

# PSYCHOLOGY

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Department Website: <http://psychology.uchicago.edu>

## PROGRAM OF STUDY

Psychology seeks to understand the mental processes that give rise to behavior. It examines the basic mechanisms and functions of perception, cognition, attention, emotion, and attitudes, their development, and their role in guiding behavior. Although psychological inquiry focuses on the individual, minds are shaped by social relationships, cultural and environmental contexts, and biological systems. As a result, psychology spans multiple levels of analysis and addresses topics that overlap with disciplines across the social, biological, and physical sciences.

The psychology major introduces students to the scientific study of mental processes and behavior. Students gain training in research methods, statistics, and experimental design, and develop a core foundation across major areas of psychology. Building on this foundation, students can then pursue a more advanced understanding of subfields related to their own particular interests, such as cognitive, social, and developmental psychology and neuroscience.

The major prepares students for paths including graduate study in psychology and related fields (e.g., cognitive science, neuroscience, education), as well as careers in areas such as social services, public policy, business, law, and medicine. Students are encouraged to become involved in research in the department and should consult with the Director of Undergraduate Studies about their interests as early as possible.

## PROGRAM REQUIREMENTS

The major does not require an application for admission. Majors are required to subscribe to the Psychology Majors Listhost at [lists.uchicago.edu/web/info/psychology-majors/](https://lists.uchicago.edu/web/info/psychology-majors/) (<https://lists.uchicago.edu/web/info/psychology-majors/>). The listhost is used to communicate information about events relevant to psychology majors, such as research opportunities, job postings, fellowship announcements, and any changes in the course schedule, or curriculum updates.

A maximum of three courses can be transferred into the major from outside of the University of Chicago.

The major requires coursework in three general areas: research methods and statistics, foundational breadth courses, and advanced electives. Students are encouraged to complete the methods and statistics sequence as early as possible, and are required to complete it by the end of their third year. Breadth courses should also be completed early in the major—ideally by the end of the third year—to prepare students for specialized electives. Students must take six electives offered by the Department of Psychology. They may choose to concentrate their electives in a particular subfield or explore psychology more broadly by taking courses from an array of subfields. Students are encouraged to consult with the Director of Undergraduate Studies and/or other department faculty about the suitability of their choices for their educational goals.

NOTE: When planning your course schedule, please consult Class Search at [registrar.uchicago.edu/classes](http://registrar.uchicago.edu/classes) (<http://registrar.uchicago.edu/classes/>) and the Courses section of the Psychology Department Undergraduate Program (<https://psychology.uchicago.edu/undergraduate-major/>) website, which lists courses and the quarters they are offered for the current academic year.

## Research Methods and Statistics (to be completed by end of third year)

By the end of their third year, psychology majors are required to complete PSYC 20200 (<http://collegecatalog.uchicago.edu/search/?P=PSYC%2020200>) Psychological Research Methods and one of the following courses: PSYC 20250 (<http://collegecatalog.uchicago.edu/search/?P=PSYC%2020250>) Introduction to Statistical Concepts and Methods, STAT 22000 (<http://collegecatalog.uchicago.edu/search/?P=STAT%2022000>) Statistical Methods and Applications, STAT 23400 Statistical Models and Methods, or STAT 24400 Statistical Theory and Methods I.

It is strongly recommended that these courses be taken as early as possible as they provide fundamental concepts that facilitate understanding of breadth courses and electives. PSYC 20200 is typically taught in the Autumn Quarter and PSYC 20250 in the Winter Quarter. We strongly advise students to take PSYC 20200 (<http://collegecatalog.uchicago.edu/search/?P=PSYC%2020200>) Psychological Research Methods *prior* to taking statistics, but either order is acceptable.

Students with AP examination credit for STAT 22000 (<http://collegecatalog.uchicago.edu/search/?P=STAT%2022000>) Statistical Methods and Applications may not count that credit toward the major and should instead replace that requirement with a higher-level statistics course or an additional psychology elective. Students interested in graduate programs in psychology or other empirical sciences are strongly encouraged to take a higher level statistics course.

### Foundational Breadth Courses

Breadth courses introduce students to foundational topics and concepts in psychology and should be taken as early as possible, ideally by the end of the third year, to prepare students for advanced electives and seminars. Students are required to take four of the following five courses, each of which will be offered every year:

PSYC 20300	Biological Psychology	100
PSYC 20400	Cognitive Psychology	100
PSYC 20500	Developmental Psychology	100
PSYC 20600	Social Psychology	100
PSYC 20700	Sensation and Perception	100

### Advanced Electives

At least six additional courses (for a total of twelve in the major) must be chosen from among the courses offered by the Department of Psychology. Students may choose to concentrate electives around topics or subfields of interest, such as social psychology, developmental psychology, biological psychology, or cognitive neuroscience, or deepen their understanding of the breadth of psychological science by sampling electives from different subfields. Students are encouraged to consult with the Director of Undergraduate Studies and/or other department faculty about sets of electives that support their goals.

Courses without a 200-level PSYC number must be approved by the Undergraduate Curriculum and Student Affairs Committee; petitions must be submitted to the Department Secretary. Only one independent study course can count toward the twelve courses required of students who are majoring in psychology (PSYC 29200 (<http://collegecatalog.uchicago.edu/search/?P=PSYC%2029200>) Undergrad Rdgs: Psychology or PSYC 29700 (<http://collegecatalog.uchicago.edu/search/?P=PSYC%2029700>) Undergraduate Research in Psychology).

In addition to the six electives, students pursuing honors in psychology must also take the PSYC 29800 (<http://collegecatalog.uchicago.edu/search/?P=PSYC%2029800>) Honors Seminar: Psychology. Independent study courses can be taken for P/F grading, but all other courses must be taken for a quality grade. NOTE: Before registering for an elective, students should confirm that they have met any prerequisites for the course.

### Research

Students are strongly encouraged to gain additional research experience by working on a research project under the guidance of a faculty member. For more information on getting involved in research, please see the section on Professional and Academic Development (<https://psychology.uchicago.edu/undergraduate-major/events/>) or contact the director of the Undergraduate Research Initiative in Psychology.

### Calculus

Students are required to take two quarters of calculus as part of the College general education requirements.

### Summary of Requirements

#### GENERAL EDUCATION

MATH 13100-13200	Elementary Functions and Calculus I-II (or higher) <sup>†</sup>	200
Total Units		200

#### MAJOR

PSYC 20200	Psychological Research Methods (by end of third year)	100
One of the following (by end of third year): <sup>*</sup>		100
PSYC 20250	Introduction to Statistical Concepts and Methods	
STAT 22000	Statistical Methods and Applications	
STAT 23400	Statistical Models and Methods	
STAT 24400	Statistical Theory and Methods I	
Four of the following (strongly recommended by end of third year):		400
PSYC 20300	Biological Psychology	
PSYC 20400	Cognitive Psychology	
PSYC 20500	Developmental Psychology	
PSYC 20600	Social Psychology	
PSYC 20700	Sensation and Perception	
Six electives <sup>†</sup>		600
Total Units		1200

† Credit may be granted by examination.

