toward the Analytical Inquiry: Society and Culture requirement.
MUEN 3740 Lamont Men's Choir (0-1 Credits)

MUEN 3750 Modern Music Ensemble (1 Credit)
The 20th- and 21st-Centuries have produced some of the most expressive, intriguing, and diverse music ever written. In this course, students have the opportunity to prepare and perform chamber music by 20th-Century masters, as well as recent works by living composers and new pieces written for them by students. This repertoire often involved unusual combinations of instruments (potentially including strings, woodwinds, brass, percussion, plucked instruments, keyboards, vocals, and electronics), providing an opportunity for students to work in less familiar ensembles. Students may also participate in the course by conducting or composing. The course is limited to music majors who are graduate students or advanced undergraduate students. Students in their first or second undergraduate year, and music non-majors may enroll with instructor approval.

MUEN 3751 Lamont Jazz Orchestra (0-1 Credits)
This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3752 Lamont Wind Ensemble (0-1 Credits)
Open to all students by audition and approval of conductor; regularly scheduled concerts. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3753 Lamont Jazz Ensemble (0-1 Credits)
Open to all students by audition and approval of director of jazz studies; regularly scheduled concerts. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3754 University Jazz Ensemble (0-1 Credits)
The study of large ensemble jazz works for non-music majors. Must have high school performance ability.

MUEN 3760 Lamont Symphony Orchestra (0-1 Credits)
The LSO generally performs six symphonic concerts and one opera each year. Students are exposed to orchestral repertoire from all periods and styles of music as well as appropriate performance practices associated with each period and style. The LSO is open to all university students by audition. However, because the course objective is to prepare students for successful professional orchestra careers, all participants are held to a very high standard and level of expectation. This course counts toward the Analytical Inquiry: Society and Culture requirement.

MUEN 3769 Organ Accompanying (0-1 Credits)
Major choral/vocal and major instrumental repertoire with organ accompaniment are studied and prepared for possible performance with chamber groups or local professional/church choirs.

MUEN 3770 Chamber Ensemble-Piano (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3771 Chamber Ensemble-Accordion (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3772 Chamber Ensemble-Harp (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3774 Chamber Ensemble-Brass (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3775 Piano Accompanying (0-2 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3776 Chamber Ensemble-Percussion (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3777 Chamber Ensemble-Strings (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3778 Chamber Ensemble-Woodwind (0-1 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3781 Chamber Ensemble-Guitar (0-2 Credits)
Small ensembles studying chamber music repertoire for various groups.

MUEN 3800 Vocal Chamber Ensemble (0-1 Credits)
A small group of outstanding singers interested in singing soloist vocal chamber music.

MUEN 3900 Lamont Women's Chorus (0-1 Credits)
This course counts toward the Analytical Inquiry: Society and Culture requirement.

Music-Studio Lessons (MUPR)
Courses

MUPR 3120 Alexander Technique (2 Credits)
The Alexander technique is a skill that can be incorporated into practice, performance, and everyday life. Using the principles discovered by F. Matthias Alexander, students will learn how to identify and change faulty patterns of thought and movement. Emphasis will be placed on recognizing how these patterns affect music-making in practice and performance. Lessons are individually tailored and topics may include injury recovery and prevention, pain and tension reduction, stress management, performance anxiety, freeing the breath, using the back effectively, balance, and ease of motion.

MUPR 3121 Alexander Technique (4 Credits)
The Alexander technique is a skill that can be incorporated into practice, performance, and everyday life. Using the principles discovered by F. Matthias Alexander, students will learn how to identify and change faulty patterns of thought and movement. Emphasis will be placed on recognizing how these patterns may affect music-making in practice and performance. Lessons are individually tailored and topics may include injury recovery and prevention, pain and tension reduction, stress management, performance anxiety, freeing the breath, using the back effectively, balance, and ease of motion. This class is tailored to the needs of students who are experiencing pain or injury and cannot take their regular studio lesson in a given quarter.

MUPR 3350 Organ Improvisation (2 Credits)
This course is designed for organ students to introduce them to the art of organ improvisation, hymn and ensemble playing, as well as all possible forms of accompaniment. It is meant for undergraduate students (upper division), graduate students, and artist diploma graduates. Prerequisites: knowledge of music history, figured bass, and counterpoint. Permission of instructor required.
Organizational Leadership (ORL)

Courses

ORL 4110 Fundamentals of Organizational Development (4 Credits)
This course explores the history of organizational development (OD), definitions, models, approaches, and how OD is and can be used in organizations today. An organizational development professional requires a multitude of skills to be effective. Students will assess their own skills and develop a plan to develop or increase required skills.

ORL 4115 Organizational Culture and Organizational Development Impacts (4 Credits)
Organizational culture encompasses the organization’s vision, mission, values, systems, symbols, structures, language, beliefs, and norms. This course proposes organizational development strategies that match, support, or are synergetic with organizational cultures.

ORL 4120 Team Interventions (4 Credits)
This course explores the theory and practice of an organizational development process for an organizational team. This course examines the roles of the internal or external consultant, organizational structure, type of organization, and the depth and breadth of the organizational change affecting team strategy and interventions.
ORL 4125 Evaluate & Sustain Change (4 Credits)
Organizational Development is change. This course explores organization impacts and change processes that are inherent to organizational development in an organization.

ORL 4130 Individual Interventions (4 Credits)
This course explores the theory and practice of an organizational development process as part of an individual intervention, based on unique organizational considerations. This course examines the roles of organizational structure, type of organization, and the depth and breadth of the organizational change affecting individual development strategy and interventions.

ORL 4135 Large Scale Interventions (4 Credits)
This course explores the theory and practice of a large-scale or organization-wide organizational development process—including entering the organization, assessing a strategy for a unique organizational culture, and presenting results—while understanding the human side of change. There are many organizational development strategies that can be used based on unique organizational considerations. This course examines the roles of organizational structure, type of organization, and the depth and breadth of the organizational change affecting organizational development strategy and large-scale interventions.

ORL 4140 Leading Chng for Transfrmation (4 Credits)
Course Overview/Purpose: Change is occurring in every type of organization, but since all organizations are composed of people, it is the people who have to change for the organization to change. We'll explore this relationship throughout the course, and give you the tools to become a change leader. Course Description: The only thing that is constant is change. Beginning with this premise, this class explores the exciting and opportunity filled world of change and transition. This course will explore the basic change theories and concepts and skills required for effective and ethical change leadership. Students will examine the notion of transformational change, the various stages of individual and organizational change, essential relationships between leadership and management, and assorted organizational models for leading change. The concept of an adaptive organization for producing extraordinary results will be discussed.

ORL 4160 Integrating Personal and Organizational Success (4 Credits)
This class explores the dynamics where the organization and the individual are successful and what is the role of the teacher. It analyzes options and opportunities, including the use of a systems thinking model, organizational learning, knowledge management, appreciative inquiry and building an ethical model for success at all levels of an organization; public, private or non-profit.

ORL 4170 Developing Human Capital in Organizations (4 Credits)
This course explores why, with the changes in the workforce, organizations; public, private, and nonprofit; are looking internally for innovation, creativity and strategic change. Based on the premise that organizations continue to evolve or they will become extinct, this course examines the reasons behind developing human capital and discusses concrete strategies for this development, in a sustaining and ethical manner. This course evaluates the advantage of a connected workforce; a shared mission, vision and information, knowledge, reward and communication structures. Stressing that people are an organization's most important resource, this course identifies the role of the leader in developing and retaining human capital.

ORL 4185 Enterprise Management (4 Credits)
The enterprise management course provides a contextual basis for the application of effective cross-functional management methods within the enterprise. The topics taught in this course come from the traditional academic areas of business, industrial engineering, applied statistics, and project management. This course is designed to present and integrate these fundamental knowledge areas into a multi-dimensional enterprise management knowledge base and skill set.

ORL 4190 Value Driven Decision Making (4 Credits)
This course explores both objective and subjective decision making models. Emphasis is placed on decision making and risk assessment for organizational effectiveness in public, private and nonprofit organizations. The rational approach is taught via maximization of expected outcomes and decision tree analysis. The irrational side of decision-making is covered through demonstrations and discussion of decision bias and judgment heuristics. The role of the leader is discussed.

ORL 4320 Understanding Cities: Services (4 Credits)
The delivery of municipal services involves multifaceted operations. This course examines the models and frameworks used in the administration of various city and county services, such as law enforcement; fire and emergency services; schools; social services; medical and hospital services; public health; and cultural, sports, entertainment and recreation services. This course draws on experts from local governments to describe current issues, unresolved problems, and promising solutions.

ORL 4330 Political Environments (4 Credits)
This course provides an in-depth examination of the components of political environments, including grassroots activism, political campaigns, the election process, boards, public forums, etc. Current events and case studies providing key examples will be explored to develop an understanding of political exchange and social change. The effects of public decision-making on collaboration will also be examined, and negotiation skills for engaging in political interactions will be identified and cultivated.

ORL 4340 Business and Community Entrepreneurship (4 Credits)
This course explores how businesses, not-for-profit organizations, and municipal government work together to create an atmosphere that supports entrepreneurship. Topics include regulations, taxation, economic development, business incentives, manpower development, and encouragement of trade, tourism, and convention business. Coordinating bodies such as trade associations and chambers of commerce are also explored. Strategic planning, entrepreneurial, and project management skills are developed through a collaborative course project.
ORL 4360 Community Change Processes (4 Credits)
Community change is omnipresent and can impact organizations and municipalities at every level, as well as individual citizens. Changes can involve technological advances, demographic changes, community issues, special interests, and workplace pressures. This course explores organizational change theories including change process and then various models employed to effectively implement change. It examines the impact of change on municipalities and its citizenry and explores practical change management methodologies. Students will explore creative and innovative techniques to conceptualize and plan community development initiatives as well as enhance leadership skills for communication and implementation.

ORL 4370 Comparative Financial Systems (4 Credits)
The financial systems of business, government, and not-for-profit organizations are described, compared, and contrasted. The revenue sources, limitations, and legal structures regulating financial operations are described, and the methods of controlling and reporting expenditures are examined. Processes for strategic planning, budget building, and auditing are explored as are the interactions of the three sectors on such matters as taxation, fundraising, and economic development. Methods used for public and private collaborations, such as tax increment financing and Certificates of Participation, along with other emerging financial tools, will be explored.

ORL 4380 Social Marketing Communication (4 Credits)
Social marketing applies commercial marketing concepts and tools to influence the behavior of target audiences to improve the quality of their lives and/or the society of which they are a part. Although built on many of the same principles as commercial marketing, social marketing is distinctly different. This course explores the specialized practice of social marketing as an effective approach to promoting behavioral and social change. Using case studies and problem-based learning strategies, it examines relevant theories, concepts and practices considered by nonprofit organizations, government and corporations when seeking to effect behavioral changes that lead to measurable outcomes including community development, improved health, injury prevention and environmental protection.

ORL 4400 Leading Strategic Planning in Organizations (4 Credits)
Beginning with a clear mission, strategic planning is an iterative, dynamic process of translating the mission into a series of goals and outcomes in public, private, and nonprofit organizations. The organization’s vision, values, mission and goals are the core of the process; strategic planning involves a series of options, understanding opportunities, evaluating risk, developing the plan and building in ethics, communication, implementation and evaluation. The strengths and limitations of rational planning processes are explored and strategies for coping with unintended consequences are developed. The role of the leader in this process is also discussed.

ORL 4410 Principles of Environmental Scanning (4 Credits)
Environmental scanning is the process of identifying and evaluating external factors that may affect an organization; public, private, or nonprofit, on either a micro or a macro level. The micro level includes the immediate and global competitive environment and the macro level encompasses external trends dealing with the economy, politics, social changes or technology. This course provides students the opportunity to develop a process for environmental scanning and learn to use tools to evaluate trends and the significance of a trend. Casual loop diagrams, systems archetypes and scenario planning are discussed. These tools are useful in all sectors.

ORL 4420 Leading Change for Transformation (4 Credits)
Change is occurring in every type of organization, but since all organizations are composed of people, it is the people who have to change for the organization to change. We’ll explore this relationship throughout the course, and give you the tools to become a change leader. The only thing that is constant is change. Beginning with this premise, this class explores the exciting and opportunity-filled world of change and transition. This course will explore the basic change theories and concepts and skills required for effective and ethical change leadership. Students will examine the notion of transformational change, the various stages of individual and organizational change, essential relationships between leadership and management, and assorted organizational models for leading change. The concept of an adaptive organization for producing extraordinary results will be discussed.

ORL 4500 Leadership Development (4 Credits)
This course explores leadership as a dynamic relationship with the organizational environment, stakeholders, and followers, in public, private, and nonprofit organizations. Leadership in context is an essential concept, as well as the core leadership practice that effective leaders exemplify. Notable leaders from corporate 500, small business, non-profit, military and political organizations are studied to assess their core leadership practices and those attributes that may vary due to the organizational context. The importance of ethical, strategic, and system wide decision making is examined. Strategies used to implement change and move organizations forward are addressed. Students assess their own leadership attributes, characteristics and skills and construct a personal leadership development plan.

ORL 4510 Building the 21st-Century Organization (4 Credits)
This course examines the purpose and roles of organizations in today’s global economy. The main focus is on the design and structure of organizations based on their industry; the internal and external environment; type of culture; degree of complexity and use of technology; routine and non-routine processes; size; and whether they are global, national or local. Differences between public, private and governmental organizations are illustrated. Organizational culture and its effect on ethics, change management, and innovation are examined. The sources of conflict in organizations are explained and students learn how power, political tactics, and collaboration can be used to resolve conflict. Contemporary challenges facing organizations are identified along with the design and structure options that help mitigate these challenges. Students develop an Organization Design Plan that enables a selected organization to effectively operate within its environment at optimal performance. Designing for performance, sustainability and innovation are key aspects of this course.

ORL 4520 Principles of Financing for Organizations (4 Credits)
This course is designed to enable students to discover how basic financial concepts are similar and different across public, private and non-profit organizations. Students compare and contrast the use of these concepts and processes in different organizational types and structures.
ORL 4530 Leading a Culture of Organizational Innovation (4 Credits)
This course examines a proven process of innovation and how it applies to private, public and non-profit organizations; leading to entrepreneurship. The course identifies how organizational culture can have a positive or negative effect on innovation. The role of the leader is also discussed. Determining the right strategy for effective innovation and how to structure organizations to innovate best is explored. Students describe how to implement management systems to assess ongoing innovation, using metrics throughout the process, and determine how to incentivize innovation in work teams. Using the seven rules of innovation, students assess a selected organization on its degree of innovation and propose a plan for integrating innovation.

ORL 4550 Strategic Organizational Partnerships (4 Credits)
Partnerships extend the capability of the organization; public, private or nonprofit; and help to leverage available resources. Strategic partnerships also provide an alternative to vertical integration and a way to complement the organization’s core competencies. This course defines and discusses the roles of various types of organizational partnerships, including internal and external, strategic partnerships, and joint ventures, and explores strategies for ethically managing these external and internal organizational relationships.

ORL 4580 Innovation and Entrepreneurial Development (4 Credits)
This course examines a proven process of innovation and how it applies to private, public and non-profit organizations, leading to entrepreneurship. The course identifies how organizational culture can have a positive or negative effect on innovation. Determining the right strategy for effective innovation and how to structure organizations to innovate best is explored. Students describe how to implement management systems to assess ongoing innovation, using metrics throughout the process, and determine how to incentivize innovation in work teams. Using the 7 rules of innovation, students assess a selected organization on its degree of innovation and propose a plan for integrating innovation.

ORL 4600 Philanthropy Roles and Practices (4 Credits)
This course critically reviews the history of the philanthropic sector in the United States and how this sector has influenced the development of American socio-political values and continues to influence discussions in the present day. This course critically assesses the impact philanthropy has made in the socio-political movements in the U.S. and around the world such as women's suffrage, racial segregation, LGBTQ advocacy, and world hunger and poverty. Topics covered will include, but are not limited to: -History of philanthropy in the US -Global philanthropy -Legal and tax considerations -Mission driven organizations -Philanthropic influence in political discussions -Differences nonprofit driven services for a community versus government/public providing those services -The role of the leader in achieving excellence.

ORL 4610 Cultivating and Sustaining Donor Relations (4 Credits)
This course answers the questions of why donors are needed and how to establish and sustain donors for the organization. This class explores the practice of identifying donors and establishing the relationship in an ethical and sustainable manner. Donors may be business, other organizations, individuals or foundations. Based on the premise that first there is involvement, and then transparency and finally donations, how effectively an organization established and sustains donors supports the long term existence of the organization.

ORL 4615 Principles of Finance for Fundraising (4 Credits)
This course provides fundraising professionals an understanding of financial statements, budgets and IRS issues. Topics include: accounting principles, managing the accounting process, cash flow, cost accounting and analyzing financial statements.

ORL 4620 Principles of Strategic Fundraising (4 Credits)
Beginning with a clear mission, strategic fundraising is an iterative, dynamic process of translating the mission into a series of outcomes and support for the organization. With the organization’s vision, values, mission and goals as the core of the process, the fundraising is done with high ethical standards, ensuring accountability to the donors and compliance with all applicable Federal, State and local Laws. Various fundraising strategies and vehicles are discussed, along with the role of the staff and the board in fundraising. Last, there is some discussion of the current larger issues in fundraising.

ORL 4630 Organizing for Successful Fundraising (4 Credits)
Most organizations are unsuccessful with their fundraising efforts, not because their cause isn't worthy of support, but because they simply are not organized to fundraise. This course covers the basic elements of a mission statement, preparing the case for support by donors, the roles of staff, board, volunteers, and the legal and ethical issues involved. Organizational structures are discussed, with the balance between bureaucracy and innovation/creativity. The role of technology is illustrated. The local, state and federal laws that govern fundraising are discussed.

ORL 4640 Research and Writing for Fundraising (4 Credits)
This course is an in depth exploration of researching and writing effective proposals and grants. Principles of the Institutional Review Board (IRB) are studied and basic training completed. Funding sources are analyzed and the process of competing for a grant is discussed. At the conclusion, students have the knowledge to research, prepare, and present a grant proposal. Prerequisite: ORL 4620.

ORL 4650 Advanced Board Development (4 Credits)
This course explores the opportunities and challenges with a board of directors from a staff perspective. This course evaluates the value of a knowledgeable and effective board of directors in the success of the organization. The role of the board of directors and the role of a staff member, especially in fundraising, is often unclear and the need for clarity and differences in the roles are discussed. How to develop and maintain a working relationship with the board of directors member to move the organization forward is analyzed. Lastly, this course evaluates how to choose members for the board and how to design and implement a development plan for board of directors members are explored. Prerequisite: ORL 4600.

ORL 4660 Database Management and Technology for Fundraising (4 Credits)
This course explains why having reliable information with regular updates is essential in the development and sustaining of a donor base for nonprofits. All aspects of effective technology uses, including: research, email, electronic contributions, volunteer contact lists and mail generation are discussed. Legal, ethical and costs considerations are investigated. Prerequisites: ORL 4600, ORL 4615 and ORL 4620.
ORL 4670 Advanced Fundraising (4 Credits)
This course provides the opportunity for students to build on the knowledge gained in Principles of Strategic Fundraising. Topics include: current trends, legal concerns, professional development for fundraisers and alternative revenue sources. There is an emphasis on understanding and explaining the financial structure of the organization. Prerequisites: ORL 4600, ORL 4615 and ORL 4620.

ORL 4680 Advanced Volunteer Management (4 Credits)
This course focuses on the recruitment, training and retention of the organization's volunteers, be it public, private or nonprofit. Including a cost benefit analysis, this course is an in-depth analysis of a volunteer program. There is a discussion of the legal and ethical considerations, advantages and disadvantages, of using volunteers in an organization. Prerequisite: ORL 4600.

ORL 4701 Topics in Organizational Ldsp (1-6 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues from the film industry, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

ORL 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass.

ORL 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produces a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students' research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

ORL 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Interdisciplinary Capstone Seminar in one quarter; no incomplete grades are assigned.

ORL 4905 Graduate Social Research Methods (4 Credits)
Graduate Social Research Methods is an exploration of the methods and purposes of social science research from the perspective of the researcher as well as that of the informed professional and consumer of information. Students will learn about the process of research, including the development of research questions, the purpose of various social science research methods, the role of professional ethics, and general approaches to the analysis and interpretation of data. Students will develop the ability to read and critique basic social science research articles and to implement simple research designs. Students will develop and write a research proposal around a specific research question informed by a review of the literature. Technical requirements include the ability to read and modify Microsoft Excel documents. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.
ORL 4910 Research Practices and Applications (4 Credits)
This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through comparing and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master’s degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

ORL 4980 Internship (1-4 Credits)
The ORL internship is designed to offer students a practical educational experience in an industry related setting. The internship is an individualized learning experience that is directly related to the knowledge and skills covered in the ORL master’s degree program. Students are responsible for finding their own internship site and proposing their internship ideas. University College sends notification to all ORL students if they hear of internship possibilities. Students may also work through the DU career center to explore opportunities for internship experiences. The objectives, activities, responsibilities, and deliverables for the internship are defined in a training plan that is developed by the student jointly with the internship supervisor at the sponsoring organization. The training plan is approved by the academic director. Prerequisites: The student must be unconditionally accepted in the ORL degree program, have completed a minimum of 28 hours of graduate coursework, including at least two core courses, and have earned a GPA of 3.0 or better. Enrollment must be approved by the academic director.

ORL 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted into a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent study is offered only on a for-credit basis.

ORL 4992 Directed Study (1-10 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.

Philosophy (PHIL)

Courses

PHIL 3000 Plato’s Metaphysics (4 Credits)
A systematic study of Plato’s Middle and Late Period Dialogues that focuses on his arguments for the existence of abstract objects and the development of Plato’s theory of Forms. Prerequisite: At least Junior standing or permission of instructor.

PHIL 3003 Plato’s Theory of Knowledge (4 Credits)
A systematic investigation of Plato’s treatments of knowledge throughout the dialogues with a focus on the theory of recollection, Forms as objects of knowledge, the relationship between the Forms and perceptual experience, and the challenges posed by notions of true and false belief. Prerequisites: At least Junior standing or permission of instructor.

PHIL 3005 Cosmopolitics (4 Credits)
This class will be a close reading of Plato’s dialogue Timaeus, with a special focus on the cosmological, theological, and political dimensions of the text.

PHIL 3010 Great Thinkers: Aristotle (4 Credits)
A study of Aristotle’s central theories and doctrines. Prerequisite: junior standing or instructor’s permission.

PHIL 3023 Great Thinkers: Maimonides: Politics, Prophecy and Providence (4 Credits)
Using ”The Guide for the Perplexed” as our central text, we explore the complex philosophical ideas of Moses Maimonides (1135-1204), one of the central figures in medieval philosophy and Jewish thought. Our study includes analyses of his ideas on principles of faith, human perfection, intellectual vs. “imaginational” approaches to truth, pedagogy and politics, reasons for the commandments, the nature of God and divine will, the limits of human knowledge, the mechanics of prophecy, and the parameters and implications of providence. Cross listed with RLGS 3023 and JUST 3023. Prerequisite: junior standing or instructor’s permission.
PHIL 3024 Maimonides: Greek, Islamic, and Christian Encounters (4 Credits)
Using the "Guide of the Perplexed" as our central text, we explore the complex philosophical ideas of Moses Maimonides (1135-1204), a central figure in the history of philosophy and in the history of Jewish thought. In this course, we examine in depth the relationship between Maimonides' core ideas and various Greek, Muslim and Christian thinkers, including: Aristotle, Plotinus, al-Farabi, Avicenna (Ibn Sina), al-Ghazali, Averroes (Ibn Rushd), and Aquinas. Topics to be explored include: what is "metaphysics"?; God's unity and essence as existence itself; the mystery of knowing and not knowing God (including a consideration of God's ways as well as "negative theology"—viz. the extent to which we do not know God); God as pure intellect; the nature of the cosmos and the "separate intellects"; creation vs. eternity vs. emanation: philosophical and religious perspectives on the origins of the universe and implications for "living in the world with/out God." In our study, we will also address the methodological implications of cross-religious and cross-language analyses, and how to spot and address (in your own work and in the work of others) tacit cultural biases at play in the interpretive process. Cross listed with JUST 3024 and RLGS 3024. Prerequisite: Junior standing or instructor's permission.

PHIL 3050 Great Thinkers: Hume (4 Credits)
A detailed study of Hume's "radical" empiricism and its impact on contemporary analytic philosophy. Prerequisite: junior standing or instructor's permission.

PHIL 3061 Kant's Ethics/Aesthetics/Politics (4 Credits)
A study of Kant's "value theory" and its historical significance. Prerequisite: junior standing or instructor's permission.

PHIL 3062 Kant's Epistemology and Logic (4 Credits)
A study of Kant's theory of knowledge, logic and related issues. Prerequisite: junior standing or instructor's permission.

PHIL 3063 Kant on Religion (4 Credits)
A study of Immanuel Kant's major writings on religion and their subsequent influence on theology and the philosophy of religion. Prerequisite: junior standing or instructor's permission.

PHIL 3070 Great Thinkers: Hegel (4 Credits)
Hegel's "Phenomenology," later system and place in the history of modern philosophy. Prerequisite: junior standing or instructor's permission.

PHIL 3075 Marxism (4 Credits)
This course is a survey in the theoretical and political work influenced by the writings of 19th century philosopher and economist, Karl Marx. The course covers both the historical traditions in Marxism in the 19th, 20th, and 21st century as well as the geographical traditions of these time periods in France, Germany, England, Italy, Russia, China, and America. It is not necessary that students have a prior background in Marx's work, but it is highly recommended. Cross listed with ECON 3075.

PHIL 3090 Great Thinkers: Heidegger (4 Credits)
Study of "Being and Time" and related essays by a major 20th-century philosopher. Prerequisite: junior standing or instructor's permission.

PHIL 3092 Great Thinkers: The Later Heidegger (4 Credits)
Study of the works of Heidegger after 1930. Prerequisite: junior standing or instructor's permission.

PHIL 3101 Great Thinkers: Kierkegaard (4 Credits)
Each year, the philosophy department offers at least two courses in great thinkers. Specific figures may vary from year to year. Cross-listed with RLGS 3102. Prerequisite: 10 hours of Philosophy at the 2000 level or permission of instructor.

