

PSYCHOLOGICAL SCIENCE

Psychology is the scientific study of behavior and cognitive processes. Psychology is both a natural science, which stresses the cognitive and physiological causes of behavior, and a social science, which is directed at understanding how human behavior is affected by cultural and social factors. As a psychology major at Missouri S&T, you will be exposed to the many diverse areas of psychology.

Perception, memory, thinking, personality, emotion, motivation, stress and adjustment, abnormal behavior, social relations, and group dynamics are among the basic areas of research in psychology. The discipline also represents the application of these basic research areas to people, their work, and their environment. Clinical, counseling, educational, industrial/organizational, and human factors psychologists are among the professionals who apply basic research to the solution of human problems. Our department provides a broad education to Missouri S&T students in both the basic and applied areas of psychology.

The statistics and research methods courses required of our majors prepare you to engage in undergraduate research as early as your first year. By collaborating with a faculty member on a research project, you will gain valuable experience for subsequent graduate studies in psychology and related fields or for employment. Supervised internship experience in applied psychological settings, such as human service agencies, is also available for qualified students.

The department offers a choice of two degrees for majors. The Bachelor of Science degree provides a solid foundation in mathematics, biological sciences, and physical sciences. The bachelor of arts degree provides a broad liberal arts foundation, including courses in western civilization and foreign languages. Supporting courses in the humanities and social sciences are offered in both degrees and the psychology requirements are the same in both. In addition to the traditional B.A.-B.S. degrees in psychology, the department also offers specialized B.A.-B.S. degrees in psychology that prepare the student for secondary education teaching certification in Missouri.

The department of psychological science offers seven minors: a general minor, industrial/organizational, psychology for health care, human factors psychology, psychology of leadership, cognitive neuroscience, and a minor in multiculturalism and diversity. The general psychology minor allows non-majors to select from a variety of courses tailored to their needs. The minor in industrial/organizational psychology requires specific courses of benefit to engineering and science majors. The minor in the psychology of leadership is geared for those individuals who would like to become leaders and managers. The cognitive neuroscience minor is designed to give students a broad understanding of neuroscience principles. The psychology for health care minor is helpful for students on the pre-med track or interested in clinical, counseling, or community psychology. The multicultural and diversity minor allows students to select courses across three of four departments, including psychological science, to increase their awareness of multiculturalism and diversity.

To help majors and non-majors alike tailor their degree plans, we also offer five certificates: healthcare psychology, human factors psychology, industrial/organizational psychology, psychology of diversity and inclusion, and neuroscience. These certificates allow for clearer designation on transcripts for future employers and graduate schools who may be interested in specific courses the student has taken. The neuroscience certificate is an interdisciplinary certificate housed in the psychological science department but incorporating courses from

biological sciences, chemistry, computer science, electrical & computer engineering, information systems & technology, and philosophy.

Bachelor of Arts Psychological Science

A minimum of 120 credit hours is required for a bachelor of arts degree in psychological science and an average of at least two grade points per credit hour must be obtained. The psychological science B.A. curriculum requires 6 hours of English Composition, 14 hours of math and science, 12 semester hours in humanities, 12 semester hours is required in social sciences, 12-16 hours of foreign language and a minimum of 35 hours are required in psychology. Up to 12 credit hours of advanced ROTC may be credited toward the degree. Specific requirements for the bachelor of arts degree are outlined in the sample program listed below. Additionally, students must complete all general education requirements as stated in the catalog, and as applicable to the student's catalog year. These requirements are built into the degree program.

1. ENGLISH 1120 and one additional three hour composition course (6 hours).
2. Western civilization (HISTORY 1100 and HISTORY 1200) (6 hours).
3. Foreign languages for at least 3 semesters of basic study in French, German, Russian, Spanish or an approved substitute; or one year of basic study in a foreign language in either French, German, Russian, Spanish, or an approved substitute, and a humanities or social sciences course taught in a foreign country and employing the language of that country; or one year of basic study in each of two of the foreign languages of French, German, Russian or Spanish or an approved substitute (12-16 hours).
4. Sciences. At least one course taken in biological (biological sciences) and physical (chemistry, geology and geophysics, physics) sciences. A laboratory course is required (and a lab offered in engineering also may count at the discretion of the student's major advisor) toward the total requirement. STAT 1115 is required, and an additional elective in Science or Math (14 hours).
5. Humanities and fine arts. Courses used to satisfy this requirement must include one course in each of the three areas of literature (English or American), philosophy, and fine arts (art, music or theater), but not to include studio and performance offerings (12 hours).
6. Social Sciences. At least two of the following social science areas are to be included: economics, political science, or history (6 hours).
7. Psychology Courses (35 hours)

Required*

General Skills Courses:

PSYCH 1100	Introduction to Psychology	1
PSYCH 1101	General Psychology	3
PSYCH 2200	Research Methods	4

Content Courses:

PSYCH 3310	Developmental Psychology	3
PSYCH 4400	Cognitive Psychology	3
PSYCH 4501	Abnormal Psychology	3
PSYCH 4600	Social Psychology	3

And one of the following 2 courses:

PSYCH 4410	Neuroscience	3
PSYCH 4411	Sensation and Perception	3

Capstone Course:

Select three credit hours from the Capstone courses:

PSYCH 4995	Rationality	3
PSYCH 4720	Psychology of Social Technology	3
PSYCH 4590	Health Psychology	3
PSYCH 4992	Cross-Cultural Psychology	3
PSYCH 4993	Psychology of Gender	3
PSYCH 4990	Internship	0-6
PSYCH 4099	Undergraduate Research	0-6

*These required courses total 26 hours.

Elective Courses:

Select an additional 9 hours of psychology electives to complete the 35 hour degree requirement.

- Major-field requirements: A cumulative grade point average of 2.0 must be earned in all course work taken in the major field. Upper-class (3000-4000-level) courses completed with grades of "D" may not be included in the course work for the major field without the approval of the chair of the department. At least nine hours of upper-class work in the major field must be completed in residence at Missouri S&T.
- Minor: A minor will be selected from any discipline other than the major with the approval of the student's advisor. A total of at least 15 hours is required for the minor, but may include courses which also satisfy other requirements. At least nine hours must be beyond the introductory level. A cumulative grade point average of 2.0 must be earned in all course work required in the minor field. At least six hours of work in the minor field must be completed in residence at Missouri S&T.
- Basic ROTC may be elected in the freshman and sophomore years, but is not creditable toward a degree. Up to 12 credit hours of advanced ROTC may be credited toward a degree.
- Elective Credits: In consultation with his/her advisor, each student will elect sufficient additional courses to complete a minimum of 120 credit hours.

Emphasis Areas

Note: The following areas identify courses from which a student may opt to develop an emphasis area. It is not required that students obtain an emphasis specialty within psychological science. At least one class for each emphasis area is already required for all majors, so the remaining three may be taken as the additional 9 hours of required psychology electives. In this way, getting an emphasis requires no additional courses, just less flexibility in which courses you take.

