Graduate Education in Economics

If you're looking for a career as a business or government economist, the University of Denver's MA 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.

We also offer a BA/MS dual-degree program ("4+1") for current undergraduate majors at DU. Students who meet the admissions requirements can start taking graduate-level ECON courses during their junior and senior years and will complete the MS in Economics and Social Policy during their fifth year at DU.

For individuals looking for a less committing entrance into graduate studies in Economics, we offer a Specialized Graduate Certificate.

Our department's strengths
• 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

Master of Arts in Economics
• 45 credits of graduate coursework
• Thesis Required

Masters of Science in Economics and Social Policy
• Undergraduate-Graduate Dual-Degree Program for DU Economics Majors
• 45 credits of graduate coursework
• No Thesis Required

Specialized Graduate Certificate in Economics
• 16 credits of graduate coursework
• No Thesis Required

Master of Arts in Economics
Degree and GPA Requirements
• Bachelor's degree: All graduate applicants must hold an earned baccalaureate from a regionally accredited college or university or the recognized equivalent from an international institution.
• Grade point average: The minimum undergraduate GPA for admission consideration for graduate study at the University of Denver is a cumulative 2.5 on a 4.0 scale or a 2.5 on a 4.0 scale for the last 60 semester credits or 90 quarter credits (approximately two years of work) for the baccalaureate degree. An earned master's degree or higher from a regionally accredited institution supersedes the minimum standards for the baccalaureate. For applicants with graduate coursework but who have not earned a master's degree or higher, the GPA from the graduate work may be used to meet the requirement. The minimum GPA is a cumulative 3.0 on a 4.0 scale for all graduate coursework undertaken.
• Program GPA requirement: The minimum undergraduate GPA for admission consideration for this program is a cumulative 2.5 on a 4.0 scale.
English Language Proficiency Test Score Requirements
The minimum TOEFL/IELTS/C1 Advanced/Duolingo English Test score requirements for this degree program are:

- Minimum TOEFL Score (Internet-based test): 80
- Minimum IELTS Score: 6.5
- Minimum C1 Advanced Score: 176
- Minimum Duolingo English Test Score: 115

English Conditional Admission: No, this program does not offer English Conditional Admission.

Specialized Graduate Certificate in Economics
Degree and GPA Requirements

- Bachelor’s degree: All graduate applicants must hold an earned baccalaureate from a regionally accredited college or university or the recognized equivalent from an international institution.
- Grade point average: The minimum undergraduate GPA for admission consideration for graduate study at the University of Denver is a cumulative 2.5 on a 4.0 scale or a 2.5 on a 4.0 scale for the last 60 semester credits or 90 quarter credits (approximately two years of work) for the baccalaureate degree. An earned master’s degree or higher from a regionally accredited institution supersedes the minimum standards for the baccalaureate. For applicants with graduate coursework but who have not earned a master’s degree or higher, the GPA from the graduate work may be used to meet the requirement. The minimum GPA is a cumulative 3.0 on a 4.0 scale for all graduate coursework undertaken.
- Program GPA requirement: The minimum undergraduate GPA for admission consideration for this program is a cumulative 2.5 on a 4.0 scale.

English Language Proficiency Test Score Requirements
The minimum TOEFL/IELTS/C1 Advanced/Duolingo English Test score requirements for this degree program are:

- Minimum TOEFL Score (Internet-based test): 80
- Minimum IELTS Score: 6.5
- Minimum C1 Advanced Score: 176
- Minimum Duolingo English Test Score: 115

English Conditional Admission: No, this program does not offer English Conditional Admission.

Master of Arts in Economics
Degree Requirements

Coursework Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 4670</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>Advanced Microeconomic Theory</td>
<td>4</td>
</tr>
<tr>
<td>ECON 4050</td>
<td>Origins of Modern Economics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 4993</td>
<td>Thesis Topic Development and Defense</td>
<td>4</td>
</tr>
<tr>
<td>ECON 4995</td>
<td>Independent Research</td>
<td>5</td>
</tr>
</tbody>
</table>

Electives
Students choose 5 graduate-level elective courses (3000-level, if available at GR course, or 4000-level). When considering a 3000-level ECON course, confirm with the instructor that the course can be taken for GR credit.