PHIL 3111 Contemporary Continental Philosophy: The Figure of the Migrant (4 Credits)
The 21st century has been described as the century of "people on the move" by UNHCR High Commissioner Antonio Guterres. Some 11 million people are refugees worldwide, fleeing political violence and/or persecution at home; whole more than 20 million are internally displaced within the borders of their own countries. Accordingly, the figure of the migrant/refugee has emerged as one of the most important, if not the most important, political figures of contemporary continental philosophy. Despite differences in philosophical orientation, thinkers such as Gilles Deleuze, Judith Butler, Jacques Ranciere, Julia Kristeva, Alain Badiou, and Jacques Derrida have all written at length on the centrality of the migrant for contemporary political thought. Not only does the figure of the migrant define the people of our time, according to many of these authors, it also defines a positive political way forward. This course thus provides not only a survey of the different traditions in contemporary European philosophy over the last twenty years (post-structuralism, deconstruction, neo-classicism, post-Marxism, third-wave feminism) but also offers a thematic look at the politico-philosophical figure of the migrant and other issues related to migration (human rights, borders, camps, sovereignty, territory, nomadism, and resistance).

PHIL 3120 Metaphysics (4 Credits)
In the course of this study, we will cover a broad range of philosophical topics falling within metaphysics, philosophy of language, philosophy of science, and epistemology. Prerequisite: junior standing or instructor's permission.

PHIL 3130 Knowledge Problems (4 Credits)
Problems in the foundations and justifications of claims to knowledge. Prerequisite: junior standing or instructor's permission.

PHIL 3146 Great Thinkers: Levinas (4 Credits)
Emmanuel Levinas (1906-1995), famous for his arresting and original idea of "ethics as first philosophy," is an important figure in the histories of phenomenology, metaphysics, and theology. In this course, we set out to explore Levinas' insights on ethics, alterity, and infinity, including the connection of his ideas to Plato, Descartes, Kant, and Husserl, as well as his critical responses to Heidegger and his positive contributions to Derrida. In this course, we work through Levinas' two major works, Ethics and Infinity and Otherwise Than Being or Beyond Essence, as well as a number of shorter writings—including material from his Talmudic commentaries. Themes to be covered include: Being, Goodness, Risk, Ethics, Alterity, Transcendence, Law, Judaism, Gift, Forgiveness, Politics, Theology, and Justice. This course is cross-listed with JUST 3146.
PHIL 3150 Metaphysics of Matter: Theory-Building from Science to Philosophy to Theology (4 Credits)
What is matter? How do we make sense of philosophical discussions of an "X I know not what"? Of a "nothing" which is something? Of a "pure potency" that lacks any actual characteristics? In what sense does matter mark the very limits of human theorizing, and how do theories of matter reveal differences (or similarities) between the methods of theorizing that we use in physics, metaphysics, and theology? In this course, we work to understand the metaphysics and metametaphysics of matter, focusing on a number of views of matter as well as on methodological questions of what it means to theorize about matter in (1) scientific, (2) philosophical, and (3) theological contexts. Drawing on theory ranging from ancient physics and cosmology to contemporary metametaphysics, philosophy of science, and philosophy of language, we engage in close readings of ancient, medieval, and modern texts to challenge the ways we theorize about matter (and theory itself) in the history of philosophy. Requires junior standing or higher.

PHIL 3152 Philosophy Meets Mysticism: A Greek, Jewish and Islamic Neoplatonic Journey (4 Credits)
Neoplatonism is a unique genre—somewhere between philosophy and mysticism. In this course, we investigate some of the leading themes of Neoplatonism, tracing the Greek ideas of Plotinus (the third century “father of Neoplatonism”) into later Jewish and Islamic textual traditions. As part of our journey, we will investigate a host of philosophical writings, including the Theology of Aristotle and the Liber de Causis, as well as works by Plato, Plotinus, Proclus, Ibn Tufayl, Acecenna, Isaac Israeli, Solomon Ibn Gabirol, and Abraham Ibn Ezra. Themes to be covered include emanation and creation, apophatic discourse, divine desire, the theological significance of imagination, inward reflection and the call to virtue. Prerequisite: junior standing or instructor's permission. Cross listed with JUST 3152.

PHIL 3175 Morality and the Law (4 Credits)
A systematic study of various elements of the relation between law and morality. Are we obligated to obey every law the government enacts? Why? If we do have an obligation to obey the law, are civil disobedients like Martin Luther King, Jr. justified in disobeying the law? Are immoral laws, laws at all, or must a law connect with some higher moral truth to have any authority? To what extent is it morally permissible for the law to restrict our personal freedoms? To what extent is it morally permissible for the law to enforce morality in general? If it is not permissible for the law to enforce morality, do we incur any obligation to obey the law? Prerequisite: junior standing or instructor's permission.

PHIL 3176 Advanced Topics in Philosophy of Law: Rights, Legal Institutions, and Justice (4 Credits)
A critical examination of rights claims and an exploration of how those rights claims ought to affect legal institutions. What are rights? How are they justified? How do various different rights claims conflict with each other? Does a theory or rights help provide a justified theory of criminalization? Are there any rights we have just in virtue of being human? How does the concept of human rights apply to issues such as international law, the right to life and whether human rights require a right to democracy?.

PHIL 3178 Metaethics (4 Credits)
This course systematically and critically examines the metaphysical, semantic, and epistemic issues central to the study of metaethics. Do moral properties exist? If so, how are they related to natural properties? Do moral properties exist independent of human agency, or do we construct morality? If moral properties exist, how can we come to have justified belief about them? Is it possible to know that a moral belief is true? Doesn't the phenomenon of widespread, intractable disagreement about moral matters establish that there are no objective moral truths? Is the process of gaining scientific knowledge really that different from the process of gaining moral knowledge? Prerequisite: junior standing or instructor's permission.

PHIL 3179 Virtue Ethics (4 Credits)
Virtue ethics purportedly provides a distinct approach to moral deliberation, moral reasoning, moral decision-making, and moral justification. This course is a systematic study of the nature of virtue ethics, the nature of a virtue, and the alleged superiority of virtue ethics over its more familiar consequentialist and deontological alternatives. We also study various responses to the following questions: Have moral psychologists generated any valuable studies on the nature of virtue? What virtues ought we to endorse? At least Junior standing required or permission of the instructor.

PHIL 3180 Socratic Ethics (4 Credits)
A study of Plato's early dialogues in order to discern the ethical views of the historical Socrates. Prerequisite: junior standing or instructor’s permission.

PHIL 3185 Philosophy of Action and Agency (4 Credits)
Wittgenstein once asked, "What is left over if I subtract the fact that my arm goes up from the fact that I raise my arm?" Understanding the difference between mere happening and an intentional action became central to the philosophical investigation of action and agency in the 20th century. In this course we examine this distinction and why it should matter to us. Our topics include intentional action, the causal theory of action, the metaphysics of action, agent causation, basic action, acting and trying to act, intentions, weakness of will, strength of will, and mental action. Requires junior standing or permission of instructor.

PHIL 3201 Wittgenstein, Quine, & Kripke on Necessity and a Priori Knowledge (4 Credits)
A study of Wittgenstein, Quine, and Kripke on the nature of necessity, a priori knowledge and their relation to understanding philosophy. Prerequisite: junior standing or instructor’s permission.

PHIL 3210 Philosophy of Movement (4 Credits)
Everything is in motion. Yet, philosophers have consistently considered motion to be a derivative or secondary form of being. Why? What are the political and metaphysical consequences of marginalizing motion in the history of philosophy? The aim of this class is to read the history of philosophy with a unique focus on the status of movement and motion from the ancient to contemporary period.

PHIL 3211 Contemporary Pol Philosophy (4 Credits)
This class focuses primarily on the philosophical problems generated by thinking about political authority and justice. We discuss the nature of political authority, justice, rights, equality and the role of property in a modern state.
PHIL 3215 Modern Jewish Philosophy (4 Credits)
Prerequisite: junior standing or instructor’s permission. Cross listed with JUST 3215.

PHIL 3445 Cultural Theory and Critique (4 Credits)
This course will provide an overview of the major theories of culture and cultural critique, as well as a consideration of some of the major controversies and recent developments in this field. It will proceed roughly chronologically, beginning with liberal humanist critique and continuing with hermeneutics, materialist and Marxist critique, psychoanalysis, the Frankfurt School, structuralism, post-structuralism, and contemporary British cultural studies. It will also consider more recent developments, such as feminist critique, GLBT critique, and postcolonialism. While the approach will be mainly philosophical, implications for other areas such as literature, art, emergent media, religion, and politics will also figure in the discussions, so it is appropriate for students in many fields, not just philosophy. Prerequisite: Junior standing or permission of the instructor. Note that this course will serve as a foundational offering for students interested in participating in the Critical Theory specialization.

PHIL 3450 Phenomenology and Theology (4 Credits)
Cross listed with RLGS 3455. Prerequisite: junior standing or instructor’s permission.

PHIL 3455 Philosophy and 9/11: Sovereignty in Traumatic Times (4 Credits)
Philosopher’s responses to the attacks on 9/11/2001, leading into philosophical study of the connections between trauma and modern assertions of political sovereignty. Prerequisite: junior standing or instructor’s permission.

PHIL 3460 Nietzsche & the Death of God (4 Credits)
This course involves an intensive reading and discussion of Friedrich Nietzsche’s ‘Thus Spake Zarathustra,’ together with relevant associated materials, especially ‘The Gay Science.’ Prerequisite: junior standing or instructor’s permission. Cross listed with RLGS 3460.

PHIL 3465 Derrida and Postmodernism (4 Credits)
Cross listed with RLGS 3465. Prerequisite: junior standing or instructor’s permission.

PHIL 3466 Contemporary Continental Philosophy (4 Credits)
A critical study of current trends in European philosophy, focusing on such thinkers as Deleuze, Badiou, Zizek, Meillassoux, or Laruelle. Prerequisite: junior standing or instructor’s permission.

PHIL 3610 Advanced Topics in Philosophy, Psychology, and Cognitive Science (4 Credits)
This course provides an advanced survey of conceptual and methodological issues that lie at the intersection of philosophy, psychology, and cognitive science. More specifically, our main goal is to engage in a critical discussion of how the study of the mind requires an interdisciplinary approach that integrates empirical findings with conceptual and philosophical theorizing. Cross listed with PSYC 3610. Prerequisites: PSYC 1001 and junior standing (or instructor approval).

PHIL 3618 Philosophy of Biology (4 Credits)
A survey of conceptual issues that lie at the intersection of biology and philosophy: the central concepts of evolutionary theory (such as natural selection, fitness, adaptation and function), the relation of biology to other “lower” sciences (can it be reduced to physics and chemistry?), whether there are genuine scientific laws in biology, and the relation between biology and other fields like cognitive science and ethics. At least Junior standing required.

PHIL 3620 Philosophical Perspectives on Economics and Social Sciences (4 Credits)
This course provides an advanced survey of conceptual and methodological issues that lie at the intersection of philosophy, economics, and the social sciences. More specifically, the main goal is to engage in a critical discussion of how sciences such as psychology, sociology, and neuroscience can challenge and modify the foundations and methodology of economic theories. The course is structured around three broad modules. After a brief introduction, we begin by discussing the emergence of rational choice theory which constitutes the foundation of classical and neoclassical economics and present some paradoxical implications of expected utility theory. The second module focuses on the relationship between economics and psychology. More specifically, we examine the emergence of behavioral economics, the study of the social, cognitive, and emotional factors on the economic decisions of individuals and institutions and their consequences for market prices, returns, and resource allocation. Finally, the third module focuses on the implications of neuroscience on decision making. We discuss some recent developments in neuroeconomics, a field of study emerged over the last few decades which seeks to ground economic theory in the study of neural mechanisms which are expressed mathematically and make behavioral predictions.

PHIL 3699 Proseminar in Philosophy (4 Credits)
Philosophy is a diverse discipline with various subfields, most of which are becoming increasingly specialized and methodologically autonomous. Specialization is often (rightly) perceived as an indicator of disciplinary progress and intellectual development. However, it is important that students of philosophy pursue breadth as well as depth. The goal of this course is to provide an overview of a series of seminal texts in philosophy, from a variety of subfields, epochs, and traditions. Each weekly meeting is devoted to the presentation, analysis, and discussion of a text that any student of philosophy should read at some point in her or his career. Requires junior standing or instructor’s permission.

PHIL 3700 Topics in Philosophy (1-4 Credits)
Prerequisite: junior standing or instructor’s permission.

PHIL 3701 Topics in Philosophy (1-4 Credits)
Prerequisite: junior standing or instructor’s permission.

PHIL 3702 Topics in Philosophy (1-4 Credits)
Prerequisite: 10 hours of Philosophy at 2000 level or permission of instructor.
PHIL 3703 Topics in Philosophy (1-4 Credits)
Prerequisite: 10 hours of Philosophy at 2000 level or permission of instructor.

PHIL 3704 Topics in Philosophy (1-4 Credits)
Prerequisite: 10 hours of Philosophy at 2000 level or permission of instructor.

PHIL 3991 Independent Study (1-8 Credits)

PHIL 3992 Directed Study (1-10 Credits)

PHIL 4991 Independent Study (1-10 Credits)

PHIL 4992 Directed Study (1-10 Credits)

PHIL 4995 Independent Research (1-10 Credits)

PHIL 5300 Philosophy Colloquium (4 Credits)

PHIL 5400 Cultural Theory Colloquium (1-5 Credits)

Physics & Astronomy (PHYS)

Courses

PHYS 3111 Quantum Physics I (4 Credits)
First of a two-quarter sequence. The Schrödinger equation: interpretation of wave functions; the uncertainty principle; stationary states; the free particle and wave packets; the harmonic oscillator; square well potentials. Hilbert space: observables, commutator algebra, eigenfunctions of a Hermitian operator; the hydrogen atom and hydrogenic atoms. Prerequisites: PHYS 2252, PHYS 2260, PHYS 2556, PHYS 3612 and MATH 2070.

PHYS 3112 Quantum Physics II (4 Credits)
Second of a two-quarter sequence. Angular momentum and spin; identical particles; the Pauli exclusion principle; atoms and solids: band theory; perturbation theory; the fine structure of hydrogen; the Zeeman effect; hyperfine splitting; the variational principle; the WKB approximation; tunneling; time dependent perturbation theory; emission and absorption of radiation. Scattering: partial wave analysis; the Born approximation. Prerequisite: PHYS 3111.

PHYS 3251 Astrophysics: Radiative Processes (4 Credits)
Because light is the primary means by which astronomers learn about the Universe, understanding the production and subsequent behavior of light is key to interpreting astronomical observations. This course introduces students to the physics of astrophysical radiation and its interaction with matter as it travels from its source to our detectors. Topics may include radiative transfer, emission and absorption processes, Compton processes, synchrotron radiation, thermodynamic equilibrium, radiative and collisional excitation, and spectroscopy of atoms and molecules. The course is aimed at advanced undergraduates, as well as graduate students focusing on astrophysics research. Prerequisites: PHYS 2252 and consent of instructor.

PHYS 3252 Astrophysics: Observations (4 Credits)
Astronomy is fundamentally an observational science and as such it is important for practitioners to understand how their data are collected and analyzed. This course is therefore a comprehensive review of current observational techniques and instruments, aimed at advanced undergraduates, as well as graduate students focusing on astrophysics research. This class introduces students to the capabilities and limitations of different types of instruments while exploring the sources and types of noise and providing statistical tools necessary for interpreting observational data. Prerequisites: PHYS 2252 and consent of instructor.

PHYS 3270 Workshop: Practical Astronomy (1-5 Credits)
Capstone coursework featuring studies in experimental, computational, and/or theoretical work in astronomy and astrophysics.

PHYS 3311 Advanced Laboratory I (1 Credit)
First of a three-quarter sequence. Advanced experimental techniques in physics. Meets with PHYS 2311. Prerequisite: instructor’s permission.

PHYS 3312 Advanced Laboratory II (1 Credit)
Second of a three-quarter sequence. Advanced experimental techniques in physics. Meets with PHYS 2312. Prerequisite: instructor’s permission.

PHYS 3313 Advanced Laboratory III (1 Credit)
Third of a three-quarter sequence. Advanced experimental techniques in physics. Meets with PHYS 2313. Prerequisite: instructor’s permission.

PHYS 3510 Analytical Mechanics I (4 Credits)
Lagrangian and Hamiltonian mechanics. Prerequisites: PHYS 1113, PHYS 1213, or PHYS 1214 and MATH 2070 and consent of instructor.

PHYS 3611 Electromagnetism I (4 Credits)
First of a two-quarter sequence. Vector algebra; differential vector calculus (gradient, divergence and curl); integral vector calculus (gradient, divergence and Stokes’ Theorems); line, surface and volume integrals; Electrostatics: the electric field, electric potential, work and energy in electrostatics; method of images, boundary value problems and solutions to Laplace’s equation in Cartesian, spherical and cylindrical coordinates; multipole expansion of the electric potential; electric fields in matter: polarization; the electric displacement vector; boundary conditions, linear dielectrics. Magnetostatics: magnetic fields and forces. Prerequisites: PHYS 1113, PHYS 1213, or PHYS 1214 and MATH 2070.
PHYS 3612 Electromagnetism II (4 Credits)
Second of a two-quarter sequence. Magnetic vector potential; magnetic fields in matter; magnetization; fields of magnetized objects; linear and nonlinear magnetic materials; electromotive force, Ohm's law; electromagnetic induction; Faraday's law; Maxwell's equations; the displacement current; boundary conditions; the Poynting theorem; momentum and energy density of the fields; the Maxwell stress tensor; the wave equation and electromagnetic waves in vacuum and matter; absorption and dispersion; wave guides; the potential formulation and gauge transformations; retarded potentials; dipole radiation. Prerequisite: PHYS 3611.

PHYS 3700 Advanced Topics: General (3 Credits)
Offered irregularly, depending on demand. May be taken more than once for credit. Prerequisite: instructor's permission.

PHYS 3711 Optics I (4 Credits)
First of a two-quarter sequence. Gaussian optics and ray tracing; matrix methods and application to optical design; elementary theory of aberrations; light as electromagnetic wave, diffraction and interference; interferometers and their applications. Elementary theory of coherence; selected topics. May include laboratory work as appropriate. Prerequisites: PHYS 1113, PHYS 1213 or PHYS 1214, and MATH 2070.

PHYS 3841 Thermal Physics I (4 Credits)
First of a two-quarter sequence. Laws of thermodynamics; thermal properties of gases and condensed matter; kinetic theory of gases, classical and quantum statistics. Prerequisites: PHYS 1113, PHYS 1213 or PHYS 1214 and MATH 2070.

PHYS 3991 Independent Study (1-8 Credits)
PHYS 3992 Directed Study (1-10 Credits)
PHYS 3995 Independent Research (1-10 Credits)

PHYS 4001 Introduction to Research I (1,2 Credit)
This course is the first of the 3-course sequence designed to provide the opportunity of learning fundamental skills to conduct independent research in any physical science discipline. In this course, students review essential material in mathematical physics, learn basic programming techniques and improve upon their skills in literature search and scientific writing, especially proposal writing. Special in-class seminars in collaboration with the Penrose Library and Writing and Research Center are scheduled. Student are introduced to research conducted by Physics and Astronomy faculty so that they can choose a faculty member with whom to take on a Winter Research Project during the winter interterm and winter quarter as part of Introduction to Research II. Students must prepare and submit a research proposal before the end of the fall quarter.

PHYS 4002 Introduction to Research II (1-3 Credits)
This is the second of the 3-course sequence to provide the opportunity of learning fundamental skills to conduct independent research in any physical science discipline. In this course, students conduct an independent research or study project that they have outlined in the research proposal they submitted as part of Introduction to Research I under supervision of a faculty advisor of their choosing. At the same time, students have time to review issues that we face as researchers. Prerequisites: PHYS 4001 and consent of a faculty research advisor.

PHYS 4003 Introduction to Research III (1,2 Credit)
This is the third of the 3-course sequence to provide students with the opportunity of learning fundamental skills to conduct independent research in any physical science disciplines. In this course, students complete their Winter research project conducted as part of Introduction to Research II and present the results in writing as a term paper and in oral presentation as part of the Departmental Colloquia. Special in-class sessions in collaboration with the Writing and Research Center are included. Prerequisite: PHYS 4002.

PHYS 4100 Foundations of Biophysics (3 Credits)
Focus of the course is on application of basic physics principles to the study of cells and macromolecules. Topics include diffusion, random processes, thermodynamics, reaction equilibriums and kinetics, computer modeling. Must be admitted to the MCB PhD program or related graduate program with instructor approval. Cross listed with BIOP 4100.

PHYS 4111 Quantum Mechanics I (3 Credits)
PHYS 4112 Quantum Mechanics II (3 Credits)

PHYS 4251 Intro to Astrophysics I (3 Credits)
PHYS 4252 Intro to Astrophysics II (3 Credits)
PHYS 4253 Intro to Astrophysics III (3 Credits)

PHYS 4411 Advanced Condensed Matter I (3 Credits)
Materials structure; structure analysis; elastic properties; defects; plastic mechanical properties; thermal properties and phonons; free electron gas; energy bands and Fermi surfaces; crystalline and amorphous semiconductors; quasiparticles and excitations; electrical properties and ferroelectrics; magnetic properties and ferromagnetics; classical and high-Tc superconductors; other advanced materials. Co-requisite: PHYS 4111.

PHYS 4412 Advanced Condensed Matter II (3 Credits)
Materials structure; structure analysis; elastic properties; defects; plastic mechanical properties; thermal properties and phonons; free electron gas; energy bands and Fermi surfaces; crystalline and amorphous semiconductors; quasiparticles and excitations; electrical properties and ferroelectrics; magnetic properties and ferromagnetics; classical and high-Tc superconductors; other advanced materials. Co-requisite: PHYS 4112.
PHYS 4413 Advanced Condensed Matter III (3 Credits)
Materials structure; structure analysis; elastic properties; defects; plastic mechanical properties; thermal properties and phonons; free electron gas; energy bands and Fermi surfaces; crystalline and amorphous semiconductors; quasiparticles and excitations; electrical properties and ferroelectrics; magnetic properties and ferromagnetics; classical and high-Tc superconductors; other advanced materials. Co-requisite: PHYS 4113.

PHYS 4511 Advanced Dynamics I (4 Credits)

PHYS 4611 Adv Electricity & Magnetism I (3 Credits)

PHYS 4612 Adv Electricity & Magnetism II (3 Credits)

PHYS 4750 Seminar in Physics (1 Credit)

PHYS 4811 Advanced Statistics I (3 Credits)

PHYS 4910 Special Topics Physics (1-5 Credits)

PHYS 4991 Independent Study (M.S.) (1-10 Credits)

PHYS 4992 Directed Study (M.S.) (1-10 Credits)

PHYS 4995 Independent Research (M.S.) (1-10 Credits)

PHYS 6991 Independent Study (PhD) (1-10 Credits)

PHYS 6995 Independent Research (PhD) (1-10 Credits)

Psychology (PSYC)

Courses
PSYC 3020 Adolescence (4 Credits)
Development, behavior, special problems, and characteristics of early and late adolescence. Prerequisites: PSYC 1001, PSYC 2070 or PSYC 2050 or PSYC 2051; must be a Psychology major/minor with sophomore standing.

PSYC 3029 Imaging the Mind (4 Credits)
Imaging Cognition is an introductory course to the basic theory and data analysis techniques used in functional magnetic resonance imaging (fMRI). It will cover basic brain anatomy, the basic physics of MRI, experimental design, data processing and the issues associated with data processing, and interpretation of fMRI data. Students in this course will receive hands-on experience in processing a data set from start to finish. They will apply different image preprocessing techniques, statistical design parameters, and statistical models to determine how these factors influence the outcome of the data and how these factors influence the interpretation of that data. In this manner, each student will be exposed individually to the decision issues and interpretation pitfalls involved in fMRI data analysis. In class, students will use the smart-to-the-seat classroom. Cross listed with PSYC 4255. Prerequisites: PSYC 1001 and PSYC 2031, must be a major or minor in psychology, must have at least sophomore standing.

PSYC 3032 Introduction to Neural Networks (4 Credits)
Introduction to basic principles and computational methods in artificial neural network modeling; neural models of cognitive and psychological processes examined and evaluated. Cross listed with PSYC 4254. Prerequisite: PSYC 1001, must be a major or minor in psychology, must have at least sophomore standing.

PSYC 3035 Seminar: Cognitive Neuroscience (2 Credits)
This seminar is for students in the cognitive neuroscience program. The goal of the seminar is to provide an opportunity for junior- and senior-level cognitive neuroscience majors to apply the knowledge and skills they have acquired in other courses to current cutting-edge topics in the field. Prerequisite: cognitive neuroscience concentration.

PSYC 3050 Research Methods (4 Credits)
Survey of research methods and research designs in psychology used to study behavior. Required for all students, especially those planning graduate work in psychology. Prerequisites: PSYC 1001, PSYC 2300, and INFO 1020.

PSYC 3090 Infancy and Early Childhood (4 Credits)
The objective of this course is to introduce the study of early development focusing on the prenatal and infant periods. This course considers the exciting changes that take place during pregnancy for both mom and fetus. This course considers biological, cognitive, social, and physical development. This course is part of the field of Developmental Science. The prominent theories and research in the field are considered. Questions developmental psychologists currently and historically study and the research they conduct to help answer these questions are explored. Prerequisite: PSYC 1001 and PSYC 2070 or PSYC 2050 or PSYC 2051. Must be either a major or minor in psychology. Must at least have sophomore standing.

PSYC 3150 Senior Honors Research Seminar (1-5 Credits)
In conjunction with senior research thesis. Prerequisites: PSYC 2750, PSYC 2751 and PSYC 2752.

PSYC 3151 Senior Honors Research Seminar (1-5 Credits)
In conjunction with senior research thesis. Prerequisites: PSYC 2750, PSYC 2751 and PSYC 2752.

