Psychology

Office: Frontier Hall  
Mail Code: 2155 S. Race St., Denver, CO 80208  
Phone: 303-871-2478  
Email:  
Web Site: http://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**

**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: 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**

- 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 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 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.

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.
Recommendation 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 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 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.

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

<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>

Note: PSYC 4920 is required for terminal master’s degrees

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4295</td>
<td>Research Design &amp; Inference (Research Design &amp; Inference)</td>
</tr>
<tr>
<td>PSYC 4300</td>
<td>Correlation and Regression</td>
</tr>
</tbody>
</table>

Advanced Stat Course (1 from below):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4330</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>PSYC 4350</td>
<td>Structural Equation Modeling for the Social Sciences</td>
</tr>
<tr>
<td>PSYC 4355</td>
<td>Multilevel Modeling for the Psychological Sciences: Theory and Applications</td>
</tr>
</tbody>
</table>

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.

Total credits for master’s degree 45

II. PhD requirements

Core coursework requirements
Complete one course from four of the five categories (Cognitive Psychology, Neuroscience, Social/Personality/Emotions, Developmental Psychology, and Psychopathology)

### A. Cognitive Psychology
- **PSYC 4002** Prosem in Memory and Cognition 5
  
  Note: Cognitive students must take PSYC 4002 Prosem in Memory and Cognition

### B. Neuroscience
- **PSYC 4526** Prosem in Cog Neuroscience 5
- **PSYC 4525** Prosem in Develop Neuropsych 5
- **PSYC 4262** Affective Neuroscience 5
  
  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** Prosem 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 4031** Developmental Proseminar: Cognition & Perception 5
- **PSYC 4032** Developmental Proseminar: Social-Emotional 5
- **PSYC 4033** Devel Proseminar: Biological 5
  
  Note: Developmental Students are required to complete all 3
  
  Note: Clinical Child students must take either PSYC6 4032 Devel Prosem: Social-Emotional or PSYC 4033 Devel Prosem: Biological

### E. Psychopathology
- **PSYC 4512** Prosem in Psychopathology 5
- **PSYC 4565** Systems of Psychotherapy 5
  
  Note: Clinical Students are required to complete both courses.

### Ethics
- **PSYC 4920** Ethics-Psych & Rsrch Practice 2

**Tool requirement**
- **Tools**
  - PSYC 4920 Ethics-Psych & Rsrch Practice

**Total Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4002</td>
<td>Prosem in Memory and Cognition</td>
<td>5</td>
</tr>
<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>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 4031</td>
<td>Developmental Proseminar: Cognition &amp; Perception</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>
<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>
<tr>
<td>PSYC 4920</td>
<td>Ethics-Psych &amp; Rsrch Practice</td>
<td>2</td>
</tr>
</tbody>
</table>

**Minimum number of credits required for the degree: 120**

**Non-coursework requirements:**
- Master’s research paper or Master’s thesis
- 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

I. Master's degree requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4920</td>
<td>Ethics-Psych &amp; Rsrch Practice</td>
</tr>
</tbody>
</table>

Note: PSYC 4920 is required for terminal master's degrees

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4295</td>
<td>Research Design &amp; Inference (Research Design &amp; Inference)</td>
</tr>
<tr>
<td>PSYC 4300</td>
<td>Correlation and Regression</td>
</tr>
</tbody>
</table>

Advanced Stat Course (1 from below):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4330</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>PSYC 4350</td>
<td>Structural Equation Modeling for the Social Sciences</td>
</tr>
<tr>
<td>PSYC 4355</td>
<td>Multilevel Modeling for the Psychological Sciences: Theory and Applications</td>
</tr>
</tbody>
</table>

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.

Total credits for master’s degree: 45

II. PhD requirements

Core coursework requirements

Complete one course from four of the five categories (Cognitive Psychology, Neuroscience, Social/Personality/Emotions, Developmental Psychology, and Psychopathology)

A. Cognitive Psychology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4002</td>
<td>Prosem in Memory and Cognition</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>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4526</td>
<td>Prosem in Cog Neuroscience</td>
</tr>
<tr>
<td>PSYC 4525</td>
<td>Prosem in Develop Neuropsych</td>
</tr>
<tr>
<td>PSYC 4262</td>
<td>Affective Neuroscience</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>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4011</td>
<td>Proseminar in Emotion</td>
</tr>
<tr>
<td>PSYC 4021</td>
<td>Proseminar in Social Psychology</td>
</tr>
<tr>
<td>PSYC 4020</td>
<td>Proseminar in Personality</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>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4031</td>
<td>Developmental Proseminar: Cognition &amp; Perception</td>
</tr>
<tr>
<td>PSYC 4032</td>
<td>Developmental Proseminar: Social-Emotional</td>
</tr>
<tr>
<td>PSYC 4033</td>
<td>Devel Proseminar: Biological</td>
</tr>
</tbody>
</table>

Note: Developmental Students are required to complete all 3
Note: Clinical Child students must take either PSYC 4032 (Social/Emotional) or PSYC 4033 (Biological Processess)

E. Psychopathology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4512</td>
<td>Prosem in Psychopathology</td>
</tr>
<tr>
<td>PSYC 4565</td>
<td>Systems of Psychotherapy</td>
</tr>
</tbody>
</table>

Note: Clinical Students are required to complete both courses.