Industrial/Organizational Psychology

PSYCH 4700	Industrial Psychology	3
PSYCH 4602	Organizational Psychology	3

And 2 of the following 4:

PSYCH 4500	Personality Theory	3
PSYCH 4600	Social Psychology	3
PSYCH 4601	Group Dynamics	3
PSYCH 4610	Psychology of Leadership in Organizations	3

Health Psychology

PSYCH 4590	Health Psychology	3
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And 3 of the following 4:

PSYCH 4501	Abnormal Psychology	3
PSYCH 3501	Drugs and Behavior	3
PSYCH 4510	Clinical Psychology	3
PSYCH 4990	Internship	0-6

Cognition and Neuroscience

PSYCH 4400	Cognitive Psychology	3
PSYCH 4410	Neuroscience	3

And 2 of the following 3:

PSYCH 4411	Sensation and Perception	3
PSYCH 3501	Drugs and Behavior	3
PSYCH 4501	Abnormal Psychology	3

Human Factors

PSYCH 4400	Cognitive Psychology	3
PSYCH 4710	Human Factors	3

And 2 of the following 3:

PSYCH 4720	Psychology of Social Technology	3
PSYCH 4411	Sensation and Perception	3
PSYCH 4700	Industrial Psychology	3

Diversity and Inclusion

PSYCH 4600	Social Psychology	3
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And 3 of the following 4:

PSYCH 4993	Psychology of Gender	3
PSYCH 4500	Personality Theory	3
PSYCH 4992	Cross-Cultural Psychology	3
PSYCH 4310	Psychology Of The Exceptional Child	3

Bachelor of Arts Psychological Science (Secondary Education Emphasis Area)

You may earn a B.A. degree in psychological science from Missouri S&T and certification to teach at the secondary level in the schools of Missouri with the secondary education emphasis area program.

To be eligible for student teaching and certification, students must have a 2.5 content GPA and a 3.0 education GPA. Students must also pass the appropriate content assessment. Missouri S&T allows students to choose their student teaching placement, if the district agrees and a qualified cooperating teacher is available. This program is approved by the Missouri Department of Elementary and Secondary Education.

License reciprocity determinations outside of Missouri can be found at <https://teaching.missouri.edu/student/state-authorization/mst/licensure> (<https://teaching.missouri.edu/student/state-authorization/mst/licensure/>).

A degree with this emphasis area requires 122 credit hours. The required courses are provided below.

Communications Skills: 6 semester hours

ENGLISH 1120	Exposition And Argumentation	3
ENGLISH 1160	Writing And Research	3

Humanities: 9 semester hours

ART 1180	Art Appreciation	3
or MUSIC 1150	Music Appreciation: Music of Latin America	
or THEATRE 1150	Theatre for Social Change	
Philosophy course		3
ENGLISH 1211	British Literature I: The Beginnings To 1800	3
or ENGLISH 1212	British Literature II 1800 To Present	
or ENGLISH 1221	American Literature: 1600 To 1865	
or ENGLISH 1222	American Literature: 1865 To Present	
or ENGLISH 1231	World Literature I: From The Beginnings To The Renaissance	

Social Sciences: 21 semester hours

HISTORY 1300	American History To 1877	3
HISTORY 1310	American History Since 1877	3
POL SCI 1200	American Government	3
POL SCI 3211	American Political Parties	3
or POL SCI 3300	Principles Of Public Policy	
or POL SCI 3760	The American Presidency	
or POL SCI 3763	Contemporary Political Thought	
PSYCH 1101	General Psychology	3

ECON 1100	Principles Of Microeconomics	3
or ECON 1200	Principles Of Macroeconomics	
Geography		3
Natural Science/Mathematics: 13 semester hours		
One course in Physics, Chemistry or Geology		3
Natural Sciences Lab		1
Mathematics 1120, 1103, 1140+		3
STAT 1115	Statistics For The Social Sciences I	3
BIO SCI 1113	General Biology	3
Professional Requirements: 25 semester hours		
EDUC 1074	Foundations of Education in a Diverse Society	3
EDUC 2251	Historical Foundation Of American Education	3
EDUC 3170	Teaching Reading and Writing in Middle/High School	3
EDUC 3216	Instructional Literacy in the Content Area	3
EDUC 3280	Instructional Strategies in the Content Area	3
EDUC 4298	Student Teaching Seminar	1
PSYCH 2300	Educational Psychology	3
PSYCH 3311	Psychological & Educational Development Of The Adolescent	3
PSYCH 4310	Psychology Of The Exceptional Child	3
Clinical Experience: 16 semester hours		
EDUC 1104	Teacher Field Experience I	1
EDUC 1164	Teacher Field Experience II	2
EDUC 3298	Teacher Field Experience III	1
EDUC 4299	Student Teaching	12
Psychology Degree Requirements: 17 semester hours		
PSYCH 1100	Introduction to Psychology	1
PSYCH 2200	Research Methods	4
PSYCH 3310	Developmental Psychology	3
PSYCH 4400	Cognitive Psychology	3
PSYCH 4501	Abnormal Psychology	3
PSYCH 4600	Social Psychology	3
Certification: 15 semester hours		
6 hours of American History from the following:		
HISTORY 3320	Colonial America	
HISTORY 3325	Revolutionary America, 1754-1789	
HISTORY 3340	Age Of Jefferson And Jackson	
HISTORY 3345	Civil War And Reconstruction	
HISTORY 3360	Recent United States History	
HISTORY 3425	History Of The Old South	
HISTORY 3426	History Of The Modern South	
HISTORY 3480	History Of Baseball	
HISTORY 3440	Grunts: 20th Century Americans In Combat	
HISTORY 3442	The United States in Vietnam	
HISTORY 3761	U.S. Diplomatic History to World War II	
HISTORY 4435	History of the American West	
9 hours of World History from the following:		
HISTORY 1100	Early Western Civilization	
HISTORY 1200	Modern Western Civilization	
HISTORY 2220	Making Of Modern Britain	
HISTORY 2222	The Making Of Modern France	
HISTORY 2224	Making Of Modern Russia	
HISTORY 3130	Medieval History I	
HISTORY 3135	Medieval History II	
HISTORY 3140	History Of Renaissance Thought	
HISTORY 3230	Europe In The Age Of The French Revolution And Napoleon	
HISTORY 3235	Foundations Of Contemporary Europe 1815-1914	
HISTORY 3240	Contemporary Europe	
HISTORY 3660	Modern East Asia	

Bachelor of Science Psychological Science

A minimum of 120 credit hours is required for a bachelor of science degree in psychological science and a cumulative grade point average of 2.0 must be obtained. These requirements for the B.S. degree are in addition to credit received for basic ROTC.

The psychological science bachelor of science curriculum requires six hours of English composition; twenty hours of math, science and computer science; twelve semester hours in the humanities; and twelve semester hours in the social sciences. Specific requirements for the bachelor degree are outlined in the sample program listed below. Additionally, students must complete all general education requirements as stated in the catalog, and as applicable to the student's catalog year. These requirements are built into the degree program.