PSYC 3152 Senior Honors Research Seminar (1-5 Credits)
In conjunction with senior research thesis. Prerequisites: PSYC 2750, PSYC 2751 and PSYC 2752.
PSYC 3350 Cultural Psychology (4 Credits)
This seminar examines how people's sociocultural context shapes their thoughts, feelings, and behaviors. To approach this question, we read and discuss classic as well as recent theoretical and empirical articles from the field of cultural psychology. Topics include defining culture; dimensions of cultural variation; culture-biology interactions; methodological considerations; cultural influences on cognition, emotion, the self, moral judgment, and health; cultural neuroscience; cultural approaches to race and ethnicity; and mechanisms of cultural influence. Throughout, this course emphasizes sociocultural diversity in psychological processes. Students are encouraged to develop empirically tractable ways of asking and answering questions relating to cultural psychology and to apply concepts of cultural psychology to their own research. Prerequisite: PSYC 1001, must be either a major or minor in psychology, must at least have sophomore standing.

PSYC 3440 Gender and Society (4 Credits)
Prerequisites: PSYC 1001, must be a psychology major or minor, must have at least sophomore standing.

PSYC 3666 Brain Development & Cognition (4 Credits)
Examines what the brain tells us about development and what development tells us about the brain. Topics include subcortical and cortical developments to the acquisition of language and drawing. Prerequisites: PSYC 2050 or PSYC 3031 or BIOL 3640 and 15 quarter hours in psychology, junior or senior standing.

PSYC 3701 Topics in Psychology (1-4 Credits)

PSYC 3702 Psychology of Sexual Minorities (4 Credits)
This class is a thorough review of the state of the development, psychological and other social science knowledge of gay, lesbian, bisexual, transgendered, and other sexual minority individuals. The course will employ a developmental approach in examining the lives of GLBT persons, their special needs, concerns, and vulnerabilities. Topics explored will include the psychology of sexual orientation identity, homophobia, heterosexism, and hate crimes, GLBT adolescents, romantic relationships, couples, parenting, and families. Prerequisite: PSYC 1001.

PSYC 3760 Field Experiences in Psychology (1-2 Credits)
Students meet weekly with professor and complete an unpaid internship at a community organization. Prerequisites: PSYC 1001 or equivalent, PSYC 2500 or equivalent, 21 years old by October 1, psychology major, and permission of instructor. Corequisite: PSYC 3759.

PSYC 3761 Field Experiences in Psychology (3-5 Credits)
Students meet weekly with professor and complete an unpaid internship at a community organization. This class has a service learning component. Prerequisites: PSYC 1001 or equivalent, PSYC 2500 or equivalent, PSYC 3760, PSYC 3759, 21 years old by October 1, psychology major, and permission of instructor.

PSYC 3762 Field Experiences in Psychology (1-5 Credits)
Students meet weekly with professor and complete an unpaid internship at a community organization. This class has a service learning component. Prerequisites: PSYC 1001 or equivalent, PSYC 2500 or equivalent, PSYC 3760, PSYC 3759, PSYC 3761, 21 years old by October 1, psychology major, and permission of instructor.

PSYC 3991 Independent Study (1-10 Credits)
Maximum of 5 hours per quarter not to exceed a total of 10 quarter hours.

PSYC 3992 Directed Study (1-10 Credits)

PSYC 3999 Psychology Senior Assessment (0 Credits)
This course involves a required assessment of graduating psychology majors’ knowledge of the discipline based on coursework taken one quarter prior to graduation. Prerequisites: at least any five of the following courses required for the major: PSYC 1001 or equivalent, PSYC 2300, 3050 or 2751-2752, PSYC 2500 or 2510 or 2520 or 2530, PSYC 2060 or 2040 or 3030, PSYC 2050 or PSYC 2055; PSYC 2031 or 2130, PSYC 2031 or 2150 or at least 163 total credit hours or at least 30 credits of psychology hours.

PSYC 4002 Prosem in Memory and Cognition (5 Credits)
Theory/research on thinking, problem solving, language, creative thought, other aspects of knowing process.

PSYC 4011 Proseminar in Emotion (5 Credits)
Social/physiological aspects of emotions, including motivation, physiological processes, basic emotions, cognitive appraisal, cross-cultural issues, empathy, effects of emotions.

PSYC 4020 Proseminar in Personality (5 Credits)
Personality structure/dynamics, theory and findings, interrelationships between personality and socio-cultural determinants of behavior.

PSYC 4021 Prosem in Social Psychology (5 Credits)
Major theoretical issues and empirical research in social psychology; topics include cultural, social structure, cognitive consistency, social neuroscience, social cognition, person perception, the self, social influence, attitudes, relationships, emotion, coping.

PSYC 4031 Developmental Proseminar: Cognition & Perception (5 Credits)
Problems/theories in developmental psychology including Piagetian theory, language, emotional, perceptual, personality development, learning, biological bases of behavior, genetic influences.

PSYC 4032 Developmental Proseminar: Social-Emotional (5 Credits)
Problems/theories in developmental psychology including Piagetian theory, language, emotional, perceptual, personality development, learning, biological bases of behavior, genetic influences.
PSYC 4033 Devel Proseminar: Biological (5 Credits)
This course provides an overview of major biological processes during development and their effects on physical, cognitive, and social development. Specific topics will include: history, concepts, and central themes of developmental psychology; theoretical and biological models of human development (e.g., developmental psychobiological systems view); brain development and plasticity; behavioral genetics; sleep and circadian rhythms; sexual differentiation and hormonal influences on behavior; stress and the HPA axis; effects of nutrition and toxic substances.

PSYC 4043 Clinical Approaches: Community (5 Credits)
Community psychology; major theoretical/conceptual issues, assessment/intervention techniques.

PSYC 4045 The Developing Brain (4 Credits)
This course presents an overview of current research and methods in the field of developmental cognitive/affective/social neuroscience. The course examines what the brain tells us about development and what development tells us about the brain. Topics include sensitive periods for neuroplasticity, pediatric neuroimaging methods, attention, language, affective and social development. Cross-listed with course 3045. Prerequisite: Instructor permission.

PSYC 4050 Cultural Psychology (5 Credits)
This seminar examines how people's sociocultural context shapes their thoughts, feelings and behaviors. To approach this question, we read and discuss classic as well as recent, theoretical as well as empirical articles form the field of cultural psychology. Topics include: (1) defining culture; (2) dimensions of cultural variation; (3) culture-biology interactions; (4) methodological considerations; (5) cultural influences on cognition, emotion, the self, moral judgment, and health; (6) cultural neuroscience; (7) cultural approaches to race and ethnicity; and (8) mechanisms of cultural influence. Throughout, this course emphasizes sociocultural diversity in psychological processes. Students are encouraged to develop empirically tractable ways of asking and answering questions relating to cultural psychology and to apply concepts of cultural psychology to their own research.

PSYC 4055 The Neuroscience and Psychology of Parenthood and Parent-Child Relationships (4 Credits)
This course explores the theory, research and issues relevant to parenthood and parent-child relationships. The course overviews the evolutionary, neurobiological, and psychological perspective of parent-child relationships with a focus on the understanding of recent advances in neuroscience research. Topics include neuroplasticity of parental brain, maternal vs. paternal biology for parenting, and social and biological determinants of parent-child relationships. Emphasis is placed on discussion of current research, evaluation of the findings, and proposals and ideas of new research in the field. The goal is not to memorize facts but rather to learn to think like a developmental cognitive/social neuroscientist. Cross-listed with course PSYC 3055. Prerequisite: Instructor permission.

PSYC 4060 History and Systems of Psych (5 Credits)
General nature of scientific progress throughout history as relates to evolution of psychology as scientific/academic discipline; history explored by asking whether prevailing Zeitgeist, the appearance of the "Great Mind," or some combination of both factors was responsible for pivotal changes seen throughout psychology's history.

PSYC 4085 Stress & Health (5 Credits)
This course will serve as an introduction to the field of psychoneuroimmunology, with a focus on stress and development. The first section of the course will review basic immunology including immune system components and functions, and relations between the immune system and other systems. The later portion of the course will focus on effects of stress for different disease mechanisms (infection, allergy, cancer etc).

PSYC 4235 Teaching Psychology (1-5 Credits)
Experiential approach to learning techniques for teaching psychology.

PSYC 4241 Seminar-Discourse Processes (5 Credits)

PSYC 4249 Prosem in Reading and Language (5 Credits)

PSYC 4254 Intro to Neural Network Models (4 Credits)
Cross listed with PSYC 3032.

PSYC 4255 Imaging the Mind (4 Credits)
Imaging Cognition is an introductory course to the basic theory and data analysis techniques used in functional magnetic resonance imaging (fMRI). It will cover basic brain anatomy, the basic physics of MRI, experimental design, data processing and the issues associated with data processing, and interpretation of fMRI data. Students in this course will receive hands-on experience in processing a data set from start to finish. They will apply different image preprocessing techniques, statistical design parameters, and statistical models to determine how these factors influence the outcome of the data and how these factors influence the interpretation of that data. In this manner, each student will be exposed individually to the decision issues and interpretation pitfalls involved in fMRI data analysis. In class, students will use the smart-to-the-seat classroom. Cross listed with PSYC 3029.

PSYC 4256 Seminar:Cognitive Neuroscience (5 Credits)
Neural systems underlying human perception, memory, language, pathological syndromes that result from damage to these systems.
PSYC 4257 Psychophys & Neuroscience Lab (5 Credits)

PSYC 4258 Social Neuroscience (5 Credits)

PSYC 4260 Psychophysiology (5 Credits)
This course will serve as an introduction to the field of psychophysiology, with a focus on autonomic psychophysiology (e.g., measures of the electrodermal and the cardiovascular system). Such measures uniquely allow researchers to answer questions about mind-body interactions, emotions, cognition, and health, among others. The first section of the course will review theory of psychophysiology and relevant physiological systems as well as introduce students to the basics of psychophysiological measurement. The second section of the course will be hands-on, allowing students either to write a study proposal involving psychophysiological measurement or to use the psychophysiology lab to design and execute their own study using physiological measures.

PSYC 4262 Affective Neuroscience (4 Credits)
Affective neuroscience is the study of emotions in the brain. In this course, we explore how new frontiers in emotion research, from brain scans to psychoactive drugs to monkey colonies, have changed the way we think about emotions and moods. We aim to learn how scientists ask these new questions: how and what can we learn about emotion from animal models, patient studies, genetic studies, brain scans, and drugs? We learn and debate different theories about what emotions are: when are emotions helpful and harmful? Why do we have them? How many are there? Can we control how we feel? Finally, we learn how to think about emotions scientifically: What kind of evidence matters? How do emotion scholars talk about their work? What kind of questions can we ask, and what kind can we hope to answer?

PSYC 4265 Social Perception and Communication (5 Credits)
The way that people look and communicate evoke immediate and sometimes automatic responses from other people. Accordingly, this course includes topics such as facial structure and function, nonverbal communication, social categorization, behavioral mimicry, and thin-slices.

PSYC 4270 Seminar-Social Cognition (5 Credits)
Theory research in cognitive social psychology, including social knowledge structures, categorization of social information, social memory, judgment and inference, cognition-emotion links, effects on social behavior.

PSYC 4295 Research Design & Inference (5 Credits)
Theory/computational methods of major parametric/ nonparametric correlation techniques.

PSYC 4300 Correlation and Regression (5 Credits)
Theory/computational methods of major parametric/ nonparametric correlation techniques.

PSYC 4305 Analysis of Variance (5 Credits)
Complex analysis of variance, other quantitative methodologies. Prerequisite: PSYC 4300 or instructor’s permission.

PSYC 4340 Structural Equation Modeling for the Social Sciences (5 Credits)
This advanced course covers the basics of structural equation modeling and how this flexible approach to statistical analysis can be applied in the social sciences. Specific techniques that will covered will include testing for mediation, path analysis, confirmatory factor analysis, and the analysis of longitudinal data, as well as other related topics. There will be an emphasis on applying these techniques to students’ own research through hands-on demonstrations and homework assignments and an emphasis on interpreting and critiquing structural equation models in published research. A course on correlational methods and regression is a pre/co-requisite.

PSYC 4350 Multilevel Modeling for the Psychological Sciences: Theory and Applications (5 Credits)
This advanced course covers the basics of multilevel (hierarchical) linear modeling and how this flexible approach to statistical analysis can be applied to theory and data in the psychological sciences. Specific techniques that will be covered include the analysis of nested data, family and dyadic data, and longitudinal data as well as mediation and moderation. There will be an emphasis on applying these techniques to students’ own research through hands-on demonstrations and homework assignments and an emphasis on interpreting and critiquing multilevel modeling analyses in published research. Courses on analysis of variance as well as correlational methods and regression are pre/corequisites.

PSYC 4411 Child Assessment-Cognition (2-5 Credits)
PSYC 4413 Child Assessment-Personality (5 Credits)
Overview of evidence-based psychological assessment (emotional, behavioral, and social) of children and adolescents with a focus on integrating theory, research, and clinical practice.

PSYC 4511 Prosem in Psychopathology (5 Credits)
Theories of behavioral/personality disorders on children; survey of clinical/experimental literature.

PSYC 4512 Prosem in Psychopathology (5 Credits)
PSYC 4518 Readings in Family Therapy (5 Credits)
This course will survey major historical and contemporary theories from the field of family therapy. Basic family therapy techniques will be covered, and integrated with other modes of therapy (e.g. individual, marital). In the second half of the course, students will work with families and receive group supervision.

PSYC 4525 Prosem in Develop Neuropsych (5 Credits)
Normal brain development, functional neuroanatomy, clinical conditions that can affect brain functioning in children, adults.

PSYC 4526 Prosem in Cog Neuroscience (5 Credits)
This is a graduate-level introduction to cognitive neuroscience. It covers basic theories of cognition and their neurological support.
PSYC 4540 Adv Topics in Cognitive Devel (5 Credits)
Varying topics; theory/research in cognitive development including Piagetian work. Prerequisite: graduate status or instructor’s permission.

PSYC 4545 Memory Dvlpt:Nature & Nurture (5 Credits)
Theory & research in the field of memory development, with particular emphasis on neurobiological perspectives of memory development. Considers the role of biology (nature), as well as the socio-cultural context (nurture) in which memory develops. Specific topics in memory development will include: early memory development & infantile amnesia, infant visual recognition memory, procedural memory, episodic memory, autobiographical memory, and trauma & memory development. Since the course covers topics in systems level neuroscience (i.e., a class in behavioral or cognitive neuroscience). Classes that fulfill this prerequisite include PSYC 4255, PSYC 4256, PSYC 4257, PSYC 4525 or PSYC 4526 or instructor approval.

PSYC 4565 Systems of Psychotherapy (5 Credits)
The course provides an introduction to evidence-based treatment for children and adolescents. Conceptual and empirical underpinnings of youth therapies are examined. Treatments for three prominent child and adolescent disorders - disruptive behavior problems, depression, and anxiety disorders - are highlighted. Demonstration and practice of specific treatment components is included.

PSYC 4566 Systems of Psychotherapy II (5 Credits)
Conceptual/empirical foundations of interventions for clinical problems, including (but not limited to) parasuicidality, Borderline Personality Disorder, and substance abuse.

PSYC 4571 Multicult Issues & Ment Health (5 Credits)
Theory, research, and practice issues related to the mental health of racial/ethnic minority and other diverse groups.

PSYC 4579 Research Design (5 Credits)

PSYC 4587 Workshop in Marital Therapy (4 Credits)

PSYC 4612 Marital Conflict (1-10 Credits)

PSYC 4620 Advan in Couples Intervention (5 Credits)

PSYC 4625 Marital/Couples Thrpy-Div Popl (5 Credits)
The course will cover the complexities in couples research and intervention that are the focus of current investigations in labs around the world. The major issues revolve around the role that marital problems play in the development, maintenance and treatment of a variety of child and adult problems and vice versa. These will include, adult sexual problems, alcohol and drug use and abuse, anxiety disorders, depression, medical problems, and that marital discord and destructive conflict are generic risk factors for a wide range of child and adult mental health problems and that marital health is a protective factor.

PSYC 4660 Perception: A Cognitive Neuroscience Approach (4 Credits)
An introduction to human perception with a strong emphasis on visual perception. This course evaluates the current understanding of how neural activity in the brain allows people to perceive basic sensory features (e.g., brightness, color, size, position, depth, movement, loudness and pitch) as well as recognize and discriminate complex perceptual patterns (e.g., 2D-shapes, 3D-objects, faces, and scenes). The underlying mechanisms are discussed on the basis of behavioral, neurophysiological, and computational evidence.

PSYC 4688 Clinical Psychopharmacology (4 Credits)
This course offers an in-depth examination of medications used to treat mental disorders, including the neurobiology of these medications. Different options available for each disorder will be discussed, along with issues related to the effective use of psychiatric medications. Prerequisites: Instructor approval required.

PSYC 4920 Ethics-Psych & Rsrch Practice (2 Credits)
Ethical issues on psychological research. Teaching, practice.

PSYC 4925 Clinical Ethics and Professional Issues in Psychology (3 Credits)
Ethical topics related to clinical psychology; professional topics in clinical psychology such as supervision and consultation. Instructor permission required.

PSYC 4930 Psychology Practicum-Clinical (1-5 Credits)
On-the-job training in clinical psychology. May be repeated for a maximum of 24 quarter hours. Prerequisite: Admission to doctoral program.

PSYC 4931 Psychology Practicum-Teaching (1-5 Credits)
On-the-job training in teaching psychology. May be repeated for a maximum of 24 quarter hours. Prerequisite: Admission to doctoral program.

PSYC 4932 Psychology Practicum-Research (1-5 Credits)
On-the-job training in research psychology. May be repeated for a maximum of 24 quarter hours. Prerequisite: Admission to doctoral program.

PSYC 4934 Practicum: DCN Neuropsychology (1-10 Credits)

PSYC 4992 Directed Study (1-10 Credits)

PSYC 5991 Masters Independent Study (1-10 Credits)

PSYC 5995 Masters Independent Research (1-10 Credits)

PSYC 6981 APA Internship (8 Credits)
1 Year APA approved Internship in clinical psychology - the course is not graded.
Public Affairs (PBAF)

Public Policy (PPOL)

Real Estate & Construction Mgt (RECM)

Real Estate (REAL)

Courses

REAL 4000 Business of the Built Environment (4 Credits)
The emphasis of this course is on the importance of real estate and the built environment and its impacts and influences on how we live, work, and play. The course employs a full life cycle sustainable model that links the various phases, functions, and professions of real estate, project delivery, and asset/facility management to create holistic, value generating solutions for society. Professional practices/skillsets associated with the many career options that engage the built environment are explored.

REAL 4002 The Business of Real Estate (2 Credits)
This is an introduction to home ownership, real estate industry and its markets; legal aspects of home ownership from consumer’s point of view, including property rights, title, concepts, deeds, and purchase contracts. Listing contracts, law of agency, types of mortgages, basics of home loan finance, appraisal, investment and tax benefits are also covered in this class. Partially satisfies Colorado Real Estate sales licensing requirements.

REAL 4007 Real Estate Financial Analysis (4 Credits)
Alternative analysis formats that can be applied to a wide array of real estate analysis issues; simulates working/decision-making environment; structured overview of analysis tools focused on specific facets of multidimensional real estate decision-making environment; applications in investment analysis, feasibility analysis, valuation, market analysis, and report writing and presentation. Prerequisite: REAL 4407.

REAL 4010 Real Estate Capital Markets (4 Credits)
This course will expose students to the Commercial Real Estate Capital Markets that have evolved from exclusively private in the 1980s to a mix of private and public, including commercial mortgage backed securities (CMBS) and real estate investment trusts (REITs), in the 1990s. Any person involved in real estate today must understand all the alternative capital sources available and their requirements. Students will be exposed to the positives and pitfalls of all the capital market products. This course will provide students with the general concepts and definitions. A combination of lectures, guest lectures from industry experts, text & article readings, class discussions, and case studies using real life examples. Cross listed with REAL 3010. Prerequisite: REAL 4007.

REAL 4110 Advanced Issues in Real Estate & Construction Management (4 Credits)
This course concentrates on five advanced real estate and construction management topics; the design build environment, negotiation skills in real estate and construction management, real estate capital markets, the entitlement process -- urban planning, zoning, PUDs and underutilized tax advantages in real estate. Cross listed with REAL 3110. Prerequisite: REAL 4407.

REAL 4140 Global Perspectives in Real Estate (4 Credits)
This course focuses on inbound U.S. and outbound U.S. real estate transactions and the cultural issues that impact these transactions. This can also be taken as a Burns Global Delegation travel course. Cross listed with REAL 3140, XRCM 4140.

REAL 4210 Planning, Entitlements, and Public Finance (4 Credits)
Real estate development, place making, and community building require the combined efforts of the public, for-profit, and non-profit sectors. Participants in the real estate development process need to understand and appreciate the sometimes competing and sometimes collaborative interests of governments, agencies, and the private developer. This course is designed to familiarize students with the overall context of urban planning and land use. Students discover the variety of participants in the development process and also become familiar with the project entitlement process, zoning, and land use regulation. Students also examine public/private financing structures such as public-private-partnerships (P3s) and become familiar with detailed calculations relating to Tax Incremental Financing (TIF) and Metropolitan Districts.

REAL 4337 RE Securities/Syn/Entrep (4 Credits)
Introduction to real estate securities; emphasis on private offerings; determining whether a contemplated transaction involves a security, and what happens if it does; exemptions from registration (Reg D); registration requirements; investor suitability, how to syndicate, acquisition of property, marketing or the property, tax structure and formation of syndication, compensation to syndicators, real estate tax considerations. Cross listed with REAL 3337, XRCM 4337.

REAL 4347 Mgmt of Income Properties (4 Credits)
Explore the complexities of managing apartments, condominiums, office buildings, industrial property and shopping centers. This course covers rental markets, development of rental schedules, leasing techniques and negotiations, repairs and maintenance, tenant relations, merchandising, selection and training of personnel, accounting, and owner relations. Cross listed with REAL 3347.
REAL 4369 Real Estate Taxation (4 Credits)
Tax factors affecting investments and operations in real estate; special attention is given to legal forms of ownership, depreciation, tax basis, tax impacts of exchanges, syndications, real estate securities, and other federal tax laws affecting real estate. Cross listed with REAL 3369.

REAL 4400 Real Estate Principles and Practices (4 Credits)
Principles of real estate, real estate industry and its markets; legal aspects of home ownership from consumer’s point of view, including property rights, title concepts, deeds, purchase contracts, listing contracts, law of agency, environmental issues and disclosures, types of mortgages, basics of home loan financing, appraisal investment and tax benefits. Partially satisfies Colorado real estate broker licensing requirements. Cross listed with REAL 1777.

REAL 4407 Income Property Finance (4 Credits)
This course explores conventional and alternative financing, mortgage banking, law and markets, loan underwriting analysis and the impact of monetary and fiscal policies on the real estate and mortgage markets, with emphasis on decision making from the equity investors point of view. Specific topics include an overview and history of real estate finance, the taxation and legal aspects of real estate finance, compounding and discounting, functions of interest and real estate capital markets and securities. Specific areas of focus are residential property finance, income property finance, and construction and development financing. Cross listed with REAL 3307.

REAL 4417 Income Property Valuation and Appraisal (4 Credits)
Residential/Commercial appraising, including market cost and income approaches to value, gross rent multiplier analysis, neighborhood and site analysis, valuation of income properties including market cost and income approaches to value, capitalization theory and techniques, mortgage-equity analysis, and investment value concepts. Prerequisite: REAL 4407.

REAL 4447 Property Development and Feasibility (4 Credits)
Commercial real estate development analysis and feasibility includes economic base analysis, tenant demand analysis, development and construction cost analysis, lease-up analysis, financial feasibility, leasing and property management practices. Five major property types (office, industrial, retail, apartment and hotel) are covered. Prerequisite: REAL 4007.

REAL 4477 Income Property Investment (4 Credits)
Comprehensive analytical framework for real estate investment decision-making, equity investment decisions via discounted cash flow, and risk analysis models and strategic planning concepts, structuring parameters to maximize rates of return while controlling downside risks; emphasis on theory, concept building, and practical application to various types of investment properties. Cross listed with REAL 3377. Prerequisite: REAL 4007.

REAL 4500 Argus Financial Analysis (4 Credits)
This course concentrates on practical applications of the Argus (TM) Real Estate Financial Software through interactive examples and case studies. Participants will be exposed to the software’s capabilities, fundamentals, and unique nuances. Cross listed with REAL 4500, XRCM 4702. Prerequisite: REAL 4007.

REAL 4701 Topics in Real Estate (1-5 Credits)

REAL 4705 Risk Management in the Built Environment (4 Credits)
Decision making and risk analysis concepts in the context of real estate and the built environment. This includes, but is not limited to, liability issues as to persons and property, casualty and property damage questions, employee and employer insurance areas, auto insurance, professional liability insurance, directors’ and owners’ liability issues, medical insurance, life insurance, environmental risks, and much more in areas of exposure that one can face in the business world. The course further examines means to minimize such areas of exposure.

REAL 4800 NAIOP Challenge (2-4 Credits)
A unique non-traditional course, where the students will work on a complex real estate problem culminating in an internal competition and external competition which includes a written report and an oral presentation. Cross listed with CMGT 3800, CMGT 4800, REAL 3800.

REAL 4890 Internship (0-10 Credits)
REAL 4980 Adv Valuation/Report Writing (1-10 Credits)
Advanced cutting-edge techniques not yet institutionalized nor commonly practiced in the field. Includes writing skills workshops appropriate to specialized nature of appraisal reports, and composition of a complex field problem report to prepare student for writing "demonstration" report required for MAI professional designation. Prerequisite: REAL 4417.

REAL 4991 Independent Study (1-10 Credits)
REAL 4992 Directed Study (1-10 Credits)
REAL 4995 Independent Research (1-10 Credits)

Religious Studies (RLGS)

Courses
RLGS 3001 Judaism (4 Credits)
A literary and historical journey through Judaism. This course examines the "Jewish story" from its roots to its modern-day manifestations, focusing on select, classic Jewish texts in their historical contexts. From them, students explore Jewish tradition and practice and actively engage with and in the vivid interpretive imagination of the authors of Judaism throughout the ages. Cross listed with JUST 3001.
RLGS 3023 Great Thinkers: Maimonides (4 Credits)
Using "The Guide for the Perplexed" as our central text, we explore the complex philosophical ideas of Moses Maimonides (1135-1204), one of the central figures in medieval philosophy and Jewish thought. Our study includes analyses of his ideas on principles of faith, human perfection, intellectual vs. "imaginational" approaches to truth, pedagogy and politics, reasons for the commandments, the nature of God and divine will, the limits of human knowledge, the mechanics of prophecy, and the parameters and implications of providence. Cross listed with PHIL 3023 and JUST 3023. Prerequisite: junior standing or instructor's permission.

