PSYCHOLOGY

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 sophomore 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, physical sciences, and computer science. 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 also offers six minor programs: a general psychology minor, a minor in industrial/organizational psychology, a minor in the psychology of leadership, a minor in cognitive neuroscience, a minor in psychometrics, and a minor in multiculturalism and diversity. The general psychology minor allows students 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 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 minor in psychometrics helps students better understand the application of statistical methods to the measurement of human characteristics and individual differences. 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.

Bachelor of Arts Psychology

A minimum of 120 credit hours is required for a bachelor of arts degree in psychology and an average of at least two grade points per credit hour must be obtained. The psychology B.A. curriculum requires 23 hours of basic skills and concepts. That is, 6 hours of English Composition, 6 hours of western civilization, and 11-16 hours of foreign language. 12 semester hours in humanities must be taken with at least one course taken in each of the three areas of literature (English and American), philosophy, and fine arts (art, music and theater), but not to include studio and performance offerings. A minimum of 12 semester hours is required in social sciences in at least two of the following three areas: economics, political science, and history. A minimum of 12 hours of math and science are required and a minimum of 34 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.

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 (11-16 hours).
4. Sciences. At least one course taken in biological (biological sciences) and physical (chemistry, geology and geophysics, physics) sciences. At least one statistics course. 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 (12 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 (12 hours).
7. Psychology (34 hours):
   A. Introduction to Psychology (PSYCH 1100). General Psychology (PSYCH 1101), and capstone course (PSYCH 3110, PSYCH 4200, PSYCH 4990, PSYCH 4010, PSYCH 4993, PSYCH 4590, PSYCH 4994, PSYCH 4992, or PSYCH 4099, 3 hours credit).
   B. Three additional courses from each of the following two areas of psychology:
      i. Sensation and perception, cognitive, learning, neuroscience, developmental, abnormal, social, or personality
      ii. Educational, adolescent, human-computer interaction, industrial, human factors, clinical, group dynamics, or organizational
   C. Electives from psychology to complete the 34 hour major requirement.
8. 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 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.
9. 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.

10. 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.

11. 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 psychology.

**Human Resources/Personnel**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 4700</td>
<td>Industrial Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4600</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4601</td>
<td>Group Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4602</td>
<td>Organizational Psychology</td>
<td>3</td>
</tr>
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</table>

**Cognitive Neuroscience**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<td>PSYCH 4411</td>
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<td>3</td>
</tr>
<tr>
<td>PSYCH 3400</td>
<td>Theories Of Learning</td>
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</tr>
<tr>
<td>PSYCH 4501</td>
<td>Abnormal Psychology</td>
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</tr>
<tr>
<td>PSYCH 4500</td>
<td>Personality Theory</td>
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<tr>
<td>PSYCH 4510</td>
<td>Clinical Psychology</td>
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**Usability of Technology**

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<th>Title</th>
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<tbody>
<tr>
<td>PSYCH 2300</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 3720</td>
<td>Web Design And Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4710</td>
<td>Human Factors</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4720</td>
<td>Human-Computer Interaction</td>
<td>3</td>
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**Psychology of Leadership**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 4600</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4603</td>
<td>Social Influence: Science and Practice</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4610</td>
<td>Psychology of Leadership in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4993</td>
<td>Psychology of Women</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4601</td>
<td>Group Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4602</td>
<td>Organizational Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Bachelor of Arts Psychology (Secondary Education Emphasis Area)**

You may earn a B.A. degree in psychology from Missouri S&T and certification to teach at the secondary level in the schools of Missouri with the secondary education emphasis area program. This program can be completed in four academic years and student teaching is arranged with public schools within 30 miles of the Rolla campus.

Students interested in this emphasis area should consult with the advisor for the secondary education emphasis area in the department of psychological science.

In order to successfully complete this emphasis area, students must have at least 22 on the ACT, maintain a cumulative GPA of at least 2.5, and attain at least a 2.5 GPA in all psychology courses. Current Missouri S&T or transfer students who wish to pursue this emphasis area must meet both of these GPA requirements to be accepted into the program. Students must also meet all requirements listed under the teacher education program in this catalog. Students who do not meet all the teacher certification requirements will not be eligible for the secondary education emphasis area, even if they have completed all course work.

A degree with this emphasis area requires 128 credit hours. The required courses are provided below.

