

# PSYCHOLOGY

## Overview & Learning Goals

### Overview

The program in psychology examines contemporary perspectives on principles of human behavior in areas ranging from cognition, development, and behavioral neuroscience to interpersonal relations and psychopathology. Its approach emphasizes scientific methods of inquiry and analysis.

### Learning Goals

**Goal 1:** Demonstrate understanding of the major concepts, theoretical perspectives, basic research findings, and methods in psychology.

- Breadth in the discipline is accomplished through PSYC 1101 Introduction to Psychology and the 2000-level topics courses. Majors are required to complete three topics courses; minors are required to complete at least two. Depth is achieved through 2700-level laboratory courses and the 3000-level seminar courses in which students demonstrate mastery of methodologies and literature in two or more sub-disciplines.

**Goal 2:** Apply principles of psychology to better understand one's own and others' behavior and mental processes as found in the real world.

- PSYC 1101 Introduction to Psychology, topics courses, and seminars emphasize the relevance of psychological principles and findings to everyday life.

**Goal 3:** Develop an understanding of the social and cultural context of psychology.

- Across the psychology curriculum, social and cultural differences (e.g., class, ethnicity, gender, race) are discussed and analyzed as factors that influence, and are influenced by, human behavior.

**Goal 4:** Rigorously evaluate the methods, findings, and conclusions in published research.

- Although courses across the psychology curriculum encourage rigorous questioning of the existing literature, this expectation is most thoroughly actualized by students in advanced seminars.

**Goal 5:** Acquire skills to empirically test questions and claims about behavior and mental processes.

- In PSYC 2510 Research Design in Psychology, PSYC 2520 Data Analysis, and laboratory courses, students develop the tools necessary to apply the scientific method by collecting, analyzing, and interpreting data.

**Goal 6:** Design and conduct original research.

- Laboratory courses, advanced seminars, and independent study and honors courses require students to move beyond evaluating previous research to formulate and test novel questions and hypotheses.

**Goal 7:** Communicate effectively through written, oral, and other modes (e.g., videos, images, graphs).

- Students learn to effectively convey their knowledge and critical analysis of the literature and their research findings in research design. These skills are further developed in laboratory courses and advanced seminars.

### Options for Majoring or Minorin in the Department

Students may elect to major in psychology; to coordinate a major in psychology with digital and computational studies, education, or environmental studies; or to major in neuroscience, sponsored jointly by the departments of psychology and biology (see neuroscience (<https://bowdoin-public.courseleaf.com/departments-programs/neuroscience/>)). Students pursuing a coordinate major may not normally elect a second major. Non-majors may elect to minor in psychology.

Department Website (<https://www.bowdoin.edu/psychology/>)

### Faculty

Suzanne B. Lovett, *Department Chair*

Donna M. Trout, *Senior Department Coordinator*

*Professor:* Samuel P. Putnam

*Associate Professors:* Suzanne B. Lovett, Erika M. Nyhus (Neuroscience), Hannah E. Reese, Zachary K. Rothschild†

*Assistant Professors:* Jennifer Honeycutt‡ (Neuroscience), Abhilasha Kumar

*Visiting faculty:* Kacie Armstrong, Thomas W. Small (Neuroscience)

*Adjunct Lecturer:* Michael Buccigrossi (fall semester)

Faculty/Staff Website (<https://www.bowdoin.edu/psychology/faculty-and-staff/>)

## Requirements

### Psychology Major

The psychology major comprises ten courses; these are selected by students with their advisors and are subject to departmental review.

Code	Title	Credits
<b>Required Courses</b>		
The following three core courses should be completed before the junior year when feasible:		
PSYC 1101	Introduction to Psychology (which is a prerequisite to further study in psychology)	1
PSYC 2510	Research Design in Psychology	1
PSYC 2520	Data Analysis	1
Select three courses chosen from topics-level courses (2000–2099).		3
Select two laboratory courses from psychology 2700–2799. <sup>a</sup>		2
Select two advanced courses from psychology 3000–3999. <sup>b,c,d,e</sup>		2

- <sup>a</sup> Only one of PSYC 2750 Behavioral Neuroscience Laboratory, Affective Neuroscience or PSYC 2775 Laboratory in Cognitive Neuroscience may be used to fulfill the major requirements.
- <sup>b</sup> Only one of PSYC 3010 Social Development or PSYC 3011 Cognitive Development may be used to fulfill the major requirements.
- <sup>c</sup> Only one of PSYC 3025 Psychotherapy and Behavior Change or PSYC 3027 Anxiety and Related Disorders across the Lifespan may be used to fulfill the major requirements.