RLGS 3024 Maimonides: Greek, Islamic, and Christian Encounters (4 Credits)
Using the "Guide of the Perplexed" as our central text, we explore the complex philosophical ideas of Moses Maimonides (1135-1204), a central figure in the history of philosophy and in the history of Jewish thought. In this course, we examine in depth the relationship between Maimonides’ core ideas and various Greek, Muslim and Christian thinkers, including: Aristotle, Plotinus, al-Farabi, Avicenna ( Ibn Sina), al-Ghazali, Averroes (Ibn Rushd), and Aquinas. Topics to be explored include: what is "metaphysics"?; God’s unity and essence as existence itself; the mystery of knowing and not knowing God (including a consideration of God's ways as well as "negative theology"—viz. the extent to which we do not know God); God as pure intellect; the nature of the cosmos and the "separate intellects"; creation vs. eternity vs. emanation; philosophical and religious perspectives on the origins of the universe and implications for "living in the world with/out God." In our study, we will also address the methodological implications of cross-religious and cross-language analyses, and how to spot and address (in your own work and in the work of others) tacit cultural biases at play in the interpretive process. Cross listed with JUST 3024 and PHIL 3024. Prerequisite: Junior standing or instructor’s permission.

RLGS 3102 Early Judaism (4 Credits)
This course traces the development of Judaism in history and literature from the Babylonian Exile and the end of the biblical period through the origins of Rabbinic Judaism and the completion of the Babylonian Talmud (c. 650 CE). However, special emphasis is placed on Jewish culture in the late Second Temple period (c. 200 BCE to 100 CE) and its impact on the early Christian movement, including Jewish literature from the time of Jesus, lost texts of the Bible, new evidence from the Dead Sea Scrolls, and the few surviving historical sources of the Second Temple Period. In addition, students analyze how the Bible came to be and understand how sacred texts and their interpretations eventually became the new center of both Judaism and Christianity. Cross listed with JUST 3102.

RLGS 3150 The Bible & Dead Sea Scrolls (4 Credits)
This course includes an advanced study of the Dead Sea Scrolls with a particular focus on the Bible as it appears in the Qumran library. We will discuss the variant versions of the Bible, some of which were previously unknown before the discovery of the Scrolls, and how the findings of the Scrolls may question the very idea of "Bible" itself in the context of the late Second Temple Judaism. Further, we will place particular emphasis on studying the way biblical texts were engaged, interpreted and even written by the authors of the Dead Sea Scrolls. In this way, we shall explore the origins of biblical interpretation and how the notion of the Bible came to be. Cross listed with JUST 3150. Prerequisites: One year of Hebrew language or equivalent or by special permission of the instructor.

RLGS 3151 Dead Sea Scrolls (4 Credits)
The Dead Sea Scrolls represent one of the greatest manuscript finds of the twentieth century and have been said to be the most important discovery in biblical archaeology. These scrolls offer a rare window into early Judaism and Christianity and offer us the earliest and most important witnesses to the (Hebrew) Bible. This course covers the Dead Sea Scrolls in their historical, literary and religious context in English translation, together with relevant scholarly research. Cross listed with JUST 3151.

RLGS 3192 Christian Classics (4 Credits)
Reading and discussion of influential historic books pertaining to Christian life and devotion.

RLGS 3203 Christianity (4 Credits)
This is an introductory course about the Christian religion, with a substantial component devoted to experiential learning. The primary goal of the course is to acquaint students with the richness, dynamism and diversity of one of the world’s largest and most influential religious traditions. Even those students who have some general knowledge of Christianity benefit from the disciplined approach of the academic study of religion.

RLGS 3204 Christianity in the British Isles (4 Credits)
It is the contention of this course that Christianity in the British Isles constitutes a singular chapter in the history of the religion and must be approached and appreciated as such. The circumstances surrounding Christianity’s introduction to Britain—documented by the Venerable Bede in his Ecclesiastical History of the English People—presaged a destiny for the English Church that would be “peculiar.” With decidedly Roman sympathies, Bede’s reforming agenda is presented as historical fait accompli. The narrative nevertheless bears witness to the vibrant and resilient character of Celtic spirituality. Although Henry VIII officially brought the Protestant Reformation to England from the Continent in the 1530s when he severed the English Church from the Papacy, the extent to which the Reformation in England was ever as theologically “Protestant” as it was in Europe is open to debate. The Oxford movement—once reforming and catholicizing—would otherwise seem incongruous were that not the case. Indeed, as we shall see, the notion of semper reformanda ecclesia is, perhaps, most suited to this geographical context. Not surprisingly, playwrights, novelists, and filmmakers have found no little inspiration in Anglican reform’s concomitant turmoil and intrigue.

RLGS 3212 Development of the New Testament: The Evolution and Transmission of Christian Scripture (4 Credits)
Using a variety of critical methods, this course explores the social, political, and religious influences that shaped the New Testament as it was written, copied, edited, canonized, and translated into its current forms. Students will perform a variety of exercises in class to illustrate the complicated process by which the New Testament was formed.

RLGS 3300 Psychology of Religion (4 Credits)
Beliefs, feelings and actions representing human religious response of experience; function of religion in individual life.
RLGS 3302 Islamic Fundamentalism (4 Credits)
This writing-intensive course introduces students to the history and scope of fundamentalist movements in the Muslim world, focusing on the Middle East. Beginning with a look at the internal traditions of renewal and reform built around the idea of a return to the fundamentals or origins of Islam, the course examines the rise of major movements from the 1700s to the present. Students will engage with key questions, including the following: What distinguishes fundamentalism from radicalism? How do Sunni and Shi'i fundamentalisms differ? What roles have these movements played in politics and society, and how might these evolve in the future? How might policy makers and others best approach fundamentalist groups? A basic knowledge of Islam is assumed; students wishing to enroll without this background knowledge will be provided supplementary readings.

RLGS 3315 Religion & Moral Psychology (4 Credits)
Philosophical foundations and research strategies of psychological studies of moral thought; Aristotelian, Kantian and utilitarian thought included, as well as religious dimensions of morality.

RLGS 3318 Jesus on the Silver Screen (4 Credits)
First and foremost, this is a course in religious studies. It is a course about Jesus, a religious reformer of late ancient Judaism whose movement, by the end of the first century of the Common Era, gave rise to an identifiable separate tradition. It is a course about New Testament portrayals of Jesus in the Gospels. It is a course about contemporary, historical research on the figure of Jesus. It is also a course about film and cinematography, about reading film critically as a "text," and, in this context, the way in which film "translates" or "transforms" Jesus into another medium. Finally, it is a course about how Jesus films serve to convey modern cultural assumptions.

RLGS 3350 Culture, Psyche, and Religion (4 Credits)

RLGS 3370 Freud, Psychology, & Religion (4 Credits)
Readings, discussion, and papers help students learn about the life, intellectual and social environment, and clinical and theoretical work of Sigmund Freud. Attention is given to the influence of Freud's work on the understanding of religion at the beginning of the 21st century.

RLGS 3381 Religion & Psychobiography (4 Credits)
Use of different psychological theories to understand life and religious experience of individuals known through historical records.

RLGS 3400 Philosophy of Religion (4 Credits)
Inquiries into nature of religion, religious experience, language, methods of thinking.

RLGS 3452 Political Theology (4 Credits)
A general inquiry, focusing on the modern and postmodern eras, into various forms of philosophical reflection on the relationship between religion and political theory. Survey of the seminal ideas of such major thinkers as Kant, Hegel, Schmidt, Strauss, Derrida, Agamben, Asad, and Zizek.

RLGS 3455 Phenomenology and Theology: Husserl to Marion (4 Credits)
The implications of phenomenology for theology and the issue of theology in relation to phenomenology. The course starts with a reading of Husserl and 19th century efforts to chart a "phenomenology of religion" in the work of Otto. It also explores the ideas of later figures such as Heidegger, Merleau-Ponty, Henry, Nancy, and Marion. Junior standing required or permission of the instructor. Cross listed with PHIL 3450.

RLGS 3460 Nietzsche & the Death of God (4 Credits)
This course will involve an intensive reading and discussion of Friedrich Nietzsche's 'Thus Spake Zarathustra,' together with relevant associated materials, especially 'The Gay Science.' Cross listed with PHIL 3460.

RLGS 3465 Derrida and Postmodernism (4 Credits)
Cross listed with PHIL 3465.

RLGS 3475 Deleuze and Semiotics (4 Credits)
Examines the development of the thought of the famous French postmodern thinker Gilles Deleuze with special attention to his cultural and semiotic theory to the degree that it is relevant to the philosophy of religion. The course also investigates how Deleuze's work has shaped, and is beginning to push in new directions, contemporary postmodern philosophy. Prerequisites: must be at least junior standing and have completed at least two undergraduate courses in philosophy.

RLGS 3500 Islam (4 Credits)
Introduction to the history, faith, practice, culture(s), and politics of Islam, starting with the Judeo-Christian Near Eastern context in which it emerged and tracing its theological development and geographic spread around the world. Proceeding thematically along a broad historical frame, the course ends with an examination of the numerous, often competing, trends in contemporary Muslim communities.

RLGS 3501 Pilgrimage in Islam (4 Credits)
Introduction to the ideas and practices of pilgrimage in Islam, focusing on the hajj as Islam's paradigmatic form of pilgrimage and the one to which all others are compared, but also considering other local or "lesser" pilgrimages, often known as ziyarat or visits. The course excavates the history of the practice of pilgrimage, situating it within the social, political, economic and cultural contexts that have helped frame Muslims' understandings of the spiritual and social meanings of various kinds of pilgrimages at different times and places across the Muslim world. The course includes consideration of the hajj experiences of non-Arab Muslims through documentary and news programs, investigates contemporary re-thinkings of the meaning of "hajj", and reflects on the key geo-political and religio-political issues that may surround Muslim pilgrimage in the 21st century.
RLGS 3502 Contemporary Islam (4 Credits)
This course introduces students to contemporary Islam. After a historical overview, the course looks thematically at different spheres of Muslim life. It considers changes that relate to political systems and forms of governance, styles of education, labor and professional work, changes in daily life habits such as timing and organization, changes in gender relations, and changes in religious authority. It also pays attention to the ways in which faith and practice are articulated through cultural practices like pop music and film.

RLGS 3503 Quran and Hadith (4 Credits)
This writing-intensive course introduces students to the key texts of Islam—the Qur’an and hadith—including their origins and meaning as well as how they have been interpreted by Muslims over time, and focusing as well on case studies that highlight issues of crucial relevance for today and the future.

RLGS 3570 Religion and Morality in the American Public Square (4 Credits)
Close focus on one or two moral issues in which religion is drawn into public debate in the contemporary U.S. Observation of the debate first hand at demonstrations, town meetings, and discussion groups, etc. Analysis of these observations is facilitated by readings on the subject and class discussion.

RLGS 3601 Religion and Culture in Vienna (4 Credits)
This course focuses on the cultural, religious and intellectual history of the city of Vienna as the hub of culture for Central Europe during the 19th and 20th centuries with special attention to the arts, philosophy, psychoanalysis, and the critique of Christianity. This course examines how religious past, particularly the influence of Judaism, shaped its rich cultural heritage and the birth of modernism. A special segment of the course is devoted to the Nazi period and the Holocaust, including a study of the resistance of religious groups. The course concludes with a history of the post-Nazi period with attention to the development of Vienna as the center of internation diplomacy and theories of globalization. The class combines lectures and online discussions with site visits to major cultural and historical sites as well as research centers around the city. The first week of the course is online.

RLGS 3604 Faith & Ethics-Religion Biography (4 Credits)
Modes of reconciling private (faith) and public (ethics) in thought and careers of selected modern individuals.

RLGS 3641 Religion and Race in America (4 Credits)
Explores the relationship between racism and religious activism by focusing on the biographies of activists.

RLGS 3680 American Religious Experience (4 Credits)
RLGS 3693 Religion and the Media (4 Credits)
Interactions between religion and all forms of communications media in American life.

RLGS 3701 Topics in Religious Studies (1-4 Credits)
An exploration of various topics and issues related to the academic study of religion. The subject matter of the course varies and may be taught by the regular faculty of the department or a visiting scholar. Some offerings may include a travel component.

RLGS 3707 Religion and Film (4 Credits)
Understanding religion requires us to take culture seriously. In doing so, we must consider products of culture, including popular culture. This course engages both classic and more recent films as “texts” to be analyzed, not as mere entertainments or diversions. We focus not only on those films that identify themselves explicitly as “religious” or reflect a particular religious tradition, but also moved that render the subject more obliquely, which reveal — via image and sound — religion as a complex human activity.

RLGS 3740 Bodies and Souls (4 Credits)
This course examines the unique place of the body in biblical religion. We ask how the Bible and its interpreters have shaped current views on sex and the gendered body in Western society. How has the Bible been (mis)used in relation to current understandings of the physical body? Is the saying that a “human” does not have a body, but is a body as true for the Hebrew Bible as the Christian New Testament? How have Judaism and Christianity (de)valued sexuality, procreation, and celibacy? How do the biblical traditions shape our modern opinions about the ideal physical body and body modifications? How can we understand “out-of-body” experiences and notions of death and afterlife in Western religion? Students are encouraged to interpret the Bible and their own beliefs from a uniquely embodied perspective. Cross listed with GWST 3740, JUST 3740.

RLGS 3760 Globalization and Religion: Theory and Methods (4 Credits)
This course explores how religious movements around the world both affect, and are affected by, the process of globalization. A major segment of the course is devoted to various theories of globalization and how they account for the increasingly important role of religion. Focus is largely on the relationship between Christianity, Judaism, and Islam.

RLGS 3813 Ritual (4 Credits)
Classical and contemporary theories about the meaning, functions, and processes of ritual, and its relationship to “religion.

RLGS 3814 Modern Hinduism (4 Credits)
Doctrines, practices and history of South Asian Hinduism; conceptions of Gods and gods; image worship and temples; and the influences of caste and gender on the experience of Hinduism. Cross listed with RLGS 3814.

RLGS 3816 Hinduism Through Texts (4 Credits)
History of ancient and medieval Hinduism, viewed through the lens of religious texts. Cross listed with ASIA 2706.

RLGS 3820 Buddhism (4 Credits)
Buddhist life and thought from origins to present in India, Tibet, Japan and China. Cross listed with ASIA 2704.
RLGS 3830 Buddhist Lives (4 Credits)
This course explores the literary canon of Buddhist life stories across time, traditions and cultures. Cross-listed with ASIA 3830.

RLGS 3832 Religious Lives: The Dalai Lamas (4 Credits)
This course explores the many lives of the Dalai Lamas and the transformation of a reincarnated religious teacher into the political leader of Tibet and, eventually, a worldwide religious personality. In order to understand that transformation, the course investigates the institution of the Dalai Lamas from historical, doctrinal, and ritual perspectives. We will look at the role of the Dalai Lama as an embodiment of the bodhisattva of compassion at the center of a tapestry of religious ceremony and ritual performances. The course will also consider the religious, ethical, and political thought of several of the most prominent Dalai Lamas, with significant attention given to the writings and work of the current, fourteenth, Dalai Lama. Cross listed with ASIA 3732.

RLGS 3890 Religion and Diaspora (4 Credits)
When forced to leave a homeland, displaced communities frequently turn to religion to maintain identity and adapt to—or resist—new surrounding culture(s). This course examines the role of religion and identity in three Jewish and Christian communities living in diaspora and poses questions such as the following: What is the relationship between religion and (home)land? How have the biblical themes of exodus, diaspora, promise and restoration been applied to contemporary experiences? And how have our American stories been interpreted through the lens of the Bible? As part of the service learning component, students have the opportunity to work with religious and immigrant aid organizations in the Denver community. Cross listed with JUST 3890.

RLGS 3891 Justice: A Biblical Perspective (4 Credits)
This is a service learning course designed for religious studies undergraduate majors, though non-majors are welcome to enroll. Cross listed with JUST 3891.

RLGS 3892 Grant Writing as Research and Community Engagement (4 Credits)
This service learning / community engagement course introduces student to non-profit work and to scholarship on non-profit activities. It connects students with community partners, continuing the department's commitment to experiential learning and to engagement with living faith communities. Students spend course time discussing scholarly research on grant writing and non-profit grant support and discussing logistical and other issues related to their service learning placements. This course is intended to help provide M.A. students with arenas for future research, including possible thesis topics, while also offering a unique practical opportunity for professional development. Experience in forming a 501(c)3 corporation and writing grant proposals will be an asset for students planning to work in non-profits as well as for those continuing on to doctoral work.

RLGS 3991 Independent Study (1-10 Credits)

RLGS 3992 Directed Study (1-10 Credits)

RLGS 3995 Independent Research (1-10 Credits)

RLGS 4000 Theory and Methods in the Study of Religion (4 Credits)
This course begins with a brief overview of the history of the study of religion in the west, from antiquity to the modern period. When it reaches the modern period, the course shifts to considering "representative" theories of religion, broken down roughly along ideological and/or disciplinary lines.

RLGS 4050 History of Islam (4 Credits)

RLGS 4100 Hebrew Bible Backgrounds: Seminar in Ancient Israelite Religion (4 Credits)
This course is designed to train the student in the method and means of engaging in archeo-historical study of the Hebrew Bible. The content of this course focuses on ancient Israelite religion in Iron Age Palestine, particularly on emergent ideas about God ("El") and the development and evolution of the priesthood. Cross listed with JUST 4100.

RLGS 4105 Understanding the Bible: Old Testament (4 Credits)

RLGS 4119 Ph.D. Colloquium: Biblical Interpretations (4 Credits)

RLGS 4122 Augustine on Genesis (4 Credits)

RLGS 4130 Prophets of Israel (4 Credits)

RLGS 4150 Biblical Aramaic (4 Credits)
Reading seminar in Biblical Aramaic. This course focuses on the vocabulary, syntax and expression of Aramaic in the Bible as well as in some related post-biblical texts (Targums, Dead Sea Scrolls, etc.).

RLGS 4191 Early Christian Old Testament Interpretations (4 Credits)

RLGS 4402 Plato: Postmodern Perspective (4 Credits)

RLGS 4404 PhD Tutorial (1-10 Credits)

RLGS 4501 Intersections of Faith and Media (4 Credits)
Using Islam and Muslim communities as case studies, this course examines the intersections between faith communities and media in the 20th and 21st centuries, looking at religious approaches to and use of print, radio, recorded voice and music, television, film, and the Internet.

RLGS 4676 Latino Religious Cultures: Methods and Theories (4 Credits)
A survey of the freshest texts, methods, and theories for the study of religiosity among Latinos in the United States.
RLGS 4980 Internship (1-4 Credits)
Designed to provide masters students with valuable experience in non-profit, educational, faith-based, governmental, and related organizations. It helps students translate the knowledge and analytical skills learned in Religious Studies courses into a professional context, while exploring potential career paths and professional opportunities. Students interested in pursuing an internship must meet with the Undergraduate Advisor at the start of the previous quarter to discuss internship goals and identify potential placements. Students meet weekly with a faculty supervisor to monitor their internship experience, and complete the internship by writing a reflective essay. For MA students only.

RLGS 4981 Internship in Religious Community (1-4 Credits)

RLGS 4982 Internship in Religious Community (1-4 Credits)

RLGS 4983 Internship in Religious Community (1-4 Credits)

RLGS 4991 Directed Study (1-10 Credits)

RLGS 4992 Directed Study (1-10 Credits)

RLGS 4995 Independent Research (1-10 Credits)

RLGS 501 Ph.D. Colloquium: Biblical Interpretations (4 Credits)

RLGS 5110 Hebrew Bible Seminar I (4 Credits)

RLGS 5111 Hebrew Bible Seminar II (4 Credits)

RLGS 5112 Hebrew Bible Seminar III (4 Credits)

RLGS 5113 New Testament Seminar I (4 Credits)

RLGS 5114 New Testament Seminar II (4 Credits)

RLGS 5115 New Testament Seminar III (4 Credits)

RLGS 5301 Colloquium: Religion and Psychological Study (4 Credits)
The course serves two main functions: (1) to gather the students and faculty of the Religion and Psychological Studies concentration of the Joint Ph.D. Program to share research and examine trends in the field and (2) to study a topic of importance to the field, be it historical, contemporary, related to a cognate field, or oriented toward a sub-specialty. Students must be in a doctoral program in order to register.

RLGS 5601 Ph.D. Colloquium: Religion & Social Change (1 Credit)

RLGS 5980 Internship (1-4 Credits)
Designed to provide doctoral students with valuable experience in non-profit, educational, faith-based, governmental, and related organizations. It helps students translate the knowledge and analytical skills learned in Religious Studies courses into a professional context, while exploring potential career paths and professional opportunities. Students interested in pursuing an internship must meet with the Undergraduate Advisor at the start of the previous quarter to discuss internship goals and identify potential placements. Students meet weekly with a faculty supervisor to monitor their internship experience, and complete the internship by writing a reflective essay. For PhD students only.

RLGS 5991 Independent Study (1-10 Credits)

RLGS 5995 Independent Research (1-10 Credits)

Religious/Theological Studies (THEO)

Research Methods and Stats (RMS)

Courses

RMS 4900 Education Research and Measurement (4 Credits)
This course is intended for Master’s degree students in the College of Education. Quantitative research designs, empirical methods of data collection and interpretation, and measurement issues in research are examined.

RMS 4910 Introductory Statistics (5 Credits)
This beginning statistics course examines use and interpretation of statistics in educational and human services research, including descriptive and inferential techniques. Cross listed with SOWK 5930.

RMS 4911 Correlation and Regression (4 Credits)
This course focuses on the study of correlation and multiple regression research designs and their application to educational and social science programs. Cross listed with SOWK 5202. Prerequisite: RMS 4910.

RMS 4912 Analysis of Variance (5 Credits)
Conceptual and applied analyses of one-way through factorial nested analysis of variance designs and multivariate analysis of variance are presented. Prerequisite: RMS 4910.
RMS 4913 Multivariate Analysis (5 Credits)
Conceptual and applied analyses of common multivariate statistical techniques used in research in social sciences are presented as are assumptions and limitations of techniques and interpretation of results. Cross listed with SOWK 5950. Prerequisite: RMS 4911 or RMS 4912.

RMS 4914 Structural Equation Modeling (5 Credits)
This course covers major applications of and issues related to covariance structure modeling, specifically confirmatory factor analysis and latent variable path modeling; types of research applications for which covariance structure modeling analyses are appropriate. Prerequisite: RMS 4911.

RMS 4915 Hierarchical Linear Modeling (4 Credits)
This course introduces models that extend multiple regression to analysis of nested data structures common in education and other social sciences. Application of those methods to various forms of multilevel data, including repeated measure (growth trajectory) data is emphasized. Prerequisite: RMS 4911.

RMS 4916 Latent Growth Curve Modeling (4 Credits)
This course covers advanced issues in longitudinal data analysis using structural equation modeling and hierarchical linear modeling with latent variables. It involves both conceptual development and practical implementation of longitudinal data analysis. This course is intended to be a hands-on approach to working with data and addressing research questions that can be best answered by longitudinal data. Prerequisite: RMS 4914.

RMS 4917 Computer Applications in Social Science Research (3 Credits)
This course focuses on use of statistical software and other appropriate software programs in the analysis of quantitative data. Prerequisite: RMS 4910.

RMS 4919 Topics in Statistics (1-5 Credits)
Topics vary by quarter but may include log-linear analysis, factor analysis, or missing data analysis.

RMS 4920 Educational Measurement (3 Credits)
This course examines the meaning, characteristics, and processes of educational measurement and evaluation. Development and interpretation of both standardized and informal tests are considered.

RMS 4921 Psychometric Theory (3 Credits)
This course examines major psychometric theories (e.g., classical, item response) as related to reliability, generalizability, validity, and item analysis methods. Prerequisite: RMS 4910.

RMS 4922 Item Response Theory (3 Credits)
Theory and methods for the educational and psychological measurement of latent variables using item response theory are covered in this course. Prerequisite: RMS 4921.

RMS 4929 Topics in Psychometrics (1-3 Credits)
Topics vary, but include: large scale testing, computer applications of item response theory, affective measure construction, generalizability theory, additive conjoint measurement, and standing testing. Prerequisite: RMS 4921 or instructor permission.

RMS 4930 Empirical Research Methods (3 Credits)
This course provides in depth study of empirical research methods involved in experimental, quasi-experimental, correlational, and single-subject designs.

RMS 4931 Survey and Design Analysis (3 Credits)
Survey techniques, needs assessment, item construction, sampling, maximizing response rates and data analysis; survey construction and data analysis are required. Prerequisite: RMS 4910.

RMS 4932 Meta-Analysis Social Science Research (3 Credits)
This course examines meta analytic techniques in the social sciences. Included are discussions of review of critical data bases, coverage of all major methods of data collection and analysis, and coverage of how best to present meta analytic findings for publication. Prerequisite: RMS 4910.

RMS 4939 Topics in Quantitative Research Methods (1-5 Credits)
Topics vary, but include minimization as an alternative to randomization, propensity score modeling as an alternative to experimental control, and analysis of data from single-subject designs. Prerequisite: RMS 4930.

RMS 4940 Structural Foundations of Research in Social Sciences (3 Credits)
This introductory course on epistemology and research includes discussion of identification and development of problems for research; introduction to basic quantitative and qualitative methods of conducting research in social science settings, ethnographic, and criticism methods.

RMS 4941 Introduction to Qualitative Research (4 Credits)
This course is designed to provide students with more in-depth understanding of naturalistic, qualitative research methods. It is assumed that students enrolling in this course have already completed an introductory research methods course in either education or another discipline. Purposes and questions posed in their course include: Why should a researcher choose to conduct a qualitative study? How are data collection strategies carried out in a qualitative research design? What are some of the ethical concerns that impact qualitative research?

