

Post-Baccalaureate Premedical Program

Objectives

The Post-Baccalaureate Premedical Program at Brandeis University is designed for people who have received a bachelor's degree from an accredited university and are interested in taking science courses they did not take while undergraduates. This small, intensive program allows accepted students to enter Brandeis University's Graduate School as nondegree-seeking students and to enroll in those biology, chemistry, physics, and math courses necessary for admission to a health professional school. The program is not remedial. It is intended for those who still need to take the majority of courses required for admission to medical and other health professional schools.

How to Be Admitted to the Post-Baccalaureate Program

Applications will be considered on a rolling basis starting January 15 until the program is filled. The general requirements for admission to the Graduate School, given in an earlier section of this *Bulletin*, apply to candidates for admission to this program. It is recommended that applicants have some background in math and some volunteer experience in the medical field.

Board of Premedical Advisors

Peter Conrad
(Sociology)

Irving Epstein
(Chemistry)

Kimberly Godsoe
(Student Enrichment Services)

Elizabeth Goodman
(The Heller School)

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(Academic Affairs)

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(Biology)

Susan Parker
(Mathematics)

William Silen
(Biology)

Sujan Talukdar
(Intercultural Center)

Requirements for the Program

Once accepted into the program, students may attend on a full- or part-time basis during the summer and/or academic year, but must complete a total of at least seven courses at Brandeis to meet the requirements of the program and to receive certification.

To complete the program in one year, it is suggested that students take CHEM 11a and 11b, 18a, and 18b during the first summer; BIOL 18b, 22b, CHEM 25a and 29a in the fall semester; BIOL 18a, BIOL 22a (formerly BIBC 22a), CHEM 25b and 29b in the spring semester; and PHYS 10a, 10b, 18a, and 18b in the second summer.

Courses of Instruction

BIOL 18a
General Biology Laboratory

BIOL 18b
General Biology Laboratory

BIOL 22a
Genetics and Molecular Biology

BIOL 22b
Cell Structure and Function

CHEM 11a
General Chemistry

CHEM 11b
General Chemistry

CHEM 18a
General Chemistry Laboratory I

CHEM 18b
General Chemistry Laboratory II

CHEM 25a
Organic Chemistry, Lectures

CHEM 25b
Organic Chemistry, Lectures

CHEM 29a
Organic Chemistry Laboratory I

CHEM 29b
Organic Chemistry Laboratory II

PHYS 10a
Physics for the Life Sciences I

PHYS 10b
Physics for the Life Sciences II

PHYS 18a
Introductory Laboratory I

PHYS 18b
Introductory Laboratory II

Department of Psychology

Courses of Study:
Major (B.A.)
Master of Arts
Doctor of Philosophy

Objectives

Undergraduate Major

The faculty in the psychology department believe that a strong scientific and research foundation in psychology best prepares students to be thoughtful and discerning problem solvers and to continue with graduate training in psychology, whether one's career choice is clinical, applied, or research-oriented. The psychology department at Brandeis therefore emphasizes a rigorous, scientific approach to the understanding of human behavior. The program examines the most up-to-date and comprehensive psychological research and theory and provides opportunities for direct involvement in psychological research and application. Faculty conduct research in diverse areas that include cognitive science, normal and abnormal development, social interaction, spatial orientation, linguistics, perception, memory, emotion, life span development, and effects of brain damage.

Graduate Programs in Psychology

The Department of Psychology offers a Ph.D. and a master's degree program. There are two general areas of training within the Ph.D. program: cognitive neuroscience and social developmental psychology. The goal of the Ph.D. program is to develop excellent researchers and teachers who will become leaders in psychological science. From the start of graduate study, research activity is emphasized. The program helps students develop an area of research specialization and gives them opportunities to work in their chosen area of training: social developmental psychology or cognitive neuroscience. In both areas, dissertation supervisors are leaders in the field and pursue research in the following: motor control, visual perception, taste physiology and psychophysics, memory, learning, aging, child development, aggression, emotion, personality and cognition in adulthood and old age, social relations and health, stereotypes, and face perception.