\* Examination credit for PSYC 20250 Introduction to Statistical Concepts and Methods or STAT 22000 Statistical Methods and Applications will not count toward the requirements for the major. Students with credit for PSYC 20250 or STAT 22000 should replace that requirement with a higher level Statistics course or an additional psychology elective.

+ Courses without a 200-level PSYC number must be approved by the Undergraduate Curriculum and Student Affairs Committee; petitions must be submitted to the department's secretary.

## GRADING

All courses in the major must be taken for quality grades except for the independent study course, which is available for either a quality grade or for P/F grading.

## HONORS

To qualify for honors, students must meet the following requirements:

1. Students must have a GPA of at least 3.0 overall, and a GPA of at least 3.5 in the major by the beginning of the quarter in which they intend to graduate.
2. Students should arrange to carry out a research project with a faculty advisor from the Department of Psychology and submit a scientific report of this research for an honors thesis. Papers must represent a more substantial treatment of the research topic than the average term paper and should be designed to contribute to scholarship in the field. Honors theses must be approved by the faculty advisor and a reader. Readers must have a PhD and should be jointly agreed upon by the student and faculty advisor.
3. Students are required to take PSYC 29800 Honors Seminar: Psychology in Winter Quarter of their third or fourth year. This is in addition to the twelve required courses for the major. It is expected that students will be actively working on the thesis project during the quarter they are taking the honors research seminar.
4. Students are required to present their findings in Spring Quarter of their fourth year at an honors day celebration.
5. For deadlines related to graduating with honors, visit [psychology.uchicago.edu/undergraduate-major/requirements/honors](https://psychology.uchicago.edu/undergraduate-major/requirements/honors) (<https://psychology.uchicago.edu/undergraduate-major/requirements/honors/>).

Students pursuing honors in more than one major should note that:

1. The student's thesis adviser for psychology cannot be the same person as the student's thesis adviser for the second major.
2. The student must meet all the requirements listed in the preceding Honors section, including taking the Honors Seminar and presenting at an honors day celebration.

## PROFESSIONAL AND ACADEMIC DEVELOPMENT

The undergraduate studies program runs a series of co-curricular events throughout the year to foster students' professional and academic development. Programming takes many forms, including informational meetings regarding the undergraduate program, guest speaker career panels, specialized workshops, conference field trips, and informal receptions. For a list of events currently planned, please visit [psychology.uchicago.edu/undergraduate-major/events](https://psychology.uchicago.edu/undergraduate-major/events) (<https://psychology.uchicago.edu/undergraduate-major/events/>). (<https://psychology.uchicago.edu/content/professional-academic-development-events/>)

## SPECIALIZED COURSES OF STUDY

Faculty members and the director of undergraduate studies are available to help individual students design a specialized course of study within psychology. For example, particular course sequences within and outside of psychology may be designed for students who wish to pursue specializations in particular areas. These areas include, but are not limited to, cognitive neuroscience, language and communication, computational psychology, behavioral neuroscience and endocrinology, sensation and perception, and cultural psychology.

## EARL R. FRANKLIN RESEARCH FELLOWSHIP

The Earl R. Franklin Research Fellowship is awarded to select students who are majoring in psychology. It provides financial support to carry out psychological research during the summer. Priority will be given to third-year students who will continue their work as a senior honors project. Applications, which are submitted at the beginning of Spring Quarter, include a research proposal, personal statement, transcript, and letter of recommendation.

## PSYCHOLOGY COURSES

### **PSYC 20200. Psychological Research Methods. 100 Units.**

This course introduces concepts and methods used in behavioral research. Topics include the nature of behavioral research, testing of research ideas, quantitative and qualitative techniques of data collection, artifacts in behavioral research, analyzing and interpreting research data, and ethical considerations in research. Instructor(s): A. Light, Autumn; L. Ho, Spring Terms Offered: Autumn Spring

**PSYC 20250. Introduction to Statistical Concepts and Methods. 100 Units.**

Statistical techniques offer psychologists a way to build scientific theories from observations we make in the laboratory or in the world at large. As such, the ability to apply and interpret statistics in psychological research represents a foundational and necessary skill. This course will survey statistical techniques commonly used in psychological research. Attention will be given to both descriptive and inferential statistical methodology.

Instructor(s): Heald, S. Terms Offered: Winter

Prerequisite(s): It is recommended that students complete MATH 13100 and MATH 13200 (or higher) before taking this course.

**PSYC 20300. Biological Psychology. 100 Units.**

What are the relations between mind and brain? How do brains regulate mental, behavioral, and hormonal processes; and how do these influence brain organization and activity? This course introduces the anatomy, physiology, and chemistry of the brain; their changes in response to the experiential and sociocultural environment; and their relation to perception, attention, behavioral action, motivation, and emotion.

Instructor(s): J. Yu Terms Offered: Winter

Prerequisite(s): Some background in biology and psychology.

Equivalent Course(s): NSCI 21015, CHDV 20300

**PSYC 20400. Cognitive Psychology. 100 Units.**

Viewing the brain globally as an information processing or computational system has revolutionized the study and understanding of intelligence. This course introduces the theory, methods, and empirical results that underlie this approach to psychology. Topics include categorization, attention, memory, knowledge, language, and thought.

Instructor(s): S. Heald, Autumn; M. Berman, Spring Terms Offered: Autumn Spring

Equivalent Course(s): EDSO 20400, NSCI 22015

**PSYC 20500. Developmental Psychology. 100 Units.**

This is an introductory course in developmental psychology, with a focus on cognitive and social development in infancy through early childhood. Example topics include children's early thinking about number, morality, and social relationships, as well as how early environments inform children's social and cognitive development. Where appropriate, we make links to both philosophical inquiries into the nature of the human mind, and to practical inquiries concerning education and public policy.

Instructor(s): K. O'Doherty Terms Offered: Spring

Note(s): CHDV Distribution, B

Equivalent Course(s): EDSO 20500, CHDV 25900

**PSYC 20600. Social Psychology. 100 Units.**

This course introduces students to the field of social psychology - the scientific study of how people think about, feel about, interact with, influence, and relate to one another. Topics covered include self and social perception, social influence, beliefs and attitudes, altruism, and intergroup processes. Where relevant, we will discuss if and how findings in social psychology can be applied in real-world contexts such as health, work, and relationships.

