

# PSYCHOLOGY

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wp.stolaf.edu/psych (<http://wp.stolaf.edu/psych>)

The Department of Psychology is committed to maintaining a rigorous academic curriculum within a supportive community structure. It seeks to address broad questions posed by a liberal education and specific concerns of individual students. St. Olaf College's mission statement provides a framework for curriculum, personal development, and community relations. Because life is more than facts and theories, the Psychology Department encourages students to be responsible citizens dedicated to service, as well as scientific seekers of truth.

Psychology courses contribute to general education by fulfilling both foundation studies (ORC and WRI) and core studies (HBS, EIN, IST and SED, MCD, MCG). They introduce the disciplinary knowledge that nurtures growth and behavioral change while providing background for advanced study. Psychology contributes to majors in social work and nursing, to concentrations in environmental studies, family studies, Asian studies, linguistic studies, neuroscience, and women's and gender studies, and to the psychology core of the social studies education major.

Psychology majors are prepared for graduate and professional programs in psychology, medicine, law, physical therapy, social work, nursing, and ministry and for entering positions in business, government, or industry.

## Overview of the Major

The Department of Psychology follows the American Psychological Association's guidelines of "synthesizing the natural and social science aspects of the discipline, in part, by requiring students to take courses in both knowledge bases." Thus both interpersonal and investigative skills are enhanced. Students benefit from research in the library, laboratory, and field, as well as from internships. Through course structure and faculty diversity, the department challenges students to think critically and creatively as they investigate ways in which animals, especially humans, adapt to their environment through biological, social, emotional, spiritual, perceptual, behavioral, linguistic, and cognitive processes.

## Intended Learning Outcomes for the Major (<http://wp.stolaf.edu/curriculum-committee/psychology-major-ilos>)

## Distinction

See Academic Honors (<http://catalog.stolaf.edu/archive/2016-2017/academic-regulations-procedures/academic-honors/#distinction>)

Distinction in the major is awarded based on a portfolio that the major submits to the department for evaluation. The submitted portfolio consists of:

- The student's course transcript and psychology GPA
- An annotated history of relevant experiences, written by the student
- The student's personal statement

- A major paper

Further detail about the distinction process and the portfolio can be found on the Department of Psychology (<http://wp.stolaf.edu/psych>) web page.

## Special Programs

The Psychology Club, open to all students interested in psychology, is an active organization on campus, as is Psi Chi, the national honor society in psychology. Together they offer group activities of psychological interest. Psychology majors are eligible for affiliate membership in the American Psychological Association and to receive its publications and announcements.

Special study programs include the social studies education program with a major in psychology and internship programs to pursue special areas of interest in the field.

Research groups in the department allow students to participate in a research program associated with a faculty member. Participation in these research groups allows students to learn how research is done in psychology, to practice skills they will need in graduate school and other employment, and to begin the process of becoming a psychologist. Often the research done in research groups is presented at national and regional conferences and published in professional journals.

Departmental honors and awards include the Gordon Allport Award granted each spring to the junior whose aspirations are in basic sympathy with Allport's views and who has made efforts to develop his or her own talents, interests, and personality toward fulfilling his or her individual potential. A psychology endowment fund provides funding for equipment, supplies, and travel expenses for students undertaking research in the department.

## Recommendations for Graduate Study

Students who wish to attend graduate school are encouraged to consult with the psychology faculty to plan a course of study appropriate to their interests.

## Requirements

Psychology majors are required to take 11.00 courses to complete the major. The major consists of 10.00 courses in the Department of Psychology and 1.00 course in statistics.

The requirements fall into five categories: foundation courses in the major, content core courses, level III capstone courses, elective courses in the department, and a general education requirement for the major.

