PSYCHOLOGY

For college-level requirements in undergraduate curricula leading to the degrees of bachelor of arts and bachelor of science, see Liberal Arts and Sciences, Curriculum.

An undergraduate major in psychology provides a liberal arts and science education, which also can serve as preparation for graduate study in psychology, law, or the health professions. The undergraduate major in psychology enables graduates to understand and apply the scientific principles, facts, and basic methods of psychology to their personal and professional activities. Students with a bachelor's degree (B.A./B.S.) in psychology may qualify for a variety of positions including those in social sciences, mental health, corrections, rehabilitation, developmental disability centers, and business (management, insurance, opinion polls). Professional work as a psychologist in academic, business, clinical, government, and school settings requires graduate degrees. Depending on professional goals, a minor in another discipline may be desirable.

Following the recommendations of the American Psychological Association, the undergraduate curriculum in psychology is designed to allow each student to:

1. Develop a detailed knowledge of psychology
2. Develop an understanding of scientific inquiry and demonstrate critical thinking
3. Understand the role of ethics and diversity in human behavior
4. Be able to communicate effectively in the discourse of psychology
5. Develop skills supporting employment or graduate/professional education

COMMUNICATION PROFICIENCY REQUIREMENT
According to the university-wide Communication Proficiency Grade Requirement, students must demonstrate their communication proficiency by earning a grade of C or better in ENGL 250.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 150</td>
<td>Critical Thinking and Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 250</td>
<td>Written, Oral, Visual, and Electronic Composition</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 250H</td>
<td>Written, Oral, Visual, and Electronic Composition: Honors</td>
<td>3</td>
</tr>
</tbody>
</table>

The Department requires a C- or better in one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 302</td>
<td>Research Methods in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 302</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 309</td>
<td>Proposal and Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 314</td>
<td>Technical Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

The major must include the following psychology courses each with a minimum grade of C- and an overall average of C or better:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 111</td>
<td>Orientation to Psychology (or Psych 112 Learning Community)</td>
<td>1</td>
</tr>
<tr>
<td>PSYCH 101</td>
<td>Introduction to Psychology*</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 211</td>
<td>Career Opportunities in Psychology</td>
<td>1</td>
</tr>
<tr>
<td>PSYCH 301</td>
<td>Research Design and Methodology*</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 440</td>
<td>Psychological Measurement I</td>
<td>3</td>
</tr>
</tbody>
</table>

The major also must include at least one course from four of the following six areas:

**Area A**
- PSYCH 230 Developmental Psychology
- PSYCH 335 Abnormal Psychology of Children and Adolescents

**Area B**
- PSYCH 280 Social Psychology
- PSYCH 380 Social Cognition

**Area C**
- PSYCH 310 Brain and Behavior
- PSYCH 315 Drugs and Behavior

**Area D**
- PSYCH 312 Sensation and Perception
- PSYCH 313 Learning and Memory
- PSYCH 316 Cognitive Psychology

**Area E**
- PSYCH 360 Personality Psychology
- PSYCH 460 Abnormal Psychology

**Area F**
- PSYCH 250 Psychology of the Workplace
- PSYCH 350 Human Factors in Technology

Three additional 3-credit courses in psychology must be taken. Area courses may be used to meet this requirement, but variable credit courses (PSYCH 291, PSYCH 470, PSYCH 490, PSYCH 491, and PSYCH 492) may not.

In accordance with college requirements, a C or better average is required in the courses used to satisfy the major.

Departmental requirements for the B.A. and B.S. include the following supporting courses:

- 6 credits in Philosophy including PHIL 201 Introduction to Philosophy (not 207) 3
- Two of the following
  - BIOL 101 Introductory Biology (or higher)
  - BIOL 155 Human Biology (255 or 256)
BIOL 313  Principles of Genetics
CHEM 160  Chemistry in Modern Society (or higher)
PHYS 101  Physics for the Nonscientist (or higher)
STAT 101  Principles of Statistics *

or STAT 104  Introduction to Statistics

3 credits in Mathematics from selected course list**

* minimum grade of C-

** Popular choices include Math 104, Math 140, Math 150, Math 165, and Stat 301. See general education mathematics list for alternative options. Neither Math 105 nor Math 106 may be used to satisfy this requirement.

Students pursuing a B.S. degree also must complete PSYCH 302
Research Methods in Psychology with a minimum grade of C- and a minimum of 10 additional credits from courses listed in the LAS Gen Ed Natural Sciences and Mathematical Disciplines Area as follows: six additional credits in natural sciences, one additional credit in a laboratory course, and three additional credits in mathematics. It should be noted that either Math 104 or Math 150 may be counted toward the B.S. degree requirement, but not both.

Students electing a B.A. degree also must complete an ISU approved minor.

The department offers a minor in psychology. The minor requires completing 18 credits in psychology, including PSYCH 101 Introduction to Psychology and PSYCH 301 Research Design and Methodology, each with a minimum grade of C-. At least 9 of the 18 credits must be in 300 level courses (or above), but no more than three credits total may be from PSYCH 291 Introductory Research Experience, PSYCH 490 Independent Study, PSYCH 491 Research Practicum, and PSYCH 492 Fieldwork Practicum. The minor must include at least 9 credits that are not used to meet any other department, college, or university requirement. In addition to an overall C average or better in courses used to satisfy the minor, a C- or better is required in each course. Contact the psychology advising office for more information.

Psychology, B.A.

