# Twin Cities Campus Psychology B.S.

Psychology

#### College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2017
- Required credits to graduate with this degree: 120
- Required credits within the major: 54 to 61
- Degree: Bachelor of Science

Psychology examines human behavior through environmental, genetic, physiological, and social determinants and correlates. The BS in psychology offers students rigorous scientific training in biological and quantitative psychology, complimented by a broad education in such related fields as neuroscience, cognitive science, computer science, biology, chemistry, and mathematics. This degree is intended to prepare students for graduate work in psychology, as well as in related fields such as cognitive science, neuroscience, and medicine.

The BS degree in psychology emphasizes coursework in biological and quantitative/cognitive sciences. The biological courses are appropriate for students interested primarily in specializations such as the biological basis of psychopathology, the brain-behavior relation, evolutionary psychology, and behavior genetics. The quantitative/cognitive science courses are appropriate for students interested primarily in statistics and methods used in psychological research, in mathematical models of perception and cognition, and in psychological measurement. Students interested in the biological area are encouraged to choose heavily from outside foundation courses in the life sciences (e.g., biochemistry, biology, genetics and cell biology, evolution and behavior), whereas students focusing upon quantitative/cognitive science courses are encouraged to select more outside foundation courses in mathematics and the physical sciences (e.g., computer science, mathematics, physics, statistics).

A psychology BS is a valuable and useful background for a variety of careers and graduate and professional academic programs. A professional career as a psychologist requires further training. Students completing the baccalaureate degree in psychology may not receive a second baccalaureate degree in child psychology.

# **Program Delivery**

This program is available:

via classroom (the majority of instruction is face-to-face)

#### Admission Requirements

Prospective majors are strongly encouraged to complete PSY 3801 (or a Department of Psychology approved equivalent transfer course) and two outside foundation cluster courses prior to formally declaring the major. To declare a major, students first complete the Online Declaration Module (http://cla.umn.edu/psychology/undergraduate/majors-minors/declare-your-major) and then schedule an appointment with a psychology advisor (psyadvis@umn.edu).

For information about University of Minnesota admission requirements, visit the Office of Admissions website.

# General Requirements

All students are required to complete general University and college requirements including writing and liberal education courses. For more information about University-wide requirements, see the liberal education requirements. Required courses for the major or minor in which a student receives a D grade (with or without plus or minus) do not count toward the major or minor (including transfer courses).

# **Program Requirements**

Transfer students must complete a minimum of 16 upper division psychology credits in the Department of Psychology at the University of Minnesota - Twin Cities campus; 9 credits within the Outside Foundation Courses requirement must be completed at the University of Minnesota - Twin Cities campus. Students may earn no more than one undergraduate degree in psychology: a BA or a BS or a minor. Students may combine the psychology BS with the child psychology minor, but not with the child psychology BA or BS.

CLA freshmen must complete the First Year Experience course sequence.

### **Outside Foundation Courses**

Take 18 or more credit(s) including 3 or more sub-requirements(s) from the following:

# **Philosophy**

Note: All of these courses except PHIL 1001 have prerequisites.

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Take 0 - 11 credit(s) from the following:
•PHIL 1001 - Introduction to Logic [MATH] (4.0 cr)
•PHIL 3601W - Scientific Thought [WI] (4.0 cr)
•PHIL 3607 - Philosophy of Psychology (4.0 cr)
•PHIL 4607 - Philosophy of the Biological Sciences (3.0 cr)
•PHIL 5201 - Symbolic Logic I (4.0 cr)
•PHIL 5202 - Symbolic Logic II (4.0 cr)
•PHIL 1005 - Scientific Reasoning (4.0 cr)
 or PHIL 1005H {Inactive}(4.0 cr)
Computer Science/Math
Note: All of these courses except CSCI 1103 have prerequisites.
Take 0 - 11 credit(s) from the following:
•CSCI 1103 - Introduction to Computer Programming in Java (4.0 cr)
•CSCI 1113 - Introduction to C/C++ Programming for Scientists and Engineers (4.0 cr)
•CSCI 1133 - Introduction to Computing and Programming Concepts (4.0 cr)
•CSCI 1933 - Introduction to Algorithms and Data Structures (4.0 cr)
•CSCI 2011 - Discrete Structures of Computer Science (4.0 cr)
•MATH 2243 - Linear Algebra and Differential Equations (4.0 cr)
•MATH 2263 - Multivariable Calculus (4.0 cr)
•MATH 1271 - Calculus I [MATH] (4.0 cr)
 or MATH 1571H - Honors Calculus I [MATH] (4.0 cr)
•MATH 1272 - Calculus II (4.0 cr)
  or MATH 1572H - Honors Calculus II (4.0 cr)