RMS 4942 Qualitative Data Collection and Analysis (4 Credits)
In this intermediate level qualitative research course students learn about design, purposeful sampling, field work, observational approaches, and interviews, with special attention directed to the skills and competencies needed to gather and analyze high quality data. Prerequisite: RMS 4941 or instructor permission.
RMS 4943 Computer Applications in Qualitative Research (3 Credits)
Review of assumptions of qualitative designs, types of qualitative approaches and current data-analysis techniques; computer software to analyze qualitative data.

RMS 4944 Action Research (3 Credits)
Definition of action research, whether it improves classroom practice, methods of conducting, strengths and weaknesses; use to improve specific aspects of educational practice, to become more reflective practitioners.

RMS 4945 Community-Based Research (4 Credits)
This class introduces the emerging philosophical and methodological issues that arise when university faculty students collaborate on research with community-based organizations. Prerequisites: RMS 4942 and RMS 4946.

RMS 4946 Advanced Qualitative Research (4 Credits)
This course introduces exemplary qualitative studies and consideration of implications for education and the social sciences, and considers the types of questions asked by qualitative researchers and methods they use, particularly observation and interviewing. Students undertake their own qualitative study to consider application of theory, techniques, and practice to their dissertation research. Prerequisite: RMS 4941 and RMS 4942 or permission of instructor.

RMS 4947 Arts-Based Research (3 Credits)
In this course students explore the ground upon which arts-based research is built and become acquainted with salient issues regarding this kind of research. We practice interviewing, observations and a few arts-based practices. Prerequisites: RMS 4942 and RMS 4946 or permission of instructor.

RMS 4949 Topics in Qualitative Research (1-5 Credits)
This seminar builds on the content of other qualitative research courses offered in the RMS program and meets the students where they are on their dissertation journey; thus learning opportunities are tailored to individual needs as far as possible. Assignments focus on the issues pertinent to the design of dissertation proposals and writing, including ethical issues and IRB preparation, theoretical/conceptual framework, literature review, methodology, data collection and analysis strategies, and various forms of representation.

RMS 4951 Mixed Method Research Design (4 Credits)
This course is designed as a fundamental exploration of mixed model and mixed method approaches. Students design mixed model and mixed method research studies with a particular emphasis on multi-site and longitudinal designs that are especially suited to educational issues. Students learn analysis approaches that incorporate previously learned quantitative and qualitative skills, and apply these in practice problem examples. Prerequisites: RMS 4911, RMS 4930 and RMS 4942.

RMS 4952 Research Ethics (1 Credit)
This course introduces ethical theory and a selection of current issues in research ethics.

RMS 4953 Topics in Data Management (1-3 Credits)
This is a preparatory course emphasizing the manipulation and analysis of data in electronic form.

RMS 4954 Grant Writing (3 Credits)
This course provides a focused overview of grant writing for educators. It examines the development of reference tools (paper, electronic, and online), websites, structuring, and writing funding requests, community collaboration and partnerships, project budgeting, management, evaluation, sustainability, and reporting activities.

RMS 4959 Topics in Research Design (1-5 Credits)
Topics vary, but include single subject design issues, minimization as an alternative to randomization, advances in quasi-experimental design. Prerequisite: RMS 4930.

RMS 4960 Program Evaluation Theory (3,4 Credits)
This course reviews theories of program evaluation and current trends in evaluation.

RMS 4961 Program Development & Evaluation (3 Credits)
This course focuses on the practice of program development and evaluation in school, business, or community agency settings. Both qualitative and quantitative methods of program evaluation are discussed. Students have the opportunity to focus on evaluation of a specific program.

RMS 4962 Program Development and Assessment (3 Credits)
This course focuses on how student affairs administrators conduct student outcomes assessment, evaluate program development, and monitor program and division budgets.

RMS 4969 Topics in Program Evaluation (1-5 Credits)
Topics vary, but include advocacy and policy change, assessment in higher education, multi-level evaluation, cost effectiveness analysis, data visualization and reporting, assessment in distance education, and evaluation in the arts and culture. Prerequisite: RMS 4960.

RMS 4980 Practicum in Research (1-5 Credits)
This course provides a supervised experience in design and implementation of an empirical research or evaluation study. Organization of research proposals, completion of human subjects applications, collection, and analysis of data are emphasized. Students are expected to prepare a written report of their project which is suitable for professional presentation or publication.
RMS 4981 Community-Based Research Practicum (1-5 Credits)
Students provide community-based research assistance to a community partner (non-profit, school, community based organization, etc). Student researchers are supervised by DU faculty. This course is an excellent opportunity to match the student’s research expertise with the real needs of community partners. Prerequisite: RMS 4945.

RMS 4991 Independent Study (1-10 Credits)
This course allows Masters students in RMS to study a topic area independently in conjunction with a cooperating faculty member.

RMS 4992 Directed Study (1-10 Credits)

RMS 4995 Independent Research (1-10 Credits)

RMS 4991 Independent Study (1-10 Credits)
This course allows Ph.D. students in RMS to study a topic area independently in conjunction with a cooperating faculty member.

RMS 4992 Directed Study (1-10 Credits)

RMS 4995 Independent Research (1-18 Credits)

This course is for Ph.D. students in RMS who are engaged in completing their doctoral dissertation.

Russian (RUSS)

Courses

SVCLP-Bosnia (BOSN)

Security Management (SMGT)

Courses

SMGT 4050 Security Concepts Overview (4 Credits)
This course provides an introduction to the main principles and issues in business and organizational security management. Topics include protection of, and assessing the loss potential of, personnel, facilities, and information, and continuity of operations. The course makes extensive use of case studies and analyses, field exercises and research.

SMGT 4100 Business Function of Security (4 Credits)
This course covers the role of security in an organization or business context. Topics include budgets, contracts, financial analyses, how the security functions support the overall mission of the organization, and the relationship of security to other essential business functions. Students will also learn how to defend the costs of the security systems and security operations to high-level executives.

SMGT 4150 Risk Management (4 Credits)
Students will learn to identify and manage risks, crises and disasters, and to prepare emergency and contingency plans. Students will learn how to prevent losses, mitigate losses and accelerate recovery from security events or natural disasters. This will be accomplished through case studies and practical exercises.

SMGT 4200 Integrated Security Systems (4 Credits)
This course covers the integration of physical, personnel, and information security, including the use of information technology to enhance physical and personnel security. Students will learn the essential elements of system design, development of procedures, testing and maintenance of integrated security systems. This will be accomplished through case studies and practical exercises.

SMGT 4210 Critical Incident Management (4 Credits)
All communities are vulnerable to a variety of hazards. Emergency management provides a structure for anticipating and dealing with emergency incidents. Emergency management involves participants at all governmental levels and in the private sector. Activities are geared according to phases before, during, and after emergency events. The effectiveness of emergency management rests on a network of relationships among partners in the system. The goal of this course is to introduce students to the fundamentals of emergency management as an integrated system, surveying how the resources and capabilities of all functions at all levels can be networked together in all phases for all hazards. Included is an in-depth look at the four phases of comprehensive emergency management: mitigation, preparedness, response, and recovery.

SMGT 4220 Hazardous and Radiological Material Preparedness (4 Credits)
Hazardous materials plan development is a difficult and challenging job that requires a high level of skill and knowledge from planners charged with these responsibilities. Due to local funding shortages and frequent staff turnover at the state and local levels in the planning arena, and because of the complexity of hazardous materials planning requirements, there continues to exist a significant performance problem and training requirement for hazardous materials planning. This course provides students the assistance and confidence needed to effectively plan for and respond to hazardous materials incidents, through sound emergency planning and with the highest level of safety for response personnel within the student’s jurisdiction. This course also addresses the fundamental principles of radiation as well as the nuclear threat.
SMGT 4230 Mitigation for Emergency Managers (4 Credits)
As the costs of disasters continue to rise, governments and ordinary citizens must find ways to reduce hazard risks to our communities and ourselves. Efforts made to reduce hazard risks are easily made compatible with other community goals; safer communities are more attractive to employers as well as residents. As communities plan for new development and improvements to existing infrastructure, mitigation can and should be an important component of the planning effort.

SMGT 4250 IS: Threats in Security (4 Credits)
This course explores emerging protection concepts for the information age. Students will identify threats to security systems, discover vulnerabilities, and suggest and design protection systems. Topics include management of information security and data processing facilities, data theft, misuses of information technologies, computer viruses and hacking, and network protection. The course also covers information technology laws, privacy issues, and information security planning.

SMGT 4300 Security Administration (4 Credits)
Students apply principles of management to security administration. Topics include personnel management, security planning, organizational leadership and communication, and recruitment and training.

SMGT 4350 Business Assets Protection (4 Credits)
Students examine the application of security knowledge and techniques to the protection of business assets. The security planning process is examined by the study of risk analysis, security surveys, and financial planning and decision making for development of security programs and countermeasures.

SMGT 4400 Emergency Planning (4 Credits)
Students discuss the role of the security manager in the identification, analysis, and response to a variety of human and natural crises. They examine threats resulting from riots, demonstrations, product tampering, work stoppage activities, terrorism, and natural disasters.

SMGT 4450 Legal & Ethical Issues in Security Management (4 Credits)
This course is an overview of important legal and ethical issues with which the business and organizational security management professional must deal. Students examine such issues as personnel law and obligations; negotiations; contract management; constitutional rights of individuals; legal liability of security professionals and organizations; legal compliance; and ethical standards.

SMGT 4500 Human Factors in Security (4 Credits)
This course focuses on historical and contemporary perspectives of human behavior. Theories of behavior in the context of threat-producing activities are discussed. Contemporary issues such as substance abuse, violence, ideologies, and similar themes are examined.

SMGT 4701 Topics in Security Management (1-6 Credits)
The content of this course varies each time it is offered. The topics may include time-sensitive issues from the film industry, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content is announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

SMGT 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass.

SMGT 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produces a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required to pass this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.
SMGT 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

SMGT 4910 Research Practices and Applications (4 Credits)
This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through comparing and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master’s degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

SMGT 4980 Internship (4 Credits)
The internship is designed to offer students a purposeful experience in a practical, industry related setting. The internship is an individualized learning experience and a training plan is created for each student in conjunction with the internship site to provide experiences related to the skills and knowledge covered in the certificate and master’s programs.

SMGT 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Independent study is offered only on a for-credit basis.

SMGT 4992 Directed Study (1-5 Credits)
This is an advanced course for students wishing to pursue a directed course of study, which is based on an existing course. However, the existing course is not offered in a reasonable time frame to accommodate the student. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the directed study. Directed study is offered only on a for-credit basis.

Social Sciences (SS)

Courses

Social Work (SOWK)

Courses

SOWK 4001 Clinical Social Work Skills (3 Credits)
This foundation course focuses on basic skills for micro social work practice with individuals and small groups. The framework of intentional interviewing teaches students to think critically about applying the skills for engagement, assessment and intervention. Attention focuses on use of these skills with clients from multiple social identities (e.g. ethnic, racial, sexual orientation, gender affiliation) and the pitfalls of practitioner micro-aggressions. An active learning approach requires students to participate in role-play exercises both in and outside of class. Students digitally record some of those exercises and share them with the class and instructor.

SOWK 4003 Clinical Social Work Theory and Practice (3 Credits)
This foundation course helps students develop a multi-dimensional assessment and intervention framework for clinical social work practice. This course builds upon knowledge of human behavior in the social environment and adds a focus on theories of change - at the individual and family level. The course is grounded in empirical information about the importance of relationship skills, across a variety of classic and modern approaches to intervention. We use a social work lens to emphasize the importance of context in client lives, including their socioeconomic status, cultural history, and experiences of oppression. Since no single theory captures the totality of human experiences, we integrate a variety of intervention techniques from multiple human behavior theories and ground them in a social work framework for ethical and effective clinical practice.
SOWK 4006 Human Behavior and the Social Environment: Theory and Practice (3 Credits)
This foundation course provides an overview of theoretical frameworks for understanding human behavior from a social work perspective. Theories reviewed include the developmental stages across the life cycle in terms of psychological, cognitive, moral, spiritual, identity and social development. Students apply a biopsychological assessment across the life span. The course emphasizes a social work perspective and key frameworks for social work, with an emphasis on the person in environment and systems theory as they describe diverse individual behavior in relation to social class, race and ethnicity, age, gender orientation, sexual orientation, and other multicultural backgrounds. The course aims to develop students’ foundational understanding of how theories are used to promote relationship development with diverse individuals and to guide interventions across all system levels. Students may test out of this course and substitute an advanced course in human development, with advisor approval, if they have already successfully completed an equivalent course in human development.

SOWK 4007 Community and Macro Social Work Theory and Practice (4 Credits)
This foundation course provides students with a foundational level understanding of macro social work practice and roles. The course builds upon knowledge of human behavior in the social environment, and adds theories of change to understand diverse communities and social service networks and the relationship of local, national and global interventions. The course introduces students to empirically supported models and emerging interventions that address macro level social issues. Students complete community/organizational assessments and also participate in work groups to learn how to engage, assess, and intervene in communities and organizations.

SOWK 4020 Integrated Social Work Practice for Social Justice (4 Credits)
This foundation course focuses on professional development and identity for social work practice. The course emphasizes values, ethics and ethical decision making in the context of the history of the profession. Students are introduced to person-in-environment, critical theory and empowerment perspectives and apply these concepts to current field of practice and social work roles. Through integration of field placement experiences, students analyze and apply social work frameworks and generalist practice theories to current social justice challenges and diverse contexts that social workers face.

SOWK 4050 Intro to Graduate Internship (1 Credit)
The Introduction to the Graduate Internship seminar prepares students to enter the profession of social work at a graduate level. The course provides an overview of social work values and ethics, populations served, and issues that concern social workers. Through engagement in the course content, students will complete a readiness for field assessment, including their personal and professional motivations to join the profession and serve diverse communities. Students will be exposed to the social work profession’s signature pedagogy, field education, and the stages of experiential learning. The course will also help students develop learning goals for field education and identify potential internships.

SOWK 4120 Social Policy Analysis, Advocacy, and Practice (3 Credits)
This foundation course analyzes contemporary societal needs and problems, as well as the historical and current context of U.S. social welfare programs and policies. It presents frameworks used to define social problems and analyze social problems, and introduces students to the policy-making process and the role of policy in service delivery with special emphasis on programs designed to aid the poor and the policies that shape them. The course is designed to help social workers advocate for policies within the social welfare system that advance social well-being and fulfill their ethical obligations to improve social conditions and promote social justice.

SOWK 4132 Power, Privilege and Oppression from a Critical Multicultural Perspective (3 Credits)
This foundation course examines the phenomena of power, privilege and oppression and their effect on individuals, families and communities in the context of the values of social and economic justice and the social work profession. The course is intended to increase awareness of the intersectionality of multiple oppressions with a focus on race/ethnicity, gender, socioeconomic status and sexual orientation. Students will gain a beginning self-awareness to identify the influence of personal biases and values that impact practice with diverse groups.

SOWK 4150 Foundation Seminar (1 Credit)
Required seminar format used to facilitate the integration of the foundation field practicum and the professional foundation course content; emphasis on linking classroom learning with practice in the field, integrating theory with professional practice; field practicum situations and issues used for discussion and deliberation. Co-requisite: SOWK 4950.

SOWK 4201 Evidence for Practice (3 Credits)
This foundation course focuses on developing student skills in identifying, understanding, and using empirical evidence in support of their social work practice. Students review strategies for finding relevant empirical evidence (also covered in Integrated Social Work Practice for Social Justice). The course introduces students to meta-analyses and systematic reviews for use in support of their practice. The course aids students in developing a familiarity with basic research concepts such as research designs, measurement, and sampling so as to critique the utility of evidence for practice. Students also engage in critically examining available evidence for biases and relevance for under-served populations.

SOWK 4232 Advanced Multicultural Practice: Critical Race Theory Praxis (3 Credits)
Advanced Multicultural Practice: Critical Race Theory Praxis is a micro-, mezzo-, and macro practice course that uses the fundamentals of Critical Race Theory (CRT) as a framework for contextualizing and intervening with client systems. This course is a values elective for all concentrations. CRT is used as a framework to examine, critique, and challenge the way that race and racism is unwittingly sustained and perpetuated by traditional social work approaches to the amelioration of personal and social ills. Through this course, students learn the central tenets of CRT, how to evaluate traditional social work practice using these tenets, and begin to design to design a professional social work practice that uses CRT tenets as a foundation for micro-, mezzo-, and macro-level interventions. This course is offered within the concentration curriculum as a Values for Practice course to assist in the training and preparation of social workers practicing with historical underrepresented and marginalized clients and communities of color. Students develop skills and techniques grounded in anti-oppressive culturally grounded social work practice.
SOWK 4235 Disproportionality and Disparities Across Systems: The Impact on Children and Youth (3 Credits)
This course will explore the interrelatedness of institutional racism and discrimination across major social systems within the U.S., focusing on the historical context of current racial disproportionalities and disparities in youth service systems such as child welfare, juvenile justice, mental health, education, and health. Using a critical lens, the course is designed to help students analyze how policy decisions have long-range impact on generations; specifically for children and youth of color. Students will have the opportunity to apply this critical lens to their current field placement and the youth populations they serve. As an elective course, the class is open to all GSSW students; however, students concentrating in child welfare, children and youth, and families are especially encouraged to take the course.

SOWK 4240 Intergenerational Justice (3 Credits)
This course engages students in the conversation, scholarship, and social work practice issues related to how social justice is promoted across age groups and generational cohorts (i.e., baby boomers, generation X, millennials generation). While looking at debates for how families, local communities, states, and nations link age to power, decision-making, funding, and access to resources, the course also examines what within age group issues of injustice and inequality persist. Topics include: generational equity in terms of government budgets and debt, intergenerational issues related to sustainability and ecological justice, age-based versus need-based service delivery models, interventions to address intergenerational conflicts within families, and best practices in intergenerational social service models. This course is designed as a seminar course for social work students from any concentration to explore values related to social justice as they play out across all levels of practice.

SOWK 4250 Concentration Seminar (1 Credit)
This course is taken (by distance education students only) concurrently with the concentration year field practicum and the concentration year required courses. The purpose of this course is to integrate the concentration field experience and concentration year course work to prepare students for employment as professional social workers. This is also an evolving seminar created between faculty and students. Clinical issues and skill development at a more advanced clinical level is integrated into the seminar format as well as topics the student and faculty members agree upon that will enhance their first year learning.

SOWK 4299 Advanced Standing Seminar (3 Credits)
The seminar reviews knowledge, skills and values that form the basis of GSSW concentration year curricula in clinical practice, community practice and policy practice. The seminar combines content planned by instructors with individualized guided study and planning for field instruction based on student self-assessments. Prerequisite: Admission to advanced standing program.

SOWK 4301 Advanced Social Work Practice Skills (3 Credits)
This advanced social work practice skills course focuses on the importance of language and social identities and their influence on social work practice across client systems. A social justice, empowerment and reflexive framework challenges students to think critically about applying the skills for engagement, assessment, intervention, and evaluation in micro, mezzo, and macro practice settings. Attention focuses on use of these skills with individuals, groups, and communities from multiple social identities (e.g., ethnic, racial, sexual orientation, gender identity and expression, rural/urban) and the repercussions of practitioner micro-aggressions. An active learning approach requires students to: 1) participate in role-play exercises, 2) digitally record demonstration of advanced skills and share them with the class and instructor, 3) use the supervisory relationship to engage in reflexive self-assessment and practice skill adjustments based on that assessment. Prerequisite: SOWK 4001 Clinical Social Work Skills Lab or SOWK 4299 Advanced Standing Seminar.

SOWK 4305 Child Maltreatment: Causes and Developmental Consequences (3 Credits)
This course examines theory and research concerning causes and developmental consequences of child maltreatment, as well as theory and research concerning attachment and the developmental consequences of separation and loss that often follow intervention in child maltreatment.

SOWK 4315 Building Resilience: Healthy Development in Childhood and Adolescence (3 Credits)
This course provides students with knowledge of child and adolescent development with a particular focus on resilience. At each stage of development, risk factors that are deleterious to development, and protective factors that promote healthy development, will be discussed. Along with basic information about theories of resiliency, students will also gain a good working knowledge of cognitive behavior theory.

SOWK 4320 Theories and Practice of Family Systems Therapy (3 Credits)
This course introduces family systems, feminist and cultural/contextual models of family therapy, integrating theory, practice and skill development. Content includes current family structures and assessment and intervention from a family systems perspective with couples and families. Family system models covered: intergenerational, structural, strategic, solution-focused brief, narrative and feminist. Also analyzed in this course are intersecting issues of oppression: sexism, racism, classism, heterosexism and ageism.

SOWK 4325 Evolving Perspectives and Trends in Health and Wellness (3 Credits)
This course provides an overview of the theories that inform social work practice in the field of health and wellness. Health as a concept is examined for its understanding and meaning in multiple practice settings, communities and cultures. While addressing evolving trends and ethics in health care practice settings, a range or topics are covered including systems perspectives and thinking, the intersection of health and mental health, wellness and prevention, social ecology of health promotion, client and person centered care, care management and health care disparities.

SOWK 4330 Assessment of Mental Health and Drug Use in Adults (3 Credits)
Focuses on the assessment of psychological, social and biological contributors to mental health disorders in adults and the use of this assessment as a guide for treatment/clinical interventions. Examines the strengths and weaknesses of the DSM-IV classification system in terms of social work values and ethics. Examines symptoms, theories of etiology, treatment interventions and prognosis within each diagnostic category, and reviews a variety of assessment tools in the context of gender, ethnicity, cultural diversity, sexual orientation and historically oppressed and/or disadvantaged populations.
SOWK 4338 Assessment of Mental Health Across the Lifespan (3 Credits)
This course focuses on the assessment of psychological, social and biological contributors to mental health disorders in children, youth, adults, and older adults and the use of this assessment as a guide for treatment/clinical interventions. It examines the strengths and weaknesses of the DSM-5 classification system in the context of social work values and ethics. It examines symptoms, theories of etiology, treatment interventions and prognosis within each diagnostic category and reviews a variety of assessment tools in the context of gender identity and expression, ethnicity, cultural diversity, sexual orientation and historically oppressed and/or disadvantaged population.

SOWK 4340 Leadership and Supervision Skills (3 Credits)
This course examines the application of leadership and supervision theories to practice settings in communities, organizations and policy contexts. A focus is placed on leadership roles and an examination of leadership styles, with an emphasis on the skills of transformational leadership and supervision. Topics covered include team leadership and supervision, one to one supervision skills, managing conflict, personnel management, and cross cultural work.

SOWK 4345 Intersections of Mental Health, Substance Use and, Trauma (3 Credits)
This course is an advanced theory for practice course with builds upon foundation courses in HUman Behavior in the Social Environment (HBSE) and clinical theories, and covers conceptualization, dynamics of, and interventions in mental health, substance use, and trauma. The course examines the independent and intersecting theory bases of mental health, trauma and substance use approaches. It also explores recent evidence about individual and environmental risks associated with these conditions and evidence about both specific therapeutic interventions and the importance of common relational factors. Social workers make up one of the largest professional groups working with clients living with mental health concerns, and bring a unique person-in-environment and strengths perspective to that work, which fits well with a recovery philosophy. Clinical frameworks and interventions common across these fields, such as harm reduction, motivational interviewing, self-determination theory, and the transtheoretical model of changes are presented, and students are introduced to integrative approaches that show promise in responding to client conditions.

SOWK 4350 Evolving Perspectives and Trends in Aging (3 Credits)
This course provides an overview of how theories of aging inform the role of social workers with older adults and their families across a range of service settings, including emerging fields of practice. The course examines multiple perspectives on the late life adult years, spanning the period from middle adulthood and on into late life, including: historical, biological, psychological, social, cross-cultural, and spiritual theories and related empirical evidence. While addressing evolving trends, the importance of difference, and ethical implications the topical issues include: work and retirement; economic status; residence and housing location; education and learning styles; interpersonal relationships with partners, families, and peers; creativity, spirituality, and religiosity; political beliefs and ideologies (including the formation, maintenance and alteration of prejudice and racism); the experience of chronic illness, disability, and death; and wisdom attained during adulthood and aging.

SOWK 4360 Social Ecology, One Health and Resiliency: Connecting Human and Environmental Health (3 Credits)
This course is a theory of practice course in the Sustainable Development and Global Practice Concentration and is a required class. This course is also an elective for other concentrations. A defining feature of social work is the profession's focus on human well-being and health in a context of person-in-environment. This theory of practice course builds on that feature and emphasizes the concept of Social Ecology and explores the integrated model of One Health as a necessary understanding for human health as connected to the natural world. This course positions students to understand a 21st-Century vision for a sustainable and healthy human presence on Earth, including an integrated understanding of social, political, economic and environmental structures that influence the UN's Millennium Development Goals http://www.un.org/millenniumgoals/. Social workers often conceptualize interventions through the model of a Systems Perspective where the interconnectedness of systems is endorsed as the most accurate way in which to understand people in context. Fundamental to equipping social workers with the knowledge and skills to be effective in new challenges facing the human condition is a comprehensive understanding of the importance of healthy environments, and environmental forces that create, contribute to, and address problems in the everyday lives of people. This course is offered within the Sustainable Development and Global Practice concentration to assist in the training and preparation of social workers practicing within the international arena. Students explore the models and theories for the important and urgent issues occurring in our global environment and come away from this course with a strong understanding of the issues facing communities. Through the development of an integrated social science and eco-centric understanding of one's place in the natural environment and a paradigm that acknowledges the interdependence and interconnection between humans and the more-than-human world, social workers practicing locally and globally will be equipped to contribute to effective, strength-based solutions to address the crises and issues facing the world. Local issues and community-based efforts that strive for socio-environmental justice are highlighted to promote critical thinking around concrete issues and develop a knowledge-base for prevention as well as intervention strategies, environmental awareness, sense of belonging in a community, sustainability, resilience and advocacy. This includes policy and relevant laws with a focus on such topics as environmental toxins, sustainable economics, conservation of nature and biodiversity, land use, water use and the strong correlation between human health and the health of non-human animals and the environment. This includes humane treatment and care of wildlife and habitat and how to empower communities to resist their exploitation. Students are exposed to current challenges and competing needs confronting communities in urban as well as rural communities.