**Communications Skills: 9 semester hours**

ENGLISH 1120 Exposition And Argumentation 3
ENGLISH 1160 Writing And Research 3
SP&M S 1185 Principles Of Speech 3

**Humanities: 12 semester hours**

One must be in Art, Music, or Theatre 3
One must be in Philosophy 3
One must be in Literature 3
One additional humanities from the above course groups, Foreign Language, or Etymology 3

**Social Sciences: 18 semester hours**

HISTORY 1300 American History To 1877 3
or HISTORY 1310 American History Since 1877 3
POL SCI 1200 American Government 3
or POL SCI 2760 Principles Of Public Policy 3
or POL SCI 2210 The American Presidency 3
PSYCH 1101 General Psychology 3
ECON 1100 Principles Of Microeconomics 3
or ECON 1200 Principles Of Macroeconomics 3

**Geography** 3

**Natural Science/Mathematics: 13 semester hours**

Physics, Chemistry or Geology 3-4
Mathematics 3
BIO SCI 1113 General Biology 3
STAT 1115 Statistics For The Social Sciences I 3

**Professional Requirements: 26 semester hours**

EDUC 1040 Perspectives In Education 2
EDUC 1174 School Organization & Adm For Elementary & Secondary Teachers 2
EDUC 2216 Teaching Reading In Content Area 3
EDUC 2251 Historical Foundation Of American Education 3
EDUC 3280 Teaching Methods And Skills In The Content Areas 6
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 2
EDUC 1164 Aiding Elementary, Middle And Secondary Schools 2
EDUC 4299 Student Teaching 12

**Psychology Degree Requirements: 17 semester hours**

PSYCH 1100 Introduction to Psychology 1
PSYCH 2200 Research Methods 4
PSYCH 3400 Theories Of Learning 3
PSYCH 3310 Developmental Psychology 3
PSYCH 4501 Abnormal Psychology 3
or PSYCH 4500 Personality Theory
PSYCH 4600 Social Psychology 3

**Certification: 17 semester hours**

9 hours of American History
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 3430
HISTORY 3480 History Of Baseball
HISTORY 3440 20th Century Americans In Combat
HISTORY 3442 The United States in Vietnam
HISTORY 3761 U.S. Diplomatic History to World War II

8 hours of World History
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 2210 European Diplomatic History 1814 - Present
HISTORY 2660
HISTORY 3120 Ancient Greece
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

**Bachelor of Science Psychology**

A minimum of 124 credit hours is required for a bachelor of science degree in psychology 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 psychology bachelor of science curriculum requires six hours of English composition; 23 hours of math, science and computer science; and twelve semester hours in humanities. Specific requirements for the bachelor degree are outlined in the sample program listed below.

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 23 hours in biological, physical, (chemistry, geology and geophysics, and physics), and mathematical (mathematics/statistics and computer science or information science & technology) sciences, to include COMP SCI 1570 and COMP SCI 1580; or COMP SCI 1970 and COMP SCI 1980; or COMP SCI 1971 and COMP SCI 1981; or COMP SCI 1972 and COMP SCI 1982; or IS&T 1551 and 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. Engineering courses may, at the discretion of the student’s major advisor, also count toward this total requirement. (23 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 124 credit hours which may include MATH 1160 and one of MATH 1120 or MATH 1140.
8. Psychology Requirements:
   A. Introduction to Psychology (PSYCH 1100), General Psychology (PSYCH 1101), Research Methods (PSYCH 2200) and Capstone course PSYCH 3110, PSYCH 4200, PSYCH 4990, PSYCH 4010, PSYCH 4993, PSYCH 4590, PSYCH 4994, PSYCH 4992, or PSYCH 4099, 3 hours credit).
   B. Three additional courses from each of the following two areas of Psychology:
      i Sensation and perception, cognitive, learning, neuroscience, developmental, abnormal, social, or personality
      ii Educational, adolescent, human-computer interaction, industrial, human factors, clinical, group dynamics, or organizational
   C. Electives from psychology to complete a requirement of 34 hours.
   D. 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 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 psychology.

Human Resources/Personnel
PSYCH 4700 Industrial Psychology 3
PSYCH 4600 Social Psychology 3
PSYCH 4601 Group Dynamics 3
PSYCH 4602 Organizational Psychology 3

Human Services
PSYCH 3311 Psychological & Educational Development Of The Adolescent 3
or PSYCH 3310 Developmental Psychology 3
PSYCH 4501 Abnormal Psychology 3
PSYCH 4500 Personality Theory 3
PSYCH 4510 Clinical Psychology 3

Cognitive Neuroscience
PSYCH 4411 Sensation and Perception 3
PSYCH 3400 Theories Of Learning 3
or PSYCH 4501 Abnormal Psychology 3
PSYCH 4400 Cognitive Psychology 3
PSYCH 4410 Neuroscience 3