- d Only one of PSYC 3040–3049 may be used to fulfill the major requirements.
- e Only one of PSYC 3050–3059 may be used to fulfill the major requirements.

## Psychology Minor

The psychology minor comprises six courses.

Code	Title	Credits
<b>Required Courses</b>		
PSYC 1101	Introduction to Psychology	1
PSYC 2510	Research Design in Psychology	1
PSYC 2520	Data Analysis	1
Select one course chosen from the topics-level courses (2000-2099).		
Select one laboratory course from psychology 2700–2799.		
Select one additional elective course excluding independent study.		

## Additional Information

### Additional Information and Department Policies

- Students are encouraged to consider an independent study including a directed reading, intermediate, or advanced independent study, or an intermediate or advanced collaborative study. Independent study courses do not count toward the core, laboratory, advanced course, or topics-level requirements for the major, but may count toward the ten credits required for the major if a student places out of PSYC 1101 Introduction to Psychology. Independent study courses do not count toward the minor.
- Students who wish to pursue honors in psychology should identify a potential faculty mentor in their junior year. Honors is a two semester sequence in the senior year. Honors projects courses do not count toward the core, laboratory, advanced course, or topics level requirements for the major. Guidelines for the honors program are available on the department website (<https://www.bowdoin.edu/psychology/resources-and-opportunities/honors-projects.html>).
- Students who are considering a major in psychology are encouraged to enroll in PSYC 1101 Introduction to Psychology during their first year at Bowdoin, and to enroll in PSYC 2510 Research Design in Psychology and PSYC 2520 Data Analysis during their second year.
- Students must take PSYC 2510 Research Design in Psychology before PSYC 2520 Data Analysis and before any course numbered 2700 or higher. PSYC 2520 Data Analysis must be taken concurrently with or prior to any course numbered 2700 or higher. If possible, students should begin their laboratory work no later than the first semester of their junior year.
- Those who plan to study away from campus for one or both semesters of their junior year should complete at least one laboratory course before leaving for their off-campus experience and plan their courses so that they can complete the major after returning to campus. Students should speak with the chair of the department regarding their off-campus study plans and transfer of credit toward the major. Laboratory or advanced courses taken elsewhere may be counted as electives, but are not normally counted toward the laboratory or advanced course requirement. However, the department has occasionally allowed such courses to meet those requirements.

Please meet with Chair if you believe the course taken elsewhere is comparable to a department lab or seminar.

- Majors and minors may double-count certain courses with certain other departments or programs. Students who coordinate a major in psychology with digital and computational studies, education, or environmental studies may double count certain courses. Majors and minors may double count PSYC 2520 Data Analysis toward another major or minor that requires a quantitative or data analytic course. Please meet with Chair to discuss your options for double counting.
- Students who major or minor in psychology may not also major in neuroscience; students who major in neuroscience may not also major or minor in psychology.

## Grade Requirements

To fulfill a major or minor requirement in psychology, a course must be taken for a standard letter grade and a grade of C- or better must be earned. There is one exception: PSYC 1101 Introduction to Psychology may be taken with the Credit/D/Fail grading option, and it counts toward the major or minor if a grade of CR (Credit) is earned for the course.

## Advanced Placement/International Baccalaureate (AP/IB)

Students who receive a minimum score of four on the AP Psychology exam or a minimum score of five on the IB Psychology exam, Higher Level only, are considered to have met the prerequisite for courses requiring PSYC 1101 Introduction to Psychology. In order to receive credit for Advanced Placement or International Baccalaureate work, students must have their scores officially reported to the Office of the Registrar by the end of their sophomore year at Bowdoin, but students who meet the minimum score requirements to place out of PSYC 1101 Introduction to Psychology are strongly recommended to submit their scores to the Office of the Registrar as soon as possible as those scores will serve as the prerequisite for all other psychology courses. If students place out of PSYC 1101 Introduction to Psychology, ten psychology courses must still be completed for the major, and six for the minor; any psychology course including any type of independent study, collaborative study, or honors project course in psychology may count as this tenth course.