    Physical Science

Note: All of these courses except CHEM 1015 have prerequisites.
Take 0 - 11 credit(s) from the following:
•CHEM 1015 - Introductory Chemistry: Lecture [PHYS] (3.0 cr)
•CHEM 1017 - Introductory Chemistry: Laboratory [PHYS] (1.0 cr)
•CHEM 2301 - Organic Chemistry I (3.0 cr)
•CHEM 2302 - Organic Chemistry II (3.0 cr)
•CHEM 2304 {Inactive}(3.0 cr)
•CHEM 2311 - Organic Lab (4.0 cr)
•CHEM 2312H - Honors Organic Lab (5.0 cr)
•PHYS 1101W - Introductory College Physics I [PHYS, WI] (4.0 cr)
•PHYS 1102W - Introductory College Physics II [PHYS, WI] (4.0 cr)
 CHEM 1061 - Chemical Principles I [PHYS] (3.0 cr)
   with CHEM 1065 - Chemical Principles I Laboratory [PHYS] (1.0 cr)
 or CHEM 1081 - Chemistry for the Life Sciences I [PHYS] (3.0 cr)
  with CHEM 1065 - Chemical Principles I Laboratory [PHYS] (1.0 cr)
  or CHEM 1071H - Honors Chemistry I [PHYS] (3.0 cr)
  with CHEM 1075H - Honors Chemistry I Laboratory [PHYS] (1.0 cr)
 CHEM 1062 - Chemical Principles II [PHYS] (3.0 cr)
   with CHEM 1066 - Chemical Principles II Laboratory [PHYS] (1.0 cr)
  or CHEM 1072H - Honors Chemistry II [PHYS] (3.0 cr)
  with CHEM 1076H - Honors Chemistry II Laboratory [PHYS] (1.0 cr)
•PHYS 1201W {Inactive}[PHYS, WI] (5.0 cr)
 or PHYS 1301W - Introductory Physics for Science and Engineering I [PHYS, WI] (4.0 cr)
 or PHYS 1401V - Honors Physics I [PHYS, WI] (4.0 cr)
•PHYS 1202W {Inactive}[PHYS, WI] (5.0 cr)
 or PHYS 1302W - Introductory Physics for Science and Engineering II [PHYS, WI] (4.0 cr)
  or PHYS 1402V - Honors Physics II [PHYS, WI] (4.0 cr)

    Biological Science

Note: All of these courses except ANTH 1001, ANTH 3002/EEB 3002, and BIOL 1001 have prerequisites.
Take 0 - 11 credit(s) from the following:
•ANTH 1001 - Human Evolution [BIOL] (4.0 cr)
•BIOC 3021 - Biochemistry (3.0 cr)
•BIOL 1101 - Genetics and Society [CIV] (3.0 cr)
•BIOL 2002 {Inactive}[BIOL] (6.0 cr)
•EEB 3409 - Evolution (3.0 cr)
•EEB 3411 - Introduction to Animal Behavior (3.0 cr)
•NSCI 2101 - Human Neuroanatomy [BIOL] (4.0 cr)
•NSCI 3505W - Mind and Brain [WI] (4.0 cr)
•NSCI 3101 - Neurobiology I: Molecules, Cells, and Systems (3.0 cr)
•PHSL 3050 {Inactive}(3.0 cr)
•PHSL 3051 - Human Physiology (4.0 cr)
•PHSL 3061 - Principles of Physiology (4.0 cr)
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•BIOL 1001 - Introductory Biology: Evolutionary and Ecological Perspectives [BIOL] (4.0 cr)
 or BIOL 1001H - Introductory Biology I: Evolutionary and Ecological Perspectives [BIOL] (4.0 cr)
•BIOL 1009 - General Biology [BIOL] (4.0 cr)
 or BIOL 1009H - Honors: General Biology [BIOL] (4.0 cr)
•BIOL 4003 - Genetics (3.0 cr)
 or GCD 3022 - Genetics (3.0 cr)
•BIOL 4004 - Cell Biology (3.0 cr)
 or GCD 3033 - Principles of Cell Biology (3.0 cr)
•ANTH 3002 - Sex, Evolution, and Behavior: Examining Human Evolutionary Biology (4.0 cr)
 or EEB 3002 - Sex, Evolution, and Behavior: Examining Human Evolutionary Biology (4.0 cr)
•EEB 4329 - Primate Ecology and Social Behavior (3.0 cr)
 or ANTH 4329 - Primate Ecology and Social Behavior (3.0 cr)
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#### **Major Courses**

Take 36 or more total credits including: Foundation Courses, Distribution Area Courses, Senior Project and any Electives needed to reach the minimum 36 credits in Psychology coursework. 3 Foundation Courses, 5 Distribution Area Courses, and Senior Project are all required.