Usability of Technology
PSYCH 2300 Educational Psychology 3
PSYCH 3720 Web Design And Development 3
PSYCH 4710 Human Factors 3
PSYCH 4720 Human-Computer Interaction 3

Psychology of Leadership
PSYCH 4600 Social Psychology 3
or PSYCH 4603 Social Influence: Science and Practice 3
PSYCH 4610 Psychology of Leadership in Organizations 3
PSYCH 4993 Psychology of Women 3
or PSYCH 4601 Group Dynamics 3
PSYCH 4602 Organizational Psychology 3

Bachelor of Science Psychology (Secondary Education Emphasis Area)

You may earn a B.S. degree in psychology from Missouri S&T and certification to teach at the secondary level in the schools of Missouri with the secondary education emphasis area program. This program can be completed in four academic years and student teaching is arranged with public schools within 30 miles of the Rolla campus.

Students interested in this emphasis area should consult with the advisor for the secondary education emphasis area in the department of psychological science.

In order to successfully complete this emphasis area, students must have at least 22 on the ACT, maintain a cumulative GPA of at least 2.5, and attain at least a 2.5 GPA in all psychology courses. Current Missouri S&T or transfer students who wish to pursue this emphasis area must meet both of these GPA requirements to be accepted into the program. Students must also meet all requirements listed under the teacher education program in this catalog. Students who do not meet all the teacher certification requirements will not be eligible for the secondary education emphasis area, even if they have completed all course work.

A degree in this emphasis area requires 136 credit hours. The required courses are provided below.

Communications Skills: 9 semester hours
ENGLISH 1120 Exposition And Argumentation 3
ENGLISH 1160 Writing And Research 3
SP&M S 1185 Principles Of Speech 3

Humanities: 12 semester hours
One must be in Art, Music, or Theatre 3
One must be in Philosophy 3
One must be in Literature 3
One additional humanities from the above course groups, Foreign Language, or Etymology 3-4

Social Sciences: 18 semester hours
HISTORY 1300 American History To 1877 3
or HISTORY 1310 American History Since 1877 3
POL SCI 1200 American Government 3
POL SCI 2760 3
or POL SCI 2210 3
or POL SCI 3300 Principles Of Public Policy 3
or POL SCI 3760 The American Presidency 3
PSYCH 1101 General Psychology 3
ECON 1100 Principles Of Microeconomics 3
or ECON 1200 Principles Of Macroeconomics 3

Geography 3

Natural Sciences/Mathematics: 21 semester hours
3-4
3
3
3-4
3

Physics, Chemistry or Geology 3-4
Mathematics 3

3
3
3
3-4
3-4
3-4
3-4

BIO SCI 1113 General Biology 3
STAT 1115 Statistics For The Social Sciences I 3
COMP SCI 1570 Introduction To Programming & COMP SCI 1581 and Introduction To Programming Laboratory 3-4
or COMP SCI 1700 Basic Scientific Programming & COMP SCI 1981 and Computer Programming Laboratory 3-4
or COMP SCI 1971Introduction To Programming Methodology & COMP SCI 1981 and Programming Methodology Laboratory 3-4
or COMP SCI 1972Introduction to MATLAB Programming & COMP SCI 1981: and MATLAB Programming Laboratory 3-4

5-6 additional hours of Math &/or Science courses 5-6

Professional Requirements: 26 semester hours
EDUC 1040 Perspectives In Education 2
EDUC 1174 School Organization & Adm For Elementary & Secondary Teachers 2
EDUC 2216 Teaching Reading In Content Area 3
EDUC 2251 Historical Foundation Of American Education 3
EDUC 3280 Teaching Methods And Skills In The Content Areas 6
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
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>EDUC 1104</td>
<td>Teacher Field Experience</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 1164</td>
<td>Aiding Elementary, Middle And Secondary Schools</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 4299</td>
<td>Student Teaching</td>
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**Psychology Degree Requirements: 17 semester hours**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>PSYCH 1100</td>
<td>Introduction to Psychology</td>
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<td>PSYCH 2200</td>
<td>Research Methods</td>
<td>4</td>
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<td>PSYCH 3400</td>
<td>Theories Of Learning</td>
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<td>PSYCH 3310</td>
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<td>PSYCH 4501</td>
<td>Abnormal Psychology</td>
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<tr>
<td>or PSYCH 4500</td>
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<tr>
<td>PSYCH 4600</td>
<td>Social Psychology</td>
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</tr>
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</table>

**Certification: 17 semester hours**

- 9 hours of American History
  - 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 3430
  - HISTORY 3480 History Of Baseball
  - HISTORY 3440 20th Century Americans In Combat
  - HISTORY 3442 The United States in Vietnam
  - HISTORY 3761 U.S. Diplomatic History to World War II

- 8 hours of World History
  - 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 2210 European Diplomatic History 1814 - Present
  - HISTORY 2660
  - HISTORY 3120 Ancient Greece
  - 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

The department of psychological science offers six minors: a general minor, industrial/organizational, psychology of leadership, cognitive neuroscience, psychometrics, 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 six 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.