Freshman

Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Spring</th>
</tr>
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<tbody>
<tr>
<td>ENGL 150</td>
<td>3</td>
<td>Psychology Choice *</td>
</tr>
<tr>
<td>PSYCH 101³</td>
<td>3</td>
<td>Social Science Choice *</td>
</tr>
<tr>
<td>Required Natural Science *</td>
<td>3</td>
<td>Required Natural Science *</td>
</tr>
<tr>
<td>Required Math *</td>
<td>3</td>
<td>Arts &amp; Humanities Choice *</td>
</tr>
<tr>
<td>Social Science Choice *</td>
<td>3</td>
<td>Electives</td>
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<tr>
<td>PSYCH 111</td>
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<td>LIB 160</td>
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16 16

Sophomore

Fall

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<tr>
<th>Course</th>
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<th>Spring</th>
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<tr>
<td>ENGL 250²</td>
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<td>Psychology Choice *</td>
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<td>Psychology Choice *</td>
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<td>Psychology Choice *</td>
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<td>Arts &amp; Humanities Choice *</td>
<td>3</td>
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<td>Minor</td>
</tr>
<tr>
<td>Required Natural Science *</td>
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<td>PSYCH 211</td>
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3-4 3-4

Junior

Fall

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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Spring</th>
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<tbody>
<tr>
<td>PSYCH 301³</td>
<td>3</td>
<td>PSYCH 302 or one of ENGL 302, ENGL 309, ENGL 314¹</td>
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<tr>
<td>Psychology Choice *</td>
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<td>Minor</td>
</tr>
<tr>
<td>Philosophy Choice *</td>
<td>3</td>
<td>World Language/Elective</td>
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<td>World Language/Elective</td>
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<td>Elective</td>
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<tr>
<td>Minor</td>
<td>3</td>
<td>3-4 Elective</td>
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15-16 15-16

Senior

Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Spring</th>
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<tbody>
<tr>
<td>PSYCH 440³</td>
<td>3</td>
<td>Psychology Choice</td>
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<tr>
<td>Psychology Choice *</td>
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<td>Minor</td>
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<td>Minor</td>
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<td>Electives</td>
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<tr>
<td>Electives</td>
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15 15

1 Meets English Proficiency Requirement: C- minimum.
2 The university-wide Communication Proficiency Grade Requirement (http://catalog.iastate.edu/collegescurricula/) requires a grade of C or better in ENGL 250.
3 Psych Requirement: C- minimum

Students in all ISU majors must complete a three-credit course in U.S. diversity and a three-credit course in international perspectives. Check (http://www.registrar.iastate.edu/courses/div-ip-guide.html) for a list of approved courses. Discuss with your advisor how the two courses that you select can be applied to your graduation plan.

LAS majors require a minimum of 120 credits, including a minimum of 45 credits at the 300/400 level. You must also complete the LAS world language requirement.

* Choose from list of selected courses available from an advisor.
Psychology, B.S

Freshman

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 150</td>
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<td>Psychology Choice*</td>
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<td>PSYCH 111</td>
<td>1</td>
<td>Social Sciences Choice*</td>
<td>3</td>
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<tr>
<td>PSYCH 101^3</td>
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<td>Required Natural Science*</td>
<td>3</td>
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<tr>
<td>Required Math*</td>
<td>3</td>
<td>Arts &amp; Humanities Choice*</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences Choice*</td>
<td>3</td>
<td>Electives</td>
<td>3</td>
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<tr>
<td>Required Natural Science*</td>
<td>3</td>
<td>LIB 160</td>
<td>1</td>
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Sophomore

<table>
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<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 250^2</td>
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<td>Psychology Choice*</td>
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<td>Psychology Choice*</td>
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<tr>
<td>Arts &amp; Humanities Choice*</td>
<td>3</td>
<td>STAT 101^3</td>
<td>4</td>
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<td>PHIL 201</td>
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<td>Electives</td>
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<tr>
<td>Required Natural Science*</td>
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<td>PSYCH 211</td>
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<td>Required Natural Science Laboratory*</td>
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<td></td>
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Junior

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
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<tbody>
<tr>
<td>PSYCH 301^3</td>
<td>3</td>
<td>PSYCH 302^1</td>
<td>3</td>
</tr>
<tr>
<td>Psychology Choice*</td>
<td>3</td>
<td>Required Math*</td>
<td>3</td>
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<tr>
<td>World Language/Elective</td>
<td>3-4</td>
<td>Required Natural Science*</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy Choice*</td>
<td>3</td>
<td>World Language/Elective</td>
<td>3-4</td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
<td>Electives*</td>
<td>3</td>
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<tr>
<td></td>
<td>15-16</td>
<td></td>
<td>15-16</td>
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Senior

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 440^3</td>
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<td>Psychology Choice*</td>
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<td></td>
<td>14</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Students in all ISU majors must complete a three-credit course in U.S. diversity and a three-credit course in international perspectives. Check [http://www.registrar.iastate.edu/courses/div-ip-guide.html](http://www.registrar.iastate.edu/courses/div-ip-guide.html) for a list of approved courses. Discuss with your advisor how the two courses that you select can be applied to your graduation plan. LAS majors require a minimum of 120 credits, including a minimum of 45 credits at the 300/400 level. You must also complete the LAS world language requirement.

1 Meets English Proficiency Requirement: C- minimum.

2 The university-wide Communication Proficiency Grade Requirement ([http://catalog.iastate.edu/collegescurricula/](http://catalog.iastate.edu/collegescurricula/)) requires a grade of C or better in ENGL 250.