Total Credits 45

Minimum number of credits required for the degree: 45

Non-coursework Requirements

- Thesis topic development and defense
- Independent research
- Oral defense - The student must defend a thesis in an oral exam and pass it, and then must complete whatever revisions the thesis committee suggests.
Grade Requirements
A student must earn a grade of B- or better in each of the required courses (where ECON 4993 and ECON 4995 only allow for pass/fail). The minimum grade for an individual elective course is C- but the minimum GPA is 3.0.

Master of Science in Economics and Social Policy

Degree Requirements
Minimum number of credits required for the degree: 45

Coursework Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 3670/4670</td>
<td>Econometrics: Multivariate Regression Analysis for Economists</td>
<td>4</td>
</tr>
<tr>
<td>ECON 3850/4850</td>
<td>Mathematics 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>Advanced Microeconomic Theory</td>
<td>4</td>
</tr>
<tr>
<td>ECON 4050</td>
<td>Origins of Modern Economics</td>
<td>4</td>
</tr>
</tbody>
</table>

Students take either a comprehensive exam or policy-oriented internship

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 4980</td>
<td>Internship</td>
</tr>
<tr>
<td>or ECON 4994</td>
<td>Comprehensive Exam</td>
</tr>
</tbody>
</table>

Electives
Students choose six graduate-level elective courses

Total Credits
45

1. All 3000-level courses taken for credit towards the MS must be taken for GR credit: students must inform the instructor and the registrar that course is being taken for GR credit, and students must meet the graduate-level expectations set by the instructor. Student who take ECON 3670 or ECON 3850 for undergraduate (UG) credit meet the course requirement of the MS but need take an additional graduate-level (GR) course to meet the credit requirement.

2. The comprehensive exam / internship requirement will be graded P/F and will not affect the minimum GPA calculation.

3. Elective courses can be 3000-level ECON courses taken for graduate (GR) credit or or 4000-level ECON courses. When taking a 3000-level course, confirm with the instructor the course can be taken for GR credit.

Non-coursework Requirements

- Demonstrated competency using the tools (including relevant quantitative approaches) and concepts of economics to analyze and assesses social policy options. This is assessed either via a comprehensive exam or a policy impact assessment that the student submits to the department after completion of a policy-oriented internship.

Grade Requirements
A student must earn a grade of B- or better in each of the required courses. The minimum grade for an individual elective course is C- but the minimum GPA is 3.0.

Admissions Requirements
The MS in Economics and Social Policy is only available as a dual-degree program in combination with the BA in Economics.

- Current undergraduate student at the University of Denver pursuing the BA in Economics (declared first or second major must be economics).
- Completion of at least 20 credits worth of ECON courses with a GPA in the Economics major of 3.5 or greater.
- Application must be submitted before the end of first quarter as a senior (before the completion of 135 credits towards the BA degree).
- No GRE or other standardized test required.

SPECIALIZED GRADUATE CERTIFICATE IN ECONOMICS
This Specialized Graduate Certificate is earned by taking a combination of foundational theory courses and electives that allow some customization. It certifies that the recipient has graduate-level training in at least one core area of economics (microeconomics or macroeconomics), the historical context which lead to the development of contemporary economic theory and its alternatives, and up to two topical concentrations with current policy implications.

Required Coursework
Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 4050</td>
<td>Origins of Modern Economics</td>
<td>8</td>
</tr>
</tbody>
</table>

Choice of either:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 4020</td>
<td>Adv Macroeconomic Theory</td>
<td></td>
</tr>
<tr>
<td>ECON 4030</td>
<td>Advanced Microeconomic Theory</td>
<td></td>
</tr>
</tbody>
</table>

Elective Courses

Student chooses two (2) graduate-level elective courses. ¹

Total Credits

16

¹ 3000-level ECON courses taken for graduate-credit (GR) and 4000-level ECON courses can count as electives. When registering for a 3000-level course, confirm with the instructor that the course can be taken for GR credit.

Non-Coursework Requirements

Must maintain a cumulative a GPA of 3.0 across ECON courses taken for graduate credit towards completion of the specialized graduate certificate.