1. ENGLISH 1120 and ENGLISH 1160 (entering students will normally take ENGLISH 1120 either semester of the first year.) (6 hours)
2. A total of 20 hours in biological, physical, (chemistry, geology and geophysics, and physics), and mathematical (mathematics/statistics and computer science or information science & technology) sciences, to include at least one course taken in the biological and one in the physical sciences. Of the biological and physical science offerings, at least one must be a laboratory course. STAT 1115 is required. Engineering courses may, at the discretion of the student's major advisor, also count toward this total requirement. (20 hours)
3. 12 hours in humanities and fine arts (literature, philosophy, art, music, or theater). Foreign language courses may count toward fulfilling this requirement. Courses used to satisfy this requirement must be taken in at least two humanities areas. (12 hours)
4. 12 hours in at least two social sciences fields outside the major area (economics or history or political science). A course in Modern Western Civilization (HISTORY 1200), American History To 1877 (HISTORY 1300) or American History Since 1877 (HISTORY 1310), or American Government (POL SCI 1200) must be taken to satisfy the requirement of the state of Missouri (the "Williams Law"), and this course may count toward fulfilling the social sciences requirement. (12 hours)
5. Minor: A minor will be selected from any discipline other than the major with the approval of the student's advisor. A total of at least 15 hours is required for the minor, but may include courses which also satisfy other requirements. At least nine hours must be beyond the introductory level.
6. Basic ROTC may be elected in the freshman and sophomore years, but is not creditable toward a degree. Six credit hours of advanced ROTC may be credited toward a degree.
7. Elective Credits: In consultation with his/her advisor, each student will elect sufficient additional courses to complete a minimum of 120 credit hours which may include MATH 1160 and one of MATH 1120 or MATH 1140 .
8. Psychology Courses (35 hours)

Required:*

General Skills Courses:

PSYCH 1100	Introduction to Psychology	1
PSYCH 1101	General Psychology	3
PSYCH 2200	Research Methods & Statistics 1	4

Content Courses:

PSYCH 3310	Developmental Psychology	3
PSYCH 4400	Cognitive Psychology	3
PSYCH 4501	Abnormal Psychology	3

PSYCH 4600	Social Psychology	3
And one of the following 2 courses:		
PSYCH 4410	Neuroscience	3
PSYCH 4411	Sensation and Perception	3
Capstone Course:		
Select three credit hours from the following Capstone courses:		
PSYCH 4995	Rationality	3
PSYCH 4720	Psychology of Social Technology	3
PSYCH 4590	Health Psychology	3
PSYCH 4992	Cross-Cultural Psychology	3
PSYCH 4993	Psychology of Gender	3
PSYCH 4990	Internship	0-6
PSYCH 4099	Undergraduate Research	0-6
*These required courses total 26 hours.		
Elective Courses:		
Select an additional 9 hours of psychology electives to complete the 35 hour degree requirement.		

9. A cumulative grade point average of 2.0 must be earned in all course work taken in the major field. Upper class (3000-level and above) courses completed with grades of "D" may not be included in the course work for the major field without the approval of the advisor and the chair of the department concerned.

Emphasis Areas

Note: The following areas identify courses from which a student may opt to develop an emphasis area. It is not required that students obtain an emphasis specialty within psychological science. At least one class for each emphasis area is already required for all majors, so the remaining three may be taken as the additional 9 hours of required psychology electives. In this way, getting an emphasis requires no additional courses, just less flexibility in which courses you take.

Industrial/Organizational Psychology

PSYCH 4700	Industrial Psychology	3
PSYCH 4602	Organizational Psychology	3
And 2 of the following 4:		
PSYCH 4600	Social Psychology	3
PSYCH 4601	Group Dynamics	3
PSYCH 4500	Personality Theory	3
PSYCH 4610	Psychology of Leadership in Organizations	3

Health Psychology

PSYCH 4590	Health Psychology	3
And 3 of the following 4:		
PSYCH 4501	Abnormal Psychology	3
PSYCH 4510	Clinical Psychology	3
PSYCH 3501	Drugs and Behavior	3
PSYCH 4990	Internship	0-6

Cognition and Neuroscience

PSYCH 4400	Cognitive Psychology	3
PSYCH 4410	Neuroscience	3
And 2 of the following 3:		
PSYCH 4411	Sensation and Perception	3
PSYCH 3501	Drugs and Behavior	3
PSYCH 4501	Abnormal Psychology	3

Human Factors

PSYCH 4400	Cognitive Psychology	3
PSYCH 4710	Human Factors	3
And 2 of the following 3:		
PSYCH 4720	Psychology of Social Technology	3
PSYCH 4700	Industrial Psychology	3
PSYCH 4411	Sensation and Perception	3

Diversity and Inclusion		
PSYCH 4600	Social Psychology	3
And 3 of the following 4:		
PSYCH 4993	Psychology of Gender	3
PSYCH 4992	Cross-Cultural Psychology	3
PSYCH 4310	Psychology Of The Exceptional Child	3
PSYCH 4500	Personality Theory	3

Bachelor of Science Psychological Science (Secondary Education Emphasis Area)

You may earn a B.S. degree in psychological science from Missouri S&T and certification to teach at the secondary level in the schools of Missouri with the secondary education emphasis area program.

To be eligible for student teaching and certification, students must have a 2.5 content GPA and a 3.0 education GPA. Students must also pass the appropriate content assessment. Missouri S&T allows students to choose their student teaching placement, if the district agrees and a qualified cooperating teacher is available. This program is approved by the Missouri Department of Elementary and Secondary Education.

License reciprocity determinations outside of Missouri can be found at <https://teaching.missouri.edu/student/state-authorization/mst/licensure> (<https://teaching.missouri.edu/student/state-authorization/mst/licensure/>).

A degree with this emphasis area requires 122 credit hours. The required courses are provided below.

Communications Skills: 6 semester hours

ENGLISH 1120	Exposition And Argumentation	3
ENGLISH 1160	Writing And Research	3

Humanities: 6 semester hours

6 Credits in Humanities & Fine Arts, selected from two disciplines across

ART 1180	Art Appreciation	3
or MUSIC 1150	Music Appreciation: Music of Latin America	
or THEATRE 1150	Theatre for Social Change	
or ENGLISH 1211	British Literature I: The Beginnings To 1800	
or ENGLISH 1212	British Literature II 1800 To Present	
or ENGLISH 1221	American Literature: 1600 To 1865	
or ENGLISH 1222	American Literature: 1865 To Present	
or ENGLISH 1231	World Literature I: From The Beginnings To The Renaissance	

Social Sciences: 21 semester hours

HISTORY 1300	American History To 1877	3
HISTORY 1310	American History Since 1877	3
POL SCI 1200	American Government	3
POL SCI 3211	American Political Parties	3
or POL SCI 3300	Principles Of Public Policy	
or POL SCI 3760	The American Presidency	
or POL SCI 3763	Contemporary Political Thought	
PSYCH 1101	General Psychology	3
ECON 1100	Principles Of Microeconomics	3
or ECON 1200	Principles Of Macroeconomics	
HISTORY 2110	World Regional Geography	3