3 Psych Requirement: C- minimum

* Choose from list of selected courses available from an advisor.

Graduate Study

The department offers work for the degree of doctor of philosophy in psychology. A master of science may be earned as part of that degree.

The department offers a doctoral specialization in counseling psychology (APA accredited) and doctoral areas of concentration in cognitive psychology and social psychology.

A basic goal of graduate study in the Department of Psychology is to provide all students with a broad base of knowledge in psychological science, as well as exposure to the content and methodological skills necessary for effective performance in teaching, research and professional practice. Accordingly, graduates have an extensive knowledge of psychological principles and the conceptual and quantitative skills to conduct psychological research and to communicate the results to the scientific community, students in the classroom, and the general public. Graduates in counseling psychology are skilled in delivering services to diverse clientele in a variety of settings.


A formal class and a supervised practicum in the teaching of psychology is recommended for all doctoral students whose future plans may include teaching at the college level. A 12-month internship in a training site or agency approved by the faculty is required of all doctoral students in counseling psychology.

Courses primarily for undergraduates:

**PSYCH 101: Introduction to Psychology**
(3-0) Cr. 3. F.S.SS.
Fundamental psychological concepts derived from the application of the scientific method to the study of behavior and mental processes. Applications of psychology.

**PSYCH 102: Laboratory in Introductory Psychology**
(0-2) Cr. 1. F.S.
Prereq: Credit or enrollment in PSYCH 101
Laboratory to accompany 101.
PSYCH 111: Orientation to Psychology  
Cr. 1. F.S.  
Program requirements and degree/career options. Required of psychology majors. Offered on a satisfactory-fail basis only.

PSYCH 112: Psychology Learning Community Seminar  
(1-0) Cr. 1. Repeatable, maximum of 2 credits. F.S.  
Prereq: Participation in Freshman Learning Community  
Topics include orientation to academic program requirements, career awareness, strategies for successful transition to college, connections with other disciplines, and applying psychology via service learning opportunities. Offered on a satisfactory-fail basis only.

PSYCH 131: Academic Learning Skills  
(1-0) Cr. 1. F.S.  
Evidence-based approach to learning and applying academic skills such as time management, note-taking, reading, test preparation, goal setting and motivation, and well-being. Hybrid course structured in a team-based learning format.

PSYCH 211: Career Opportunities in Psychology  
Cr. 1. F.S.  
Prereq: PSYCH 111  
Introduction to career options for psychology majors. Development of foundational career preparation topics like resume writing, interviewing, and other career-related topics. Thorough introduction to the sub-fields of psychology. Guidance on applying to graduate school or seeking a job with a bachelor's degree. Offered on a satisfactory-fail basis only.

PSYCH 230: Developmental Psychology  
(3-0) Cr. 3. F.S.SS.  
Life-span development of physical traits, cognition, intelligence, language, social and emotional behavior, personality, and adjustment.

PSYCH 250: Psychology of the Workplace  
(3-0) Cr. 3.  
Survey of theories and research methods of psychology applied to the workplace. Consideration of employee selection, training, performance evaluation, leadership, work groups, employee motivation, job attitudes and behaviors, organizational culture, organizational development, human factors, and job design from the scientist-practitioner approach.

PSYCH 280: Social Psychology  
(3-0) Cr. 3. F.S.SS.  
Individual human behavior in social contexts. Emphasis on social judgments and decisions, attitudes, perceptions of others, social influence, aggression, stereotypes, and helping.

PSYCH 291: Introductory Research Experience  
Cr. 1-4. Repeatable, maximum of 4 credits. F.S.  
Prereq: PSYCH 101, sophomore classification, and permission of instructor.  
Beginning level supervised research experience in a faculty laboratory. Offered on a satisfactory-fail basis only.

PSYCH 301: Research Design and Methodology  
(3-0) Cr. 3. F.S.SS.  
Prereq: STAT 101; 1 course in psychology  
Overview of the principal research techniques used in psychology with an emphasis on the statistical analysis of psychological data.

PSYCH 302: Research Methods in Psychology  
(2-2) Cr. 3. F.S.  
Prereq: PSYCH 301, ENGL 250  
Discussion of and experience in designing research studies, collecting and analyzing data, and preparing research reports in psychology.

PSYCH 310: Brain and Behavior  
(3-0) Cr. 3. F.S.  
Prereq: PSYCH 101  
Survey of basic concepts in the neurosciences with emphasis on brain mechanisms mediating sensory processes, arousal, motivation, learning, and abnormal behavior.

PSYCH 312: Sensation and Perception  
(3-0) Cr. 3. F.S.  
Prereq: PSYCH 101  
Survey of the physiology and psychology of human sensory systems including vision, audition, smell, taste, the skin senses, and the vestibular senses.

PSYCH 313: Learning and Memory  
(3-0) Cr. 3. F.S.  
Prereq: PSYCH 101  
Survey of fundamental concepts and theories related to learning and memory derived from human and animal research.

PSYCH 314: Motivation  
(3-0) Cr. 3. F.S.  
Prereq: PSYCH 101  
Theory and research on motivation at biological, environmental, and psychological levels. Topics include emotion, eating, sex, music, addictions, incentives, goal performance, personality, coping, self-determination and purpose.
PSYCH 315: Drugs and Behavior  
(3-0) Cr. 3. F.S.  
Prereq: PSYCH 101  
Biologically based examination of the effects of drugs on behavior and social interactions, including recreational drugs and drugs used in the treatment of psychiatric and neurological disorders.