**Industrial/Organizational Psychology Minor**

Requirements include:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PSYCH 1101</td>
<td>General Psychology</td>
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<tr>
<td>PSYCH 4700</td>
<td>Industrial Psychology</td>
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<td>PSYCH 4600</td>
<td>Social Psychology</td>
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<td>PSYCH 4710</td>
<td>Human Factors</td>
<td>3</td>
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<tr>
<td>PSYCH 4602</td>
<td>Organizational Psychology</td>
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</table>

**Psychology of Leadership**

Requirements include general psychology and 4 of the following 5 courses:

- PSYCH 4600 Social Psychology
- PSYCH 4610 Psychology of Leadership in Organizations
- PSYCH 4601 Group Dynamics
- PSYCH 4602 Organizational Psychology
- PSYCH 4603 Social Influence: Science and Practice

**Cognitive Neuroscience Minor**

Requirements include:

<table>
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<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>PSYCH 1101</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 3400</td>
<td>Theories Of Learning</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4400</td>
<td>Cognitive Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4410</td>
<td>Neuroscience</td>
<td>3</td>
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<td>PSYCH 4411</td>
<td>Sensation and Perception</td>
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<tr>
<td>or PSYCH 4412</td>
<td>Evolutionary Psychology</td>
<td></td>
</tr>
<tr>
<td>or PSYCH 4501</td>
<td>Abnormal Psychology</td>
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</table>

**Psychometric Minor**

Requirements include the following courses:

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<td>PSYCH 1101</td>
<td>General Psychology</td>
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<tr>
<td>PSYCH 5201</td>
<td>Psychometrics</td>
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<td>PSYCH 4700</td>
<td>Industrial Psychology</td>
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<td>STAT 5346</td>
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<tr>
<td>or STAT 5353</td>
<td>Statistical Data Analysis</td>
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**Multiculturalism & Diversity Minor**

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 psychology. The academic home for this minor will be the arts, languages and philosophy department in which the student takes the majority of their classes. Courses offered by these departments that can be included in the minor are listed below.

**Arts, Languages & Philosophy:**

- One 3rd level basic study course in a foreign language (German, Spanish, French, or Russian) *
- FRENCH 4360 French Culture And Civilization
- PHILOS 4340 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
- ENGLISH 2242 Literature By Women
- ENGLISH 2245 African American Literature

*Note: Course selection should be made in consultation with an advisor.*
Psychology

ENGLISH 3228 The American Experience

History and Political Science:
- HISTORY 2660
- POL SCI 2500 International Relations
- POL SCI 3510

Psychology:
- PSYCH 4993 Psychology of Women
- PSYCH 4992 Cross-Cultural Psychology
- HISTORY 3280 European Migrations and Nationalism Formation
- HISTORY 2665

* Specific 3rd Level Language Courses, as listed below:
- FRENCH 1180 French Readings And Composition
- FRENCH 2110 Basic French Conversation
- FRENCH 4360 French Culture And Civilization
- FRENCH 2170 Masterpieces Of French Literature
- FRENCH 2180 Basic French Composition
- FRENCH 4311 Advanced French Conversation
- FRENCH 4370 Survey Of French Literature I (Early Period)
- FRENCH 4375 Survey Of French Literature II (Modern Period)
- 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 4330 Business Russian
- RUSSIAN 4370 Survey Of Russian Literature I (Early Period)
- RUSSIAN 4375 Survey Of Russian Literature II (Modern Period)
- SPANISH 1180 Readings And Composition
- 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 4377 Spanish-American Novel And Short Story
- SPANISH 4302 Phonetics and Phonology of Spanish

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PHD Pennsylvania State University

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MS Coventry University, UK

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PHD Saint Louis University

Amber M Henslee, Assistant Professor
PHD Auburn University Main Campus

Anthe Ickx, ANC, Adjunct Instructor
MS University of Ghent, Belgium

Ruzla Ismail, ANC
MS Christ University, Bangalore, India

Brandi A Klein, Assistant Professor
PHD Bowling Green State University

Melani Kodikar, ANC
MS University of Hertfordshire, UK

Shamala Kumar, ANC
PHD Purdue University

Robert Lew Montgomery, Emeritus Professor
PHD Oklahoma State University Main

Frances H Montgomery, Chancellor’s Professor
PHD Florida State University

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MPhil University of Colombo, Sri Lanka