How to Become an Undergraduate Major

Majors study varied aspects of basic and applied areas of the field. The focus of the department is on basic scientific research, in which there is a high level of undergraduate involvement. Up to a dozen students write honors theses each year, while twice that number conduct independent study, research, or reading projects funded by undergraduate research program grants. The clinical psychology practicum at Brandeis enables students to spend one day per week working in a mental health facility.

Majors develop a solid background in scientific method and a strong foundation in the fundamentals of psychology, making them highly competitive candidates for postgraduate study. Recent psychology majors have gone on to graduate work in clinical and scientific research areas of the field. These features of the undergraduate program make Brandeis psychology graduates especially attractive to employers in the mental health and business professions. PSYC 1a should be taken no later than the sophomore year.

How to Be Admitted to the Graduate Program

The general requirements for admission to the Graduate School, as specified in an earlier section of this *Bulletin*, apply to candidates for admission to this area of study.

An undergraduate major in psychology is not required. Students with inadequate preparation may make up their deficiencies during their first year but without residence credit. Students are admitted on a competitive basis, which includes evaluation of previous academic records, recommendations, and results of the Graduate Record Examination (Aptitudes and Psychology Achievement Tests).

Faculty

Margie Lachman, Chair

Life span development. Adult personality and cognition.

Theodore Cross

Psychological statistics.

Joseph Cunningham

Emotional development and nonverbal communication. Clinical psychology.

Paul DiZio

Human spatial orientation and motor control.

Jozsef Fiser

Visual information processing.

Maurice Hershenson

Visual space perception. Visual information processing.

Derek Isaacowitz

Emotion and aging.

Donald Katz

Neural dynamics of gustatory perception and learning.

Raymond Knight

Clinical psychology. Experimental psychopathology.

James Lackner

Spatial orientation. Human movement control. Adaptation to unusual force environments.

Joan Maling

Linguistics. Syntactic theory. Historical syntax. Metrics.

Andrew Molinsky

Organizational behavior.

Robert Sekuler

Visual perception. Cognitive processes.

Aurora Sherman

Social relations and health. Aging.

Patricia Tun

Aging and speech comprehension and memory.

Malcolm Watson, Undergraduate Advising Head

Developmental psychology.

Arthur Wingfield

Human memory.

Jerome Wodinsky

Comparative psychology. Learning theory. Sensory physiology.

Leslie Zebrowitz, Graduate Advising Head

Social psychology. Person perception.

Requirements for the Undergraduate Major

A. Of the 11 courses required for the major, a minimum of seven must be psychology, linguistics, and/or neuropsychology courses.

B. PSYC 1a (Introduction to Psychology).

C. Two quantitative courses from the following: MATH 10a, MATH 10b, PSYC 51a. This requirement should ordinarily be fulfilled by the end of the sophomore year.

D. Two laboratory science courses (e.g., BIOL 22a [formerly BIBC 22a]; CHEM 11a or 15a; CHEM 11b or 15b; COSI 21a or b; PHYS 10a or 11a, PHSC 9b (Combined lecture and lab), PHYS 10b or 11b; PHYS 22a (combined lecture and lab); PSYC 52a (formerly PSYC 152a) or PSYC 211a). At least one of these courses must be taken with the accompanying lab (e.g., BIOL 18a or b; CHEM 18a or b; CHEM 19a or b; COSI 22a or b; PHSC 9b [combined lecture and lab]; PHYS 18a or b; PHYS 19a or b; PHYS 22a [combined lecture and lab]). This requirement should ordinarily be fulfilled by the middle of the junior year.

E. One course from Group I: NPSY 11b [formerly PSYC 11b] (Introduction to Behavioral Neuroscience), NPSY 12a (Sensory Processes), PSYC 13b (Perception), PSYC 14a (Comparative Psychology), PSYC 15a (Biological Bases of Motivation).