PSYCH 316: Cognitive Psychology  
(3-0) Cr. 3. F.S.  
Prereq: PSYCH 101  
Overview of human cognition, including sensation and perception, attention, memory, language, and judgment and decision making.

PSYCH 318: Thinking and Decision Making  
Cr. 3. F.S.  
Prereq: PSYCH 101; STAT 101 or MATH 104 or equivalent  
Understanding human reasoning and decision making, including evaluating evidence, judging probabilities, emotional influences, and social dilemmas, with emphasis on the mechanisms that underlie decision making.

PSYCH 320: Sleep and Dreams  
(3-0) Cr. 3. Alt. S., offered irregularly.  
Prereq: PSYCH 101  
Scientific study of sleep and dreams including basic biological and psychological aspects of sleep-wake cycles, the nature and function of dreams, and the role of sleep in human behavior, performance, and well-being. Sleep problems and their social consequences.

PSYCH 333: Educational Psychology  
(Cross-listed with EDUC). (3-0) Cr. 3. F.S.  
Prereq: PSYCH 230 or HD FS 102, pursuing educator preparation or major in psychology  
Psychological theories relevant to student development, learning, and motivation. Review of assessment principles and practices. Implications of theory for teaching children and for assessing learning in K-12 educational settings, with an emphasis on grades 5 – 12.

PSYCH 335: Abnormal Psychology of Children and Adolescents  
(3-0) Cr. 3. F.S.  
Prereq: PSYCH 101; PSYCH 230 or HDF 102  
Psychopathology of children and adolescents including childhood depression and anxiety disorders. Consideration of multiple probable causes and corresponding therapies.

PSYCH 346: Psychology of Women  
(Cross-listed with WGS). (3-0) Cr. 3. S.  
Prereq: 2 courses in psychology including PSYCH 101  
Survey of theory and research related to major biological, interpersonal, and cultural issues affecting girls’ and women’s psychological development and behavior.  
Meets U.S. Diversity Requirement

PSYCH 347: U.S. Latino/a Psychology  
(Cross-listed with US LS). (3-0) Cr. 3. S.  
Prereq: Two courses in Psychology including PSYCH 101  
Historical, political, and social contexts of psychological and mental health constructs in terms of their validity and utility for use with Latino/a people in the U.S. Unique aspects of psychological functioning particular to Latino/a people in the U.S.  
Meets U.S. Diversity Requirement

PSYCH 348: Psychology of Religion  
(Cross-listed with RELIG). (3-0) Cr. 3.  
Prereq: Nine credits in psychology  
Survey of psychological theory and research investigating religious and spiritual attitudes, beliefs and practices.

PSYCH 350: Human Factors in Technology  
(3-0) Cr. 3. F.  
Prereq: PSYCH 101; junior classification  
Understanding human behavior and cognition in the context of modern technologies. Focus on emergent interactive technologies, human computer interaction, user centered design, usability analysis, and usability testing.

PSYCH 360: Personality Psychology  
(3-0) Cr. 3. F.S.SS.  
Prereq: PSYCH 101  
Historical and contemporary theory and research on development and expression of personality with a focus on normal functioning.

PSYCH 380: Social Cognition  
(3-0) Cr. 3.  
Prereq: PSYCH 101 or PSYCH 280  
How people understand themselves and others, including attitude formation and change, attribution, impression formation, social categories and schemas, the self, stereotypes, and prejudice.

PSYCH 381: Social Psychology of Small Group Behavior  
(Cross-listed with SOC). (3-0) Cr. 3. S.  
Prereq: SOC 305 or PSYCH 280  
A survey of small group theory and research from an interdisciplinary, social psychological perspective.
PSYCH 383: Psychology and Law
(3-0) Cr. 3. F.S.
*Prereq: PSYCH 101 or PSYCH 280*
Survey of topics in the interface between psychology and the legal system including but not limited to Miranda warning, confessions, police interrogation, lie detection, juries, eyewitness identification, false memories, and the death penalty.

PSYCH 386: Media Psychology
Cr. 3. F.S.S.
*Prereq: PSYCH 101 or PSYCH 230 or PSYCH 280*
Theories and research on the psychological mechanisms (e.g., attitudes, perceptions, emotions, arousal) by which media influence children and adults. Topics include media violence, educational media, advertising, music, video games, media literacy, and ratings.

PSYCH 405: History of Psychology
(Dual-listed with PSYCH 505). (3-0) Cr. 3. S.
*Prereq: 4 courses in psychology*
Origins of psychology in philosophy, physiology, medicine and religion. Development as a scientific discipline during the nineteenth and twentieth centuries. Historical overview of clinical practice and theory.

PSYCH 411: Evolutionary Psychology
(3-0) Cr. 3. S.
*Prereq: Junior classification, three courses in psychology; one course in biology*
Examination of the application of the principles of evolutionary biology to the understanding of human behavior. Evolutionary perspectives on brain development, cognition, language, mating behavior, sex differences, altruism, artistic behavior, and criminal behavior are explored. Arguments by those critical of the evolutionary approach to psychology are also examined.

PSYCH 413: Psychology of Language
(Cross-listed with LING). (3-0) Cr. 3.
*Prereq: PSYCH 101*
Introduction to psycholinguistics. Topics may include origin of language, speech perception, language comprehension, reading, bilingualism, brain bases of language, and computational modeling of language processes.