Chrishara Paranavithana, ANC
MPhil University of Colombo, Sri Lanka

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PSY.D Institute of IVPM, Germany

Donald J Sharpsteen, Associate Professor
PHD University of Denver

Nancy J Stone, Professor
PHD Texas Tech University

Nathan W Weidner, Assistant Professor
PHD Wayne State University

Merilee Krueger Wilsdorf, Associate Teaching Professor
MA University of Nebraska Omaha

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 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 (IND 0.0-6.0)
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: Psych 1101. (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** (IND 0.0-6.0)
This course is designed to give the department an opportunity to test a new course. Variable title.

**PSYCH 3110 History Of Psychology** (LEC 3.0)
An examination of the origin of psychology within the framework of philosophy and science. Traces the major trends, schools, and individuals. Major scientific, cultural, philosophical and personal influences in the development of psychology. Prerequisite: Psych 1101.

**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 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: Psych 1101.

**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 3720 Web Design And Development** (LAB 1.5 and LEC 1.5)
In this course students learn design principles for effectively structuring information for the World Wide Web; how to use tools to deploy this information; and methods for assessing Web usability. The course is project based with an emphasis on the application of design and usability assessment within the context of student projects. Prerequisite: IS&T 1552.

**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: Psych 1101. (Co-listed with Educ 4310).

**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 4412 Evolutionary Psychology** (LEC 3.0)
Fundamental principles of evolution, and their applicability to human behavior and psychological processes are examined. Topics include interpersonal attraction, sperm competition, altruism, aggression, and creationism/intelligent design. 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 4603 Social Influence: Science and Practice (LEC 3.0)
Principles and procedures that affect the process of social influence, with consideration given to attitudinal, compliance inducing, and perceptual influences. 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 Human-Computer Interaction (LEC 3.0)
Research, theory, and practice from psychology and other social science disciplines have implications for the effective design and use of computers in organizations. This course introduces students to the psychological issues in software engineering, technology in the workplace, and organizational design. 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 Women (LEC 3.0)
A history of the psychology of women with a focus on the latest research and theories in the field (e.g., research methods, gender theories, biological and social factors, communication and leadership styles, nature of interpersonal relationships, and health and mental issues). Prerequisite: Psych 1101.

PSYCH 4994 Psychology in Media (LEC 3.0)
Examples drawn from the media (e.g., television, movies, newspapers) will be used as the basis for discussing a wide variety of psychological phenomena, principles, and theories, and their applicability to everyday life. Prerequisite: Psych 1101.

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 in Industrial / Organizational Psychology (RSD 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. Prerequisite: Nine hours of psychology.

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. Prerequisites: Psych 1101 and Psych 2200.

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.
**PSYCH 5601 Advanced Group Dynamics** (LEC 3.0)
An in-depth 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. Students will consider theoretical implications and practical applications of topics in group dynamics in the form of independent reading, research proposals, and observational assignments. Prerequisite: Psych 4601 or graduate standing.

**PSYCH 5602 Organizational Processes: Research and Practice** (LEC 3.0)
Examination of the field of Organizational Psychology. An emphasis is placed on research methods and application of practices related to individual processes, group processes, organizational structure and function. Prerequisites: 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. Prerequisite: Psych 4603 or graduate standing.

**PSYCH 5700 Advanced Industrial Psychology** (LEC 3.0)
An in-depth examination of the field of Industrial psychology. An emphasis is placed on research methods and application of practices related to Job Analysis, Recruitment, Selection, Training, and Performance Appraisal. 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, with a strong focus on application (e.g., environmental design, human error, safety). Prerequisite: Psych 4710 or graduate standing.

**PSYCH 5720 Advanced Human-Computer Interaction** (LEC 3.0)
This course examines the psychological research and theories that contribute to the field of human-computer interaction. An emphasis will be placed on engaging in critical evaluation of research and applying theoretical knowledge to effectively use computers in organizations. Prerequisite: Psych 4720 or graduate standing.

**PSYCH 5730 Environmental Psychology: Research and Practice** (LEC 3.0)
An in-depth review of the theoretical perspectives in environmental psychology and the psychological effects of various environments. An emphasis is placed on the review and integration of the research to explain the psychological issues related to various environments as well as to understand ways to effectively design living, educational, work, and recreational environments. Prerequisite: Psych 4730 or graduate standing.