Natural Sciences/Mathematics: 16 semester hours

One course in Physics, Chemistry or Geology		3
Natural Sciences Lab		1
Mathematics 1120, 1140+		3
BIO SCI 1113	General Biology	3
STAT 1115	Statistics For The Social Sciences I	3
3 additional hours of Math &/or Science courses		3

Professional Requirements: 25 semester hours		
EDUC 1074	Foundations of Education in a Diverse Society	3
EDUC 2251	Historical Foundation Of American Education	3
EDUC 3170	Teaching Reading and Writing in Middle/High School	3
EDUC 3216	Instructional Literacy in the Content Area	3
EDUC 3280	Instructional Strategies in the Content Area	3
EDUC 4298	Student Teaching Seminar	1
PSYCH 2300	Educational Psychology	3
PSYCH 3311	Psychological & Educational Development Of The Adolescent	3
PSYCH 4310	Psychology Of The Exceptional Child	3
Clinical Experience: 16 semester hours		
EDUC 1104	Teacher Field Experience I	1
EDUC 1164	Teacher Field Experience II	2
EDUC 3298	Teacher Field Experience III	1
EDUC 4299	Student Teaching	12
Psychology Degree Requirements: 17 semester hours		
PSYCH 1100	Introduction to Psychology	1
PSYCH 2200	Research Methods & Statistics 1	4
PSYCH 3310	Developmental Psychology	3
PSYCH 4400	Cognitive Psychology	3
PSYCH 4501	Abnormal Psychology	3
PSYCH 4600	Social Psychology	3
Certification: 15 semester hours		
6 hours of American History from the following:		
HISTORY 3320	Colonial America	
HISTORY 3325	Revolutionary America, 1754-1789	
HISTORY 3340	Age Of Jefferson And Jackson	
HISTORY 3345	Civil War And Reconstruction	
HISTORY 3360	Recent United States History	
HISTORY 3425	History Of The Old South	
HISTORY 3426	History Of The Modern South	
HISTORY 3480	History Of Baseball	
HISTORY 3440	Grunts: 20th Century Americans In Combat	
HISTORY 3442	The United States in Vietnam	
HISTORY 3761	U.S. Diplomatic History to World War II	
HISTORY 4435	History of the American West	
9 hours of World History from the following:		
HISTORY 1100	Early Western Civilization	
HISTORY 1200	Modern Western Civilization	
HISTORY 2220	Making Of Modern Britain	
HISTORY 2222	The Making Of Modern France	
HISTORY 2224	Making Of Modern Russia	
HISTORY 3130	Medieval History I	
HISTORY 3135	Medieval History II	
HISTORY 3140	History Of Renaissance Thought	
HISTORY 3230	Europe In The Age Of The French Revolution And Napoleon	
HISTORY 3235	Foundations Of Contemporary Europe 1815-1914	
HISTORY 3240	Contemporary Europe	
HISTORY 3660	Modern East Asia	

The department of psychological science offers seven minors: a general minor, industrial/organizational, psychology for health care, human factors psychology, psychology of leadership, cognitive neuroscience, and a minor in multiculturalism and diversity. Nine (9) hours of work in any of these minors in psychology must be completed in residence at Missouri S&T. A student may only receive one of the seven minors.

Psychology Minor

General psychology minor requires 15 hours of courses in psychology. At least nine of these hours must be at the 3000-level or above.

Human Factors Psychology Minor

PSYCH 1101	General Psychology	3
PSYCH 4710/ ENG MGT 4330	Human Factors	3
PSYCH 4400	Cognitive Psychology	3
And two of the following courses:		
PSYCH 4411	Sensation and Perception	3
PSYCH 4720	Psychology of Social Technology	3
PSYCH 4700	Industrial Psychology	3

Industrial/Organizational Psychology Minor

Requirements include:

PSYCH 1101	General Psychology	3
PSYCH 4700	Industrial Psychology	3
PSYCH 4602	Organizational Psychology	3
and 2 of the following		
PSYCH 4600	Social Psychology	3
PSYCH 4500	Personality Theory	3
PSYCH 4601	Group Dynamics	3
PSYCH 4610	Psychology of Leadership in Organizations	3

Psychology for Health Care Minor

Minor requires a minimum of 15 hours.

Required Courses:

PSYCH 1101	General Psychology	3
PSYCH 4590	Health Psychology	3
Choose 3 of the Following Courses:		
PSYCH 4410	Neuroscience	3
PSYCH 4501	Abnormal Psychology	3
PSYCH 3501	Drugs and Behavior	3
PSYCH 4510	Clinical Psychology	3
PSYCH 4990	Internship	0-6

Psychology of Leadership

Requirements include the following:

PSYCH 1101	General Psychology	3
PSYCH 4610	Psychology of Leadership in Organizations	3
and 3 of the following 5 courses are required:		
PSYCH 4600	Social Psychology	3
PSYCH 4601	Group Dynamics	3
PSYCH 4602	Organizational Psychology	3
PSYCH 4992	Cross-Cultural Psychology	3
PSYCH 4993	Psychology of Gender	3

Cognitive Neuroscience Minor

Requirements include:

PSYCH 1101	General Psychology	3
PSYCH 4400	Cognitive Psychology	3
PSYCH 4410	Neuroscience	3
and two of the following courses:		
PSYCH 4411	Sensation and Perception	3
PSYCH 4501	Abnormal Psychology	3
PSYCH 3501	Drugs and Behavior	3

Multiculturalism & Diversity Minor

The Multiculturalism and Diversity Minor prepares students to function more effectively in a global society as well as enhances Missouri S&T graduates' employment options by providing knowledge, skills, and strategies for appreciating and understanding diverse cultural practices.

The minor requires 15 hours in a minimum of 3 of 4 humanities and social sciences (HSS) departments: the departments of arts, languages and philosophy; English and technical communication; history and political science; and psychological science. The academic home for this minor will be the arts, languages and philosophy department. Courses offered by these departments that can be included in the minor are listed below.