### Foundation Courses in the Major

PSYCH 125	Principles of Psychology	1.00
PSYCH 230	Research Methods in Psychology	1.00

### Content Core of the Major

Select two courses from the natural science content core: 2.00

PSYCH 235	Sensation and Perception
PSYCH 236	Conditioning and Learning
PSYCH 237	Cognitive Psychology

PSYCH 238	Biopsychology	
Select two courses from the social science content core:		2.00
PSYCH 241	Developmental Psychology	
PSYCH 244	Psychology of Personality	
PSYCH 247	Psychopathology	
PSYCH 249	Social Psychology	
<b>Level III Capstone Courses</b>		
Two of any level III courses <sup>1</sup>		2.00
<b>General Education Requirement for the Major</b>		
Select an introductory course in statistics that emphasizes descriptive statistics and hypothesis testing:		1.00
STAT 110	Principles of Statistics	
STAT 212	Statistics for the Sciences	
STAT 214	Honors Statistics for the Sciences	
ECON 263	Statistics for Economics	
<b>Elective Psychology Courses</b>		
Two additional psychology courses		2.00
Total Credits		11

<sup>1</sup> Except PSYCH 394, which does NOT count toward the level III requirement. Only one PSYCH 396 or PSYCH 398 may fulfill the level III requirement

## Courses

### PSYCH 125: *Principles of Psychology*

This course examines the basic principles and methods of psychological science from an evolutionary and cultural perspective. Students use critical thinking skills to examine fascinating topics: dreaming, cultural influences, identity, learning, thinking, and the biology of behavior. Applying basic research methods, students act as skeptical scientists. This course applies to almost any career choice in today's world and provides insight into self and others. Offered each semester. Counts toward exercise science major and educational studies concentration.

### PSYCH 219: *India Interim Orientation Seminar (0.25)*

The pre-departure orientation seminar supports and enhances students' off-campus learning by increasing their preparation for a month of study and travel in India. Students employ a psychological perspective to read, discuss, and present literature about India's culture, history, and current issues. The study and practice of intercultural learning activities and the use of video conferencing and other resources support students' interactions and field projects with the group's hosts at universities and research sites in India.

### PSYCH 220: *Socioemotional Development in Cultural Context*

This course explores children's socioemotional and self development in cultural context. Students examine larger theoretical frameworks and developmental patterns concerning socioemotional development, paying special attention to the various familial and cultural contexts that lead to the creation of individual selves and cultural beings. Some of the questions the course explores include: How do children become emotional beings? How do cultural factors shape our sense of self and identity, our motivations, and interactions with others? Offered during Interim.

**Prerequisite:** PSYCH 125.

### PSYCH 221: *Menacing Minds*

Psychopaths, blazing a path of disregard and devastation through life, are a chilling example of the darker side of humanity. Students critically compare psychopathy as portrayed in the popular media to psychology's theoretical and empirical understanding. They explore questions such as: What are the hallmark characteristics of a psychopath? Where can psychopaths be found? What causes psychopathy? Students also examine the question of what the existence of psychopathy means for the rest of us. Offered during Interim.

**Prerequisite:** PSYCH 125.

### PSYCH 222: *Psychology of Hearing*

How do we hear? What do we hear? How do we know? This course examines the perception of the acoustic world through our sense of hearing. Topics include the structure of sound itself (acoustics), how sound is encoded and processed by the brain, and how we come to understand sound as something beyond a physical stimulus (representation, meaning, and interpretation). Additional topics include speech perception, music, hearing loss, and cochlear implants. Offered during Interim. Counts toward linguistic studies concentration.

**Prerequisite:** PSYCH 125 recommended.

### PSYCH 223: *Exploring India: Human Development in Cross-Cultural Context (abroad)*

This course explores childhood and family life in modern India through site visits, observations, lectures, and readings, addressing questions such as: How does India's unique history and culture, population growth, and economic development affect parenting practices, children's self-concept, relationships, and education? How do adolescents in India understand and experience gender roles and the transition to adulthood? How do Indian psychologists and social workers integrate traditional and contemporary approaches in this religiously and linguistically diverse nation? Offered periodically during Interim. Counts toward women's and gender studies major and concentration and family studies concentration.

**Prerequisite:** PSYCH 125 or ASIAN 121 or FAMST 232 or FAMST 242 or permission of the instructor.

### PSYCH 224: *Community Applications of Psychology*

This course integrates on-campus classroom activities with service-learning placements in and around Northfield. Scholarly readings, classroom discussions, and assignments highlight the unique theoretical perspectives, skills, and methodological approaches that psychologists use to address social problems and community needs through research, practice, and policy. Students' on-site experiences and observations provide opportunities for the application of previous coursework as well as guided reflection and exploration of goals for personal and vocational development. Offered periodically.