Instructor(s): Y.C. Leong, Autumn Terms Offered: Autumn

Equivalent Course(s): CHDV 26000

**PSYC 20700. Sensation and Perception. 100 Units.**

What we see and hear depends on energy that enters the eyes and ears, but what we actually experience-perception-follows from human neural responses. This course focuses on visual and auditory phenomena, including basic percepts (for example, acuity, brightness, color, loudness, pitch) and also more complex percepts such as movement and object recognition. Biological underpinnings of perception are an integral part of the course.

Instructor(s): I. Utochkin Terms Offered: Winter

Equivalent Course(s): PSYC 30700

**PSYC 20850. Introduction to Human Development. 100 Units.**

This course introduces the study of lives in context. The nature of human development from infancy through old age is explored through theory and empirical findings from various disciplines. Readings and discussions emphasize the interrelations of biological, psychological, and sociocultural forces at different points of the life cycle.

Instructor(s): S. Numanbayraktaroglu Terms Offered: Autumn

Prerequisite(s): CHDV majors or intended majors.

Note(s): Required Course for Comparative Human Development Majors. All students must sign up for a discussion section.

Equivalent Course(s): CHDV 20000, HLTH 20000

**PSYC 21100. Human Development Research Design. 100 Units.**

The purpose of this course is to expose CHD majors in college to a broad range of methods in social sciences with a focus on human development research. The faculty in Comparative Human Development is engaged in interdisciplinary research encompassing anthropology, biology, psychology, sociology, and applied statistics. The types of data and methods used by faculty span the gamut of possible methodologies for addressing novel and important research questions. In this course, students will study how appropriate research methods are chosen

and employed in influential research and will gain hands-on experience with data collection and data analysis. In general, the class will meet as a whole on Mondays and will have lab/discussion sections on Wednesdays. The lab/discussion sections are designed to review the key concepts, practice through applying some of the methods, and prepare students for the assignments. Students in each section will be assigned to small groups. Some of the assignments are group-based while others are individual-based.

Instructor(s): E. Abdelhadi Terms Offered: Spring

Note(s): Required Course for Comparative Human Development Majors

Equivalent Course(s): SOCI 20549, HLTH 20100, CHDV 20100, EDSO 20100

#### **PSYC 21109. Concepts and Categories. 100 Units.**

Despite how central categories and concepts are in theories of cognition, there is a lack of consensus within the scientific community as to the nature of concepts and categories. This course serves to introduce students to this ever-growing dialogue regarding concepts and categories. During the course we will analyze both classical and current theories of categorization. We will also briefly focus on how the process of categorization may change from infancy to adulthood. From this we will go on to discuss topics regarding the function and use of concepts and categories, as well as how concepts and categories may be acquired and maintained.

Instructor(s): S. Heald Terms Offered: Spring

#### **PSYC 21150. Psychology of Racism. 100 Units.**

This upper-level seminar will focus on the psychology of race and racism. We will discuss both structural and individual level factors that create and maintain racism in the U.S. context. While this course will focus on social psychology, we will also draw from other areas of psychology. We will discuss social structures and institutions that perpetuate racism, policies that shape societal attitudes and behaviors, and psychological frameworks for understanding racism. We will begin the course with a discussion of the origins of race and racism. We will then transition to contemporary expressions of racism. The goals of this course are to analyze structural contexts influencing racist attitudes and behaviors, evaluate the impact of racism on racially minoritized groups, and to examine strategies and interventions to address racism.

Instructor(s): K. Henderson Terms Offered: Spring. In 2026-27, a graduate level section of the course will not be offered.

Equivalent Course(s): RDIN 31150, RDIN 21150, PSYC 31150

#### **PSYC 21260. Psychology Research Incubator. 100 Units.**

This course is designed for anyone interested in carrying out psychological research; it is strongly advised for students considering Honors in Psychology. Answering questions about how minds work, how choices are made, or about the forces that shape behavior depends on understanding how to carry out research. This course guides you through the process of developing an original research project of your own design. Whether your questions come from research you are already working on in a lab or reflect independent interests of your own, this course will lead you through the process of designing an empirical study to address an issue that interests you. From the first stages of turning an idea into a study, you will work either individually or with a group to develop your research questions scientifically to address issues that can contribute new knowledge to psychological science. In this course you will learn to: (1) generate testable hypotheses that are informed by prior research, (2) design and implement methods for testing these hypotheses, and (3) write an IRB protocol in order to collect data. The course culminates with drafting a research grant proposal so you will be well positioned to take advantage of the increased funding opportunities available for undergraduate research within the university and beyond.

Instructor(s): A. Henly Terms Offered: Winter

Prerequisite(s): PQ: PSYC 20200 Psychological Research Methods or approval of the instructor.

#### **PSYC 21690. Media and Psychology: Causes and consequences of media use across the lifespan. 100 Units.**

This course will examine the influence of media on individuals and groups from both a developmental and socio-cultural perspective. Topics will include young children's academic and social-emotional skill learning from television, video and tablets; adolescents' social media identities and experiences including cyber-bullying; media influences on adults' health behaviors, aggression, prejudice, and more. Students will engage in both qualitative and quantitative research on media and psychology as part of this course.

Instructor(s): K. O'Doherty Terms Offered: Autumn

#### **PSYC 21730. Perceptual Models of Speech. 100 Units.**

When hearing speech, humans rapidly and robustly map from a continuous acoustic signal to an abstract representation of the sounds of their language. This class will explore models of this acoustic-phonetic perceptual mapping by drawing from a variety of methodologies and perspectives. We will discuss the merits and issues of linguistic, computational, and neuroscientific approaches and draw connections between these disciplines. A background in neuroscience or computational modeling is not required.

Instructor(s): Thorburn, Craig Terms Offered: Winter

Equivalent Course(s): COGS 22502, LING 31730, LING 21730

#### **PSYC 21750. Biological Clocks and Behavior. 100 Units.**

This course will address physiological and molecular biological aspects of circadian and seasonal rhythms in biology and behavior. The course will primarily emphasize biological and molecular mechanisms of CNS function, and will be taught at a molecular level of analysis from the beginning of the quarter. Those students without a strong biology background are unlikely to resonate with the course material.

Instructor(s): B. Prendergast Terms Offered: Spring

Prerequisite(s): A quality grade in PSYC 20300 Introduction to Biological Psychology. Additional biology courses are desirable. Completion of Core biology will not suffice as a prerequisite.

Equivalent Course(s): HLTH 21750, NSCI 21400, BIOS 24248

**PSYC 22002. Cognitive Models. 100 Units.**

A foundational principle of cognitive science is that the workings of cognitive systems—whether biological, mechanical, or digital—can be productively represented by the operation of formal computational models. This course provides a survey of popular modeling frameworks (such as Bayesian rational agents, connectionist networks, dynamical systems, etc.), as well as the cognitive phenomena that these models have been used to simulate. We will discuss the theoretical commitments of these models, assess strengths and weaknesses of each framework for addressing different types of cognitive questions, and analyze the implications of these models' successes and failures for our understanding of the mind.