Arts, Languages & Philosophy:	
One language course at the third semester or above in a foreign language (German, Spanish, French, or Russian) *	
PHILOS 4340	From Activism to Zoos: Issues in Social Ethics
RUSSIAN 4360	Russian Civilization
SP&M S 3235	Intercultural Communication
English and Technical Communication:	
ENGLISH 1231	World Literature I: From The Beginnings To The Renaissance
History and Political Science:	
HISTORY 3280	European Migrations and Nationalism Formation
HISTORY 3660	Modern East Asia
HISTORY 3665	History of Japan
POL SCI 2500	International Relations
POL SCI 4510	The Politics of the Global South
Psychology:	
PSYCH 4993	Psychology of Gender
PSYCH 4992	Cross-Cultural Psychology

* Language Courses at the 3rd Semester or above that qualify for the minor:

FRENCH 1180	Intermediate French
FRENCH 2110	Basic French Conversation
FRENCH 2170	Masterpieces Of French Literature
FRENCH 2180	Basic French Composition
FRENCH 4311	Advanced French Conversation
FRENCH 4320	French and Francophone Cinema
GERMAN 1180	Classical And Modern German Readings
GERMAN 2110	Basic German Conversation
GERMAN 2170	Masterpieces Of German Literature
RUSSIAN 1180	Readings In Science And Literature
RUSSIAN 2110	Basic Russian Conversation
RUSSIAN 2170	Masterpieces Of Russian Literature
RUSSIAN 4320	Russian Phonetics and Intonation
RUSSIAN 4360	Russian Civilization
RUSSIAN 4370	Survey Of Russian Literature I (Early Period)
SPANISH 1180	Intermediate Spanish
SPANISH 2110	Basic Spanish Conversation
SPANISH 2160	Hispanic Culture
SPANISH 2170	Masterpieces Of Hispanic Literature
SPANISH 2180	Intermediate Spanish Composition
SPANISH 4311	Advanced Spanish Conversation
SPANISH 4302	Phonetics and Phonology of Spanish

The Psychological Science department offers five different certificate programs, which can be completed by any student, regardless of major or minor status.

Healthcare Psychology Undergraduate Certificate

Students will utilize the biopsychosocial model and other psychological paradigms as they engage in the intersecting factors related to different aspects of health care. The undergraduate certificate in Healthcare Psychology aims to prepare students to pursue more advanced training in a health-related field or employment consistent with undergraduate training. For example, this certificate would be applicable to pre-med, nursing, or other related medical fields as well as to students interested

in pursuing post-graduate training in clinical or counseling psychology including the substance use field.

To be admitted to S&T’s undergraduate certificate program in Healthcare Psychology a student must meet Missouri S&T regular undergraduate admission requirements. In order to receive an undergraduate certificate, the student must have an average cumulative grade point of 2.0 or better in the certificate courses. The certificate credits taken by the students will count towards their bachelor’s degree.

Students must complete the following coursework:

PSYCH 4590	Health Psychology	3
And 3 of the following 4 courses:		
PSYCH 3501	Drugs and Behavior	3
PSYCH 4501	Abnormal Psychology	3
PSYCH 4510	Clinical Psychology	3
PSYCH 4990	Internship	3-6

Human Factors Psychology Undergraduate Certificate

Students will gain an understanding of how human abilities and characteristics influence everyday interactions with technologies and technological systems. The undergraduate certificate in Human Factors Psychology is designed to give students a deeper understanding of the human factors that affect and are affected by technology design. Students will gain foundational knowledge required to engage in human-centered design and will learn skills needed to critically evaluate and predict interactions between human abilities and characteristics and technology design. These skills are critical to understanding things such as human error, accessibility, user-satisfaction, equitable design, and much more. The certificate is highly diverse in its potential application in the real-world and will be useful to students pursuing multiple career paths. For example, careers that use technology for communication, that adhere to (or develop) occupational health and safety standards, that use or develop information systems, or that delivery services, knowledge, or experiences to people.

To be admitted to S&T’s undergraduate certificate program in Human Factors Psychology, a student must meet Missouri S&T regular undergraduate admission requirements. In order to receive an undergraduate certificate, the student must have an average cumulative grade point of 2.0 or better in the certificate courses. The certificate credits taken by the students will count towards their bachelor’s degree.

Students must complete the following coursework:

PSYCH 4400	Cognitive Psychology	3
PSYCH 4710	Human Factors	3
And 2 of the following 3 courses:		
PSYCH 4411	Sensation and Perception	3
PSYCH 4700	Industrial Psychology	3
PSYCH 4720	Psychology of Social Technology	3

Industrial/Organizational Psychology Undergraduate Certificate

The psychological science department will offer an undergraduate certificate in Industrial-Organizational psychology. This certificate will provide students with a foundation in how our understanding of people can improve how we understand organizations and workplaces.

Most of the adult population spends the majority of their time at work, and all students who graduate from S&T are in the market for gainful employment. Thus, understanding how organizations work, the role of individuals in the success of organizations, and the intersection of employee experiences and well-being with organizational effectiveness and strategy is directly relevant for anyone who wants to find success in their day-to-day employment. The courses in this certificate will help students understand organizational processes, employee-centered processes, and leadership, as well as foundational understanding of group and individual differences that influence all levels of employee-organization interaction.

To be admitted to S&T's undergraduate certificate program in Industrial/Organizational Psychology, a student must meet Missouri S&T regular undergraduate admission requirements. In order to receive an undergraduate certificate, the student must have an average cumulative grade point of 2.0 or better in the certificate courses. The certificate credits taken by the students will count towards their bachelor's degree.

Students must complete the following coursework:

PSYCH 4700	Industrial Psychology	3
PSYCH 4602	Organizational Psychology	3
And 2 of the following 4 courses:		
PSYCH 4500	Personality Theory	3
PSYCH 4600	Social Psychology	3
PSYCH 4601	Group Dynamics	3
PSYCH 4610	Psychology of Leadership in Organizations	3

Neuroscience Undergraduate Certificate

The psychological science and biological sciences departments will offer an undergraduate certificate in Neuroscience. Students will take one required course in neuroscience, as well as a selection of additional courses relevant to neuroscience from a broad array of departments.

Neuroscience is a highly interdisciplinary field, and adequate training in neuroscience therefore requires coursework beyond a single discipline. The Undergraduate Certificate in Neuroscience is designed to address the interdisciplinary nature of the field, in order to provide students with a more comprehensive background in neuroscience. This certificate program will provide students the opportunity to take courses across the spectrum of neuroscience, ranging from behavioral and cognitive to cellular and molecular approaches. Additionally, elective courses allow students to see the breadth of possibilities in neuroscience – ranging from applications in computer science and engineering to philosophy of mind. This program is targeted towards students in a wide variety of majors who are interested in neuroscience.

To be admitted to S&T's undergraduate certificate program in Neuroscience, a student must meet Missouri S&T regular undergraduate admission requirements. In order to receive an undergraduate certificate, the student must have an average cumulative grade point of 3.0 or better in the certificate courses. The certificate credits taken by the students will count towards their bachelor's degree.

Students must take 12 total credit hours, as follows, to complete the requirements of the certificate. At least one course must come from the biological sciences department (i.e., students cannot take all four courses from the psychological science department).