**Prerequisite:** PSYCH 125.

### PSYCH 227: *Environmental Psychology at Rocky Mountain National Park (off-campus)*

This course investigates the human relationship with the natural world, examining ways in which the natural environment is important psychologically to human beings. Integrating aspects of theoretical and empirical psychology, environmental studies and literature, we explore meanings, values, and questions such as: How are we affected by nature? What affects people's attitudes and behaviors toward the environment? How do we respond to environmental challenges? How does the field of psychology address the natural world? Offered during Interim. Counts toward American studies major and environmental studies major (all emphases) and concentration.

**Prerequisite:** PSYCH 125 or ENVST 137.

**PSYCH 228: Adolescence in Context**

Adolescence is a transition period characterized by increased risk and vulnerability as well as new opportunities for positive change. This course explores biological, cognitive, and social development in adolescence and emerging adulthood. Students critically examine prominent theories and research methods, and analyze multiple contexts that shape the adolescent experience, such as families, schools, neighborhoods, and cultures. The class discusses how adolescent psychology can promote positive youth development through real world applications.

**Prerequisite:** PSYCH 125.

**PSYCH 229: Psychology of Spirituality and Religion**

Spiritual and religious experience and practices are human activities that can be investigated with psychological methods and theories. To do so faithfully, one must deal with the tension between scientifically understanding something and explaining it away. Students review the large multidisciplinary literature in this area. They also explore the religion/science tension by reporting on current news items and by participating in a chosen private spiritual practice (e.g. meditation) and systematically analyzing the experience. Offered periodically.

**Prerequisites:** PSYCH 125 and BTS-B, or permission of the instructor.

**PSYCH 230: Research Methods in Psychology**

This course prepares the student with tools for understanding how research studies in psychology are conceptualized, designed, carried out, interpreted, and disseminated to the public. Use of library and Internet resources, ethical guidelines in the conduct of research and the skills of good scientific writing are emphasized. Students work independently and in small groups to design and conduct their own research projects. The course includes lecture and laboratory work. Offered each semester. Counts toward environmental studies major (social science emphasis), exercise science major, and statistics concentration.

**Prerequisites:** PSYCH 125, and STAT 110 or STAT 212 or STAT 214 or ECON 263.

**PSYCH 235: Sensation and Perception**

This course offers the opportunity to study our senses and sensibilities -- sensations of cold, tenderness and pain, perceptions of movement, pitch, symmetry, and color. Students participate actively in psychophysical, physiological, and perceptual laboratories and classes on vision, audition, somesthesia, and the chemical senses. The course includes lecture and laboratory work. Offered annually. Counts toward neuroscience concentration.

**Prerequisite:** PSYCH 125.

**PSYCH 236: Conditioning and Learning**

How do psychologists characterize the most basic aspects of the learning process? While some emphasis is on analysis of the behavioral viewpoint (Pavlov, Skinner), students also examine the ways current investigators apply these basic principles to problems in other fields. These include behavioral therapy for a variety of psychological disturbances, research on the neurobiology of drug reward, and analysis of consumer behavior. The course includes lecture and laboratory work with nonhuman animals. Counts toward educational studies, management studies, and educational studies concentrations.

**Prerequisite:** PSYCH 125. Offered annually.

**PSYCH 237: Cognitive Psychology**

Focus includes information processing, learning and remembering speech, artistic, musical and athletic performance, invention and other forms of creativity. Students unlock the mind's mysteries using state-of-the-art scientific instrumentation, developing cognitive science knowledge and research skills. The course includes lecture and laboratory work. Offered annually. Counts toward linguistic studies and neuroscience concentrations.

**Prerequisite:** PSYCH 125.

**PSYCH 238: Biopsychology**

How do biological factors influence fundamental aspects of psychology and behavior? In this course, students learn about relationships between the brain and behavior and use neuroanatomical, physiological, and biochemical levels of analysis to understand basic behavioral processes and systems, including sensation, movement, emotion, sleep and arousal, hunger, motivation, learning, and psychopathology. Offered each semester. Counts toward biology major and neuroscience concentration.