## Information for Incoming Students (p. 2)

Psychology is the scientific study of the mind, brain, and behavior of individuals (particularly human individuals). The first course in the department is PSYC 1101 Introduction to Psychology which is a prerequisite to all other psychology courses. This course is offered every semester. It provides a broad overview of the topics covered in psychology as well as an introduction to how psychological research is conducted.

There is no placement test for PSYC 1101 Introduction to Psychology; we assume that most students have not had the opportunity to take a psychology course in high school. However, a student who has a score of 4 or better on the AP Psychology AP exam, or a score of 5 or better on the IB Psychology exam, Higher Level only, may skip PSYC 1101 Introduction to Psychology. For these students, we recommend PSYC 2010 Infant and Child Development or PSYC 2025 Psychopathology in the fall; or PSYC 2012 Educational Psychology, PSYC 2030 Social Psychology, PSYC 2040 Cognition: The Science of How We Learn, Think, and Act, or PSYC 2050 Biological Psychology in the spring. Although these students are also eligible to take PSYC 2510 Research Design in Psychology in the fall of their first year, we advise them to wait at least one semester before doing so.

## Courses

### PSYC 1101 (b) Introduction to Psychology

Suzanne Lovett; Samuel Putnam; Kacie Armstrong.  
Every Semester. Fall 2023; Spring 2024. Enrollment limit: 50.

A general introduction to the major concerns of contemporary psychology, including physiological psychology, perception, learning, cognition, language, development, personality, intelligence, and abnormal and social behavior. Recommended for first- and second-year students. Juniors and seniors should enroll in the spring semester.

Previous terms offered: Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019.

### PSYC 2010 (b) Infant and Child Development

Samuel Putnam.  
Every Semester. Fall 2023. Enrollment limit: 35.

A survey of major changes in psychological functioning from conception through childhood. Several theoretical perspectives are used to consider how physical, personality, social, and cognitive changes jointly influence the developing child's interactions with the environment.

Prerequisites: PSYC 1101 or Placement in above PSYC 1101.

Previous terms offered: Fall 2022, Spring 2022, Spring 2021, Fall 2020, Fall 2019.

### PSYC 2012 (b) Educational Psychology

Kathryn Byrnes.  
Non-Standard Rotation. Spring 2024. Enrollment limit: 35.

This course introduces the foundations of adolescent development and educational psychology. We examine topics such as identity development, cognitive development, social and cultural approaches to learning, risk taking, resilience, and positive youth development for young people ages 10-19. Course concepts and theories will be grounded in empirical research and will be applied to understanding contemporary opportunities and challenges faced by adolescent learning in both school and out-of-school environments. Insights for the ways in which educators can design learning experiences to better serve students' needs from a variety of backgrounds will be cultivated through a field placement working with students. (Same as: EDUC 2222)

Prerequisites: EDUC 1101 or PSYC 1101 or Placement in above PSYC 1101.

Previous terms offered: Spring 2023, Spring 2022, Spring 2021, Spring 2020.

### PSYC 2025 (b) Psychopathology

Hannah Reese.  
Every Fall. Fall 2023. Enrollment limit: 35.

An introduction to the phenomenology, etiology, and treatment of mental disorders. Major topics include trauma, anxiety, obsessive-compulsive disorder, depression, bipolar disorder, suicide, and the psychotic disorders. Current paradigms for understanding psychopathology, diagnosis and assessment, research methods specific to clinical psychology, and the legal and ethical challenges associated with mental health care are also a focus.

Prerequisites: PSYC 1101 or Placement in above PSYC 1101.

Previous terms offered: Spring 2023, Fall 2022, Spring 2022, Fall 2021, Fall 2020, Spring 2020, Fall 2019.

### PSYC 2030 (b) Social Psychology

Kacie Armstrong.  
Every Spring. Spring 2024. Enrollment limit: 35.

A survey of theory and research on individual social behavior. Topics include self-concept, social cognition, affect, attitudes, social influence, interpersonal relationships, and cultural variations in social behavior.

Prerequisites: PSYC 1101 or Placement in above PSYC 1101.

Previous terms offered: Spring 2023, Spring 2022, Spring 2021, Spring 2020.

### PSYC 2035 (b) Political Psychology

Angel Saavedra Cisneros.  
Every Other Year. Spring 2024. Enrollment limit: 35.