Required course:		
PSYCH 4410	Neuroscience	3
Choose 2 of the following 5:		

BIO SCI 4533	Neurobiology	3
Neurobiology is strongly recommended, but not offered every year, so if necessary students can choose two other courses		
BIO SCI 4663	Animal Behavior	3
PSYCH 3501	Drugs and Behavior	3
PSYCH 4400	Cognitive Psychology	3
PSYCH 4411	Sensation and Perception	3
And one more class from the previous list or these additional options:		
BIO SCI 2223	General Genetics	3
BIO SCI 2243	Sleep: Function and Dysfunction	3
BIO SCI 3333	Human Anatomy and Physiology I	3
BIO SCI 5353	Developmental Biology	3
BIO SCI 5533	Pharmacology	3
CHEM 5650	Introduction to Medicinal Chemistry	3
COMP ENG 5310	Computational Intelligence	3
COMP SCI 5401	Evolutionary Computing	3
COMP SCI 5404	Introduction to Computer Vision	3
COMP SCI 5700	Bioinformatics	3
ELEC ENG 5320	Neural Networks Control and Applications	3
IS&T 5885	Human-Computer Interaction and User Experience	3
PSYCH 4501	Abnormal Psychology	3
PSYCH 4590	Health Psychology	3
PHILOS 4320	Minds And Machines	3

Psychology of Diversity and Inclusion Undergraduate Certificate

The Department of Psychological Science will offer an undergraduate certificate in Psychology of Diversity and Inclusion. Students will explore how diversity and inclusion shape and are shaped by psychological and sociocultural processes. The undergraduate certificate in Psychology of Diversity and Inclusion will help students develop the knowledge, skills, and aptitudes necessary to successfully work and lead in an increasingly diverse society. This certificate will help prepare students to take on leadership roles, work in diverse organizations, and serve diverse clientele by providing important contextual, cultural, and interpersonal skills, including empathy, perspective-taking, and critical thinking around issues of diversity and inclusion. Students will learn how to work more effectively with people from different backgrounds, make environments more welcoming and inclusive for everyone, and be leaders around diversity and inclusion issues. This certificate allows students – both majors and nonmajors – to formally recognize a concentration within their degree plan that signals to employers a commitment to fostering diversity and inclusion in the workplace and community.

To be admitted to S&T's undergraduate certificate program in Psychology of Diversity and Inclusion, a student must meet Missouri S&T regular undergraduate admission requirements. In order to receive an undergraduate certificate, the student must have an average cumulative grade point of 2.0 or better in the certificate courses. The certificate credits taken by the students will count towards their bachelor's degree.

Students must complete the following coursework:

PSYCH 4600	Social Psychology	3
And 3 of the following 4 courses:		
PSYCH 4310	Psychology Of The Exceptional Child	3
PSYCH 4500	Personality Theory	3
PSYCH 4992	Cross-Cultural Psychology	3
PSYCH 4993	Psychology of Gender	3

Amy Belfi, Associate Professor
PHD Univeristy of Iowa

Devin Burns, Associate Professor
PHD Indiana University

Jessica L. Cundiff, Associate Professor
PHD Pennsylvania State University

Amber M Henslee, Associate Professor
PHD Auburn University Main Campus

Merilee A. Krueger, Teaching Professor
EdD University of Missouri

Clair Kueny, Associate Professor and Chair
PHD Saint Louis University

Robert Lew Montgomery, Emeritus Professor
PHD Oklahoma State University Main

Frances H Montgomery, Emeritus Professor
PHD Florida State University

Susan L Murray, Professor¹
PHD Texas A&M University

Matthew Ng, Assistant Professor
PHD University of Central Florida

Vahe Permzadian, Assistant Professor
PHD University at Albany, State University of New York

Ann Schlotzhauer, Assistant Professor
PHD University of Central Florida

Daniel Shank, Associate Professor
PHD University of Georgia

Ting Shen, Assistant Professor
PHD Michigan State University

Nancy J Stone, Professor Emerita
PHD Texas Tech University

PSYCH 1100 Introduction to Psychology (LEC 1.0)
An introduction to the study of psychology at S&T. Students will learn about personal and professional opportunities associated with the different areas of psychology and become acquainted with the psychology faculty and campus facilities.

PSYCH 1101 General Psychology (LEC 3.0)
An introduction to the science of the human mind and behavior. Topics include brain structure and function, human development, learning and memory, motivation, emotion, personality and psychological health, psychological disorders and their treatment, and social cognition and human relationships.
PSYCH 1101 - MOTR PSYC 100: General Psychology

PSYCH 2000 Special Problems (IND 0.0-6.0)
Problems or readings on specific subjects or projects in the department. Consent of instructor required.

PSYCH 2001 Special Topics (LAB 0.0 and LEC 0.0)
This course is designed to give the department an opportunity to test a new course. Variable title.

PSYCH 2200 Research Methods (LAB 1.0 and LEC 3.0)
An introduction to the content, models and methodologies of psychological research. This course covers the fundamental components of psychological research including the literature review, correlational and descriptive methods, experimental design, statistical analyses, interpretation, and ethics. Prerequisites: Psych 1101; Stat 1115, Stat 3113, or Stat 3115. Stat 1115 preferred.

PSYCH 2300 Educational Psychology (LEC 3.0)
Principles of psychology relevant to the field of education. Course covers theoretical and applied information on such topics as human growth and development, and cognitive and behavioral views of learning and intelligence. The course also covers motivation, creation of learning environments, measurement and evaluation of learning. Prerequisite: Either Psych 1101 (psychology majors) or Educ 1040 (teacher education program). (Co-listed with Educ 2102).

PSYCH 3000 Special Problems In Psychology (IND 0.0-6.0)
Problems or readings on specific subjects or projects in the department. Consent of instructor required.

PSYCH 3001 Special Topics (LEC 0.0-6.0)
This course is designed to give the department an opportunity to test a new course. Variable title.

PSYCH 3310 Developmental Psychology (LEC 3.0)
A study of human growth and development across the lifespan. The course emphasizes the interaction of physical, psychological, and social changes and their resulting impact on the developing person at all stages in life. Prerequisite: Psych 1101.
PSYCH 3310 - MOTR PSYC 200: Lifespan Human Development

PSYCH 3311 Psychological & Educational Development Of The Adolescent (LEC 3.0)
An examination of the biological, social, and cognitive transitions that occur during adolescence. Other topics include the role of families, the role of peers, the adolescent identity, sexuality, the impact of schools, the role of achievement, how adolescents spend their time (work, leisure), the role of the media, and problems encountered by the adolescent. Prerequisite: Either Psych 1101 (psychology majors) or Educ 1040 (teacher education program).

PSYCH 3400 Theories Of Learning (LEC 3.0)

An examination of basic learning processes and the behavioral phenomena that arise from them. Topics include non-associative learning, classical conditioning, operant conditioning, and vicarious learning. Prerequisite: Psych 1101.

PSYCH 3501 Drugs and Behavior (LEC 3.0)

An introduction to the behavioral effects of drugs. A broad range of topics are covered including the 1) History of therapeutic and recreational drug use and abuse 2) Consequences of drug abuse and addiction 3) Behavioral, psychological, and physiological effects of drugs 4) Research methods used to study drugs 5) Effective treatments for drug problems. Prerequisites: Psych 1101.

PSYCH 4000 Special Problems And Readings In Psychology (IND 0.0-6.0)

Problems or readings on specific subjects or projects in the department. Consent of instructor required.

PSYCH 4001 Special Topics (LEC 0.0-6.0)

This course is designed to give the department an opportunity to test a new course. Variable title.