Instructor(s): Thorburn, Craig Terms Offered: Spring

Equivalent Course(s): LING 20002, COGS 20002, LING 30002, DATA 20002

**PSYC 22140. Neurobiology and Psychosocial Aspects of Psychopathology. 100 Units.**

The term "psychopathology" refers to a complex collection of constructs that we, in the Western world, have separated along diagnostic boundaries as defined in the Diagnostic and Statistics Manual (DSM-5). Understanding the assessment, etiology, and treatment of different psychological conditions requires a nuanced appreciation of the interacting genetic, neurobiological, developmental, social, and cognitive factors that contribute in varying degrees to the expression of mental illness. The purpose of this course is to provide students with an in-depth understanding of the biopsychosocial model of psychopathology, and its application to five domains of mental illness (depression/anxiety, substance use disorders, psychotic disorders, eating disorders, and posttraumatic stress disorder). Additionally, students will learn contemporary research methods for testing novel hypotheses about the causes and treatments of these conditions.

Instructor(s): M. Erickson Terms Offered: Winter

Prerequisite(s): NSCI 20101, or instructor consent. (It is recommended that students have also taken PSYC 20200 and PSYC 20300).

Equivalent Course(s): NSCI 22140

**PSYC 22210. Mathematical Development: Cognitive and Attitudinal Factors. 100 Units.**

We will explore the early emergence of mathematical skills in infants and young children, which have been found to predict long term mathematical outcomes. The course will examine the emergence of these skills as well as the role of other cognitive skills and math attitudes in explaining individual differences in mathematical skills. Finally, we will consider how key socializers - parents and teachers - contribute to children's mathematical skills and attitudes.

Instructor(s): S. Levine Terms Offered: Spring

Equivalent Course(s): PSYC 42210

**PSYC 22580. Child Development in the Classroom. 100 Units.**

This discussion-based, advanced seminar is designed to investigate how preschool and elementary students think, act, and learn, as well as examine developmentally appropriate practices and culturally responsive teaching in the classroom. This course emphasizes the application of theory and research from the field of psychology to the realm of teaching and learning in contemporary classrooms. Course concepts will be grounded in empirical research and activities geared towards understanding the nuances and complexities of topics such as cognitive development (memory, attention, language), early assessment systems, standardized testing, "mindset", "grit", exercise/nutrition, emotion regulation, and more.

Instructor(s): Kate O'Doherty Terms Offered: Winter

Equivalent Course(s): EDSO 22580, CHDV 22580

**PSYC 22620. Cognition and Overcoming its Limits. 100 Units.**

The brains of humans and animals are remarkably flexible. We can juggle many tasks, sort through a barrage of information vying for our attention, become an expert in a vocation or hobby of choice, and remember a large amount of information while responsibly forgetting that which is unimportant. But cognition also has limited capacity, and humans expend a lot of effort trying to enhance that capacity in health and disease. This course will examine the neural mechanisms that enable and limit cognitive processes like learning, memory and decision making. We will also study behavioral and clinical efforts to enhance cognition in health and disease. These topics are very active areas of research, with new discoveries published every week. We will therefore focus on the primary literature. Each class will contain a discussion of an original research article, a wider ranging conversation about related issues and findings, and an overview of the next topics. We will focus on studies that use animal models to relate the activity of neurons to cognition and on behavioral and imaging work in humans. Students will gain experience reading and critiquing original research, presenting research findings to their peers, relating current research to a body of knowledge, and, through a culminating project, using writing or another medium to communicate neuroscience findings to a broad audience.

Instructor(s): M. Cohen Terms Offered: Spring

Prerequisite(s): NSCI 20101-NSCI 20130, or consent of instructor

Equivalent Course(s): NSCI 22600

**PSYC 23000. Cultural Psychology. 100 Units.**

There is a substantial portion of the psychological nature of human beings that is neither homogeneous nor fixed across time and space. At the heart of the discipline of cultural psychology is the tenet of psychological pluralism, which states that the study of "normal" psychology is the study of multiple psychologies and not just the study of a single or uniform fundamental psychology for all peoples of the world. Research findings in cultural psychology thus raise provocative questions about the integrity and value of alternative forms of subjectivity across cultural groups. In this course we analyze the concept of "culture" and examine ethnic and cross-cultural variations in mental functioning with special attention to the cultural psychology of emotions, self, moral judgment, categorization, and reasoning.

Instructor(s): R. Shweder Terms Offered: Autumn

Note(s): CHDV Distribution: B, C

Equivalent Course(s): GNSE 31000, KNOW 31000, ANTH 24320, CHDV 31000, PSYC 33000, ANTH 35110, CHDV 21000, AMER 33000, GNSE 21001

**PSYC 23120. Human Language and Interaction. 100 Units.**

Language may be learned by individuals, but we most often use it for communication between groups. How is it that we manage to transmit our internal thoughts to others' minds? How is it that we can understand what others mean to express to us? Whether we are greeting a passerby, ordering a meal, or debating politics, there are a number of invisible processes that bring language to life in the space between individuals. This course investigates the social and cognitive processes that enable us to successfully communicate with others. The theories we cover are built on observations of adult language use and child development in multiple cultural settings, taking inspiration also from non-human animal communication. It is expected that, by the end of the course, students will be able to explain the limitations of language for communication and will be able to elaborate on a number of social and other cognitive processes that critically support communicative language use.

Instructor(s): M. Casillas Terms Offered: Spring

Equivalent Course(s): EDSO 33100, CHDV 23100, CHDV 33100, EDSO 23101, LING 21150

**PSYC 23200. Introduction to Language Acquisition. 100 Units.**

This course addresses the major issues involved in first-language acquisition. We deal with the child's production and perception of speech sounds (phonology), the acquisition of the lexicon (semantics), the comprehension and production of structured word combinations (syntax), and the ability to use language to communicate (pragmatics).

Instructor(s): S. Goldin-Meadow Terms Offered: Winter

Equivalent Course(s): EDSO 23200, CHDV 23900, LING 21600

**PSYC 23249. Animal Behavior. 100 Units.**

This course introduces the mechanism, ecology, and evolution of behavior, primarily in nonhuman species, at the individual and group level. Topics include the genetic basis of behavior, developmental pathways, communication, physiology and behavior, foraging behavior, kin selection, mating systems and sexual selection, and the ecological and social context of behavior. A major emphasis is placed on understanding and evaluating scientific studies and their field and lab techniques.

Instructor(s): J. Mateo Terms Offered: Winter

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals Sequence.

Note(s): CHDV Distribution: A E.