Human beings are political animals by nature; we seek to gain influence in an effort to become successful in life. The motivations behind those drives are central to the study of human behavior. The study of political psychology involves using scientific understandings of human behavior and cognition to explain and explore political phenomena. It requires us to think about the many factors that impact political behaviors, from the biological and neurological all the way up to the societal and institutional. In this course we will consider questions regarding how well-equipped humans are to engage in rational and political behaviors, why cooperation and selfishness emerge, why some people are persuaded while others dig their heels in, and how humans have learned to live with each other and negotiate differences. It is suggested that students enrolling for credit in PSYC should have successfully completed PSYC 1101 before enrolling in this course. (Same as: GOV 2065)

Previous terms offered: Spring 2023.

**PSYC 2040 (b) Cognition: The Science of How We Learn, Think, and Act**

Abhilasha Kumar.

Every Spring. Spring 2024. Enrollment limit: 35.

This course explores the scientific study of human cognition—how people acquire, represent, and use knowledge to guide their everyday functioning. Students learn about scientific methods of studying and understanding cognition and building real-world tools and applications, and also dive into classic and contemporary research on several aspects of the human mind, such as memory, language, and decision-making through short lectures, podcasts, active discussions, in-class activities, and projects.

Prerequisites: PSYC 1101 or Placement in above PSYC 1101.

Previous terms offered: Spring 2023, Spring 2022, Spring 2021, Spring 2020.

**PSYC 2050 (a) Biological Psychology**

Thomas Small.

Every Other Year. Spring 2024. Enrollment limit: 35.

An introductory survey of biological influences on behavior. The primary emphasis is on the neurobiological regulation of behavior in humans and other vertebrate animals, focusing on genetic, developmental, hormonal, and neuronal mechanisms. Additionally, the evolution of these regulatory systems is considered. This course explores the structural and functional properties of the central nervous system to understand how behavior occurs—and how it is disrupted—at the molecular, cellular, and systems level. Topics discussed may include cellular processes/communication, sensation/perception, cognition, sleep, eating, sex, and aggression. Emphasis will be placed on how biological mechanisms contribute to psychological [dys]function. (Same as: NEUR 2050)

Prerequisites: PSYC 1101 or BIOL 1102 or BIOL 1109 or Placement in above PSYC 1101 or Placement in BIOL 2000 level.

Previous terms offered: Spring 2023, Spring 2022, Spring 2021, Spring 2020.

**PSYC 2055 (a) Psychoneuroimmunology**

Non-Standard Rotation. Enrollment limit: 35.

This course is the study of the influence of psychological state on the communication and coordinated function among cells of the nervous system, the endocrine system, and the immune system. We will review the current molecular and cellular evidence that these systems interact through sharing the same cells, chemical messengers, and receptors. Other topics include the role of conscious thought, emotional states, meditation, depression, stress, and positivity on immune function. Through exams and written assignments, students will also evaluate the influence of the complex coordinated activity of this psycho-neuro-immuno cell system on psychogenic disease and aging via the impact on cellular detoxification, tumor surveillance, epigenetic mechanisms, and human gut microbiota. (Same as: NEUR 2055)

Prerequisites: PSYC 1101 or Placement in above PSYC 1101.

Previous terms offered: Fall 2021.

**PSYC 2060 (a) Cognitive Neuroscience**

Erika Nyhus.

Every Other Year. Fall 2023. Enrollment limit: 35.

An introduction to the neuroscientific study of cognition. Topics surveyed in the course include the neural bases of perception, attention, memory, language, executive function, and decision making. In covering these topics, the course will draw on evidence from brain imaging (fMRI, EEG, MEG), transcranial magnetic stimulation, electrophysiology, and neuropsychology. Also considers how knowledge about the brain constrains our understanding of the mind. (Same as: NEUR 2060)

Prerequisites: PSYC 1101 or BIOL 1102 or BIOL 1109 or Placement in above PSYC 1101 or Placement in BIOL 2000 level.

Previous terms offered: Fall 2022, Fall 2020.

**PSYC 2099 (a) Brain, Behavior, and Evolution**

Non-Standard Rotation. Enrollment limit: 35.

A comparative and evolutionary approach to animal behavioral neuroscience. The primary focus is on the evolution of the brain and behavior in vertebrate systems, including humans, but invertebrates are also discussed. Topics include the evolution and diversity of sensory systems, reproductive behaviors, parental care, learning and memory, social behaviors, intelligence, and cognition. (Same as: NEUR 2099)

Prerequisites: PSYC 1101 or BIOL 1102 or BIOL 1109 or Placement in above PSYC 1101 or Placement in BIOL 2000 level.