SOWK 4370 Community and Organizational Change: Theory for Practice (3 Credits)
This course presents key theoretical frameworks for students to be informed and innovative in responding to changing community, organizational and societal contexts. Theories of social change are presented that can assist social work leaders in promoting positive social change in the lives of vulnerable populations through the development of policy, community interventions and human services organizations. Students apply theories to understanding organizational change and innovation and the promotion of social and economic justice through community and policy practice.
SOWK 4375 Economic Theory and Social Work (3 Credits)

Human rights, urbanization, poverty, housing, gender inequality, care of children, poverty, indebtedness, racial and/or ethnic discrimination, and cultural conflicts are challenging the United States and nations throughout the world. This course introduces students to economic theories to develop broader conceptualization of local, national, and global social problems and possible intervention strategies. An understanding of economic theory provides a foundation for studying the emergence and maintenance of diverse social policies to address these problems. The course explores Neoclassical, Behavioral, and Microeconomic concepts of economic efficiency and the corresponding consequences to marginalized and oppressed populations.

SOWK 4401 Integrated Health Care: Models and Practice (3 Credits)

This course provides an overview of the knowledge, skills and theory of integrated health care social work practice, where physical and behavioral health services are most often provided in a primary care medical environment. Students will learn roles/functions of the behavioral health professional and their effectiveness as a member of the collaborative care team. Incorporating knowledge of evidence-based practice models of care and behavior change theory, they will increase their practice abilities to effectively work at an advanced level of skill as an integrated care behavioral health provider. Strategies and skills in patient engagement, motivational enhancement and advocacy will be taught through case studies and group activities. Cultural competency and effective care planning in an integrated healthcare environment will be emphasized.

SOWK 4410 Prevention & Treatment of Adolescent Substance Abuse (3 Credits)

This course examines causal factors and theories that seek to explain why some adolescents develop problems with alcohol and other drugs. Effective substance abuse prevention and treatment approaches are identified at the individual, family, school and community level.

SOWK 4412 Practice Elements in Interventions with Children and Youth (3 Credits)

This course offers an integrative framework of theory and research to intervene with children and adolescents in school, family, and community-based agencies. Interventions include both direct work with children and collaborative/conjoint work with parents. Techniques include common elements across empirically-supported interventions such as cognitive-behavioral therapy, behavioral treatment, client centered treatment, social skills training, and parent management training. Intervention strategies are described across four primary problem areas common among children/adolescents: anxiety, depression, disruptive behavior, and attention deficit disorder. For each of these problem areas, intervention techniques are demonstrated, practiced in class, implemented in field placements, and monitored for client progress. The use of empirically-supported interventions is discussed from a multidimensional perspective with consideration for cultural context and adaptations necessary for particular client groups.

SOWK 4415 Intake and Family Based Services: Assessment and Intervention (3 Credits)

This course examines decision-making in child welfare at the point of family referral to the child welfare system, the processes involved in family assessment and service planning, and design, delivery and intervention skills for home-based child welfare services. It is preferred that students have completed SOWK 4305 prior to taking this course.

SOWK 4416 Foster Care and Permanency Planning (3 Credits)

This course presents strategies for culturally competent assessment and intervention with children who are in foster care, adoption, or with their families. It focuses on permanency planning, involving extended families in making case decisions and caring for children, family reunification, relinquishment of children for adoption, termination of parental rights, preparing children and parents for adoption or guardianship, working with young adults nearing emancipation, and providing post-adoption/guardianship services. Prerequisites: SOWK 4305 and SOWK 4600 or permission of the instructor.

SOWK 4420 Strategies and Techniques of Family Systems Therapy (3 Credits)

This is a skill-based class where students learn to apply family systems knowledge to case situations. Teaching strategies include role-play and discussion of actual cases. Prerequisite: SOWK 4320.

SOWK 4422 Strategies for Family Meetings (3 Credits)

This course builds students' skills in conducting family meetings and brief family interventions. Students learn to incorporate clinical principles during time-limited contact with clients and their families of all ages. Skills include assessing family dynamics quickly, guiding family mediations and decision-making meetings, managing and debriefing crises and incidents, providing education, and intervening with supportive counseling. These skills are applicable in different human service organizations, such as aging services, alcohol and drug treatment facilities, child welfare, hospital and outpatient health care facilities, mental health settings, and schools.

SOWK 4425 Positive and Community Youth Development (3 Credits)

This course provides an overview of the "community and positive youth development" approach to providing social services to children and adolescents. Many services for young people focus on negative outcomes such as behavior problems, pregnancy, violence, drug abuse, and truancy. These services are supposed to "fix" the small minority of kids who are "broken" in some way. The community and positive youth development perspective stresses that all youth need a variety of supports and opportunities to develop into healthy, contributing adults. This course considers how such an approach to social service delivery can be applied across different organizational settings (e.g., schools, government agencies, and nonprofits) to promote the well-being of American youth from diverse cultural backgrounds.

SOWK 4430 Substance Use Interventions (3 Credits)

There is widespread recognition that substance use is one of America's most pressing social problems. Social workers increasingly find themselves attempting to help individuals and families resolve substance use problems, as well as directly or indirectly related issues. This course introduces students to current and emerging substance use treatment approaches so they can conduct their practices from an informed perspective.
SOWK 4435 Community Organizing and Empowerment Practice (3 Credits)
Examines empowerment practice and community organizing as a social work intervention method. Topics include challenges of community practice in today's world and with diverse groups; special tactics and techniques of community organizing and community capacity building models; empowerment of oppressed populations; ethical issues in community practice; social work and social justice. This is a required course in the Leadership for Community and Organizational Practice.

SOWK 4445 Social Work Assessment and Intervention in Aging (3 Credits)
This course focuses on biological, neurological, psychological, social, spiritual, and environmental aspects of late life as a foundation for the delivery of assessments and interventions to older adults. This course presents information on demographic projections, population trends, and theoretical perspectives that inform gerontological social work practice. This class additionally focuses on the unique nature of social work with this diverse population including a continuum of care services for older adults, interdisciplinary nature of helping services, dynamic nature of aging for multiple vulnerable older adults such as those facing institutionalized oppression, and specific attention to elder wellness.

SOWK 4454 Child and Adolescent Trauma (3 Credits)
This course introduces students to the common concepts (general theory and foundational knowledge), components (intervention and treatment elements) and skills (practitioner skills) underlying evidence-based treatment for children and adolescents who have experienced trauma. Trauma is broadly defined, and includes children and adolescents exposed to traumatic events including, but not limited to natural disasters, war, abuse and neglect, medical trauma, witnessing interpersonal crime (e.g. intimate partner violence), and other traumatic events. The course highlights the role of development, culture, and empirical evidence in trauma-specific interventions with children, adolescents, and their families. It addresses the level of functioning of primary care giving environments and assesses the capacity of the community to facilitate restorative processes. The course focuses on assessment and intervention as a foundation for subsequent learning about treatment. This course incorporates the new National Child Traumatic Stress Network (NCTSN) core curriculum on child trauma (CCCT). The course conveys the crucial evidence-based concepts, components, and skills designed by NCTSN to strengthen competency in assessment, referral, and treatment.

SOWK 4465 Human Security: Intervention Strategies for Economic & Social Development (3 Credits)
Human security is a new paradigm for understanding complex global vulnerabilities. Human security goes way beyond traditional notions of national security and highlights the security of the individual rather than that of the nation state. Human security uses a person, entitlement and human rights centered view of security. It is essential for national, regional and global stability and sustainability. In defining human security, the United Nations stressed “the right of all people to live in freedom and dignity, free from poverty and despair,” and recognized that “all individuals, in particular vulnerable people, are entitled to freedom from fear and freedom from want, with an equal opportunity to enjoy all their rights and fully develop their human potential” (A/RES/60/1). “Human security aims at ensuring the survival, livelihood and dignity of people in response to current and emerging threats - threats that are widespread and cross cutting. Such threats are not limited to those living in absolute poverty or conflict” (UN-OCHA). Today, the impacts of natural disasters, climate change and other forms of environmental change, and global economic crises, among others, are considered to threaten human security in developing as well as developed countries. The increasing numbers of internal violent conflicts, forced migration, natural disasters and environmental degradation have resulted in national and international security failings that reflect the challenges of the post-Cold War security environment. The failure of mainstream development models to generate growth, particularly in Least Developed Countries (LDCs), or to deal with the consequences of complex new threats (e.g., HIV/AIDS, climate change, social and economic inequality) reinforced the sense that international institutions and states are not organized to address such problems in an integrated way. Social workers focusing on human, social and economic issues in global settings will use various human development strategies and other capacity-building approaches in practice. This course develops students’ skills in human and social development strategies, sustainable livelihood and conflict management strategies, and other capacity-building community strategies, and fosters a solid understanding of the programmatic and practical requirements for human security in a global context.

SOWK 4500 Mental Health Interventions with Children (3 Credits)
This course offers an integrative framework of theory and research to understand and intervene in the major mental health problems experienced by children. Interventions include both direct work with children and collaborative/conjoint work with parents. Techniques include play therapy, cognitive-behavioral interventions, psychopharmacology, and crisis intervention for suicide. Children's development is considered from a multidimensional perspective, including cultural context, risk and protective factors, and the development of psychopathology.

SOWK 4501 Wellness Promotion and Intervention Across the Lifespan (3 Credits)
This course prepares students to critically analyze the determinants of wellness across the life span, across socio-economic boundaries and across cultures in order to promote wellness in the everyday lives we lead both personally and as social workers in a community. An emphasis will be placed on the research and application of knowledge and skills to increase social worker awareness of the distinctions between health and wellness and to promote wellness in the quality of life in a community. This course builds students’ skills and strategies to enhance wellness needs within a community. Strategies include using developmental models, researching current policies, and implementing wellness assessment tools in order to create interventions for communities.

SOWK 4505 Relationship Therapy (3 Credits)
This course focuses on assessment, problem/solution path identification, intervention strategies and outcome evaluation in counseling heterosexual, gay and lesbian couples. Identifies common relationship patterns and explores intervention strategies including behavioral, strategic, structural, narrative, transpersonal and feminist. Also covered are issues such as conflict management, relationship enhancement, intimacy, power and control, domestic abuse, infidelity and divorce. Students will analyze the intersecting issues of oppression: sexism, racism, classism, heterosexism and ageism.
SOWK 4520 Advanced Strategies and Techniques of Family Systems Practice (3 Credits)
This course is an advanced skill-based course that extends students' knowledge and application of family systems therapy. The course engages the active participation of students in role-play scenarios and the discussion and deconstruction of actual cases. Advanced Strategies and Techniques builds on the family systems theory and practices applications learned in the family systems concentration courses and expands students' opportunity to apply theory to cases in diverse practice and client situations. Pre-requisites: SOWK 4320 and SOWK 4420.

SOWK 4523 Care Management Skills and Resources to Promote Community Living (3 Credits)
Many individuals and their families of all ages cope with physical and mental health conditions that impede their ability to live in the community. A vast array of formal and informal resources, public programs, and privately funded services can promote community living. Social workers often provide care management to enhance access, coordinate care, and ensure equality of these long-term services and supports. This course will develop students' skill at care management and knowledge of resources, including resources for persons with developmental disabilities, chronic mental health conditions, physical disabilities, and age-related functional impairments.

SOWK 4525 Administration and Management Practice and Skills (3 Credits)
This course examines the application of leadership and supervision theories to practice settings in communities, organizations and policy contexts. A focus is placed on leadership roles and an examination of leadership styles, with an emphasis on the skills of transformational leadership and supervision. Topics covered include team leadership and supervision, one to one supervision skills, managing conflict, personnel management, and cross cultural work.

SOWK 4530 Poverty and Community Economic Development (3 Credits)
This is an advanced community practice class focused on poverty, low-income neighborhoods and local economic development. The class begins with a thorough review of the scholarly literature related to poverty, sustainability, and the concentration of poverty in low-income neighborhoods. Then, public and private responses to poverty are examined. The class focuses on both governmental policies and programs supported by the private sector. Next, the class turns to local responses to the concentration of poverty in low-income neighborhoods. The class focuses on the interdisciplinary nature of programs and interventions aimed at community economic development in low-income neighborhoods.

SOWK 4535 Planning and Program Development (3 Credits)
This course prepares students to engage in strategic planning and program development roles and practice within a social work community, organizational, or policy practice setting. Students in this course gain knowledge in the principles of planning, social enterprise, the engagement of stakeholders in planning processes, community collaboration and the elements of designing and implementing programs. Students have the opportunity to put this knowledge base into practice by developing a comprehensive program proposal applying the skills of strategic thinking, planning, critically evaluating research informed practice and practice informed research. In addition, students engage in communicating professional judgment in both written and oral formats.

SOWK 4565 Social and Environmental Impact Assessments (3 Credits)
Social and environmental impact assessments are important tools for analyzing and managing both the intended and unintended consequences of development projects on human and ecological systems in order to bring about a more equitable and sustainable social ecological system. This class incorporates an understanding of the history and concepts of the three levels of impact assessments (micro, mezzo, and macro) into the research process that is the core of social impact assessments. Students prepare and evaluate social ecological impact assessments through learning to identify and define problems, select theoretical frameworks appropriate to the problem, identify research questions, design a study appropriate for the identified questions, gather and analyze data, and write the final assessment. Particular attention is paid to assessing the effects of interventions on vulnerable populations. Other topics will focus on the practical aspects of project team selection and management, timelines, and the communication of findings to stakeholders.

SOWK 4600 Child Welfare Policies and Services (3 Credits)
This course examines contemporary U.S. child welfare policies in historical perspective, focusing on prevention, report and investigation of child abuse and neglect, as well as family preservation, out-of-home care, adoption and services for troubled adolescents. Also evaluated are the impact of policies and proposals for change in policies, considering empirical evidence, values and ethics. Provides a framework to analyze policy choices and encourages students to advocate for needed policy changes. Prerequisite: SOWK 4120 or SOWK 4299.

SOWK 4605 Poverty: Policies and Services (3 Credits)
The United States poverty rate declined steadily from the 1950s through the 1970s, decreasing from 22% of the population in the late 1950s to 12% in the late 1970s. Poverty rates have fluctuated since then with current rates standing at approximately 15% or 46 million people. More than 16 million children, 22% of all children, live in families with incomes below the federal poverty line. The course begins by considering the federal poverty measure and competing definitions of poverty. Key programs and policies meant to alleviate poverty, such as government transfer programs (including cash and noncash welfare, earnings supplements, and social insurance programs), education and training programs, and support services are examined. Course content is applied to practice scenarios to enhance student knowledge of poverty programs, eligibility criteria and application processes. Critical discussions of these programs will inform analysis of alternative approaches to poverty reduction and economic self-sufficiency.

SOWK 4610 Policies and Programs for Children and Youth (3 Credits)
This course examines the history and evolution of social policies and programs targeting high-risk youth. Students will seek to critically analyze the effects of current and recent policies in the context of youth offending and other adolescent problem behaviors. Prerequisite: SOWK 4120 or SOWK 4299.
SOWK 4630 Family Policies and Services (3 Credits)
Identifies challenges contemporary American families are experiencing and presents strategies for developing policies and services to meet these challenges. Examines specific policies and services that most affect families, as well as broader questions concerning power and its distribution, allocation of resources and the role of government in promoting individual and family well-being. Prerequisite: SOWK 4120 or SOWK 4299.

SOWK 4635 Immigration Policies and Services (3 Credits)
This course identifies challenges for immigrants and presents strategies for developing policies and services to meet these challenges. It not only examines specific policies and services that most affect immigrants but also considers broader questions concerning power and its distribution, allocation of resources, and the role of government in promoting individual and family well-being. This is a concentration policy course for all concentrations.

SOWK 4640 Mental Health and Substance Use Policies (3 Credits)
This course provides a comprehensive understanding of policies related to mental health and/or substance use, their historical antecedents, and the socio-political forces that influence their development. This course also introduces students to emerging controversies concerning these policies.

SOWK 4645 Health Care Policy (3 Credits)
This policy course provides an overview of health care policy as it is relevant to social work practice in multiple health and behavioral care settings. With the advent of health care reform and the implementation and operationalization of the Patient Protection and Affordable Care Act (PPACA), there are rapidly changing policy issues related to this innovative integration and delivery of health care services. Students in this course critically analyze the practice of policy in this new and quickly evolving service area. This course explores key health policy strategies to foster integrated delivery system development and sustainability in line with health policy goals to reduce cost of care, improve population health and improve quality of integrated care services, with special emphasis on the integration of primary care, behavioral health services and wellness/health promotion initiatives. Strategies for students to influence policies and promote change in the interest of the individual/family/community, agency/organization and the communities they serve are presented. Critical thinking skills in developing and analyzing proposals to improve integrated health policy are encouraged. The course builds on policy content offered in the professional foundation year and links policy to practice and research skills.

SOWK 4650 Aging Policy (3 Credits)
This course provides an overview of social policy and service delivery issues in gerontology. It includes a critical review of rapidly developing policy issues, as well as an overview of U.S. health care and social service delivery systems serving older adults. The course encourages students to participate in critical analysis of issues and to develop and analyze innovative proposals to improve policy and programs for older adults. This course fulfills the policy requirement for the Aging Services and Policy concentration.

SOWK 4655 Mental Health and Health Care Policy (3 Credits)
This course provides an overview of social policy and service delivery issues in mental health and health care, with emphasis on achieving quality and addressing disparities. It includes a critical review of United States’ historic and developing policy issues, as well as mental health and health care financing and delivery systems and other key issues in the field. Students will participate in critical analysis of issues and will examine various proposals to improve mental health and health care policy and programs. Prerequisite: SOWK 4120 Social Policy Analysis, Advocacy and Practice, or SOWK 4299 Advanced Standing Seminar.

SOWK 4660 Social Policy Advocacy (3 Credits)
Facilitates student learning within policy-making arenas. Students are paired with health and social service agencies and coalitions to assist in agenda-setting, legislative research, and issue-advocacy development and implementation in the state legislature and bureaucracy.

SOWK 4665 Global Policies and Programs (3 Credits)
This course focuses on understanding and connecting eminent global policy trends, their inter-relatedness with globalization and their impact on human and social development. In particular, economy, trade, human rights, immigration, health, environment, human security as well as disaster relief and response related policies are examined. The course gives students the opportunity to study, analyze and understand specific federal and global policy initiatives, their development and implementation. The goal of this course is to train students to understand the essential components of global policies in both the public and private sectors and to prepare them to initiate systems reform to accomplish innovative and effective outcomes. This course addresses the development of policy in the context of social values and ethics. Policies are covered both from the viewpoint of developed and developing countries. Readings, examples and discussion include policies of nations and international organizations (e.g., United Nations, World Bank, International Monetary Fund, and specialized agencies such as the World Health Organization) with applications to both developed and developing countries. The course emphasizes an analytic approach for understanding the impact of policy on programs, services, and development at large.

SOWK 4670 Policy Development & Analysis (3 Credits)
Focuses on the development and analysis of social welfare policy. Reviews the structure of the policy-making and implementation process, and examines perspectives on the definition of social problems and approaches to the development and analysis of social welfare policies. Students apply the perspectives and frameworks as they analyze a specific social problem and policy directed toward it, identify needed change in policy, select place and strategy for change in policy, and communicate knowledge to central actors in the policy-making and implementation process. Prerequisite: SOWK 4120 or SOWK 4299.

SOWK 4680 Native Peoples Practice: History and Policy (3 Credits)
This course is designed as the background to practice with Native Peoples. It will explore the relationship between theory and practice, socio-economic, political, and health issues, and the dynamics of changes in reservation and urban Native communities. Historical trauma, federal policies, impacting Native people, and laws and regulations that impact social service delivery will be reviewed. Social services delivery systems will be analyzed with the uniqueness of the cultural parameters of tribal communities. Guest lecturers from tribal communities may partner with faculty to teach the course. Prerequisites: SOWK 4299 and SOWK 4132.
SOWK 4700 Solution Focused Brief Therapy (3 Credits)
This course is a methods/skills course that provides students with the opportunity to gain knowledge and skills in the contextual stance and core interventions of the evidence-based approach, Solution-Focused Brief Therapy (SFBT). Students gain an understanding of how this approach works, and the ability to use this approach in a variety of settings including with clients struggling with chronic mental illness, trauma, and substance misuse, as well as with children and adolescents, couples and families, in community development, and supervision. This course addresses competencies and practice behaviors in advanced clinical settings including Families, Child Welfare, Children and Youth, Mental Health and Health.

SOWK 4705 Forensic Orientation in Social Work Practice: Assessment and Interventions with High-Risk Offenders (3 Credits)
Presents and applies a framework for assessing and intervening with offender populations. This risk and containment framework takes a community safety and victim-centered perspective and focuses on assessing and intervening with multiple systems surrounding offenders. The framework is then applied to specific interventions with domestic violence abuse offenders and with adult and adolescent sexual offenders.

SOWK 4710 Domestic Violence (3 Credits)
This is a concentration year practice elective focusing on understanding, assessing, and intervening with domestic violence, understood as violence occurring in the context of intimate relationships. The purpose of this course is to provide students with the theoretical understanding and practice skills necessary to establish a beginning competence in assessing and intervening with domestic violence and in developing community, systemic, and policy responses.

SOWK 4712 Law of Family and Child (3 Credits)
Examines legal principles and procedures relevant to social work practice with families and children: structure and operation of the American legal system, principles to follow in conducting legal research, basic principles of constitutional law and law related to juvenile delinquency, child protection, adoption, education and domestic relations. Covers legal aspects of social work practice including licensing, confidentiality and professional liability. Successful completion of this course or SOWK 4715 required for certification as school social worker in Colorado.

SOWK 4713 Preventing Behavioral Health Problems in Children and Youth (3 Credits)
Behavioral health problems in childhood and adolescence take a heavy toll on millions of lives. These problems range widely—from anxiety and depression to alcohol, tobacco, and drug abuse; delinquent and violent behavior; dropping out of school; and risky sexual activity and unwanted pregnancies. SOWK 4713 presents an overview of practices and policies aimed at preventing behavioral health problems in young people. Emphasis is placed on developing the practice and policy skills that are necessary to deliver preventive interventions and programs in schools, families, and communities. Students will select an effective program, learn the skills necessary to deliver the program, and then implement the program in a classroom setting. Class content will emphasize the importance of increasing the role of social work practitioners and social work values in the interdisciplinary field of prevention practice.

SOWK 4715 School Social Work Interventions (3 Credits)
Designed to give students the ability to identify, understand and apply the varied roles of school social worker. Examines politics of education, the educational organizational structure, special education law and process, collaborative teamwork with school and community professionals and intersystem case coordination. Emphasis placed on meeting the needs of special education populations through assessment, intervention and evaluation and on preventive programs for children and youth at risk for school failure, truancy and dropping out.

SOWK 4720 Prevention and Treatment of Juvenile Delinquency and Youth Violence (3 Credits)
Examines causal factors and theories that seek to explain why some adolescents engage in delinquent conduct and/or violent behavior. Effective delinquency and violence prevention and treatment approaches are identified at the individual, family, school and community levels.

SOWK 4721 Existential Social Work Practice (3 Credits)
The problems facing people can be understood in the context of situations and meanings they give to them. This course seeks to identify useful ways to clarify and validate the client’s unique “world view”, bypassing the many dangers and misuses of diagnostic categorization and empowering clients in relation to themselves and problem definition.

SOWK 4722 Social Work Practice in Health Care (3 Credits)
This course is designed to explore and develop advanced social work knowledge and skills in order to practice social work in diverse health care settings. It includes examination of the social work role on interdisciplinary teams, health care terminology, setting-specific assessment and interventions and comprehensive social work services for acute and chronically ill patients. It emphasizes social work values and ethics in relation to health care practice.

SOWK 4725 Mind-Body Connections and Social Work Practice (3 Credits)
This course teaches skills for implementing mind-body techniques, models for wellness assessments, and evidence-based mind-body strategies for intervention in client and community problems. An evidence-based approach creates a foundation for: 1) understanding the mind-body connection that influences an individual’s and community’s physical, emotional, and social well-being and 2) the most efficacious methods for mind-body social work practice skills. Research evidence demonstrates that mind-body strategies are helpful for an array of concerns such as, military personnel with PTSD, adults with emotional regulation issues, academic concerns of stressed-urban youth, community mobilization, and emancipatory practice.

SOWK 4730 Cognitive Behavioral Therapies (3 Credits)
This course examines major cognitive behavioral therapies (CBT) suggesting methods focusing on clients’ problem-solving abilities, building on client strengths, targeting specific thought patterns that impede clients from reaching goals, and assessing outcomes in terms of changes in thinking and behavior. Theory is applied to individuals, dyads, families, and groups. Additionally, this course examines relevant research suggesting both indication and counter-indications of approaches.
SOWK 4732 Disrupting Privilege through Anti-Oppressive Practice (3 Credits)
This course, building on the theoretical foundation in SOWK 4132 Multicultural Social Work Practice, examines the barriers to the professional use of self as an ally to historically disenfranchised groups, both in the context of day-to-day relationships with clients as well as in the context of community and macro-level interventions. The course is intended to assist in understanding the personal, situational, structural, and cultural influences that impede justice-oriented social work practice. The course supports students in developing strategies, skills, and approaches to anti-oppressive practice. Anti-oppressive social work practice is a range of practice approaches that adopt a critical and structural perspective on issues of social inequality, oppression, power, privilege, and domination. It encompasses approaches such as feminist, anti-racist, Afrocentric, disability practice, and critical social work frameworks to name a few (Campbell, 2003). It attends to both process and outcome (Dominelli, 1998), and links the provision of individual assistance to people from marginalized groups with involvement in social movements corresponding to the marginalization (Carniol, 2000). "The [anti-oppressive] framework enables links to be made between individual action and social structures. It informs practice by enabling the worker to evaluate differences that exist at an individual level and within society and how these impact on each other. It provides the means of making accurate assessments by taking into account the inequalities that texture the lives of those denied access to society's resources because of their defined social status and the exclusionary practices of the dominant system. It demands that we consistently engage in the process of critical self-examination, which in turn enables us to engage in the process of change." (Dalrymple and Burke, 1995, p. 18).