PSYCH 4010 Seminar (RSD 0.0-6.0)

Prerequisite: Senior Standing.

PSYCH 4099 Undergraduate Research (IND 0.0-6.0)

Designed for the undergraduate student who wishes to engage in research. Not for graduate credit. Not more than six credit hours allowed for graduation credit. Subject and credit to be arranged with the instructor. Prerequisite: Instructor consent.

PSYCH 4200 Tests and Measurements (LEC 3.0)

Theoretical and statistical basis of psychological testing and measurement; test development and validation; examination of standardized tests of intelligence, aptitude, interest, personality, attitudes, and psychopathology; use of test and test batteries for diagnostics and prediction of criteria. Prerequisite: Psych 1101.

PSYCH 4310 Psychology Of The Exceptional Child (LEC 3.0)

Study of the psychology of children on both ends of the educational spectrum. The course presents the fundamentals of providing services as well as understanding the abilities and disabilities of children classified as exceptional. Includes coverage of various disabilities, and the implications of dealing with personal, family and classroom issues. Prerequisite: Either Psych 1101 (psychology majors) or Educ 1040 (teacher education program).

PSYCH 4340 Assessment of Student Learning (LEC 3.0)

Students will learn to evaluate assessments for validity and reliability. Students will develop formative and summative assessments aligned with learning outcomes. Writing quality rubrics and universal design will be introduced. Students will analyze data to make instructional decisions and learn to evaluate vendor assessments. Prerequisites: Educ 1074. (Co-listed with Educ 3340).

PSYCH 4400 Cognitive Psychology (LEC 3.0)

This course covers basic cognitive processes and their application. Theory and research are presented on attention, perception, memory, problem solving, decision making and language. Prerequisite: Psych 1101.

PSYCH 4410 Neuroscience (LEC 3.0)

The neurophysiological bases of behavior and cognition are examined. Topics covered include neuroanatomy, neurotransmission, neuropharmacology, brain systems, learning and memory, emotion, attention and consciousness, and neurologic/psychological disorders. Prerequisite: Psych 1101.

PSYCH 4411 Sensation and Perception (LEC 3.0)

An in-depth examination of the human senses, with special emphasis on vision and hearing. Topics include the anatomy and physiology of the eye and ear, neural transduction, the organization and interpretation of sensory signals by the brain, selective attention, and the neural basis of the perception of color, form, space, depth, motion, music, and language. Prerequisite: Psych 1101.

PSYCH 4500 Personality Theory (LEC 3.0)

An examination of the ways in which personality traits develop and the sources of differences among people in the traits they exhibit. The emphasis is on major theories of personality development, as well as recent research in the field. Prerequisite: Psych 1101.

PSYCH 4501 Abnormal Psychology (LEC 3.0)

An introductory study of various forms of personality and behavioral disorders. Consideration will be given to neurosis, psychosis, mental deficiency and other deviations, with emphasis on etiology and treatment. Prerequisite: Psych 1101.

PSYCH 4510 Clinical Psychology (LEC 3.0)

Comprehensive survey of the field of clinical psychology. Course will cover a variety of assessment and treatment procedures relevant to psychology and other professionals who treat human adjustment problems; techniques based on experimental outcome research and psychological testing will be emphasized. Prerequisites: Psych 1101 and Psych 4501.

PSYCH 4590 Health Psychology (LEC 3.0)

This course examines Health Psychology. Topics include basic behavioral pharmacology (involving alcohol and other drugs), illusions of invulnerability to risk, stress and coping, and the science of persuading people to protect their health. Students learn how to construct a public service announcement towards a societal problem as part of the course. Prerequisite: Psych 1101.

PSYCH 4600 Social Psychology (LEC 3.0)

An exploration of the phenomena involved in human social behavior and the theories that explain them. Topics typically include social thinking, attitudes and attitude change, conformity, persuasion, interpersonal attraction, and more. Prerequisite: Psych 1101.

PSYCH 4601 Group Dynamics (LEC 3.0)

A review of the concepts and theories related to group dynamics. Topics include group goals, communication within groups, group structure, norms, leadership, decision making, controversy, conflict resolution, power, diversity issues, and team development. Prerequisite: Psych 1101.

PSYCH 4602 Organizational Psychology (LEC 3.0)

Analysis, comprehension, and prediction of human behavior in organizational settings through the scientific study of individual processes, group processes, and organizational structure and function. Prerequisite: Psych 1101.

PSYCH 4610 Psychology of Leadership in Organizations (LEC 3.0)

Examination of conceptual and empirical research on determinants of effective vs. ineffective leadership. Topics include leadership measurement, traits, skills, leader-member exchange, charismatic and transformational leadership, change management, team leadership, and ethical leadership. Practical guidelines for developing leadership skills are discussed. Prerequisite: Psych 1101.

PSYCH 4700 Industrial Psychology (LEC 3.0)

An overview of the field of industrial psychology including topics such as criterion development, job analysis, selection, training, performance assessment, and some human factors concerns. Prerequisite: Psych 1101.

PSYCH 4710 Human Factors (LEC 3.0)

An examination of human-machine systems and the characteristics of people that affect system performance. Topics include applied research methods, systems analysis, and the perceptual, cognitive, physical and social strengths and limitations of human beings. The focus is on user-centered design of technology, particularly in manufacturing environments. Prerequisite: Psych 1101. (Co-listed with Eng Mgt 4330).

PSYCH 4720 Psychology of Social Technology (LEC 3.0)

This course covers research, theory, and practice from psychology and other social science disciplines for understanding the use of, interactions with, and interactions through computers and other technology. This course introduces students to the psychological and social issues involving personal, work, and societal use of technology. Prerequisite: Psych 1101.

PSYCH 4730 Environmental Psychology (LEC 3.0)

An examination of the psychological effects of various environmental designs and ways to design environments effectively. Topics include: environmental attitudes, perception, and cognition; environmental influences, crowding, and the application of environmental design principles to living, educational, work, and recreational settings. Prerequisite: Psych 1101.

PSYCH 4990 Internship (IND 0.0-6.0)

Internship will involve students applying critical thinking skills and discipline specific knowledge in a work setting based on a project designed by the advisor and employee. Activities will vary depending on the student's background and the setting. Prerequisite: Junior or Senior Psychology major; consent of instructor; must have completed 9 hours in major.

PSYCH 4992 Cross-Cultural Psychology (LEC 3.0)

Study of the impact of ethnic and national culture on psychological processes and behaviors. Topics include the effects of individualism and collectivism on patterns of socialization, personality, motivation, emotion and cognition; cultural differences in diagnosis and treatment of mental and physical health; and group and organizational behavior. Prerequisite: Psych 1101.

PSYCH 4993 Psychology of Gender (LEC 3.0)

Overview of current research and theory on the psychology of gender. The course explores gender as a psychological and social construct that influences women's and men's lives across a variety of contexts including work, family, relationships, self-perceptions, and health. Considers how gender intersects with other social categories to shape experience. Prerequisite: Psych 1101.