Previous terms offered: Fall 2021, Fall 2020.

**PSYC 2510 (b) Research Design in Psychology**

Michael Buccigrossi.

Every Semester. Fall 2023; Spring 2024. Enrollment limit: 35.

A systematic study of the scientific method as it underlies psychological research. Topics include prominent methods used in studying human and animal behavior, the logic of causal analysis, experimental and non-experimental designs, issues in internal and external validity, pragmatics of careful research, and technical writing of research reports.

Prerequisites: PSYC 1101 or Placement in above PSYC 1101.

Previous terms offered: Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019.

**PSYC 2520 (a, MCSR) Data Analysis**

Abhilasha Kumar; Suzanne Lovett.

Every Semester. Fall 2023; Spring 2024. Enrollment limit: 32.

An introduction to the use of descriptive and inferential statistics and design in behavioral research. Required of majors no later than the junior year, and preferably by the sophomore year.

Prerequisites: Two of: PSYC 1101 or Placement in above PSYC 1101 and either BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level or PSYC 2510.

Previous terms offered: Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019.

**PSYC 2710 (b) Laboratory in Developmental Psychology**

Samuel Putnam.

Every Spring. Spring 2024. Enrollment limit: 20.

Multiple methods used in developmental research are examined both by reading research reports and by designing and conducting original research studies. The methods include observation, interviews, questionnaires, and lab experiments, among others. Students learn to evaluate the relative strengths and weaknesses of both qualitative and quantitative approaches.

Prerequisites: Three of: PSYC 2010 or EDUC 2222 (same as PSYC 2012) and PSYC 2510 and PSYC 2520.

Previous terms offered: Spring 2023, Spring 2022, Spring 2021, Spring 2020.

**PSYC 2725 (b) Laboratory in Clinical Psychology**

Hannah Reese.

Every Spring. Spring 2024. Enrollment limit: 20.

An overview and analysis of the diverse research methods employed by clinical psychologists. Through reading, analysis, and hands-on experience, students gain an understanding of the relative merits of various approaches to understanding the nature and treatment of mental disorders. Major topics include clinical interviewing and assessment, information-processing approaches to understanding psychopathology, and the principles of behavior change. Class participation culminates with the design and conduct of an original research project.

Prerequisites: Three of: PSYC 2510 and PSYC 2520 and PSYC 2025.

Previous terms offered: Spring 2023, Spring 2022, Spring 2021, Spring 2020.

**PSYC 2735 (b) Laboratory in Social Psychology**

Kacie Armstrong.

Every Fall. Fall 2023. Enrollment limit: 20.

An examination of different research methodologies used by social psychologists, including archival research, observation, questionnaires, lab experiments, and online data collection. Students learn about the relative strengths and weaknesses of these different methodological approaches, both by reading research reports and by designing and conducting original research.

Prerequisites: Three of: either PSYC 2030 or PSYC 2032 - 2035 and PSYC 2510 and PSYC 2520.

Previous terms offered: Fall 2022, Fall 2021, Fall 2020, Fall 2019.

**PSYC 2740 (b) Laboratory in Cognitive Science**

Abhilasha Kumar.

Every Fall. Fall 2023. Enrollment limit: 20.

A lab-based course on modern research methodologies and techniques used in cognitive science. Students will learn how to formulate a research question, conceptualize a research study from start to finish, program and design web-based experiments, and analyze experimental data to gain deeper insights into various aspects of cognition such as memory, language, and knowledge.

Prerequisites: Three of: either PSYC 2040 or PSYC 2060 (same as NEUR 2060) or PSYC 2055 (same as NEUR 2055) and PSYC 2510 and PSYC 2520.

Previous terms offered: Fall 2022, Fall 2021, Fall 2020, Fall 2019.

**PSYC 2750 (a, INS) Behavioral Neuroscience Laboratory: Affective Neuroscience**

Thomas Small; Anja Forche.

Every Year. Fall 2023. Enrollment limit: 20.