SOWK 4735 Interpersonal Approaches to Counseling (3 Credits)
This course is an elective course which utilizes the interpersonal models of psychotherapy and neurobiology, drawing upon psychodynamic theories and techniques. The course examines traditional and contemporary psychotherapy theories and techniques. Interpersonal interventions are grounded within the values, ethics and standards of practice for clinical social work.

SOWK 4737 Assmnt & Interven w/Adolescent (3 Credits)
Examines adolescence as a major developmental life cycle stage and the reciprocal relationships between gender, race, ethnicity, family development, peer group, neighborhood and the adolescent's physical, intellectual, social and sexual development, as they contribute to identity formation. Presents individual, group, family and programbased intervention approaches, ranging from least to most intensive and restrictive. Prerequisite: completion of foundation year course work or permission of adviser and instructor.

SOWK 4741 Grief and Loss Across the Lifespan (3 Credits)
This course is designed to prepare students to understand social work roles and practice (engagement, assessment, intervention and evaluation) in working with those experiencing loss across the life span. Whether the loss is related to health or functioning, family system, developmental stage or an actual death, this course prepares students to be culturally responsive to diverse perspectives and bereavement needs. Students will learn theoretical models of grief and loss and how to effectively evaluate the needs of grieving individuals, families, communities and their support systems.

SOWK 4749 Social Work Interventions with Latinos/as (3 Credits)
Addresses immigration issues, as well as intervention and theoretical approaches for Latinos/as. Covers the selection of interventions and strategies for cross-cultural use in adequately addressing the needs of Latinos/as. A required course for the Social Work with Latinos/as Certificate.

SOWK 4750 Critical Perspectives on the Latino Context (3 Credits)
This course provides a framework for culturally relevant social work services designed to meet the needs of the Latino/a community. This is a social work content course taught in Spanish in collaboration with the Department of Languages and Literatures. Students acquire core principles grounded in an understanding of social justice, privilege, and oppression including the interconnection between human and civil rights, globalization, immigration and poverty. Students will expand their oral and written Spanish expression as they learn about cultural, social and political theory. Students learn aspects of Mexican culture, community development, historical patterns of oppression, spirituality, and the role of indigenous movements. As a result of this course, students understand how to advocate for nondiscriminatory cultural, social and economic practices within a Latino context and experience. The course is open to both foundation and concentration students. It is designed for students in all tracks who have an interest in understanding issues facing the Latino community. This course is conducted in Spanish. Prerequisite: Initial placement is based on minimum language proficiency test results at the intermediate-advanced level. Further placement determination will consist of a comprehensive evaluation to ascertain oral and written proficiency.

SOWK 4751 Global Relations and Poverty in Mexico (3 Credits)
Provides a mixture of experiential and academic learning based on the community-learning model of Paulo Friere. Taught in Cuernavaca, Mexico, the course covers Mexican culture, community development, historical patterns of oppression, spirituality and liberation theology, global economics and policy, and the role of indigenous movements. Includes discussion on the relationship between poverty in Mexico and the US, and implication for social workers. A required course for the Social Work with Latinos/as Certificate.

SOWK 4752 Trauma Informed Assessment and Interventions (3 Credits)
This course provides an overview of multi-system level definitions of traumatic experience—historical, individual, interpersonal, family, organizational, and community. The emphasis is on social work practice that is culturally responsive, growth-oriented, and strengths based, in which the study of trauma is approached from a theoretical base that perceives the trauma response as a "response" rather than a "disorder." Trauma informed assessment and interventions are examined, incorporating a social justice perspective on historical trauma, poverty, and interpersonal violence. This course promotes the unique contribution social workers offer through the lenses of strength, resilience, and coping as well as commitments to cultural responsiveness and ecological/systems factors. Students will identify how secondary trauma impacts social workers and the importance of professional accountability to self-care and ongoing growth and development.
SOWK 4753 Social Development in Latin America (3 Credits)
Covers social development in South and Central America, with special emphasis on Mexico. Practice-oriented, it is geared towards a knowledge of policy-making in Latin America and on the skills required for local social development. A required course for the Social Work with Latinos/as Certificate.

SOWK 4754 Trauma and Recovery in Social Work Practice (3 Credits)
Provides an overview of multi-system level definitions of trauma experience - historical, individual, interpersonal, family, organizational, community, and global. Also examines various approaches to trauma response theory. Promotes the unique contribution social workers have to offer through lenses of strength, resiliency, and coping as well as commitments to multicultural and systems factors.

SOWK 4755 Interventions for Responses to Trauma (3 Credits)
This course is designed from a strengths perspective, in which the study of trauma is approached from a theoretical base that perceives psychological adjustments after trauma as primarily a "response" rather than a "disorder." Includes information on the integration of cognitive, emotional, and somatic approaches to trauma treatment, as well as consideration of when to use a trauma-informed versus a trauma-focused paradigm. At the community level, the course also includes an introduction to mental health reactions and responses to disaster. Prerequisite: SOWK 4754.

SOWK 4756 Social Work from a Chinese Perspective (3 Credits)
This course provides students with a unique opportunity to learn first in the classroom the social, cultural, historical, political, and economic characteristics of China and how these characteristics shape social work in China. Then students learn by experiencing social work in China. In Beijing, students participate in lectures given by faculty at China Youth University, discussions with social work students, visits to social work organizations, visits to important cultural landmarks and nightly synthesis of new knowledge and experiences. An elective course.

SOWK 4757 Social Work and Latino/a Cultures: An Intensive Practice and Spanish Immersion Course (3 Credits)
This required course for the Social Work with Latinos/as certificate combines academic classroom instruction and experiential and conversational learning. The goal of the course is to enhance the student's Spanish communication and cultural responsively skills through dialogue practice and service in Latin America. Country location for this study abroad course is determined based on yearly certificate objectives and travel advisories. Based on the student’s individual skills and interests, and the needs of local field agencies and communities, students become involved in volunteer and service learning opportunities preparing them for their concentration field placement back in the United States where they are expected to demonstrate competency in Spanish. Students will learn to identify cultural differences and similarities in attitudes towards community organizing and mental health care, and social service delivery in order to better address these cultural differences and similarities in the United States. This experience also allows students to learn Spanish within a cultural and professional context. This course is conducted entirely in Spanish.

SOWK 4758 Social Work in Kenya: Context, Conservation, Empowerment, Sustainability (3 Credits)
This course is designed to introduce students to the social, cultural and conservation issues of Kenya and East Africa. This course is field-based with strong emphasis on service learning and direct experiences. Course readings, lectures, classroom discussions, service learning projects and field work in rural Kenya provide participants firsthand experience in the social, cultural, historical, political, environmental, ecological and economic realities that exist in Kenya. This course is open to qualified concentration and advanced standing Graduate School of Social Work students. The course meets on campus for four sessions before traveling to Nairobi, Voi, and Kasigau, Kenya. Due to the intensive nature, remote travel logistics and costs for this course, direct communication with the professors is required. Qualifications include: willingness to sign International Travel Agreement, willingness to receive required medical authorization and immunization, academic good standing, and readiness for the physical and emotional demands of traveling in rural and remote Africa.

SOWK 4759 Global Cultural Perspectives: Consensus and Conundrums (3 Credits)
Social workers increasingly practice in global communities both nationally and internationally. Changes in practice environments demand that social work practitioners are informed citizens of comparative cultures and societies. This course examines the values and ethics of social work practice in a global context of power, privilege and oppression. Course materials and educational experiences are used to challenge students to examine ethical and value-based conundrums when practicing in global settings and to develop practice skills to enhance the health, well-being and sustainability of communities. Through the use of case studies, critical thinking, cultural inventories and reflexivity the course supports and challenges students’ personal growth and professional practice.

SOWK 4760 Resource Development and Fundraising (3 Credits)
This course examines strategies and tactics around skill building in fundraising, resource-development strategies, grant-proposal writing, budgeting, and fiscal processes common to not-for-profit or governmental organizations. Topics include resource development and acquisition (fundraising) and discussions on the budget process required resource management for nonprofit organizations.

SOWK 4762 Bosnia in Transition: The Social Work Response (3 Credits)
This course provides students with the unique opportunity to learn firsthand about the social work response in post-war Bosnia through a social justice lens. The social, cultural, historical, political, economic, religious, legal and ethnic characteristics of the former Yugoslavia will be explored as context for studying the genocide that occurred in the 1990s. Learning will occur in the classroom at GSSW, followed by travel to Bosnia. Students will be exposed firsthand to the local, national and international efforts toward rebuilding and healing, through lectures provided by faculty at the University of Sarajevo School of Social Work, interaction with Bosnian social work students, visits to NGOs focused on the post-war efforts, visits to sites important during the war, visits to war tribunal sites, and exposure to current legal, economic and human service processes.
SOWK 4764 Historical Trauma and Healing (3 Credits)
This course is designed to provide students with a context for practice with communities experiencing historical trauma. We learn about the conceptualization of historical trauma, its impact on communities as well as community responses to it. We also discuss the importance of cultural protective factors, strengths, and culturally relevant models of healing around multigenerational, collective experiences of trauma. A number of practice approaches found useful with communities experiencing historical trauma are presented and discussed. Class format includes presentations, small group discussions, films, poetry, movement, and experiential learning in the community. This course is built upon the concepts of empowerment practice, indigenous models of social work, and narrative theory and practice. We use these perspectives as we explore work around historical trauma in communities. This class provides social work direct practice skills on individual, family, community and policy levels.

SOWK 4765 International Social Development (3 Credits)
Social development is a process of planned instructional change to bring about a better correspondence between human needs and social policies and programs. This class focuses primarily on the developing work with particular emphasis on transitional economies. Practice-oriented, the class is geared toward a knowledge of policy-making for human security and the skills required for local social development.

SOWK 4775 Social Work with Adult Groups (3 Credits)
The course teaches students advanced clinical group work methods and skills with vulnerable and resilient adult clients who are experiencing an array of bio-psycho-social-spiritual problems, and who are seen in mental health, health, and gerontology practice settings. The purpose of group work is to meet the socio-emotional needs of members through mutual aid and support, education, therapy, growth, and socialization. The impact of gender, age, race/ethnicity, sexual orientation, social class, ability/disability, and spirituality on group formation and dynamics is addressed. Evidence of practice effectiveness of group work is examined. Ethical conflicts and dilemmas involved in group work are considered within the framework of social work values and ethics.

SOWK 4780 Conflict Resolution in Social Work Practice (3 Credits)
Covers methods of conflict resolution including negotiation, bargaining and mediation. Applies social work role of mediator to families, divorces and child custody, elder care issues, groups and organizations. Examines frameworks and helps students build skills for conflict resolution in practice. An elective course.

SOWK 4784 Suicide Assessments and Interventions (3 Credits)
This course builds students' competencies in assessing suicide risk, planning for safety, and providing counseling to individuals who are thinking about suicide or have made a suicide attempt. This class examines theories of suicide causation, methods of suicide risk assessment, and models of techniques for intervention. Students will learn practices for eliciting sensitive information about troubling thoughts, assessing and documenting a client's level of suicide risk, and using cognitive-behavioral and other methods to help reduce suicide risk.

SOWK 4790 Human Sexuality (3 Credits)
Integrates human sexuality in the thinking and practice of social workers. By viewing sexual behavior from the social work perspective, the student is prepared to assume a significant role in helping clients deal with issues of human sexuality. Focuses on clients experiencing sexual dysfunction and on sexually oppressed client groups including the elderly, the homosexually or bisexually oriented, the physically or developmentally challenged and the sexually abused. An elective course.

SOWK 4795 Integration of Animals Into Therapeutic Settings (3 Credits)
Explores the human-animal bond and potential for therapeutic intervention with the animal as teacher, therapist, facilitator and companion in a number of therapeutic settings. Focuses on core skills for social workers seeking to integrate this clinical approach into their practice. A required course for the Animal-Assisted Social Work Certificate.

SOWK 4796 Animal Assisted Social Work Practice (3 Credits)
This course provides a comprehensive examination of approaches to Animal Assisted Social Work (AASW) and emphasizes clinical application skills utilized with a broad array of persons and in a number of therapeutic settings. Students will learn to design, implement and analyze the efficacy of AASW approaches within their chosen area of specialization, providing an opportunity to practice these approaches in their field internships. Students will learn to clearly articulate, assess, and intervene in "link" violence as it relates to social work practices and AASW implications. A required course for the Animal-Assisted Social Work Certificate. Prerequisite: SOWK 4795 or permission of instructor.

SOWK 4797 Issues for Evidence-Supported Animal Assisted Social Work (3 Credits)
This course is designed to take students into an evidence-supported exploration and understanding of methods for incorporating specific animals and animal assisted interventions in the context of current social work practice. The course examines the capacities of different species for work with diverse goals and populations in animal interactions and introduces components critical to animals' well-being. Emphasis is placed on case formulation and experiential learning methods that link goal-specific human-animal interactions that impact measureable client behavioral changes. The course focuses on the explicit identification of how the animal will move clients toward goals and identifying outcomes and indicators of such change. Special attention is given to the development of animal selection, handling, evaluation, and management skills necessary for development as a social worker with competency in the incorporation of animals in evidence-based practice. Prerequisite: SOWK 4795.

SOWK 4820 Integrated Family Studies Intensive I (1,2 Credit)
This course aids students in identifying personal strengths and weaknesses which may contribute to therapeutic work with clients.

SOWK 4821 Integrated Family Studies Intensive II (1,2 Credit)
This course is designed to provide an understanding of the historical development and basic theory and practice of family therapy.
SOWK 4825 Family Therapy Assessment, Engagement and Treatment Planning (1,2 Credit)
This course provides knowledge of assessment concepts that are related directly to strategy and goal planning, which facilitate proceeding with the early phase of family treatment.

SOWK 4826 Applied Ethics (1,2 Credit)
This class enhances the student’s understanding of the professional, legal and ethical issues in systemic, relational, and family therapy.

SOWK 4830 Strategies and Techniques in Family Therapy: Families and Play Therapy (1,2 Credit)
This course is designed to acquaint students with the origin, theory and use of strategic and narrative methods in marital and family therapy.

SOWK 4831 Couples I (2 Credits)
This course concentrates on approaches to couples therapy. Developmental models of couples work are explored.

SOWK 4835 Working with Multi-Problem Families (1,2 Credit)
This course is offered as part of the cooperative program with the Denver Family Institute. Course focuses on the development of skills needed for working in multi-disciplinary settings. Emphasis is on integrating family therapy theory and practice with individual models.

SOWK 4890 Contemporary Global Issues (1-3 Credits)
The complexities of sustainable development and global practice require an understanding of current developments and events at a global scale. This course is designed to support student learning by providing a dynamic review and exploration of contemporary global issues with a focus on approaches and competencies for global social work practice. This course encourages students to understand the myriad geo-cultural, political, socio-economic, and environmental dimensions involved in current global developments and events. Examining issues of governance, local and regional laws, as well as human rights and social justice issues to include those of race, religion and ethnic influence can expand understanding of the unique considerations of various countries and world regions. Particular emphasis is laid on human security, poverty alleviation and humanitarian concerns, conflict/post conflict response, human rights, human and social development, migration and refugee activity, civil society and environmental sustainability. In this course, efforts are made to incorporate historical understanding, research-driven knowledge, expert experience-based insight, and field-tested skills and resources to examine possible solutions, policy, and response. Social workers focusing on human, social, economic and ecological issues in global settings must be equipped to evaluate, analyze and respond to current global issues with a coherent understanding of major value and policy frameworks such as the new Sustainable Development Goals (SDGs). This course develops students’ global reach and readiness as global citizens and social workers by engaging students in a year-long in-depth exploration of current events shaping issues and unfolding events globally.

SOWK 4900 Methods for Evaluating Practice and Programs (1-3 Credits)
Provides students with strategies for evaluating social work practice at multiple system levels. Prerequisite: SOWK 4201 or admission to advanced standing program.

SOWK 4901 Applied Practice Evaluation Research (3 Credits)
Provides students with the opportunity to conduct a practice evaluation project in their field setting. Prerequisite: SOWK 4900.

SOWK 4950 Foundation Field Internship (1-15 Credits)
This required practicum provides foundation students with the opportunity to integrate social work theory and practice for effective professional intervention at clinical and community levels. Prerequisite or Corequisite: SOWK 4001, SOWK 4002, SOWK 4003, SOWK 4007, SOWK 4008. Corequisite: SOWK 4150.

SOWK 4960 Concentration Field Internship: Clinical (1-18 Credits)
Concentration students participate in planned clinical practice experience that integrates classroom theory, the learning of practice skills and the continued development of social work attitudes, ethics and values in the clinical practice setting. Prerequisite: completion of foundation year course work and field practicum.

SOWK 4961 Concentration Field Internship: Community (1-18 Credits)
Concentration students participate in planned community practice experience that integrates classroom theory, the learning of practice skills and the continued development of social work attitudes, ethics and values in the community practice setting. Prerequisite: completion of foundation year course work and field practicum.

SOWK 4965 International Field Practicum (0-18 Credits)
This international course fulfills partial requirement for a student’s concentration year practicum. In an international social work setting, the practicum provides students with the opportunity to integrate social work theory and practice for effective professional intervention at clinical and community levels.

SOWK 4970 Concentration Field Internship (0-18 Credits)
Concentration students participate in planned practice experience that integrates classroom theory, the learning of practice skills and the continued development of social work attitudes, ethics, and values. Prerequisite for 2-year students: successful completion of foundation-year course work and field internship. Prerequisite for students with advanced standing: successful completion of advanced standing prerequisite courses and BSW-year internship. Field must be taken concurrently with concentration-year course work, or after core concentration course work. Concentration-year field requires a minimum of 20 hours a week experience at the assigned field agency. Any deviation from this standard requirement must be approved by the Director of Field Education.
SOWK 4971 Experimental Class (3 Credits)
Experimental courses allow GSSW to provide a wide variety of course offerings that respond to current issues and themes in the profession as they arise, as well as providing specialized courses that relate to the interests and areas of expertise of our faculty. All experimental courses are offered as electives open to all students. Prerequisite: determined by each instructor.

SOWK 4990 Topics in Social Work (1-3 Credits)
This topics course provides students with the opportunity to learn content appropriate to graduate social work education that is not currently incorporated into the standard MSW curriculum. Given the ever-changing nature of social work practice, theory, and research, topics of importance emerge each year that have particular relevance for a period of time or may be new emergent topics that will have relevance for the future of the discipline of social work. As such, this course provides a mechanism through which courses may be offered on a one-time basis. Topics may be related to social work practice, theory, or research. Topics vary from term to term and may be limited by program administrators, faculty, or by student interest.

SOWK 4992 Directed Study (1-10 Credits)
A permanent catalog course delivered on an individual basis when the course is not offered that term. Directed studies are approved under extenuating circumstances to provide an opportunity to complete a required course. Prerequisite: approval of instructor and MSW Director. Credit hours vary according to the catalog course taken.

SOWK 4999 Capstone (0-1 Credits)
This course is a 0-1 credit (Pass-Fail) required course in which students document their work through the development of an individual portfolio. Students are asked to upload artifacts (papers, presentations and field accomplishments) from both classroom and field internship that demonstrate how they have met the CSWE foundation and concentration specific EPAS competencies and practice behaviors. Students complete a reflection statement on their learning as it relates to the EPAS competencies.

SOWK 5000 Seminar in Professional Social Work Issues (2 Credits)
Examines the dilemmas and challenges confronting the social work profession and social work education. Examines the nature of professional education, the nature of the profession itself and the forces internal and external to the profession that have an impact upon practice and education. Required.

SOWK 5101 Social Welfare Policy Analysis and Development (3 Credits)
Applies analytical techniques to development of social welfare policy stressing the ability to formulate a policy hypothesis (i.e., a statement, in testable form, of a basic premise undergirding a policy position) and to reach conclusions based on analysis of empirical evidence related to the policy hypothesis. Required.

SOWK 5110 Introduction to Advanced Quantitative Research Methods (3 Credits)
This required doctoral course introduces students to quantitative approaches to conducting social research. The course includes material related to measurement, sampling, research design, data collection, and data analysis. While each of these topics encompasses technical issues to be mastered by doctoral students, the logic and underlying rationale of these research methods is of prime importance in this course. A second component of the course requires students to define and begin to develop a substantive area of intended study and research during their enrollment in the doctoral program. Elements of articulating a substantive research area and steps toward defining key research questions in a topical area are reviewed. Aspects of conducting literature reviews leading to the articulation of a substantive research area are discussed in class sessions.

SOWK 5111 Quantitative Methods for Assessing Social Interventions (3 Credits)
Social work researchers are in a unique position to contribute to knowledge about the causes of individual and societal problems and to test interventions that seek to prevent or ameliorate such problems. A variety of qualitative and quantitative research methods are used to advance knowledge about etiological factors contributing to individual and social problems and to assess the outcomes of specific social policies and practice strategies. This course presents a detailed examination of quantitative methods and designs that are useful in assessing the effects of social interventions. Measurement, sampling and design issues in generating and testing research questions and hypothesis are explored. Experimental, quasi-experimental, and survey research designs are assessed and applied to practice and policy issues and problems. Special emphasis is placed on developing skills necessary to conduct intervention research. Cognate students may be permitted on a case by case basis, space permitting.

SOWK 5120 Introduction to Advanced Qualitative Research Methods (3 Credits)
This course provides a substantive doctoral-level review of content on qualitative research methods and strategies. It is developed for students from social science disciplines. The content includes the nature of the method, the epistemological implications and assumptions, and appropriate applications. Student learning and evaluation includes the experience of developing a research proposal based on qualitative methodology and conducting data collection for a mini-research project. This class a prerequisite for SOWK 5121, Qualitative Data Analysis. This course is required for social work doctoral students. Students from other departments may register with permission from the professor.

SOWK 5121 Qualitative Data Analysis (3 Credits)
The focus of this course is on data analysis and interpretation, demonstration of the science of the analysis, and presentation of findings in oral and written forms. Students are expected to conduct qualitative analyses on textual data they collected as part of SOWK 5120 or as a result of some other qualitative data collection experience. Over the course of the term students learn to code and analyze their data, interpret findings, orally present those findings, and write a final paper in which they demonstrate a rigorous engagement with qualitative data analysis and the literature relevant to their topic. This course is for SOWK PhD students only. Cognate students may be permitted on a case by case basis, space permitting.
SOWK 5130 Mixed Methods Research in Social Work (3 Credits)
This course introduces doctoral students to mixed methods research in social work and the social sciences. Students explore mixed methods as a third research paradigm that strategically combines both quantitative and qualitative methods within a single inquiry. The course encourages students to actively reflect on previous quantitative and qualitative research training. Specific topics for the course include: history and language of mixed methods research; relevant paradigms and epistemological debates; mixed methods design and research questions; and analysis and dissemination consideration. SOWK PhD students only. Cognate Students will be allowed to register on a case by case basis, space permitting.

SOWK 5201 Statistical Methods (5 Credits)
Examines the use and interpretation of statistics in educational and human services research, including descriptive and inferential statistics. Required.

SOWK 5202 Correlation and Regression (4 Credits)
Examines correlational and multiple regression research designs and their application to social work and social science problems. This course is for SOWK PhD students only. Cross-listed with RMS 4911, SOWK 5952. Prerequisite: SWOK 5201.

SOWK 5203 Multivariate Analysis (5 Credits)
Provides a conceptual understanding of common multivariate statistical techniques as applied to research in social work and the social sciences. Prerequisite: SOWK 5201.

SOWK 5300 Social Science Theory and the Philosophy of Science (3 Credits)
This foundation doctoral level course introduces traditional issues and recent developments in the philosophy of science, and provides an overview of social science theory and theoretical frameworks. It examines philosophical questions on scientific inquiry and the consequences modern science imposes on our basic understanding of knowledge and nature. The course analyzes and critiques the social-and-behavioral-science foundations that undergird the social work knowledge base and current social work theories. There are no prerequisites for this course. This course is required to social work doctoral students.

SOWK 5301 Social Work Theory in Research and Practice (3 Credits)
This course builds on SOWK 5300, Philosophy of Science and Social Work Theory, to examine how theories, conceptual frameworks, perspectives, and models are used specifically within social work research, education, and practice. This course explores how theories are used in research and in social work interventions on individual, family, group, organizational, community, and policy levels. The course analyzes and critiques the social work knowledge base and the current state of social work theories. This course is required for social work doctoral students. Prerequisite: SOWK 5300.

SOWK 5401 Quantitative Research Methods (4 Credits)
Focuses on basic elements of quantitative social research methods: measurement, sampling, research designs, data collection and data analysis. Emphasizes logic and underlying rationale, as well as technical issues. Prior understanding of computer-based statistical analysis is helpful. Required.

SOWK 5402 Qualitative Data Analysis (4 Credits)
Provides an understanding of analysis methods used to draw meaning from qualitative data, methods that must be practical, applicable and understandable to other observers. Prepares students to use a systematic, scientific process of analysis that captures the meaning of data while avoiding research self-delusion and unreliable or invalid conclusions. Topics include data collection, data reduction, data display, and correlation drawing and verification. Methods include application of computer software. Prerequisite: SOWK 5402. Required.

SOWK 5403 Advanced Social Welfare Policy Analysis (3 Credits)
Applies analytical techniques to development of social welfare policy stressing the ability to formulate a policy hypothesis (i.e., a statement, in testable form, of a basic premise undergirding a policy position) and to reach conclusions based on analysis of empirical evidence related to the policy hypothesis. This course is for SOWK PhD students only.

SOWK 5405 Social Work Knowledge Integration and Publication (3 Credits)
This required doctoral course introduces students to integrating knowledge for social work scholarship through the use of tolls that support academic argumentation and exposition. It provides students with the skills, expertise, and readiness necessary to compose a number of scholarly documents, including academic publications and the dissertation proposal. The course focuses on the preparation and writing of the comprehensive examination proposal as an example of such documents. The major product of the class is a paper designed to meet the requirements of the comprehensive examination proposal. Advisors and mentors participate in class presentations and critiques as a part of preparing the student for their ongoing scholarship.