PSYCH 422: Counseling Theories and Techniques
(3-0) Cr. 3. F.
*Prereq: 3 courses in psychology*
Overview of the major counseling theories and techniques, with emphasis on the key concepts of each theory, the role of the counselor, therapeutic goals, and the main techniques derived from each theory.

PSYCH 422L: Laboratory in Counseling Theory and Techniques
(0-2) Cr. 1. F.
*Prereq: Three classes in psychology and credit or enrollment in PSYCH 422*
Learn basic counseling skills such as active listening, reflecting feelings, empathy, confrontation, immediacy and self-disclosure. Supervised practice using basic counseling skills.

PSYCH 440: Psychological Measurement I
(2-2) Cr. 3. F.S.S.
*Prereq: PSYCH 301 and 9 credits in psychology, STAT 101*
Principles of psychological measurement, including concepts of reliability and validity; interpretation of scores; factors influencing performance; construction and use of measures of ability, achievement, and personality.

PSYCH 450: Industrial Psychology
(3-0) Cr. 3. F.S.
*Prereq: 2 courses in psychology including PSYCH 101, STAT 101*
Theory, content and methods of industrial psychology related to the effective operation of organizations. Application of psychology principles to topics including different approaches used to select employees, how to conduct performance appraisals, and how to train and keep employees safe. Work attitudes and behaviors of employees as well as relevant legal issues. Statistics including regression and correlation are used.

PSYCH 460: Abnormal Psychology
(3-0) Cr. 3. F.S.S.
*Prereq: 3 courses in psychology including PSYCH 101*
Description of major forms of psychopathology including anxiety, mood disorders, personality disorders, substance abuse, and schizophrenia. Coverage of research examining causes, development, and clinical issues concerning psychopathology.

PSYCH 470: Seminar in Psychology
(1-0) Cr. 1-3. Repeatable.
*Prereq: 12 credits in psychology*
Current topics in psychological research and practice in the following areas.

PSYCH 484: Psychology of Close Relationships
(3-0) Cr. 3.
*Prereq: 9 credits in psychology including PSYCH 280*
Theories and research concerning the functions, development, and deterioration of close relationships. Influence of psychological processes on friendship, romantic, marital, and family relationships. Topics include mate selection, interdependence, trust and commitment, power and dominance in relationships, sexuality, divorce, gender roles, and family interaction.
**PSYCH 485: Health Psychology**  
(3-0) Cr. 3. F.  
Prereq: Junior classification, 6 credits in psychology  
Application of psychological theory and research methods to issues in physical health. Psychological factors in illness prevention, health maintenance, treatment of illness, recovery from injury and illness, and adjustment to chronic illness.

**PSYCH 487: Human Aggression**  
(3-0) Cr. 3. S.  
Prereq: PSYCH 230 or PSYCH 280; PSYCH 301; PSYCH 313, PSYCH 316, PSYCH 318, PSYCH 360, or PSYCH 380  
Theory and research on development and occurrence of human aggression; implications for prevention and treatment.

**PSYCH 488: Cultural Psychology**  
(3-0) Cr. 3.  
Prereq: PSYCH 280 and PSYCH 301; junior classification  
Examination of the ways that cultural beliefs, values, and affordances shape cognitive, developmental, social and other psychological phenomena, as well as the forces that shape and change culture.  
Meets International Perspectives Requirement.

**PSYCH 490: Independent Study**  
Cr. 1-3. Repeatable, maximum of 9 credits. F.S.S.  
Prereq: Junior classification, 6 credits in psychology, and permission of instructor  
Supervised reading in an area of psychology. Writing requirement. No more than 9 credits of Psych 490 may be counted toward a degree in psychology.

**PSYCH 491: Research Practicum**  
Cr. arr. Repeatable, maximum of 9 credits. F.S.S.  
Prereq: Junior classification, permission of instructor, and credit or enrollment in PSYCH 301  
Supervised research in an area of psychology. Primarily for students intending to pursue graduate education. No more than 9 credits of Psych 491 may be counted toward a degree in psychology.

**PSYCH 492: Fieldwork Practicum**  
Cr. arr. Repeatable, maximum of 9 credits. F.S.S.  
Prereq: Junior classification, 12 credits in psychology and permission of instructor  
Supervised fieldwork in one of the following applied psychology settings. Offered on a satisfactory-fail basis only. No more than 9 credits of Psych 492 may be counted toward a degree in psychology.

**PSYCH 492A: Fieldwork Practicum: Human Services**  
Cr. arr. Repeatable, maximum of 9 credits. F.S.S.  
Prereq: Junior classification, 12 credits in psychology and permission of instructor  
Offered on a satisfactory-fail basis only.

**PSYCH 492B: Fieldwork Practicum: I/O Psychology**  
Cr. arr. Repeatable, maximum of 9 credits. F.S.S.  
Prereq: Junior classification, 12 credits in psychology including PSYCH 450 or PSYCH 250 and enrollment in PSYCH 450, and permission of instructor.  
Offered on a satisfactory-fail basis only.

**Courses primarily for graduate students, open to qualified undergraduates:**

**PSYCH 501: Foundations of Behavioral Research**  
(3-0) Cr. 3. F.S.  
Prereq: STAT 401 or equivalent  
Ethical issues, research design, sampling design, measurement issues, power and precision analysis, interpretation of statistical results in non-experimental, quasi-experimental, and experimental research, use of statistical packages.

**PSYCH 505: History of Psychology**  
(Dual-listed with PSYCH 405). (3-0) Cr. 3. S.  
Prereq: 4 courses in psychology  
Origins of psychology in philosophy, physiology, medicine and religion. Development as a scientific discipline during the nineteenth and twentieth centuries. Historical overview of clinical practice and theory.