#### **Foundation Courses**

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Take 3 of the following courses.
PSY 1001 - Introduction to Psychology [SOCS] (4.0 cr)
or PSY 1001H - Honors Introduction to Psychology [SOCS] (4.0 cr)
PSY 3801 - Introduction to Psychological Measurement and Data Analysis [MATH] (4.0 cr)
or PSY 3801H - Honors Introduction to Psychological Measurement and Data Analysis [MATH] (4.0 cr)
PSY 3001W - Introduction to Research Methods [WI] (4.0 cr)
or PSY 3001V - Honors Introduction to Research Methods [WI] (4.0 cr)
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#### **Distribution Area Courses**

Students are required to take at least five courses from the Distribution Area Courses. At least one course in Distribution Area courses must be at the 4xxx level or above, excluding: CPSY 4303, PSY 4902V, 4960, 4993, 4994V, 4996H, 5960, & 5993. Students should take additional Psychology courses from the Distribution Areas lists or the list of "Additional Elective Options" to reach the 36 credit minimum for the major.

Take 5 or more course(s) from the following:

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Distribution Area A: Cognitive and Brain Sciences
Take 2 or more course(s) totaling 6 or more credit(s) from the following:
•PSY 3011 - Introduction to Learning and Behavior (3.0 cr)
•PSY 3031 - Introduction to Sensation and Perception (3.0 cr)
•PSY 3051 - Introduction to Cognitive Psychology (3.0 cr)
•PSY 3061 - Introduction to Biological Psychology (3.0 cr)
•PSY 4011 {Inactive}(3.0 cr)
•PSY 4016 {Inactive}(4.0 cr)
•PSY 4021 - Creativity Sciences: Minds, Brains, and Innovation (3.0 cr)
•PSY 4032 - Psychology of Music (3.0 cr)
•PSY 4036 - Perceptual Issues in Visual Impairment (3.0 cr)
•PSY 5014 - Psychology of Human Learning and Memory (3.0 cr)
•PSY 5015 - Cognition, Computation, and Brain (3.0 cr)
•PSY 5018H - Mathematical Models of Human Behavior (3.0 cr)
•PSY 5031W - Perception [WI] (3.0 cr)
•PSY 5036W - Computational Vision [WI] (3.0 cr)
•PSY 5037 - Psychology of Hearing (3.0 cr)
•PSY 5038W - Introduction to Neural Networks [WI] (3.0 cr)
•PSY 5054 - Psychology of Language (3.0 cr)
•PSY 5062 - Cognitive Neuropsychology (3.0 cr)
•PSY 5063 - Introduction to Functional MRI (3.0 cr)
•PSY 5064 - Brain and Emotion (3.0 cr)
•PSY 5065 - Functional Imaging: Hands-on Training (3.0 cr)
•PSY 5066 - Neuroscience, Philosophy and Ethics (3.0 cr)

    Distibution Area B: Clinical, Personality, and Social

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

    CPSY 4303 - Adolescent Psychology (3.0 cr)