A laboratory course that exposes students to modern techniques in neuroscience that can be applied to the study of affective behavior, broadly. Underlying concepts associated with various behavioral, molecular, neuroanatomical, pharmacological, and translational methods will be discussed in a lecture format. Students will apply these concepts and techniques in discussions and laboratory preparations demonstrating how affective processes are organized within the central nervous system of vertebrates. This course will explore using experimental examples how the brain influences behavior, thereby illuminating our understanding of human neuropsychological functioning. (Same as: NEUR 2750)

Prerequisites: Three of: either PSYC 2050 (same as NEUR 2050) or BIOL 2135 (same as NEUR 2135) or PSYC 2060 (same as NEUR 2060) and PSYC 2510 or either BIOL 1102 or BIOL 1109 and PSYC 2520 or either MATH 1300 or MATH 1400.

Previous terms offered: Fall 2022, Fall 2021, Fall 2020, Fall 2019.

**PSYC 2775 (a, INS, MCSR) Laboratory in Cognitive Neuroscience**

Erika Nyhus; Anja Forche.

Every Year. Spring 2024. Enrollment limit: 20.

A laboratory course in cognitive neuroscience that studies the timing and organization of human cognition through electroencephalography (EEG), a direct measure of brain activity from scalp electrodes with millisecond precision. Students will learn the conceptual and practical foundations of experimental design, data analysis and interpretation, and be introduced to applications of EEG in medicine and technology. (Same as: NEUR 2775)

Prerequisites: Three of: PSYC 2040 or either PSYC 2050 (same as NEUR 2050) or PSYC 2055 (same as NEUR 2055) or PSYC 2060 (same as NEUR 2060) or BIOL 2135 (same as NEUR 2135) or PSYC 2055 (same as NEUR 2055) and PSYC 2510 or either BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level and PSYC 2520 or either MATH 1300 or MATH 1400.

Previous terms offered: Spring 2023, Spring 2022, Spring 2021, Spring 2020.

**PSYC 3010 (b) Social Development**

Samuel Putnam.

Every Other Fall. Fall 2023. Enrollment limit: 14.

Research and theory regarding the interacting influences of biology and the environment as they are related to social and emotional development during infancy, childhood, and adolescence. Normative and idiographic development in a number of domains, including morality, aggression, personality, sex roles, peer interaction, and familial relationships are considered.

Prerequisites: Three of: PSYC 2010 or EDUC 2222 (same as PSYC 2012) and PSYC 2510 and PSYC 2520.

Previous terms offered: Fall 2019.



**PSYC 3011 (b) Cognitive Development**

Suzanne Lovett.

Every Other Spring. Spring 2024. Enrollment limit: 14.

Examines the development of cognitive understanding and cognitive processes from infancy through adolescence. Emphasis on empirical research and related theories of cognitive development. Topics include infant perception and cognition, concept formation, language development, theory of mind, memory, problem solving, and scientific thinking.

Prerequisites: Three of: PSYC 2010 or EDUC 2222 (same as PSYC 2012) and PSYC 2520 and PSYC 2510.

Previous terms offered: Spring 2023, Spring 2021.

**PSYC 3019 (b) The Psychology of Nostalgia**

Kacie Armstrong.

Non-Standard Rotation. Spring 2024. Enrollment limit: 14.

A seminar focusing on the emotion of nostalgia and its place in social psychology. Readings and discussions explore evolutionary, psychological, and philosophical perspectives on nostalgic reflection to enrich our understanding of its origins and purpose. Topics include the emotional content of nostalgia, its triggers, and its psychological functions (including its connections to mood, identity, belonging, empathy, prejudice, and terror management). Special consideration will be given to cross-cultural experiences of nostalgia, along with its potential therapeutic benefits.

Prerequisites: Three of: either PSYC 2010 or PSYC 2012 and PSYC 2510 and PSYC 2520.

Previous terms offered: Fall 2021.

**PSYC 3025 (b) Psychotherapy and Behavior Change**

Hannah Reese.

Every Fall. Fall 2023. Enrollment limit: 14.

An in-depth study of the theory, research, and practice of contemporary psychotherapy. Major topics may include theoretical approaches to therapy, methods for studying its efficacy, processes of change, the role of the client-therapist relationship, and challenges to disseminating effective psychological treatments to the general public. Readings and discussion supplemented with video of psychotherapy sessions.

Prerequisites: Three of: PSYC 2510 and PSYC 2520 and PSYC 2025.

Previous terms offered: Fall 2021, Spring 2021, Fall 2020, Fall 2019.