Equivalent Course(s): CHDV 23249, BIOS 23249

**PSYC 23370. Bright and Dark Sides of Empathy. 100 Units.**

The experience of empathy is a powerful phenomenon. It motivates prosocial behavior, especially parental care, and facilitates cooperation and group living. As an important aspect of the patient-doctor relationship, empathy is associated with better health outcomes. Yet, empathy is limited and fragile. It is susceptible to many biases and can lead to poor moral decisions. This course invites students to critically explore the science of empathy by examining its scope and its limits. It delves into cutting-edge, interdisciplinary research from the social sciences and the biological sciences to understand the mechanisms and functions of empathy. The topics examined in this course include: The evolution of empathy; The neural and neuro-endocrinological mechanisms; How empathy develops in young children; The impact of biases and implicit attitudes on empathy; The social situations and group dynamics that influence empathy; The lack of empathy in psychopathy and narcissistic personalities; Why and how empathy improves health outcomes in medicine.

Instructor(s): J. Decety Terms Offered: Autumn

Equivalent Course(s): CHDV 23370

**PSYC 23510. Blooming, Buzzing Confusion. 100 Units.**

This course examines the social and cognitive mechanisms that drive language learning in the first few years of life. Nearly all children learn the language(s) of their community, despite the fact that human languages and caregiving practices offer immense diversity around the globe. What enables the learning system to adapt so robustly to the environment it finds itself in? We discuss the evidence for and against multiple factors that have been proposed to support language development across the world's communities. We also critically examine how these ideas intersect with current deficit models of language learning. It is expected that, by the end of the course, students will grasp the basic mechanisms proposed to underlie early language learning.

Instructor(s): M. Casillas Terms Offered: Winter

Note(s): Distribution: B, M

Equivalent Course(s): LING 23010, CHDV 23010, CHDV 33510, COGS 24532, EDSO 23510, EDSO 33510

**PSYC 23660. The Disordered Mind. 100 Units.**

What are disorders of the mind? What are some of the theoretical and practical issues surrounding the identification, classification, and treatment of such disorders? What do mental disorders have to teach us about the typically-functioning mind? This seminar course will address these and other questions within biological, psychological, and sociocultural perspectives to attempt to understand the current and historical paradigms that have influenced our perception of what it means for the mind to be "disordered." Included will be discussion of behavioral, emotional, cognitive, and developmental disorders.

Instructor(s): K. Ledoux Terms Offered: Autumn

Equivalent Course(s): PSYC 33662

**PSYC 23720. Crosslinguistic Perspectives on Language Development. 100 Units.**

This discussion-based course covers cross-linguistic evidence concerning similarities and dissimilarities in how children learn language across diverse language communities. Each year will revolve around a central topic. This year we will focus on the acquisition of phonology.

Instructor(s): M. Tice Terms Offered: Autumn

Equivalent Course(s): LING 23701, PSYC 33720, COGS 22009, CHDV 33700, CHDV 23700, LING 33700

**PSYC 23800. Introduction to Learning and Memory. 100 Units.**

This course examines basic questions in learning and memory. We discuss the historical separation and division of these two areas as well as the paradigmatic differences in studying learning and memory. We also discuss basic research methods for investigating learning and memory and survey established and recent research findings, as well as consider several different kinds of models and theories of learning and memory. Topics include skill acquisition, perceptual learning, statistical learning, working memory, implicit memory, semantic vs. episodic memory, and memory disorders.

Instructor(s): A. Bakkour Terms Offered: Autumn

Equivalent Course(s): EDSO 23800, NSCI 22415

**PSYC 23820. Attention and Working Memory in the Mind and Brain. 100 Units.**

This course will provide a broad overview of current work in psychology and neuroscience related to attention and working memory. We will discuss evidence for sharp capacity limits in an individual's ability to actively monitor and maintain information in an "online" mental state. Readings will be primarily based on original source articles from peer-reviewed journals, with a focus on behavioral and neural approaches for measuring and understanding these basic cognitive processes.

Instructor(s): E. Awh and E. Vogel Terms Offered: Winter

Prerequisite(s): PQ: NSCI 20101 (Foundations of Neuroscience) is required for Neuroscience majors only.

Equivalent Course(s): PSYC 33830, NSCI 21600

**PSYC 23860. Beyond Good and Evil: The Psychology of Morality. 100 Units.**

Morality is a mysterious and possibly uniquely human capacity that influences how we make decisions in a number of domains. In this course we will explore how and why human beings have the moral intuitions that they do and also where these intuitions come from—what about our moral intuitions are built in and how are these intuitions shaped by experience? To achieve these goals, we will discuss literature from developmental, social, and evolutionary psychology, as well as some literature from behavioral economics and experimental philosophy. We will briefly review the history of moral psychology, but spend the bulk of our time discussing contemporary debates and findings from research on moral psychology.

Instructor(s): A. Shaw Terms Offered: Spring. Spring study abroad in Paris.

**PSYC 23910. Hormones, Brains, and Behavior. 100 Units.**

This is an advanced course in behavioral neuroscience, with the goal of understanding the complex interactions among the brain, the endocrine system, and behavior (Behavioral Endocrinology). Reproductive hormones, stress hormones and hormone-brain interactions over development will be emphasized. The class will cover multiple levels of analysis/explanation from molecular, to organismal, to evolutionary, and the material will be primary research articles drawn from studies in a broad range of organisms, including humans. The course format will consist of weekly lectures and student-led discussions. Prior coursework in neuroscience (at or beyond the level of PSYC 20300) and a strong background in biology are prerequisites.

Instructor(s): B. Prendergast Terms Offered: Spring

Prerequisite(s): Undergraduates may register with consent of instructor. Prerequisite of PSYC 20300 Biological Psychology, or equivalent.

Equivalent Course(s): PSYC 33910

**PSYC 24010. Systems Neuroscience. 100 Units.**

This course covers vertebrate and invertebrate systems neuroscience with a focus on the anatomy, physiology, and development of sensory and motor control systems. The neural bases of form and motion perception, locomotion, memory, and other forms of neural plasticity are examined in detail. We also discuss clinical aspects of neurological disorders.

Instructor(s): J. MacLean Terms Offered: Spring

Prerequisite(s): NSCI 20101, NSCI 20111 or consent of instructors  
Equivalent Course(s): NSCI 20130, BIOS 24130

**PSYC 24060. Understanding Practical Wisdom. 100 Units.**

Thinking about the nature of wisdom goes back to the Greek philosophers and the classical religious sages, but the concept of wisdom has changed in many ways over the history of thought. While wisdom has received less scholarly attention in modern times, it has recently re-emerged in popular discourse with a growing recognition of its potential importance for addressing complex issues in many domains. But what is wisdom? It's often used with a meaning more akin to "smart" or "clever." Is it just vast knowledge? This course will examine the nature of wisdom-how it has been defined in philosophy and psychological science, how its meaning has changed, and what its essential components might be. We will discuss how current philosophical and psychological theories conceptualize wisdom and consider whether, and how, wisdom can be studied scientifically; that is, can wisdom be measured and experimentally manipulated to illuminate its underlying mechanisms and understand its functions? Finally, we will explore how concepts of wisdom can be applied in business, education, medicine, the law, and in the course of our everyday lives. Readings will be drawn from a wide array of disciplines. The course will include lectures by philosophers and psychologists. This course is offered in association with the Chicago Moral Philosophy Project and the Good Life program (the Hyde Park Institute).