•PSY 3201 - Introduction to Social Psychology (3.0 cr)
•PSY 3206 - Introduction to Health Psychology (3.0 cr)
•PSY 3301 - Introduction to Cultural Psychology (3.0 cr)
•PSY 3604 - Introduction to Psychopathology (3.0 cr)
•PSY 3617 - Introduction to Clinical Psychology (3.0 cr)
•PSY 3633 {Inactive}(3.0 cr)
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•PSY 3666 - Human Sexuality (3.0 cr)
•PSY 5202 - Attitudes and Social Behavior (3.0 cr)
•PSY 5204 - Psychology of Interpersonal Relationships (3.0 cr)
•PSY 5205 - Applied Social Psychology (3.0 cr)
•PSY 3101 - Introduction to Personality (3.0 cr)
 or PSY 5101H - Honors: Personality: Current Theory and Research (3.0 cr)
•PSY 4207 - Personality and Social Behavior (3.0 cr)
 or PSY 5207 - Personality and Social Behavior (3.0 cr)
•CPSY 3301 - Introduction to Developmental Psychology [SOCS] (4.0 cr)
•Distribution Area C: Individual Differences, Quantitative, and Applied
Take 2 or more course(s) totaling 6 or more credit(s) from the following:
•PSY 3121 - History and Systems of Psychology (3.0 cr)
•PSY 3511 - Introduction to Counseling Psychology (3.0 cr)
•PSY 3711 - Psychology in the Workplace (3.0 cr)
•PSY 4501 - Psychology of Women and Gender (3.0 cr)
•PSY 4521 - Psychology of Stress and Trauma (3.0 cr)
•PSY 5136 - Human Abilities (3.0 cr)
•PSY 5137 - Introduction to Behavioral Genetics (3.0 cr)
•PSY 5501 - Self, Society and Health - What's Work Got To Do With It? (3.0 cr)
•PSY 5701 - Employee Selection and Staffing (3.0 cr)
•PSY 5707 {Inactive}(4.0 cr)
•PSY 5708 - Organizational Psychology (3.0 cr)
•PSY 5862 - Psychological Measurement: Theory and Methods (3.0 cr)
•PSY 5865 - Advanced Measurement: Theory and Application (3.0 cr)
•PSY 3135 - Introduction to Individual Differences (3.0 cr)
 or PSY 5135 - Psychology of Individual Differences (3.0 cr)

    Additional Elective Options

Take 0 or more course(s) from the following:
Take at most 3 credit(s) from the following:
 •PSY 3960 - Undergraduate Seminar in Psychology (1.0 - 5.0 cr)
 •PSY 3993 - Directed Study (1.0 - 6.0 cr)
 •PSY 3996 - Undergraduate Fieldwork and Internship in Psychology (1.0 - 4.0 cr)
 •PSY 4960 - Seminar in Psychology (1.0 - 4.0 cr)
 •PSY 4996H - Honors Internship/Externship (1.0 - 6.0 cr)
 •PSY 5960 - Topics in Psychology (1.0 - 4.0 cr)
•Students may count up to 6 credits of PSY 4993/5993 toward the electives sub-requirement. An additional 3 credits of PSY
4993/5993 is required for the senior project.
 Take at most 6 credit(s) from the following:
 •PSY 4993 - Directed Research: Special Areas of Psychology and Related Sciences (1.0 - 6.0 cr)
 •PSY 5993 - Research Laboratory in Psychology (3.0 cr)
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# Senior Project

### **General Sequence**

Take PSY 4993 or 5993 one semester prior to, or concurrent with PSY 3901W or 3902W.

Take 2 courses for at least 6 credits:

PSY 3901W - Capstone in Psychology - Research Laboratory [WI] (3.0 cr)

PSY 4993 - Directed Research: Special Areas of Psychology and Related Sciences (1.0 - 6.0 cr)

or PSY 5993 - Research Laboratory in Psychology (3.0 cr)

# or Honors Sequence

Honors students must take PSY 4994V prior to taking PSY 4902V. PSY 4994V is typically taken in the Spring semester of Junior year. Students should plan this sequence with Psychology Advising and Psychology Honors faculty. Students must enroll in PSY 4902V for a minimum of 3, but no more than 6 credits.

To complete the Honors Senior Project, take the following 2 courses for 7-10 credits:

PSY 4994V - Honors Research Practicum [WI] (4.0 cr)

PSY 5994 - Directed Research: Psy Honors Thesis (1.0 - 6.0 cr)

# Upper Division Writing Intensive within the major

Students are required to take one upper division writing intensive course within the major. If that requirement has not been satisfied within the core major requirements, students must choose one course from the following list. Some of these courses may also fulfill other major requirements.

Take 0 - 1 course(s) from the following:

- •PSY 3001V Honors Introduction to Research Methods [WI] (4.0 cr)
- •PSY 3001W Introduction to Research Methods [WI] (4.0 cr)
- •PSY 3901W Capstone in Psychology Research Laboratory [WI] (3.0 cr)
- •PSY 3902W Capstone in Psychology Individual Interests [WI] (3.0 cr)
- •PSY 5994 Directed Research: Psy Honors Thesis (1.0 6.0 cr)

- •PSY 4994V Honors Research Practicum [WI] (4.0 cr)
  •PSY 5031W Perception [WI] (3.0 cr)
- •PSY 5036W Computational Vision [WI] (3.0 cr)
- •PSY 5038W Introduction to Neural Networks [WI] (3.0 cr)