PSYCH 4995 Rationality (LEC 3.0)

This course will discuss the various ways our natural thinking style can lead us to make reasoning errors and how we can try to do better. Our focus will be on using results from Cognitive Psychology to improve our everyday lives, doing various hands-on projects throughout the semester. (Co-listed with Philos 4884).

PSYCH 5000 Special Problems (IND 0.0-6.0)

Problems or readings on specific subjects or projects in the department. Consent of instructor required.

PSYCH 5001 Special Topics (LEC 0.0-6.0)

This course is designed to give the department an opportunity to test a new graduate level course. Variable title.

PSYCH 5010 Seminar for Industrial / Organizational Psychology (RSD 3.0)

A seminar course for general overviews of the most recent research in Industrial-Organizational Psychology. Prerequisite: Graduate standing.

PSYCH 5012 Ethics and Professional Responsibilities (LEC 1.0)

Case studies examining the ethical practice of psychology in organizations will be discussed. This will include covering both the legal and ethical standards surrounding the consulting and practice of I-O psychology and personnel management in organizations. Prerequisite: Graduate standing.

PSYCH 5020 Introduction to Industrial-Organizational Psychology (LEC 3.0)

Review of the most recent theoretical and applied research in advanced personnel and organizational psychology. Topics will include personnel selection, training and performance appraisal, job attitudes, motivation, work groups and teams, leadership, organizational culture, and organizational development. Prerequisites: Graduate Standing.

PSYCH 5040 Oral Examination (IND 0.0)

(Variable) After completion of all other program requirements, oral examinations for on-campus M.S./PH.D students may be processed during intersession. Off-campus M.S. students must be enrolled in oral examination and must have paid an oral examination fee at the time of the defense/comprehensive examination (oral/written). All other students must enroll for credit commensurate with uses made of facilities and/or faculties. In no case shall this be for less than three (3) semester hours for resident students.

PSYCH 5200 Theories and Practice of Psychological Measurement (LEC 3.0)

An overview of psychological tests and batteries used in a variety of disciplines. An emphasis is placed on the proper development and use of these tests and test batteries. Tests examined will include tests of intelligence, aptitude, personality, and psychopathology. Prerequisite: Psych 4200 or graduate standing.

PSYCH 5201 Psychometrics (LEC 3.0)

An examination of statistical methods used to develop and refine measures of human performance, aptitudes, and personality. Topics include reliability and validity, data reduction, measuring inter-relationships among variables (e.g., factor analysis, multiple regression), and testing group differences. Prerequisite: Psych 5202.

PSYCH 5202 Applied Psychological Data Analysis (LEC 3.0)

This course will focus on those statistical methods most useful for advanced research in psychology. We will learn to use R, a powerful, open-source statistical programming platform, and work through examples with psychological data sets including such techniques as correlation, ANOVAs, regression, and chi-squared. Prerequisite: Graduate standing.

PSYCH 5210 Advanced Research Methods (LEC 3.0)

Research methods and techniques, with an emphasis on conducting psychological research in organizational settings. Topics discussed include: ethics, reliability and validity in measurement and application, proper uses of experimental, quasi-experimental, and survey methodologies, as well as advanced methodologies IRT, SEM, HLM, and Meta-Analyses. Prerequisite: Graduate standing.

PSYCH 5211 Research Methods in Cognition & Neuroscience (LEC 3.0)

The course focuses on methodological approaches essential for investigating cognitive processes and neural mechanisms, integrating theoretical foundations with practical skills. Students will explore a range of quantitative and qualitative research methods applicable to studying cognition and neuroscience, including experimental designs, neuroimaging techniques (e.g., fMRI, EEG/ERP, PET), psychophysiological measures, computational modeling, and observational methods. Emphasis is placed on methodological considerations specific to cognitive neuroscience. Prerequisites: Graduate standing.

PSYCH 5400 Advanced Cognition (LEC 3.0)

This course covers advanced discussion of cognitive processes and their application. Theory and research are presented on attention, perception, memory, problem solving, decision-making and language. Prerequisites: Graduate standing.

PSYCH 5600 Advanced Social Psychology (LEC 3.0)

An advanced study of the behavior of individuals in interaction within groups. Consideration will also be given to the experimental literature dealing with the formal properties of groups, conformity and deviation, intergroup relations, and attitude formation and attitude change. Prerequisite: Psych 4600 or graduate standing.

PSYCH 5601 Small Group Dynamics (LEC 3.0)

This course covers group perception, identification, leadership, structure, conflict, cohesion, commitment, performance, norms, roles, influence, and decisions, and groups' relations, networks, and work teams. Students consider both theory and applications to their lives and organizations through observational, research, team and applied assignments. Prerequisite: Psych 4601 or graduate standing.

PSYCH 5602 Organizational Development (LEC 3.0)

Examination of the field of organizational development theories and interventions. An emphasis is placed on research methods and application of practices related to individual processes, group processes, and organizational structures and functions that impact change and development strategies and interventions. Prerequisite: Psych 4602 or graduate standing.

PSYCH 5603 Advanced Social Influence (LEC 3.0)

An in-depth review of the principles and procedures that affect the process of social influence, with consideration given to attitudinal, compliance inducing, and perceptual influences. Students will consider the theoretical implications and practical applications of topics in social influence in the form of independent reading, research proposals and/or projects, and observational assignments. Prerequisites: Graduate standing.

PSYCH 5604 Advanced Diversity Science (LEC 3.0)

This course examines social psychological theory and research on barriers and opportunities for promoting diversity, equity, and inclusion in organizations. The course takes a sociocultural approach to understand the psychological mechanisms of stereotyping, bias, and stigma, as well as strategies (and pitfalls) for creating inclusive and equitable communities. Although diversity science is multidisciplinary, this course is grounded in psychological theory and research, drawing primarily from industrial/organizational, organizational behavior, and social psychological literatures. Prerequisites: Graduate standing.

PSYCH 5700 Job Analysis and Performance Management (LEC 3.0)

A focus on the scientific measurement of job performance. An in-depth discussion of the science and methods of appropriate job and task analysis will be discussed. Additionally, students will focus on current issues in performance management and appraisal including scientific findings related to both objective and subjective measures of performance. Prerequisite: Psych 4700 or graduate standing.

PSYCH 5710 Advanced Human Factors (LEC 3.0)

An in-depth review of the foundations of human factors, focusing on the interaction of people with various forms of technology in a variety of environments. Topics include research and evaluation methods, displays (e.g., visual, auditory), attention and information processing, decision making, motor skills, anthropometry, and biomechanics. (Co-listed with ENG MGT 5330).

PSYCH 5740 Occupational Health and Safety (LEC 3.0)

This course will cover the ethical, legislative, technical, behavioral and management aspects of health and safety practices in human resources. Topics include workplace safety, ergonomics, accident investigation, occupational stress, government regulatory agencies, employee assistance programs, wellness programs, and behavioral based safety. Prerequisites: Graduate standing.