Instructor(s): A. Henly; H. Nusbaum Terms Offered: May be offered in 2026-2027

Prerequisite(s): Third- or fourth-year standing.

Equivalent Course(s): CHDV 24050, BPRO 24050, PSYC 34060, RLST 24055

**PSYC 24090. Prediction in Language Comprehension. 100 Units.**

Language tends to follow predictable patterns, from what sounds and words are about to be uttered, to what grammatical structures are likely, to be used to what broader implications are about to be suggested, and more. One prevailing hypothesis is that the human mind can take advantage of this predictability to help maintain the rapid pace of language comprehension. This course will explore critical questions surrounding the nature of prediction processes during language comprehension. What do people predict? How are their predictions constrained? How can we study the inherently internal process(es) of prediction? What are the consequences of prediction? Perhaps most importantly, what do the answers to these questions suggest about the mechanisms and computations of prediction? Readings will primarily consist of contemporary articles from peer-reviewed journals, and class meetings will be a mix of lectures and student-led discussions.

Instructor(s): Melinh Lai Terms Offered: Spring

Equivalent Course(s): COGS 34001, EDSO 24001, COGS 24001, LING 24001

**PSYC 24450. Foundations of Neuroscience. 100 Units.**

This course is an introduction to the broad field of neuroscience. This is a lecture-based course that aims to introduce undergraduate students to concepts and principles that explain how the nervous system is built and how it functions. Examples of thematic areas covered in lectures include: (a) cellular anatomy of the nervous system, (b) development and evolution of the nervous system, (c) sensory systems, (d) motor systems, (e) cognition and behavior.

Instructor(s): D. Freedman, P. Kratsios, M. McNulty Terms Offered: Autumn

Equivalent Course(s): NSCI 20101, BIOS 24101

**PSYC 24470. Cellular Neurophysiology. 100 Units.**

This course describes the cellular and subcellular properties of neurons including passive and active electrophysiological properties and their synaptic interactions. Readings are assigned from a general neuroscience textbook.

Instructor(s): M. Sheffield Terms Offered: Winter

Prerequisite(s): NSCI 20101 AND MATH 13100, MATH 15100, or MATH 16100 or consent of instructor

Equivalent Course(s): NSCI 20111, BIOS 24111

**PSYC 25010. Foundations of Neurolinguistics. 100 Units.**

This course will explore the cognitive and neural bases underlying language comprehension and production. Class topics will draw on historic and contemporary research invoking a range of neuroimaging techniques to examine how sound, meaning, and structure are processed in the brain. Students will also explore how theories about the computations and representations underlying human language can inform, and be informed by, the biological constraints imposed by the nervous system. Prior knowledge of neuroscience is not required, but familiarity with linguistic and psychological concepts may be beneficial.

Instructor(s): Lai, Melinh Terms Offered: Autumn

Equivalent Course(s): NSCI 23125, LING 25001, COGS 25001

**PSYC 25120. Child Development and Public Policy. 100 Units.**

The goal of this course is to introduce students to the literature on early child development and explore how an understanding of core developmental concepts can inform social policies. This goal will be addressed through an integrated, multidisciplinary approach. The course will emphasize research on the science of early child development from the prenatal period through school entry. The central debate about the role of early experience in development will provide a unifying strand for the course. Students will be introduced to research in neuroscience, psychology, economics, sociology, and public policy as it bears on questions about "what develops?", critical periods in development, the nature vs. nurture debate, and the ways in which environmental contexts (e.g., parents, families, peers, schools, institutions, communities) affect early development and

developmental trajectories. The first part of the course will introduce students to the major disciplinary streams in the developmental sciences and the enduring and new debates and perspectives within the field. The second part will examine the multiple contexts of early development to understand which aspects of young children's environments affect their development and how those impacts arise. Throughout the course, we will explore how the principles of early childhood development can guide the design of policies and practices that enhance the healthy development of young children, particularly for those living in adverse circumstances, and thereby build a strong foundation for promoting equality of opportunity, reducing social class disparities in life outcomes, building human capital, fostering economic prosperity, and generating positive social change. In doing so, we will critically examine the evidence on whether the contexts of children's development are amenable to public policy intervention and the costs and benefits of different policy approaches.

Instructor(s): A. Kalil Terms Offered: Autumn

Prerequisite(s): Attendance on the first day of class is required or registration will be dropped.

Equivalent Course(s): EDSO 25120, CHDV 25120, PBPL 25120

**PSYC 25500. Cognitive and Social Neuroscience of Aging. 100 Units.**

As the baby boom generation ages, the rising prevalence of aging-related cognitive decline has become a major challenge for individuals, families and society. However, not all cognitive systems are negatively impacted by aging, and aging also causes complex social and emotional changes. How does aging affect our brains and our minds, and are these changes inevitable? This seminar provides an introduction to the scientific literature of the aging mind, focusing on both normal and pathological (e.g., Alzheimer's disease) changes in late adulthood. We will cover contemporary research from cognitive and social neuroscience perspectives. Topics include different psychological domains (e.g., attention, memory, metacognition, affective control) and applied issues (e.g., physical exercise, mental training, stereotype threat).

Instructor(s): D. Gallo Terms Offered: Spring

**PSYC 25620. How Children Think. 100 Units.**

The goal of this course is to help you understand how children's thinking develops from infancy on. We will discuss the content of children's knowledge across a variety of domains and evaluate the major theories and explanations of intellectual growth. We will review and evaluate both classic findings and state-of-the-art research on cognitive development. We will also apply classroom knowledge to real-world issues that pertain to children's cognitive development.

Instructor(s): L. Bian Terms Offered: Spring

Equivalent Course(s): EDSO 25620

**PSYC 25700. The Psychology of Negotiation. 100 Units.**

Negotiation is ubiquitous in interpersonal interactions, from making plans for a trip with friends or family, to determining working conditions with an employer, to managing international conflicts. In this course we examine the structure of different negotiations and the psychology that governs the processes and outcomes of a negotiation. For instance, we consider the role of perceptions, expectations, intuitions, and biases. We evaluate the role of information processing, modes of communication, and power in influencing a negotiated outcome. We see how the psychology of trust, reciprocity, fairness, cooperation, and competition can affect our ability to benefit from an exchange or contribute to the escalation of conflict. To better understand the dynamics of the negotiation process, we learn both through engaging in a variety of negotiation role-plays and relating these experiences to research findings. Third- or fourth-year students only. Priority will be given to fourth-year students.