**PSYCH 516: Advanced Cognition**  
(3-0) Cr. 3. F.S.  
Prereq: PSYCH 316  
Theoretical models and empirical research in human cognition including perception, attention, memory, concepts/categorization, imagery, and judgment and decision making.

**PSYCH 519: Cognitive Neuropsychology**  
(3-0) Cr. 3.  
Prereq: PSYCH 310 and PSYCH 316 or PSYCH 313; graduate classification or permission of instructor  
Psychological models and related neurological substrates underlying cognition in normal and brain-damaged individuals.

**PSYCH 521: Cognitive Psychology of Human Computer Interaction**  
(Cross-listed with HCI). (3-0) Cr. 3.  
Prereq: Graduate classification or instructor approval  
Biological, behavioral, perceptual, cognitive and social issues relevant to human computer interactions.
PSYCH 522: Scientific Methods in Human Computer Interaction
(Cross-listed with HCI). (3-0) Cr. 3. Alt. S., offered odd-numbered years.
**Prereq:** PSYCH 521 and STAT 101 or equivalent
Basics of hypothesis testing, experimental design, analysis and interpretation of data, and the ethical principles of human research as they apply to research in human computer interaction.

PSYCH 533: Theories of Learning
(Cross-listed with EDUC). (3-0) Cr. 3. F.
Major theories of learning and cognition in educational settings. Emphasis on behavioral, cognitive, constructivist, and sociocultural theories and their implications for educational policy and practice.

PSYCH 538: Developmental Disabilities
(Cross-listed with HD FS). (3-0) Cr. 3. Alt. F., offered odd-numbered years.
**Prereq:** 9 credits in human development and family studies or psychology or permission of instructor
Theories, research, and current issues regarding the intersection of development and disabilities. Investigation of interventions with individuals and families. (on-line course offering via Distance Education).

PSYCH 542: Applied Psychological Measurement
(3-0) Cr. 3. F.
**Prereq:** PSYCH 440
Principles of psychological measurement, including concepts of reliability and validity; interpretation of scores; factors influencing performance; test construction and use of measures of intelligence, ability, achievement, vocational interest, and personality. Ethical and multicultural issues in measurement.

PSYCH 544: Cognitive Assessment
(3-0) Cr. 3. F.S.
**Prereq:** PSYCH 542 and admission into the PhD program in counseling psychology
Principles, concepts, and methods of clinical interviewing, behavioral observation, and administration, scoring, and interpreting individual tests of cognitive function.

PSYCH 560: Advanced Personality Psychology
(3-0) Cr. 3.
**Prereq:** 4 courses in psychology, including PSYCH 360
Advanced analysis of contemporary theory and research on personality measurement, development, heritability, and social expression.

PSYCH 562: Personality Assessment
(3-0) Cr. 3.
**Prereq:** PSYCH 360, PSYCH 440, PSYCH 542, and PSYCH 501 or STAT 401 and admission to the PhD program in counseling psychology
Principles, concepts, and methods of personality assessment. Though not a practicum course, exposure is given to a variety of objective, projective, and situational tests.

PSYCH 580: Advanced Social Psychology: Psychological Perspectives
(3-0) Cr. 3.
**Prereq:** 4 courses in psychology, including PSYCH 280
Current theories, methods, and research in social psychology with an emphasis on cognitive and interpersonal processes such as attribution, social cognition, attitude change, attraction, aggression, and social comparison.

PSYCH 590: Special Topics
Cr. arr. Repeatable.
**Prereq:** 12 credits in psychology, and permission of instructor
Guided reading on special topics or individual research projects in the following areas.

PSYCH 590A: Special Topics: Counseling
Cr. arr. Repeatable.
**Prereq:** 12 credits in psychology, and permission of instructor

PSYCH 590Q: Special Topics: Cognitive
Cr. arr. Repeatable.
**Prereq:** 12 credits in psychology, and permission of instructor

PSYCH 590R: Special Topics: Social
Cr. arr. Repeatable.
**Prereq:** 12 credits in psychology, and permission of instructor

PSYCH 590Z: Special Topics: General
Cr. arr. Repeatable.
**Prereq:** 12 credits in psychology, and permission of instructor

PSYCH 592: Seminar in Psychology
(1-0) Cr. 1-3. Repeatable.
**Prereq:** 12 hours in psychology or graduate classification.
Seminar in the following areas.

PSYCH 592C: Seminar in Psychology: Developmental
(1-0) Cr. 1-3. Repeatable. F.S.
**Prereq:** 12 hours in psychology or graduate classification.

PSYCH 592P: Seminar in Psychology: Research Methods and Psychometrics
(1-0) Cr. 1-3. Repeatable.
**Prereq:** 12 hours in psychology or graduate classification.
PSYCH 592Z: Seminar in Psychology: General  
(1-0) Cr. 1-3. Repeatable.  
Prereq: 12 hours in psychology or graduate classification.

PSYCH 594: Quantitative Behavioral Methods  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent  
Specialized quantitative methods for social and behavioral research problems in the following areas.