SOWK 5500 Pedagogy in Social Work Education (3 Credits)
This foundation course examines philosophies, theories, and pedagogical models that are utilized in social work education. It explores how various perspectives shape the approaches and techniques used and how these in turn impact classroom effectiveness and issues of classroom management. The course incorporates concepts and develops skills based on evidence-based teaching. This course is a required course for social work students and has no prerequisite. This course is for SOWK PhD students only.

SOWK 5700 Teaching Practicum (3 Credits)
This 3-hour required course provides classroom instruction and teaching opportunities designed to prepare doctoral students for faculty positions in undergraduate and graduate level social work education. Students work with a faculty mentor to pursue practicum placements that match their substantive interests. Students are expected to devote approximately 8 hours to the practicum per week. Restricted to Ph.D. students only.
SOWK 5950 Multivariate Analysis (5 Credits)
This course is designed to provide students with an introduction to common multivariate statistical analyses. Provides a conceptual understanding of common multivariate statistical techniques as applied to research in education and the social sciences. Cross listed with RMS 4913. Prerequisite: SOWK 5930.

SOWK 5952 Correlation and Regression (4 Credits)
Examines correlation and multiple regression research designs and their application to educational and social science problems. Cross listed with RMS 4911. Prerequisite: SOWK 5930. Required.

SOWK 5990 Special Topics (1-3 Credits)
This special topics course provides students with the opportunity to learn content appropriate to graduate social work education that is not currently incorporated into the standard PhD curriculum. Given the ever-changing nature of social work practice, theory, and research, topics of importance emerge each year which have particular relevance for a period of time or may be new emergent topics that will have relevance for the future of the discipline of social work. As such, this course provides a mechanism through which courses may be offered on a one-time basis. Topics may be related to advanced social work theory, pedagogy, or research. Topics vary from term to term and may be initiated by program administrators, faculty, or by student interest.

SOWK 5991 Independent Study (1-10 Credits)
This is an opportunity for students to undertake special study in a defined area of interest with faculty consultation.

SOWK 5995 Independent Research-Thesis (1-10 Credits)

SOWK 6991 Independent Study (1-10 Credits)
Students undertake special study in a defined area of interest with faculty consultation. By arrangement.

SOWK 6995 Dissertation Research (1-18 Credits)
The formal mechanism for undertaking the dissertation, providing for faculty support through the appointment of a dissertation committee. By arrangement.

Sociology (SOCI)

Courses

Statistics (STAT)

Courses

STAT 3920 Strategic Management of Operations (4 Credits)
The operations function is the unit of the organization that produces the products and/or delivers the service for which the company earns revenue. It is the largest unit of the organization with which all other units interact. Therefore, efficient management of this function is a critical success factor for any company. This course focuses on an organization's management (planning, organizing, staffing, directing, and controlling) when converting inputs into products and services. Companies today must remain competitive in the global marketplace, and careful consideration of various options regarding cost containment and use of technology are required. This course will explore how operations managers meet these challenges in the manufacturing and services firms in response to changes in economic conditions. Students will be exposed to a number of quantitative tools as well as becoming familiar with new systems and methods in the operations management field. When appropriate, optimization software such as Microsoft Solver will be utilized to conduct analysis. Prerequisite: STAT 3900.

STAT 4040 Basic Math-Graduate Students (2 Credits)

STAT 4045 Basic Math-Evening MBA Stdent (1 Credit)

STAT 4050 Basic Statistics-Grad Students (2 Credits)

STAT 4100 Quantitative Methods I (4 Credits)
An introduction to the methods of quantitative analysis commonly used in business, with an emphasis on finance applications. Topics include descriptive statistics, probability, probability distributions, fundamentals of statistical inference, correlation, and simple and multiple regression analysis.

STAT 4200 Quantitative Methods II (4 Credits)

STAT 4300 Production & Operation Mgmt (3 Credits)

STAT 4350 Statistical Computing (4 Credits)
Introduction to and training in the use of modern statistical software packages. Exposure to several of SAS, STATISTICA, S-PLUS, and SPSS with focus on one to best fit student needs. Data acquisition, management, graphs, analyses, reports, customizing and programming. Cross listed with STAT 3350.

STAT 4400 Risky Business (4 Credits)
An interterm travel course to Las Vegas that deals with the theory, practice, and business of gambling.
STAT 4500 Prob Thry Math Gamb (4 Credits)
This course covers the theory of probability and the formal study of mathematics underlying gambling and games of chance. Topics include probability concepts, probability rules, expectation, permutations and combinations, the law of large numbers, the law of "averages," history of gambling, house advantage, fallacies and betting systems, volatility and operations, game odds and price setting, games of pure chance, games with a skill component. Prerequisite: a previous course in statistics or permission of instructor. Cross listed with STAT 3500.

STAT 4510 Applied Decision Theory (4 Credits)
Application of classical and Bayesian decision theory and game theory to practical problems. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4610 Business Statistics (4 Credits)
This course introduces students to basic analytical tools in statistics and operations management, and provides theoretical concepts and skills that are building blocks for future courses. The approach is to present students with a "corporate" view of how statistical tools are used to analyze data and facilitate business decision-making. Students will familiarize themselves with all of the statistical techniques and models presented in the course and will demonstrate knowledge in applying the appropriate techniques and models to various data sets and interpreting the results of the analysis. The Microsoft Excel Data Analysis and Solver Toolkits will be used to conduct statistical analyses, allowing students to become more proficient overall in using Microsoft Excel and to place their emphasis on applications to core business disciplines, statistical reasoning, and proper interpretation of results. A rich variety of such problems and settings will be discussed in class.

STAT 4640 Regrns/Correlation Analysis (4 Credits)
Simple linear regression analysis, methods of estimation, multivariate multiple regression and correlation, tests of reliability and significance, simultaneous equations model and applications. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4650 Applied Multivariate Analysis (4 Credits)
The introduction and application of multivariate analytical techniques and model building for problem solving in business and other settings. Cross listed with STAT 3650. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4680 Sampling Theory & Application (4 Credits)
Simple and stratified random sampling; multistage, cluster, and sequential sampling; optimum allocation and economic efficiency; ratio estimation methods; design of sample studies of various human and physical populations; financial auditing by probability sampling. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4687 Advanced Statistics (4 Credits)

STAT 4700 Intro Computer Simulation (4 Credits)
Deterministic and probabilistic model structures, planning models, heuristics and artificial intelligence, Monte Carlo methods, simulation programming languages, model design, experimentation, and verification. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4704 Topics in Statistics (1-5 Credits)
Various topics including travel courses.

STAT 4709 Computer Simulation Methods for Business (4 Credits)
Large-scale simulation in business and economics, deterministic and probabilistic model structures, corporate planning models, heuristics and artificial intelligence; Monte Carlo methods, model design, experimentation and verification, tactical problems in total systems simulation. Cross listed with STAT 3709.

STAT 4710 Statistical Quality Control (4 Credits)
Applies the basic concepts of statistics to quality improvement in the business environment. Topics include a summary of Total Quality Management (TQM) and where Statistical Quality Control fits in, the tools of Statistical Process Control, Deming's Continuous Improvement Cycle, as well as the evaluation of Process Capability and Sampling. Cross listed with STAT 3710. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4780 Dsgn & Analysis Exp & Survey (4 Credits)

STAT 4783 Forecasting-Financial Envirn (4 Credits)
Cross listed with FIN 3610, STAT 3620.

STAT 4793 Sem: Statistical Methods (1-5 Credits)

STAT 4794 Sem: Operations Research (1-5 Credits)

STAT 4795 Grad Research Sem-Statistics (1-5 Credits)

STAT 4800 Dsgn & Analysis Exp & Survey (4 Credits)
Designing experiments, analysis of results of experiments, nonparametric and parametric tests, randomization, factorial and nonfactorial designs, Latin squares, survey methodology, survey techniques for field investigations. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.

STAT 4810 Nonparametric Statistics (4 Credits)
Statistical procedures applicable in many situations where standard normal theory methods are not. Especially useful when data are of categorical or rank type or when sampled population is excessively skewed. Emphasis will be on applications, making use of the laws of probability. Cross listed with STAT 3110. Prerequisite: MBA 4111, MBA 4112, or permission of instructor.
STAT 4830 Stats-Econ & Bus Forecasting (4 Credits)
Methods to explain, discover, and predict business and economic forces, bases for evaluating such methods. Prerequisite: STAT 4100 or equivalent. Cross-listed with FIN 4620.

STAT 4840 Decision Sciences (4 Credits)
Decision-making techniques, processes, and support systems; basic decision models dealing with certainty, uncertainty, and static and dynamic time frames; emphasis on viewing all decision problems from perspective of a generalized decision-making structure; introduction to computerized decision support systems. Prerequisites: MBA 4111, MBA 4112, or permission of instructor.

STAT 4850 Operations Research I (4 Credits)
Linear programming, including transportation, warehousing, assignment models, and sensitivity analysis, integer programming and game theory. Permission of instructor required.

STAT 4860 Operations Research II (4 Credits)
Non-linear models and optimization, Kuhn Tucker conditions, quadratic and dynamic programming, inventory and queuing models, simulation. Permission of instructor required.

STAT 4870 Advanced Statistics (4 Credits)
Discrete and continuous probability distributions, sampling distributions, estimation methods, moment generating functions, analysis of variance, test of reliability, and significance by parametric and non-parametric methods. Prerequisites: MBA 4111, MBA 4112, or permission of instructor.

STAT 4930 Sem: Statistical Methods (1-5 Credits)

STAT 4940 Sem: Operations Research (1-5 Credits)

STAT 4950 Grad Research Sem-Statistics (1-5 Credits)

STAT 4960 Intern/Case Study: Statistics (1-5 Credits)

STAT 4970 Intern/Case Study: Ops Res (1-10 Credits)

STAT 4980 Intern/Case Study: Statistics (0-10 Credits)
Hours and times arranged by student.

STAT 4981 Intern/Case Study: Ops Res (4 Credits)

STAT 4991 Independent Study (1-4 Credits)
Individual research and report. Hours and times arranged by student.

STAT 4992 Directed Study (1-10 Credits)

STAT 4995 Independent Research (1-10 Credits)

Study Abroad (STAB)

Study Abroad Elective (ABRE)

Courses
ABRE 3988 Study Abroad Elective Credit (0-18 Credits)

ABRE 4988 Study Abroad Elective Credit (0-18 Credits)

Study Abroad Programs (ABRD)

Taxation (TAX)

Courses
TAX 4010 Tax Principles, Research and Writing (2 Credits)
Research sources, techniques, and practice; in-depth research of selected areas. Emphasis on argument and communication of conclusion; evaluation of legislative history and administrative authorities.

TAX 4020 Individual Tax Problems (4 Credits)
Using the Internal Revenue Code and the Federal Income Tax Regulations as a basis, substantive issues relating to individual taxation are covered. Areas are included are general concepts of gross income, individual employee benefits and deductions, charitable deductions, alternative minimum tax, deductibility and classes of interest, office in home and vacation homes, and a general overview of the interrelationships of various statutory and non-statutory principles. Cross listed with LAWS 4292.
TAX 4100 Tax Accounting (4 Credits)
Adoption of and change in accounting periods; income recognition and deduction allowance under the cash and accrual methods, including discussion of the time value of money; prepaid and contested income and expenses; income and deduction reversals; accounting method and practice changes; installment sales; long-term contractors; inventory accounting method and practice changes; installment sales; long-term contractors; inventory accounting, including LIFO and manufacturing’s inventories and net operating losses; income tax allocation for financial reporting.

TAX 4110 Property Transactions (4 Credits)
Basis of property; expenditures and current expense comparison; depreciable status; amortization of intangible property; depreciation methods; property casualties and losses; profit or loss computation and characterization for taxable property dispositions; limitations on passive losses; lessor and lessee reporting; tax-deferred dispositions.

TAX 4120 Qualified Pension and Profit Sharing Plans (4 Credits)
An in-depth study of ERISA, labor departments rules, and Internal Revenue Code provisions relating to qualified deferred compensation. The course is geared toward an understanding of all the pension and profit sharing rules required for plan qualification, with emphasis on qualified plan planning for both incorporated and unincorporated forms of business.

TAX 4200 Corporate Taxation I (4 Credits)
The federal income taxation of corporations and their shareholders with emphasis on the creation of the corporation, establishment of its capital structure, operational alternatives, distributions to shareholders, stock dividends and redemptions, personal holding company, and accumulated earning tax.

TAX 4210 Estate & Gift Taxation (4 Credits)
Taxation of gratuitous transfers under the federal estate and gift tax codes, including taxable inter vivos gifts, annual exclusion, gift-splitting, gift tax charitable deduction, gift tax on powers of appointment, estate tax on owned interests, property transferred inter vivos with retained interests and powers, property subject to powers of appointment or transferred in contemplation of death, jointly owned property, life insurance proceeds, annuities and employee death benefits, marital deduction, charitable deduction, estate tax credits, estate tax deductions, valuation problems.

TAX 4220 Fiduciary Income Taxation (4 Credits)
Federal income taxation of estates and trusts. Included is a discussion of the concept of an estate or trusts; trust accounting income for a simple and complex trust; calculation of taxable income, including special rules on the calculation of distributable net income, capital gains, personal exemptions, and charitable contributions; the separate share rule and trapping distributions; income in respect of a decedents; the grantor trust rules under Section 671-678; and the calculation of the alternative minimum tax.

TAX 4230 Estate Planning (3 Credits)
Estate analysis, including fact gathering and the analysis of data; the psychological aspects of "role playing" in estate planning; the members of the team (the attorney, the CPA, the life underwriter, the trust officer); life insurance in an estate and business planning context; planning with trusts, including revocable, short-term, and irrevocable; the transfer of a closely held business interest from one generation to the next, including full and partial stock redemptions, cross purchase agreements, private annuity, installment sale, retirement, recapitalization, qualified and nonqualified plans of deferred compensation; special estate planning considerations for the professional corporation, the highly paid executive, and the farmer and rancher; specific cases analyzed. Prerequisite: TAX 4210.

TAX 4240 Tax and Financial Planning (3 Credits)
This is an introductory, integrated course focusing on personal financial planning. Topics covered include cash flow projections and budgeting, annual and multiple period income tax planning, an introduction to taxation of investments, an insurance and liability coverage insurance and liability coverage survey, retirement planning, and estate and succession planning.

TAX 4250 Ethics in Tax Practice (4 Credits)
An examination of the ethical rules and considerations affecting lawyers and accountants in tax practice, including transactional, compliance and controversy matters.

TAX 4300 Corporate Taxation II (4 Credits)
A continuation of Corporate Taxation I with emphasis on corporate reorganizations, operation, liquidation of subsidiary corporations and corporate division, and carryover of tax attributes. Prerequisite: TAX 4200.

TAX 4310 Civil & Criminal Tax Procedure (4 Credits)
Statute of limitations on assessment/collection of deficiencies, definition of deficiency, restrictions on assessment and collection; statute of limitations on overpayments, claims and suits for refund, and limitations for criminal prosecutions; regulations and rulings— retroactive revocation; administrative settlements, closing agreements and compromises; civil penalties; tax return preparer penalties; civil litigation—injunctions, jurisdiction of Tax Court, District Court and Court of Claims, small claims procedure, authority to increase deficiencies, choice of forum; jeopardy assessments and termination of taxable years; criminal tax investigations— administrative summons, document production (taxpayer and third party), constitutional protections, common law privileges, strategies; professional responsibilities and ethics for the tax practitioner.

TAX 4315 Low Income Taxpayer Clinic (2-4 Credits)
Tax treatment of partnership income in the hands of the partner; the conduit rule; problems associated with the formation, operation, and dissolution of the partnership; sales of the partnership interest; withdrawal and retirement of partners; basis adjustments, unrealized receivables, and substantially appreciated inventory.
**TAX 4330 Corporate Taxation III (4 Credits)**
Advanced corporate taxation problems with emphasis on collapsible corporations; liquidations; detailed study of sections 305, 306, 307; loss carryovers and Subchapter S corporations. Prerequisite: TAX 4300.

**TAX 4386 Graduate Tax Externship (2-4 Credits)**
The Graduate Tax Program (GTP) encourages students to gain practical experience and to develop professional skills in the field of taxation. Externships are supervised by faculty and GLS department who interact with the eligible student and the employer or organization that provides the externship. The externship should provide a new learning experience for the student intern and must be related to taxation. Satisfactory completion of the externship will result in a passing grade for the externship. The GTP Director or a full time GTP faculty member may serve as Faculty Supervisor for GTP externs.

**TAX 4410 Taxation-Natural Resources (3 Credits)**
Tax problems encountered in the acquisition, operation, and disposition of natural resources properties; pre-production expenditures, depletion, depreciation, and ad valorem taxes; emphasis on overall tax planning for natural resource ventures.

**TAX 4420 International Taxation (4 Credits)**
Introduction to U.S. international taxation with an equal emphasis on inbound and outbound transaction. Resident and nonresident alien taxation, withholding taxes, effectively connected (business) income, foreign investment in U.S. real estate, tax treaties, branch taxes, earnings stripping, conduit financing rules, foreign personal holding companies, controlled foreign entities, foreign tax credit, foreign personal holding companies, controlled foreign corporations, passive foreign investment companies, export transactions, Subpart F manufacturing rules, outbound property transfers, and transfer pricing. Cross listed with LAWS 4344.

**TAX 4430 Exempt Organizations (3 Credits)**
The statutory exemption for “charities,” social welfares and social clubs, homeowners’ associations fraternal orders, employee benefit organizations, mutual or cooperative companies, business and professional leagues, labor unions, exempt organizations, property title companies, federally organized or chartered organizations, and political organizations’ activities, funds, and lobbying activities; prohibited transaction rules; the private foundation; the unrelated business and debt-financed income tax exposures; excise tax exemptions; administrative appeal and declaratory judgment procedures; anti-discrimination considerations; discrimination considerations; charitable contributions.

**TAX 4470 Employment Tax (2 Credits)**
Explore existing employment tax risks, recognize employment tax planning opportunities through appropriate compensation and entity structuring techniques, analyze proper worker classification, and highlight preventative techniques to avoid personal liability.

**TAX 4490 State & Local Taxation (2 Credits)**
Taxable incidents, privilege tax, discrimination, and multiple taxation under the Commerce Clause of the United States Constitution; taxation based on class legislation and Equal Protection Clause; nexus or jurisdictional due process allocation and apportionment formulas; business versus nonbusiness income; multi-state tax compact; unitary concept; residence definitions; nonresident income sources; tax credits and short-period returns for individual income tax payers; sales of tangible personal property; retail and wholesale sales; taxable and nontaxable leases; contractors rule, exemptions, and resale certificates under sales and use tax statutes; valuation techniques for real personal property; and administrative and judicial appeal of property tax valuations and assessments.

**TAX 4500 Consolidated Returns (3 Credits)**
Methods used by multiple related corporations to report income and losses; impact of corporate combination and separation; timing problems.

**TAX 4600 Seminar: Selected Topics (2-4 Credits)**
Recognition of tax problems and opportunities for a broad range of transactions encountered by individuals. Areas include family income splitting and other tax reduction and avoidance techniques; portfolio transactions, including short sales, puts and calls, and commodity futures; structuring agreements in contemplation of marriage or arising out of separation or divorce; personal insurance; charitable contributions; net operating losses; alternative minimum tax; various year-end planning techniques.

**TAX 4980 Internship (0 Credits)**
The Graduate Tax Program (GTP) encourages students to gain practical experience and to develop professional skills in the field of taxation. Internships are supervised by faculty who interact with the eligible student and the employer or organization that provides the internship. The internship should provide a new learning experience for the student intern and must be related to taxation. Satisfactory completion of the internship results in a passing grade for the internship. The GTP Director or a full time GTP faculty member may serve as Faculty Supervisor for GTP interns. Students must obtain approval from the GTP Director or a full-time GTP faculty member.

**TAX 4991 Independent Study (1-5 Credits)**
Opportunity to study and write in any area agreed upon between the student and a member of the faculty. The student is required to produce a written work of publishable quality to receive a final grade for the course. The 4- quarter-hour maximum may be applied toward graduation requirements with no more than 2 quarter hours in any one quarter.
Courses

TEP 4010 Education and Psychology with Special Children (2-4 Credits)
This course serves as the foundation for understanding children with special needs and the laws and policies that support them. Each teacher needs to be responsive to the needs and experiences children bring to the classroom, including those based on culture, community, ethnicity, economics, linguistics, and innate learning abilities. This course covers the foundations for learning exceptionalities and conditions that affect the rate and extend of student learning, and will provide strategies for adapting instruction for all learners. This course introduces the classroom teacher’s role in implementing an IEP and in working with families. Characteristics of students with various disabilities, the history of Special Education, The Individuals with Disabilities Education Act (IDEA) and its current implications, the Response To Intervention Model (RtI) and the Individualized Education Plan (IEP) are also addressed.

TEP 4561 Elementary Curriculum I (4-6 Credits)
Focuses on teaching and learning in the K-6 classroom and prepares teachers to design and implement effective classroom instruction. Frequently covered topics include: standards-based instruction, approaches to assessment, effective teaching strategies, sound lesson/unit planning, interdisciplinary instruction, individualizing instruction, technology, multicultural curriculum. Prerequisite: enrollment in the Teacher Education Program.

TEP 4562 Elementary Curriculum II (4-6 Credits)
Continuation of TEP 4561. Both must be completed for students planning to teach in elementary schools. Prerequisite: enrollment in the Teacher Education Program.

TEP 4581 Elementary Music Methods (3-6 Credits)
Prepares K-12 music teachers to design and implement effective instruction in the elementary school music classroom. Course introduces full array of sound teaching and assessment strategies for all aspects of music. Prerequisite: enrollment in the Teacher Education Program.

TEP 4582 Secondary Music Methods (3-4 Credits)
Prepares K-12 music teachers to design and implement effective instruction in the secondary school music classroom. Course introduces full array of sound teaching and assessment strategies for all aspects of music instruction. Prerequisite: enrollment in the Teacher Education Program.

TEP 4590 Literacy Instruction I (3,4 Credits)
Introduces developmental continuum for literacy. Prepares to assess students’ abilities, to select appropriate instructional strategies and to design effective instructional programs leading to increased listening, speaking, reading and writing competencies for all children. At the elementary level, focuses on balanced approach to literacy instruction. At the secondary level, emphasizes reading and writing in the content areas and assistance of the struggling reader/writer. Prerequisite: enrollment in the Teacher Education Program.

TEP 4591 Literacy Instruction II (3-4 Credits)
Introduces developmental continuum for literacy. Prepares to assess students’ abilities, to select appropriate instructional strategies and to design effective instructional programs leading to increased listening, speaking, reading and writing competencies for all children. At the elementary level, focuses on balanced approach to literacy instruction. At the secondary level, emphasizes reading and writing in the content areas and assistance of the struggling reader/writer. Prerequisite: enrollment in the Teacher Education Program and TEP 4590: Literacy Instruction I.

TEP 4600 Introduction to Secondary Methods (3-6 Credits)
Provides general introduction to principles of effective secondary instruction curriculum design and assessment. Frequently covered topics include: design of classroom environments, comparison of different instructional practices, purposes for and approaches to assessment, comparison of middle and high school philosophies, introduction to instructional unit plan development, and theories of instructional approach and design. Course lays a foundation for more specialized subject-matter methods courses. Prerequisite: enrollment in the Teacher Education Program.

TEP 4610 English in Secondary School (3-5 Credits)
Trends and developments in teaching English Language Arts. Frequently covered topics include: standards-based instruction, technology, subject-matter specific approaches to assessment, instruction and curriculum design. Course builds upon foundation laid in Introduction to Secondary Methods. Prerequisite: enrollment in Teacher Education Program.

TEP 4620 Social Science in Secondary School (3-5 Credits)
Trends and developments in teaching Social Science. Frequently covered topics include: standards-based instruction, technology, subject-matter specific approaches to assessment, instruction and curriculum design. Course builds upon foundation laid in Introduction to Secondary Methods. Prerequisite: enrollment in Teacher Education Program.

TEP 4630 Science in Secondary School (3-5 Credits)
Trends and developments in teaching Science. Frequently covered topics include: standards-based instruction, technology, subject-matter specific approaches to assessment, instruction and curriculum design. Course builds upon foundation laid in Introduction to Secondary Methods. Prerequisite: enrollment in the Teacher Education Program.

TEP 4640 Math in Secondary School (3-5 Credits)
Trends and developments in teaching Math. Frequently covered topics include: standards-based instruction, technology, subject-matter specific approaches to assessment, instruction and curriculum design. Course builds upon foundation laid in Introduction to Secondary Methods. Prerequisite: enrollment in the Teacher Education Program.
TEP 4650 Foreign Language Methods in K-12 Schools (3-5 Credits)
Trends and developments in teaching foreign languages in K-12. Course content includes methods and materials of standards-based instruction, classroom and instructional management, assessment strategies, designing lessons using multiple intelligence and differentiated instruction, using technology in instruction, and integration of other content areas in teaching foreign language. Prerequisite: enrollment in Teacher Education Program.

TEP 4690 Field Experience (1-12 Credits)
Involves field experiences, including full-day teaching for 12 weeks in elementary or secondary school classroom and regularly scheduled seminar discussions with supervisor. Prerequisite: enrollment in the Teacher Education Program.

TEP 4781 Elementary Art Methods (3-6 Credits)
Prepares K-12 art teachers to design and implement effective instruction in elementary school classrooms. Course introduces full array of sound teaching and assessment strategies for all aspects of art. Prerequisite: enrollment in the Teacher Education Program.

TEP 4782 Secondary Art Methods (3-4 Credits)
Prepares K-12 art teachers to design and implement effective instruction in secondary school classrooms. Course introduces full array of sound teaching and assessment strategies for all aspects of art. Prerequisite: enrollment in the Teacher Education Program.

TEP 4991 Independent Study (1-10 Credits)
TEP 4992 Directed Study (1-10 Credits)
TEP 4995 Independent Research (1-10 Credits)

Technology Management (MOTM)

Telecommunications (TELE)

Theatre (THEA)

Courses
THEA 4991 Independent Study (1-10 Credits)
THEA 4992 Independent Research (1-10 Credits)
THEA 4995 Dissertation Research (1-10 Credits)

Women's Studies (WSTU)
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