Instructor(s): B. Keysar Terms Offered: Autumn

Equivalent Course(s): ECON 11710

**PSYC 25750. The Psychology and Neurobiology of Stress. 100 Units.**

This course explores the topic of stress and its influence on behavior and neurobiology. Specifically, the course will discuss how factors such as age, gender, and social context interact to influence how we respond to stressors both physiologically and behaviorally. The course will also explore how stress influences mental and physical health.

Instructor(s): G. Norman Terms Offered: Spring

Equivalent Course(s): CHDV 25750, NSCI 22535

**PSYC 25950. The Psychology of Stereotyping and Prejudice. 100 Units.**

This course introduces concepts and research in the study of stereotyping and prejudice. Topics include the formation of stereotypes and prejudice; the processes that underlie stereotyping and prejudice; stereotyping and prejudice from the target's perspective; and prejudice and stereotype reduction. The course will cover a variety of groups (e.g., race, gender, weight, and sexual orientation) and explore the implications of stereotyping and prejudice across a number of settings (e.g., educational, law, and health).

Instructor(s): A. Light Terms Offered: Winter

Equivalent Course(s): RDIN 25950

**PSYC 26011. Fundamentals of Item Response Theory. 100 Units.**

This course offers a deep dive into the theoretical underpinnings and practical applications of contemporary psychometric theory - item response theory (IRT). It will explore how IRT extends classical test theory (CTT) to enhance scaling precision and instrument quality through latent trait modeling. Through a combination of theoretical lectures, hands-on exercises, and software application sessions using R, students will gain a

comprehensive understanding of IRT principles and their real-world implications. Major topics include basic theory, models for handling both dichotomous and polytomous response data, estimation of model parameters, information function and standard error of estimation, model-data fit, test construction, differential item functioning, and test equating.

Instructor(s): Yanyan Sheng Terms Offered: Spring. Planned for Spring 2025 and future Spring quarters beyond that.

Prerequisite(s): Course work or background experience in linear and generalized linear regressions; basic understanding of psychometric concepts (e.g., SOSC 36008) is also required or consent of instructor  
Equivalent Course(s): MAPS 36011

**PSYC 26100. How to navigate the social world. 100 Units.**

How do children navigate the complex and sophisticated social world? This seminar is designed to shed light on this question to help students develop an understanding of the foundations of human nature in social contexts. It will provide an overview of the topics in early social cognition, including psychological reasoning, theories of mind, essentialism, social categorization, moral development, stereotypes and prejudice. It will cover the classic theories and empirical cutting-edge research in social cognitive development, as well as introducing methods, paradigms and research designs in this area.

Instructor(s): K. Kinzler Terms Offered: Spring. Study abroad in Paris

**PSYC 26520. Mind, Brain and Meaning. 100 Units.**

What is the relationship between physical processes in the brain and body and the processes of thought and consciousness that constitute our mental life? Philosophers and others have puzzled over this question for millennia. Many have concluded it to be intractable. In recent decades, the field of cognitive science--encompassing philosophy, psychology, neuroscience, computer science, linguistics, and other disciplines--has proposed a new form of answer. The driving idea is that the interaction of the mental and the physical may be understood via a third level of analysis: that of the computational. This course offers a critical introduction to the elements of this approach, and surveys some of the alternative models and theories that fall within it. Readings are drawn from a range of historical and contemporary sources in philosophy, psychology, linguistics, and computer science. (B) (II)

Instructor(s): Melinh Lai; Zach Lebowski Terms Offered: Autumn Winter

Equivalent Course(s): LING 36520, PHIL 26520, LING 26520, COGS 30001, EDSO 30001, SIGN 26520, PHIL 36520, EDSO 20001, COGS 20001, PSYC 36520

**PSYC 26560. Psychology of Errors and Illusions. 100 Units.**

Although our mind is a powerful and flexible tool allowing us to adaptively interact with the world, it has a lot of limitations and imperfections causing a variety of illusions, biases, and errors. This course offers a broad overview of these imperfections across different domains of perception and cognition. These include visual illusions, attentional and inattentional lapses and errors, memory distortions and failures, and reasoning biases that influence our ability to solve problems and make decisions. Furthermore, not only are people prone to all these errors but they are often unaware of this proneness - this is yet another class of errors that the course will address. The course will be built around discussing laboratory and field psychological studies demonstrating various errors and illusions, their theoretical explanations, and practical lessons for everyday life.

Instructor(s): I. Utochkin Terms Offered: Autumn

**PSYC 26662. Advanced Topics in Genes and Behavior. 100 Units.**

There are complex interactions between the genome and behavior. This course will examine how behavior can be understood by investigating the sequence and structure of genes, especially those expressed in the brain. It will consider behaviors in several species (including human), and present various molecular, genetic, and genomic approaches used to uncover how genes contribute to behavior and how behavior alters the genome. Seminar format, with student-led sessions based on primary literature readings, with class time to collectively clarify questions, delve deeper into mechanisms, and integrate to consider broader implications.

Instructor(s): S. London Terms Offered: Winter

Prerequisite(s): PQ: Some familiarity with molecular biology and/or genomes is recommended.

Equivalent Course(s): PSYC 46662, NURB 36660

**PSYC 27010. Introduction to Psycholinguistics. 100 Units.**

This is a survey course in the psychology of language. We will focus on issues related to language comprehension, language production, and language acquisition. The course will also train students on how to read primary literature and conduct original research studies.

Instructor(s): Lai, Melinh (Spring) Terms Offered: Autumn Spring

Equivalent Course(s): LING 37010, COGS 32013, LING 27010, COGS 22013

**PSYC 27200. Exploring Gender Biases from Social, Developmental, and Cognitive Perspectives. 100 Units.**

Women are underrepresented across political leadership, business, and certain STEM domains. While these gender gaps have improved over the last 50 years, they remain persistent, particularly in positions of power and those that grant high socioeconomic status. This course will explore how these gender biases come to be, and how they influence the world around us. Where do these gender biases come from? When in life do their consequences emerge? What impact do these biases have on individuals, communities, and institutions? What can be done to prevent gender biases from developing? How do they intersect with race, and how do they operate outside of the gender binary? This course will address these timely questions, integrating literature

from across the psychological sciences to explain the cognitive biases, social landscapes, and developmental trajectories that give rise to gender inequality.

Instructor(s): M. Tallberg Terms Offered: Autumn

Equivalent Course(s): GNSE 23185

**PSYC 27350. Introduction to Black Psychology. 100 Units.**

Psychological research often presents the experiences of Black Americans using a narrow, one-dimensional, and deficit-based lens. Further, many in society overlook or are unaware of the critical contributions Black psychologists have made in shaping federal policies many Americans benefit from today. In response to these concerns, this course will introduce students to relevant psychological scholarship by drawing from both historical and current arguments that center questions of identity development, wellbeing, goodness, and cultural strengths already present within Black communities. The goals of this course are to examine factors that inform the racialized lived experiences of Black Americans across the lifecourse, while also interrogating the structural forces that impede quality of life and other key health-related outcomes overtime.