PSYCH 594A: Quantitative Behavioral Methods: Classical psychometric theory  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent

PSYCH 594B: Quantitative Behavioral Methods: Modern psychometric methods  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent

PSYCH 594C: Quantitative Behavioral Methods: Construct validation  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent

PSYCH 594D: Quantitative Behavioral Methods: Multi-dimensional scaling  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent

PSYCH 594E: Quantitative Behavioral Methods: Cluster Analysis  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent

PSYCH 594F: Quantitative Behavioral Methods: Meta-analysis  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent

PSYCH 594G: Quantitative Behavioral Methods: Longitudinal analysis  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent

PSYCH 594I: Quantitative Behavioral Methods: Focus Groups  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent  
Specialized quantitative methods for social and behavioral research problems.

PSYCH 594J: Quantitative Behavioral Methods: Missing Data  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent  
Specialized quantitative methods for social and behavioral research problems.

PSYCH 594M: Quantitative Behavioral Methods: Power Analysis  
(1-0) Cr. 1. F.S.  
Prereq: PSYCH 501 or equivalent  
Specialized quantitative methods for social and behavioral research problems.

PSYCH 594N: Quantitative Behavioral Methods: Generalized Linear Models  
Cr. 1. S.  
Prereq: PSYCH 501 or equivalent  
Specialized quantitative methods for social and behavioral research problems.

PSYCH 595: Seminar in Social Psychology  
Cr. 1-3. Repeatable. F.S.  
Prereq: 12 credits in Psychology  
Seminar in the following areas in social psychology.

PSYCH 595A: Seminar in Social Psychology: Social Cognition  
Cr. 1-3. Repeatable. F.S.  
Prereq: 12 credits in Psychology

PSYCH 595B: Seminar in Social Psychology: Aggression  
Cr. 1-3. Repeatable. F.S.  
Prereq: 12 credits in Psychology

PSYCH 595C: Seminar in Social Psychology: Culture  
Cr. 1-3. Repeatable. F.S.  
Prereq: 12 credits in Psychology

PSYCH 595D: Seminar in Social Psychology: Attitudes and Attitude Change  
Cr. 1-3. Repeatable. F.S.  
Prereq: 12 credits in Psychology

PSYCH 595E: Seminar in Social Psychology: Psychology and Law  
Cr. 1-3. Repeatable. F.S.  
Prereq: 12 credits in Psychology

PSYCH 595F: Seminar in Social Psychology: Health Psychology  
Prereq: 12 credits in Psychology

PSYCH 595G: Seminar in Social Psychology: Close Relationships  
Cr. 1-3. Repeatable. F.S.  
Prereq: 12 credits in Psychology
**PSYCH 595I: Seminar in Social Psychology: General**  
Cr. arr. Repeatable. F.S.  
Prereq: 12 credits in Psychology

**PSYCH 595J: Seminar in Social Psychology: Industrial Organizational Psychology**  
Cr. 1-3. Repeatable. F.  
Prereq: 12 credits in Psychology

**PSYCH 595K: Seminar in Social Psychology: Media Psychology**  
Cr. 1-3. Repeatable. S.  
Prereq: 12 credits in Psychology

**PSYCH 596: Seminar in Counseling Psychology**  
Cr. arr. Repeatable. F.S.  
Prereq: 12 credits in Psychology  
Seminar in the following areas in counseling psychology.

**PSYCH 596A: Seminar in Counseling Psychology: Supervision**  
Cr. arr. Repeatable. F.S.  
Prereq: 12 credits in Psychology

**PSYCH 596B: Seminar in Counseling Psychology: Research**  
Cr. arr. Repeatable. F.S.  
Prereq: 12 credits in Psychology

**PSYCH 596C: Seminar in Counseling Psychology: Multicultural**  
Cr. arr. Repeatable. F.S.  
Prereq: 12 credits in Psychology

**PSYCH 596D: Seminar in Counseling Psychology: Professional Issues and Ethics**  
Cr. arr. Repeatable. F.S.  
Prereq: 12 credits in Psychology

**PSYCH 596E: Seminar in Counseling Psychology: General**  
Cr. arr. Repeatable. F.S.  
Prereq: 12 credits in Psychology

**PSYCH 598: Seminar in Cognitive Psychology**  
Cr. 0. Repeatable. F.S.  
Prereq: PSYCH 516, PSYCH 501 or STAT 401  
Seminar in the following areas in cognitive psychology.

**PSYCH 598A: Seminar in Cognitive Psychology: Attention and Perception**  
Cr. arr. Repeatable. F.S.  
Prereq: PSYCH 516, PSYCH 501 or STAT 401

**PSYCH 598B: Seminar in Cognitive Psychology: Memory**  
Cr. arr. Repeatable. F.S.  
Prereq: PSYCH 516, PSYCH 501 or STAT 401

**PSYCH 598C: Seminar in Cognitive Psychology: Cognitive Neuroscience**  
Cr. arr. Repeatable. F.S.  
Prereq: PSYCH 516, PSYCH 501 or STAT 401

**PSYCH 598D: Seminar in Cognitive Psychology: Judgment and Decision Making**  
Cr. arr. Repeatable. F.S.  
Prereq: PSYCH 516, PSYCH 501 or STAT 401

**PSYCH 598E: Seminar in Cognitive Psychology: Evolution**  
Cr. arr. Repeatable. F.S.  
Prereq: PSYCH 516, PSYCH 501 or STAT 401

**PSYCH 598F: Seminar in Cognitive Psychology: Language**  
Cr. arr. Repeatable. F.S.  
Prereq: PSYCH 516, PSYCH 501 or STAT 401

**PSYCH 598G: Seminar in Cognitive Psychology: Applied**  
Cr. arr. Repeatable. F.S.  
Prereq: PSYCH 516, PSYCH 501 or STAT 401

**PSYCH 598I: Seminar in Cognitive Psychology: General**  
Cr. arr. Repeatable. F.S.  
Prereq: PSYCH 516, PSYCH 501 or STAT 401

**PSYCH 599: Creative Component**  
Cr. arr.  
Offered on a satisfactory-fail basis only.

**Courses for graduate students:**

**PSYCH 605: Multi-level Modeling**  
(Cross-listed with HD FS). (3-0) Cr. 3. Alt. S., offered odd-numbered years.  
Prereq: HD FS 503 and HD FS 505 or STAT 404 or permission of instructor  
Rationale for and interpretation of random coefficient models. Strategies  
for the analysis of multi-level and panel data including models for random  
intercepts, random slopes, and growth curves.