Ethics

Complete the following course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4920</td>
<td>Ethics-Psych &amp; Rsrch Practice</td>
</tr>
</tbody>
</table>

Tool requirement: 10

Total Credits: 120

Minimum number of credits required for the degree: 120

Non-coursework Requirements

- Master’s research paper or Master’s thesis
- Teaching
Doctor of Philosophy in Psychology with a Concentration in Clinical Psychology

Core 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

<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; Resrch Practice</td>
<td></td>
</tr>
<tr>
<td>PSYC 4295</td>
<td>Research Design &amp; Inference</td>
<td></td>
</tr>
<tr>
<td>PSYC 4300</td>
<td>Correlation and Regression</td>
<td></td>
</tr>
</tbody>
</table>

Advanced Stat Course (1 from below):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4330</td>
<td>Analysis of Variance</td>
<td></td>
</tr>
<tr>
<td>PSYC 4350</td>
<td>Structural Equation Modeling for the Social Sciences</td>
<td></td>
</tr>
<tr>
<td>PSYC 4355</td>
<td>Multilevel Modeling for the Psychological Sciences: Theory and Applications</td>
<td></td>
</tr>
</tbody>
</table>

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.

Total credits for master’s degree: 45

II. PhD requirements

Core coursework requirements

Complete one course from four of the five categories (Cognitive Psychology, Neuroscience, Social/Personality/Emotions, Developmental Psychology, and Psychopathology)

A. Cognitive Psychology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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 take PSYC 4002 Prosem in Memory and Cognition

B. Neuroscience

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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>5</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>
<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>Prosem 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 Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4031</td>
<td>Developmental Proseminar: Cognition &amp; Perception</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: Developmental Students are required to complete all 3

Note: Clinical Child students must take either PSYC 4032 (Social/Emotional) or PSYC 4033 (Biological Processes)

E. Psychopathology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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 Developmental Psychology

Core 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

<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></td>
</tr>
</tbody>
</table>

Note: PSYC 4920 is required for terminal master’s degrees

<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 (Research Design &amp; Inference)</td>
<td></td>
</tr>
<tr>
<td>PSYC 4300</td>
<td>Correlation and Regression</td>
<td></td>
</tr>
</tbody>
</table>

Advanced Stat Course (1 from below):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4330</td>
<td>Analysis of Variance</td>
<td></td>
</tr>
<tr>
<td>PSYC 4350</td>
<td>Structural Equation Modeling for the Social Sciences</td>
<td></td>
</tr>
<tr>
<td>PSYC 4355</td>
<td>Multilevel Modeling for the Psychological Sciences: Theory and Applications</td>
<td></td>
</tr>
</tbody>
</table>

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.

Total credits for master’s degree: 45

II. PhD requirements

Core coursework requirements

Complete one course from four of the five categories (Cognitive Psychology, Neuroscience, Social/Personality/Emotions, Developmental Psychology, and Psychopathology)

A. Cognitive Psychology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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 take PSYC 4002 Prosem in Memory and Cognition

B. Neuroscience

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 4526</td>
<td>Prosem in Cog Neuroscience</td>
<td>5</td>
</tr>
</tbody>
</table>
PSYC 4525  Prosem in Develop Neuropsych  5
PSYC 4262  Affective Neuroscience  5
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 4031  Developmental Proseminar: Cognition & Perception  5
PSYC 4032  Developmental Proseminar: Social-Emotional  5
PSYC 4033  Devel Proseminar: Biological  5
Note: Developmental Students are required to complete all 3
Note: Clinical Child students must take either PSYC 4032 (Social/Emotional) or PSYC 4033 (Biological Processes)

E. Psychopathology
PSYC 4512  Proseminar in Psychopathology  5
PSYC 4565  Systems of Psychotherapy  5
Note: Clinical Students are required to complete both courses.

Ethics
PSYC 4920  Ethics-Psych & Rsrch Practice  2

Tool requirement

Total Credits
120

Minimum number of credits required for degree: 120

Non-coursework Requirements
• First-Year Project or Paper
• Master's research paper or Master's thesis
• 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.

1. Four required Core Courses (these also count toward Area Core requirements).
   a. One Cognitive Area Proseminar
   b. Two Neuroscience Core classes: Proseminar in Cognitive Neuroscience is required for everyone and the second can be either Developmental Neuropsychology or Affective Neuroscience.
   c. Developmental Proseminar or Biological Processes in Development or Cognition/Perception (if Biological Processes is not offered).

2. Required Neuroscience methods classes (counts for department Tool Requirement). Two of the following courses (each of which focuses on different neuroscience methods):
   a. Imaging Cognition
   b. Stress and Health
c. Neural Network Models
d. Genetics (available at IBG at CU Boulder; check with Developmental Cognitive Neuroscience Area Head about how to enroll.)

3. 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.

Courses

PSYC 3020 Adolescence (4 Credits)
Development, behavior, special problems, and characteristics of early and late adolescence. Prerequisite: PSYC 1001 and PSYC 2050, must be a major or minor in psychology, must have at least 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 3033 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 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 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 (5 Credits)
Cross listed with PSYC 3032.

PSYC 4255 Imaging the Mind (5 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 electrophysiological 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 (5 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. Prerequisite: PSYC 4295.
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 be covered 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 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)