**PSYC 3027 (b) Anxiety and Related Disorders across the Lifespan**

Non-Standard Rotation. Enrollment limit: 14.

This advanced seminar will provide an in-depth study of the diagnosis, etiology, treatment, and presentation of anxiety and related disorders across the lifespan. It will cover how anxiety disorders that occur across the lifespan (e.g., specific phobias, social anxiety disorder, panic disorder, agoraphobia, generalized anxiety disorder) present and are treated across childhood, adolescence, and adulthood. This seminar will also cover anxiety disorders specific to early childhood (e.g., selective mutism, separation anxiety). Readings and discussion will be supplemented with videos of people with lived experiences of anxiety disorders and demonstrations of key treatment techniques (e.g., exposure).

Prerequisites: Three of: PSYC 2025 and PSYC 2510 and PSYC 2520.

Previous terms offered: Fall 2022.

**PSYC 3032 (b) The Psychology of Happiness and Human Flourishing**

Non-Standard Rotation. Enrollment limit: 14.

A seminar focusing on the psychology of happiness, and on well-being and optimal human functioning more broadly. Primary-source readings, class discussions, and critical writing assignments center on three major subtopics: (1) the basic science of well-being, with a focus on how well-being is conceptualized and measured and how it is affected by different factors (e.g., income, life events, habits of both behavior and thought); (2) existential and humanistic perspectives on well-being, with a focus on authenticity and meaning in life; and (3) how communities and societies could best be structured to promote well-being (and whether they should be). In addition to addressing theories and research in each of these areas, this course encourages students to apply the course content to better understand happiness and how it may best be sought in their own lives, in the lives of others, and in society at large.

Prerequisites: Three of: PSYC 2510 and PSYC 2520 and either PSYC 2030 or PSYC 2025 or PSYC 2032 - 2034.

Previous terms offered: Spring 2020.

**PSYC 3035 (b) Existential Social Psychology**

Every Spring. Enrollment limit: 14.

An examination of how human concerns about death, meaning, isolation, and freedom influence and motivate a wide array of human behavior. Readings and discussions address empirical research on different theories of human motivation (e.g., terror management, meaning maintenance, attachment, compensatory control, and self-determination) that enrich our understanding of topics such as intergroup conflict, religious belief, prosocial behavior, interpersonal relationships, and materialism.

Prerequisites: Three of: either PSYC 2030 or PSYC 2032 - 2035 and PSYC 2510 and PSYC 2520.

Previous terms offered: Spring 2023, Spring 2022, Spring 2021, Spring 2020.

**PSYC 3040 (b) The Psychology of Language**

Every Other Fall. Enrollment limit: 14.

An examination of psychological factors that affect the processing of language, including a discussion of different modalities (auditory and visual language) and levels of information (sounds, letters, words, sentences, and text/discourse). Emphasis is on the issues addressed by researchers and the theories developed to account for our language abilities.

Prerequisites: Three of: PSYC 2040 and PSYC 2510 and PSYC 2520.

Previous terms offered: Fall 2020.

**PSYC 3041 (b) Animal Cognition**

Non-Standard Rotation. Enrollment limit: 14.

A seminar focusing on the basic principles of comparative cognition. Topics include language and communication, mental representations and symbolic capacities, tool manufacture and use, creativity, and the interaction of these mental abilities. Discussions of an extensive reading list will focus on the cognitive skills of animals such as bees, birds, dogs, dolphins, elephants, and nonhuman primates.

Prerequisites: Two of: PSYC 2510 and PSYC 2520.

Previous terms offered: Fall 2020.

**PSYC 3042 (b) Myth of Multitasking**

Non-Standard Rotation. Enrollment limit: 14.

This seminar course focuses on our (in)ability to multitask. The purpose of this course is to introduce students to major issues, theories, methods, empirical data, and real-world implications for multitasking research. In this course, students will explore major themes and paradigms in multitasking research. We will begin by discussing major theoretical issues related to multitasking and segue into more real-world examples of multitasking (e.g., driving and talking on the phone, in the classroom). Students will communicate knowledge in spoken and written form. Students will formulate ideas for future empirical research that incorporate perspectives and methodology from class readings and discussion.

Prerequisites: Three of: PSYC 2040 and PSYC 2510 and PSYC 2520.

Previous terms offered: Fall 2021.

**PSYC 3043 (b) Intelligent Minds and Machines**

Abhilasha Kumar.