**Prerequisite:** PSYCH 125 or BIO 123, BIO 227 or CH/BIO 227.

**PSYCH 241: Developmental Psychology**

This course helps students better understand human development from the moment of conception and across the life span. The course focuses on biological and environmental factors that shape human development. Major changes in physical, cognitive, personality and social development are discussed. Offered each semester. Counts toward exercise science, nursing, social work, and women's and gender studies majors and educational studies, family studies, and women's and gender studies concentrations.

**Prerequisite:** PSYCH 125.

**PSYCH 244: Psychology of Personality**

Students examine theories of normal personality development in an effort to understand the factors that shape personality. Is personality biologically determined? Is it a result of interpersonal experiences, learning and reinforcement? Are other factors involved as well? Students investigate prominent personality theories and research and their conceptualizations of this fundamental aspect of human experience. Offered annually.

**Prerequisite:** PSYCH 125.

**PSYCH 247: Psychopathology**

Why are certain experiences or patterns of behavior considered psychologically "abnormal?" Students investigate a wide array of psychological disorders, including anxiety disorders, depression, eating disorders, and schizophrenia. Students examine models used to conceptualize abnormal behavior, as well as current evidence and theories regarding the etiology and treatment of these important and sometimes devastating disorders. Offered each semester. Counts toward exercise science major.

**Prerequisite:** PSYCH 125.

**PSYCH 249: Social Psychology**

Why are people prejudiced and how can we reduce prejudice? Why do people help others? What is self-esteem and how do we defend it? How does romantic attraction develop? What are emotions and how do they influence us? In this introduction to the ways people interact and think about each other, students design their own theories of social behavior. Offered annually. Counts toward management studies concentration.

**Prerequisite:** PSYCH 125.

**PSYCH 250: Industrial/Organizational Psychology**

Students apply psychological facts and principles to the problems that permeate business and industry. Topics include organizational structure, personnel management, employee-supervisor relationships, job satisfaction and motivation, communication and leadership. Offered annually. Counts toward management studies concentration.

**Prerequisite:** PSYCH 125.

**PSYCH 251: Sport and Exercise Psychology**

This course examines the thoughts, feelings, and behaviors of individuals in the context of physical activity and how psychological factors affect and are affected by involvement and performance in sport and exercise. Students study theory and research as well as apply principles of sport psychology, drawing from the fields of both psychology and kinesiology. Students explore current issues as well as major topics in the area, such as motivation, leadership, and team dynamics. Offered periodically.

**Prerequisite:** PSYCH 125.

**PSYCH 254: Culture and Place in Psychology**

Many psychological processes once assumed to be similar around the world are actually powerfully influenced by culture. This course explores ways in which cultural context affects psychological experience, including cognition, emotion, personality, values, social behavior, and subjective well-being. Students study the methods, constructs, and findings of cultural psychology, and reflect on their own cultural experiences; thus this course is particularly appropriate for students returning from or preparing to study abroad. Offered most years.

**Prerequisite:** PSYCH 125.

**PSYCH 294: Academic Internship****PSYCH 298: Independent Study**

This opportunity to investigate in depth a topic of interest, typically culminating in a library research-based paper, is strongly recommended as preparation for PSYCH 398. Offered each semester.

**Prerequisite:** PSYCH 125, at least three courses in the department, and permission of instructor; PSYCH 230 is strongly recommended.

**PSYCH 336: Neuroscience of Addiction**

This seminar explores current knowledge of mechanisms involved in behavioral responses to drugs of abuse at the systems, cellular, and molecular levels. The action of stimulant drugs, alcohol, and the opiates on reward pathways are discussed in terms of behavioral neurobiology, pharmacology, and gene expression. Consideration is given to the role of environmental cues and stress in relapse to drug-seeking both in animal models and human studies. Offered alternate years. Counts toward neuroscience concentration.