**PSYCH 621: Psychological Counseling -Theory and Process**  
(3-0) Cr. 3. F.  
Prereq: 3 courses in psychology and permission of instructor  
Overview of major counseling theories with emphases upon: key  
concepts of theories, the role of the counselor, and applications of theory  
in fostering client change.

**PSYCH 621L: Psychological Counseling -Theory and Process: Techniques in Counseling**  
(0-6) Cr. 3. F.  
Prereq: permission of instructor required  
Development of basic counseling skills and techniques through  
observation, role-playing, case studies, and supervised counseling  
sessions.
PSYCH 622: Psychological Counseling - Theory and Process: Techniques in Counseling
(Cross-listed with PSYCH). (0-6) Cr. 3. F.
Prereq: permission of instructor required
Development of basic counseling skills and techniques through observation, role-playing, case studies, and supervised counseling sessions.

PSYCH 623: Vocational Behavior
(3-0) Cr. 3.
Prereq: 3 courses in psychology or graduate classification
Theoretical views, research, and issues in career development through the life span. Methods of career counseling, including appraisal interviewing, assessment, test interpretation, and use of information sources.

PSYCH 626: Group Counseling
(2-2) Cr. 3.
Prereq: Graduate classification
Theory, research, ethical issues, and therapeutic considerations relevant to group counseling. Participation in lab exercises for development of group counseling skills and observation of ongoing groups.

PSYCH 633: Teaching of Psychology
(3-0) Cr. 3. S.
Prereq: Enrollment in doctoral degree program in psychology and permission of instructor
Orientation to teaching of psychology at college level: academic issues and problems, instructional and evaluative techniques.

PSYCH 661: Adult Psychopathology
(3-0) Cr. 3.
Prereq: Doctoral student enrolled in the ISU Counseling Psychology program or by permission of the instructor.
Examination of DSM and research based perspectives pertinent to the major forms of adult psychopathology including: anxiety, mood, psychotic, personality and other disorders. Coverage of research examining causes, development, and clinical issues concerning adult psychopathology.

PSYCH 691: Practicum in Psychology
Cr. arr. F.S.
Prereq: Prereg: Permission of instructor
Supervised practice and experience in the following fields of specialization in applied psychology.

PSYCH 691B: Practicum in Psychology: Counseling (Intermediate)
Cr. 1-3. Repeatable, maximum of 6 credits. F.S.
Prereq: Permission of instructor, PSYCH 691A

PSYCH 691C: Practicum in Psychology: Counseling (Advanced)
Cr. 1-3. Repeatable, maximum of 6 credits. F.S.
Prereq: Permission of instructor, PSYCH 691A, PSYCH 691B

PSYCH 691D: Practicum in Psychology: Counseling (Advanced External Practicum)
Cr. 1-3. Repeatable. F.S.
Prereq: Permission of instructor, PSYCH 691A, PSYCH 691B

PSYCH 691G: Practicum in Psychology: Group Counseling
Cr. 1-3. F.S.
Prereq: Prereg: Permission of instructor, PSYCH 626, PSYCH 691A

PSYCH 691S: Practicum in Psychology: Supervision
Cr. 1-3. F.S.
Prereq: Permission of instructor, PSYCH 592A, PSYCH 621L

PSYCH 691T: Practicum in Psychology: Teaching
Cr. 1-3. Repeatable, maximum of 6 credits. F.S.
Prereq: Permission of instructor, PSYCH 633
Offered on a satisfactory-fail basis only.

PSYCH 691Z: Practicum in Psychology: General
Cr. 1-3. Repeatable, maximum of 6 credits. F.S.
Prereq: Permission of instructor

PSYCH 692: Research Seminar
(1-0) Cr. 1-3. Repeatable.
Prereq: Permission of instructor
Research seminar in the following areas.

PSYCH 692A: Research Seminar: Counseling
(1-0) Cr. 1-3. Repeatable.
Prereq: Permission of instructor

PSYCH 692Q: Research Seminar: Cognitive
(1-0) Cr. 1-3. Repeatable.
Prereq: Permission of instructor

PSYCH 692R: Research Seminar: Social
(1-0) Cr. 1-3. Repeatable.
Prereq: Permission of instructor

PSYCH 692Z: Research Seminar: General
(1-0) Cr. 1-3. Repeatable.
Prereq: Permission of instructor
PSYCH 697: Internship in Counseling Psychology
Cr. R.
Prereq: Ph.D. candidacy in the Counseling Psychology program, approved dissertation proposal, and permission of instructor
Full time supervised predoctoral internship experience in a setting relevant to counseling psychology.

PSYCH 699: Research
Cr. arr. Repeatable.
Offered on a satisfactory-fail basis only.