Degree Credits

- Undergraduate credit reduction with dual degree: 20 (163 total undergraduate credits required instead of 183)
- Graduate credits required: 45 (no reduction in graduate credits required for the MS)
- Minimum credits required with dual degree: 208 (total 81 ECON credits)

Undergraduate Program (years 1-4)
BA in Economics requirements

Course requirements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1020</td>
<td>Economics: A Critical Introduction</td>
<td>4</td>
</tr>
<tr>
<td>ECON 1030</td>
<td>Introduction to Micro and Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 2020</td>
<td>Intermediate Microeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 2030</td>
<td>Intermediate Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 2050</td>
<td>History of Economic Thought</td>
<td>4</td>
</tr>
<tr>
<td>ECON 2670</td>
<td>Quantitative Methods</td>
<td>4</td>
</tr>
<tr>
<td>ECON 3990</td>
<td>Capstone: Research, Evaluate, and Report on Living in CO (Capstone: Research, Evaluate, and Report on Living in CO)</td>
<td>2</td>
</tr>
</tbody>
</table>

Electives

Two 2000-level (or above) ECON elective courses taken for undergraduate credit

Graduate-level Electives

Two graduate-level ECON electives taken for GR credit (may include ECON 3670/ECON 4670 and / or ECON 3850/ECON 4850)

Students must notify both the instructor and the registrar when taking a 3000-level course for GR credit.

Total Credits

42

Course taken for graduate credit towards the MS requirements while completing the BA in Economics:

Graduate-level Electives

Three graduate-level ECON electives taken for GR credit (should include ECON 4670 and / or ECON 4850)

Students must notify both the instructor and the registrar when taking a 3000-level course for GR credit.

Total Credits

12

Plus 1 Year

Remaining MS in Economics and Social Policy requirements

Course requirements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 4020</td>
<td>Adv Macroeconomic Theory</td>
<td>4</td>
</tr>
<tr>
<td>ECON 4030</td>
<td>Advanced Microeconomic Theory</td>
<td>4</td>
</tr>
<tr>
<td>ECON 4050</td>
<td>Origins of Modern Economics</td>
<td>4</td>
</tr>
</tbody>
</table>

Students take either ECON 4670 or ECON 4850 if they have not previously done so

Two graduate-level ECON electives

8
Students take either a comprehensive exam or policy-oriented internship

| Total Credits | 25 |

**Faculty**

Paula Cole, Teaching Professor, PhD, Colorado State University

Juan Carlos Goethe Lopez, Associate Professor, PhD, University of California - Riverside

John C. Nicolarsen, Teaching Assistant Professor, PhD, University of Missouri-Kansas City

Chiara Piovani, Associate Professor, PhD, University of Utah

Markus P. A. Schneider, Associate Professor and Department Chair, PhD, The New School for Social Research

Henning Schwartd, Assistant Professor, PhD, University of Bremen

Robert G. Urquhart, Associate Professor, PhD, The New School For Social Research

Yavuz Yasar, Professor, PhD, University of Utah

Yeohyub Yoon, Assistant Professor, PhD, University of Massachusetts

Peter Sai-Wing Ho, Professor, Emeritus, PhD, Stanford University

**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 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 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 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 3810.

ECON 3890 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 among 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 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 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 Advanced Microeconomic Theory (4 Credits)
The course covers a broad range of topics in mainstream microeconomic theory, which is based on individual maximizing behavior under constraints. Topics include Games and the role of institutions, General Equilibrium Theory, Externalities, and Incomplete Contracts, and more. The focus of the class is twofold: to understand the modeling foundations and underlying assumptions, and the limitation they imply; and to gain competence working through microeconomic models to evaluate their implications in terms of economic efficiency, social welfare, 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 4670 Econometrics: Multivariate Regression Analysis for Economists (4 Credits)
This course develops the theoretical 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. Cross-listed with ECON 3670.
ECON 4850 Mathematics for Economists (4 Credits)
Graduate level equivalent of ECON 3850.

ECON 4980 Internship (0-1 Credits)
Students doing an internship and writing an impact assessment report based on their work to demonstrate their understanding of economic theory relevant to the analysis and assessment of social policy to satisfy a MS in Economics and Social Policy degree requirement take this course. This course may also be taken for zero credit by students enrolled in the MA in Economics program who do a degree-related internship. Students must complete one 3000-level ECON course with a passing grade prior to enrollment in ECON 4980.

ECON 4991 Independent 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 4994 Comprehensive Exam (1 Credit)
Students taking the comprehensive exam scheduled by the department that tests their understanding of economic theory relevant to the analysis and assessment of social policy to satisfy a MS in Economics and Social Policy degree requirement take this course.

ECON 4995 Independent Research (1-10 Credits)