**Prerequisites:** PSYCH 230, plus PSYCH 238 or NEURO 239.

**PSYCH 337: Neurobiology of Learning and Memory**

Memory is a fundamental part of human existence, but what do we currently know about the neurobiology that underlies this remarkable ability? In this seminar, students present and discuss recently published research that examines the neurobiology of learning and memory from molecular, cellular, behavioral and cognitive neuroscience perspectives.

**Prerequisites:** PSYCH 230, plus PSYCH 238 or NEURO 239. Offered most years. Counts toward neuroscience concentration.

**PSYCH 338: Neurobiology of Psychopathology**

With recent advances in neuroscience, we can now describe the biological correlates of many psychological disorders, including schizophrenia, depression and anxiety disorders. In this discussion-based course, students use published research findings to examine the connections between the symptoms of these pathologies and changes in brain neurobiology, biochemistry, and physiology. Offered alternate years. Counts toward neuroscience concentration.

**Prerequisites:** PSYCH 230, PSYCH 247, plus PSYCH 238 or NEURO 239.

**PSYCH 339: Cognitive Neuroscience**

Cognitive neuroscience investigates the biological bases of higher order cognition and complex human behavior (or more simply put, how the brain enables the mind). Discussion topics include the methodologies of cognitive neuroscience, perception, attention, learning, memory, language, executive function, emotion, development, social cognition, and consciousness. Offered annually. Counts toward neuroscience and linguistics concentrations.

**Prerequisites:** PSYCH 230, or PSYCH 238 and NEURO 239.

**PSYCH 342: Positive Psychology: The Science of Optimal Human Experience**

This seminar investigates "the good life," exploring what psychology can tell us about human flourishing and psychological well-being. Empirical evidence is examined to understand some of the best aspects of life, such as the function of positive emotions, the role of traits in well-being, sources of meaning and life satisfaction, and character strength and virtue. Personality and sociocultural factors are emphasized in this exploration of the positive potentials of human life. Offered periodically. Counts toward management studies concentration.

**Prerequisites:** PSYCH 230, plus PSYCH 244 or PSYCH 249.

**PSYCH 344: Personality Assessment**

In this course, students explore methods that psychologists use to develop meaningful, nuanced understandings of individual persons. The richness and complexity of personality is seen as students get first-hand experience interviewing a hired subject, interpreting personality tests, analyzing personal narratives, and applying theories and concepts used in personality and clinical psychology. Integrating information about unique personal history, personality dynamics, and life story, students learn to develop coherent conceptualizations of the signature-like features of another's personality. Counts toward psychology major.

**Prerequisite:** PSYCH 230 and PSYCH 244 or permission of instructor.

**PSYCH 350: Parenting and Child Development in Diverse Families**

This course explores research on parenting and child development across a variety of alternative family structures and sociocultural contexts, including families with primary caregiving fathers, divorced and remarried parents, and gay and lesbian parents. Students discuss similarities and variability in development across families, and unique challenges that "nontraditional" families may confront. Students examine and bridge the empirical literature with popular culture and media portrayals of families. Offered periodically. Counts toward women's and gender studies major and educational studies, family studies, and women's and gender studies concentrations.

**Prerequisite:** PSYCH 241; PSYCH 230 is recommended.



**PSYCH 375: Clinical and Counseling Psychology**

This course examines several major theoretical perspectives on psychotherapy. Students review empirically supported treatments for specific clinical disorders, as well as "nonspecific" factors that affect the therapeutic process. Students explore ethical and legal challenges related to psychotherapy delivery, as well as multicultural and other diversity issues. Course format is primarily discussion-based. Offered annually. Counts toward management studies concentration.

**Prerequisites:** junior or senior standing and PSYCH 230, plus PSYCH 244 or PSYCH 247.

**PSYCH 378: Health Psychology**

What is the mind-body connection? This course explores the major issues, theories, and interventions in health psychology. Students review evidence for the impact of psychological and behavioral factors on the immune system and health. Psychosocial approaches to the major diseases, their rationale, and the evidence supporting these interventions are examined. Offered periodically.