Equivalent Course(s): CHDV 27500, SSAD 27500, RDIN 27501

**PSYC 27950. Evolution and Economics of Human Behavior. 100 Units.**

This course explores how evolutionary biology and behavioral economics explain many different aspects of human behavior. Specific topics include evolutionary theory, natural and sexual selection, game theory, cost-benefit analyses of behavior from an evolutionary and a behavioral economics perspective, aggression, power and dominance, cooperation and competition, biological markets, parental investment, life history and risk-taking, love and mating, physical attractiveness and the market, emotion and motivation, sex and consumer behavior, cognitive biases in decision-making, and personality and psychopathology.

Instructor(s): D. Maestri Terms Offered: Autumn

Note(s): CHDV Distribution: Undergraduate subject area: A, Graduate distribution: 1

Equivalent Course(s): PSYC 37950, CHDV 27950, CHDV 37950, ECON 14810

**PSYC 28520. Thinking like a Computational Social Scientist. 100 Units.**

The movement of much of our social lives online has created exciting new opportunities for social science research. This course provides a broad survey of computational methods used to make sense of this data. Students will learn how to collect online data and analyze this data using contemporary techniques from natural language processing, supervised/unsupervised machine learning, and generative AI. Students will also cultivate analytical skills through formal paper presentations, oral exams, and an original research project. The course will be taught in Python. This is an intuitive introduction without prerequisites, although previous experience with probability, statistics, and/or programming will be helpful. This course has a shared lecture on Thursdays and a separate graduate and undergraduate sections on Tuesdays(required).

Instructor(s): B. Koch Terms Offered: Winter

Equivalent Course(s): SOCI 20602, DATA 20602, HIST 49307, MACS 30267, SOCI 40267, MACS 20267, PSYC 38520

**PSYC 28680. Goal Pursuit and Self-Regulation. 100 Units.**

What is motivation, and where does it come from? What internal processes and external factors enable us to inhibit impulses and control our behavior? How do we conceptualize, adopt, and pursue goals, both as individuals, and as members of partnerships, teams, and organizations? In this course, we will consider foundational and current psychological theories addressing these key questions. Our texts will be drawn from primary source empirical and theoretical articles, and assignments will focus on writing and thoughtful discussion that interrogates these theories and their related evidence. Throughout the course, we will situate goal pursuit and self-regulation within broader contexts-including (but not limited to) an individual's personality and personal history, the affordances of the physical environment, and the social environment in which goals are pursued.

Instructor(s): A. Light Terms Offered: Spring

**PSYC 28791. Behavioral Science and Public Policy. 100 Units.**

Many policies are aimed at influencing people's behavior. The most well-intentioned policies can fail, however, if they are not designed to be compatible with the way people actually think and make decisions. This course will draw from the fields of cognitive, social, and environmental psychology to (1) examine the ways in which human behavior deviates from the standard rational actor model typically assumed by economics, and (2) provide strategies for improving the design, implementation, and evaluation of public-facing policies. The basic premise of this course is that a foundational understanding of human behavior can lead not only to more effective policies, but enhanced decision-making and well-being.

Instructor(s): K. Wolske Terms Offered: Spring

Equivalent Course(s): PBPL 28791

**PSYC 28810. From Fossils to Fermi's Paradox: Origin and Evolution of Intelligent Life. 100 Units.**

The course approaches Fermi's question, "Are we alone in the universe?," in the light of recent evidence primarily from three fields: the history and evolution of life on Earth (paleontology), the meaning and evolution of complex signaling and intelligence (cognitive science), and the distribution, composition and conditions on planets and exoplanets (astronomy). We also review the history and parameters governing extrasolar detection and signaling. The aim of the course is to assess the interplay between convergence and contingency in evolution, the selective

advantage of intelligence, and the existence and nature of life elsewhere in the universe - in order to better understand the meaning of human existence.

Instructor(s): P. Sereno; L. Rogers; S. London Terms Offered: May be offered in 2027-2028

Prerequisite(s): PQ: Third or fourth-year standing. This course does not meet the requirements of the Biological Sciences major. Prerequisite(s) for BIOS 13142 only: BIOS 10130 or BIOS 10140. For BIOS 13142: NO BIOLOGICAL SCIENCES MAJORS OR NON-BIOLOGY PRE-MED STUDENTS, except by petition.

Equivalent Course(s): BPRO 28800, BIOS 13142

**PSYC 28962. Principles and Methods of Measurement. 100 Units.**

Accurate measurement of key theoretical constructs with known and consistent psychometric properties is one of the essential steps in quantitative social and behavioral research. However, measurement of phenomena that are not directly observable (such as psychological attributes, perceptions of organizational climate, or quality of services) is difficult. Much of the research in psychometrics has been developed in an attempt to properly define and quantify such phenomena. This course is designed to introduce students to the relevant concepts, principles, and methods underlying the construction and interpretation of tests or measures. It provides in-depth coverage of test reliability and validity, topics in test theory, and statistical procedures applicable to psychometric methods. Such understanding is essential for rigorous practice in measurement as well as for proper interpretation of research. The course is highly recommended for students who plan to pursue careers in academic research or applied practice involving the use or development of tests or measures in the social and behavioral sciences.

Instructor(s): Yanyan Sheng Terms Offered: Spring

Prerequisite(s): Course work or background experience in statistics through inferential statistics and linear regression.

Equivalent Course(s): CHDV 26008, MAPS 36008, EDSO 36008, QMSA 36008, CHDV 36008, QMSA 26008, PSYC 36008, EDSO 26008

**PSYC 29200. Undergrad Rdgs: Psychology. 100 Units.**

Students are required to submit the College Reading and Research Course Form. Available for either quality grades or for P/F grading. Only one independent study course may count toward the twelve courses required of students majoring in psychology.

Terms Offered: Autumn Spring Summer Winter

**PSYC 29700. Undergraduate Research in Psychology. 100 Units.**

Students are required to submit the College Reading and Research Course Form. Available for either quality grades or for P/F grading. Only one independent study course may count toward the twelve courses required of students majoring in psychology.

Terms Offered: Autumn Spring Summer Winter

**PSYC 29800. Honors Seminar: Psychology. 100 Units.**

This course is a reading and discussion of general papers on writing and research, and individual students present their own projects to the group. A literature review, data from ongoing or completed empirical projects, or portions of the thesis paper itself can be presented. Students are expected to give thoughtful feedback to others on their presentations and written work.

Instructor(s): S. Levine Terms Offered: Winter