Non-Standard Rotation. Fall 2023. Enrollment limit: 14.

Why are humans considered the most "intelligent" species on the planet? Where does artificial intelligence (AI) fall short in mimicking this intelligent behavior? This seminar course delves into several such fundamental questions about human cognition and how our species is similar to and different from other minds and machines. We will discuss classic and modern approaches to understanding the mind, critically analyze various examples of intelligent behavior (such as language, cooperation, creativity, free will, etc.), evaluate recent work in machine learning and AI, and also draw insights about intelligence from the exciting literature on comparative (animal) cognition. Students will read empirical articles, listen to podcasts, and lead discussions, and also participate through spoken presentations and short writing assignments. Computer Science or Philosophy majors/minors who are interested in this course, should email the instructor to see if they are eligible for a prerequisite override.

Prerequisites: Three of: either PSYC 2040 or PSYC 2055 (same as NEUR 2055) or PSYC 2060 (same as NEUR 2060) and PSYC 2510 and PSYC 2520.

Previous terms offered: Fall 2022.

**PSYC 3050 (a) Hormones and Behavior**

Thomas Small.

Every Fall. Spring 2024. Enrollment limit: 16.

An advanced discussion of concepts in behavioral neuroendocrinology. Topics include descriptions of the major classes of hormones, their roles in the regulation of development and adult behavioral expression, and the cellular and molecular mechanisms responsible for their behavioral effects. Hormonal influences on reproductive, aggressive, and parental behaviors, as well as on cognitive processes are considered. (Same as: NEUR 3050)

Prerequisites: Three of: either PSYC 2050 (same as NEUR 2050) or BIOL 2135 (same as NEUR 2135) or PSYC 2060 (same as NEUR 2060) and PSYC 2510 or either BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level and PSYC 2520 or either MATH 1300 or MATH 1400.

Previous terms offered: Spring 2022, Fall 2020, Spring 2020.

**PSYC 3055 (a) Cognitive Neuroscience of Memory**

Erika Nyhus.

Every Spring. Fall 2023. Enrollment limit: 16.

An advanced discussion of recent empirical and theoretical approaches to understanding the cognitive neuroscience of memory. Readings and discussions address empirical studies using neuroimaging methods. Topics include hippocampal and cortical contributions to memory encoding and retrieval and the effect of genetic variability, drugs, emotions, and sleep on memory. (Same as: NEUR 3055)

Prerequisites: Three of: either PSYC 2040 or PSYC 2050 (same as NEUR 2050) or PSYC 2055 (same as NEUR 2055) or PSYC 2060 (same as NEUR 2060) or BIOL 2135 (same as NEUR 2135) and Placement in BIOL 2000 level or PSYC 2510 or either BIOL 1102 or BIOL 1109 and PSYC 2520 or either MATH 1300 or MATH 1400.

Previous terms offered: Fall 2020.

**PSYC 3057 (a) Seminar in Behavioral Neuroscience**

Non-Standard Rotation. Enrollment limit: 14.

An advanced seminar covering brain mechanisms that affect behavior in humans and other animals. Topics may include the neural circuits that regulate normal social interactions, learning and memory processes, and/or higher cognitive functions, as well as the relationship between disrupted neural functions and mental disorders. The major emphasis of the course will be on reading and discussing primary research articles in the field of behavioral neuroscience. (Same as: NEUR 3057)

Prerequisites: Three of: either PSYC 2050 (same as NEUR 2050) or PSYC 2060 (same as NEUR 2060) or BIOL 2135 (same as NEUR 2135) and PSYC 2510 or either BIOL 1102 or BIOL 1109 and PSYC 2520 or either MATH 1300 or MATH 1400.

Previous terms offered: Fall 2019.

**PSYC 3058 (a) Topics in Cognitive Neuroscience**

Non-Standard Rotation. Enrollment limit: 14.

An advanced discussion of recent empirical and theoretical approaches to understanding cognitive neuroscience. Readings and discussions address empirical studies using neuroimaging methods. (Same as: NEUR 3058)

Prerequisites: Three of: either PSYC 2040 or PSYC 2050 (same as NEUR 2050) or PSYC 2060 (same as NEUR 2060) or BIOL 2135 (same as NEUR 2135) and PSYC 2520 or either MATH 1300 or MATH 1400 and PSYC 2510 or either BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level.

Previous terms offered: Fall 2022.