**Prerequisite:** PSYCH 230, plus PSYCH 244 or PSYCH 247.

**PSYCH 390: Issues in Psychology**

Seminars allow in-depth study of particular themes or topics in psychology. See department Website for descriptions and additional prerequisites. Offered annually. May be repeated if topic is different.

**Prerequisite:** PSYCH 230.

**PSYCH 391: Topics in Psychology**

**Sample Topic:** The Psychology of Good and Evil Why do we feel it is important to judge behavior as morally good or bad? How do we make these judgments? What makes it possible for people to commit acts of extraordinary heroism or evil? Good answers to these questions require knowledge of philosophical and theological ethics and of the empirical work on moral action and judgment. Students read both and ask how they do (and should) inform each other.

**Prerequisite:** PSYCH 230 and at least two level II psychology courses, or permission of the instructor.

**PSYCH 394: Academic Internship****PSYCH 395: Advanced Research in Behavioral Neuroscience**

A wide array of techniques is used to answer fundamental questions about how the brain and nervous system work in the expression of behavior. Through readings, discussion, and hands-on laboratory experiences students examine various research methods in behavioral neuroscience, considering the strengths and weaknesses of each. Emphasis is placed on ethical considerations of animal research and the application of basic science data to human problems. Topics may include feeding behavior, drug-seeking, and pain perception. Counts toward neuroscience concentration.

**Prerequisites:** PSYCH 230, plus NEURO 239 or PSYCH 238.

**PSYCH 396: Directed Undergraduate Research**

This course provides a comprehensive research opportunity, including an introduction to relevant background material, technical instruction, identification of a meaningful project, and data collection. The topic is determined by the faculty member in charge of the course and may relate to his/her research interests. Offered based on department decision. May be offered as a 1.00 credit course or .50 credit course.

**Prerequisite:** determined by individual instructor.

**PSYCH 398: Independent Research**

Students have the opportunity to work in depth on a research project of interest under the supervision of a member of the psychology department faculty. Offered each semester. Depending on course topic, may count toward the neuroscience concentration.

**Prerequisite:** STAT 110, STAT 212, STAT 214 or ECON 263; PSYCH 230; four additional courses in the department; and permission of instructor. PSYCH 298 is strongly recommended.

**Faculty****Chair, 2016-2017 (fall)**

**Shelly D. Dickinson** (on leave spring)

Associate Professor of Psychology  
behavioral neuroscience; addiction; conditioning and learning; psychopharmacology

**Chair, 2016-2017 (Interim and spring)**

**Donna McMillan**

Associate Professor of Psychology  
clinical psychology; personality psychology; environmental psychology; positive psychology

**Grace E. Cho**

Associate Professor of Psychology  
developmental psychology; child development; cultural psychology; socioemotional development; parent-child processes

**Anna Erickson**

Adjunct Assistant Professor of Psychology

**Paul Greenberg**

Adjunct Assistant Professor of Psychology

**Dana L. Gross**

Professor of Psychology, Associate Dean of Interdisciplinary and General Studies  
developmental psychology; off-campus study

**Maya GB Hamilton**

Adjunct Assistant Professor of Psychology  
sport and exercise psychology; ethics and moral development

**Charles Huff**

Professor of Psychology  
social psychology; moral psychology; science and technology studies; psychology of religion

**Anna E. Johnson Roach**

Visiting Assistant Professor of Psychology  
developmental psychology; social neuroscience; health psychology; stress

**Jeremy L. Loebach**

Assistant Professor of Psychology  
cognitive neuroscience; speech and hearing sciences; psycholinguistics

**Gary M. Muir**

Associate Professor of Psychology  
behavioral neuroscience; cognitive neuroscience; neurobiology of spatial navigation; neurobiology of learning and memory

**Daniel Nelson**

Visiting Assistant Professor of Psychology

**Jessica R. Petok**

Assistant Professor of Psychology

aging; adult development; cognition; memory and learning

**Mark Sundby**

Adjunct Assistant Professor of Psychology

clinical and counseling; psychological assessment; stress and

resiliency; leadership development; health psychology

**Carlo O.C. Veltri**

Assistant Professor of Psychology

clinical psychology; psychopathology; psychological assessment;

personality; forensic psychology