F. One course from Group II: LING 100a (Introduction to Linguistics), NPSY 22b (Introduction to Cognitive Neuroscience), PSYC 13b (Perception), PSYC 21a (Learning and Behavior).

Note: PSYC 13b may be counted toward fulfillment of either the Group I or the Group II requirement, but not both.

G. One course from Group III: PSYC 31a (Personality), PSYC 32a (Abnormal Psychology), PSYC 33a (Developmental Psychology), PSYC 34b (Social Psychology), PSYC 36b (Adolescence and the Transition to Maturity).

H. Two specialized psychology courses or seminars (any 100-level LING, PSYC, or NPSY seminar other than LING 100a). PSYC 161a and 161b (Clinical Psychology Practicum I and II) count only as one course.

I. The department recommends that students planning to apply to graduate school take PSYC 51a, PSYC 52a (formerly PSYC 152a), and PSYC 195a. PSYC 51a and PSYC 52a (formerly PSYC 152a) are also typically required for Senior Honors Research in the Group III content area and are prerequisites for a number of 100-level seminars. These two courses and/or two semesters of calculus may be required for Senior Honors Research in the Group I and Group II content areas.

J. All courses that count toward the major must have a grade of C- or better.

Requirements for the Degree of Master of Arts

The Department of Psychology offers a terminal Master of Arts Degree Program in General Psychology. The M.A. program provides students with an understanding of the scientific foundations of psychology, as well as direct experience in research methods. Students may enroll in the master's degree program on a full-time or part-time basis. Full-time students are expected to complete the degree in one year. Students desiring to continue their studies toward the Ph.D. must apply for admission to that program.

Course Requirements

The requirement for the degree will be eight courses as follows: two semesters of Advanced Psychological Statistics, one semester of Research Methodology, and four courses from Social Developmental Psychology and from Cognitive Neuroscience as specified; Master's Project Readings to culminate in a Master's Thesis, which is either an empirical research project or a comprehensive literature review. In addition, master's students are expected to register and attend the Social Developmental Research Seminar (PSYC 316a) both semesters.

Applicants should specifically mention their interest in this program when they apply. Students in the Ph.D. program may petition for a Master of Arts degree upon completion of the following requirements: (1) one-year minimum residency, (2) acceptable master's thesis (an acceptable first-year research report will count as a master's thesis), and (3) completed breadth requirements.

Requirements for the Joint Degree of Master of Arts in Psychology & Women's and Gender Studies

Interested students must first be admitted to the Ph.D. program.

A. PSYC 211a (Graduate Research Methods in Psychology).

B. PSYC 210a and b (Advanced Psychological Statistics I and II).

C. PSYC 300a and 302a (Proseminar in Social Developmental Psychology I and II).

D. A course in PSYC 220-240 series with successful completion of first-year research project in psychology. This project must be on an issue relevant to women's and gender studies.

E. One course in feminist research methodologies (WMGS 198a or the Feminist Inquiry course offered through the Graduate Consortium in Women's Studies).

F. One additional course from 100-level courses in psychology.

G. WMGS 205a or another designated foundational course in women's and gender studies.

H. Two courses listed as electives with the women's and gender studies program.

I. Participation in a fall semester noncredit Women's and Gender Studies Graduate Proseminar.

Requirements for the Degree of Doctor of Philosophy

Program of Study

Although there is a three-year minimum residency requirement, four years of full-time graduate study are usually required for the Ph.D. The student is expected to carry a full-time course load, which is the equivalent of four courses per semester doing reading, some of which can be satisfied by research activities.

Research

Each student will devote one-quarter of his/her time to research during the first term of the entering year. For all subsequent terms, students shall devote a minimum of one-half time to research.

Research Reports and Specialty Exam

Social Developmental Program in Psychology: Students will submit reports on their research for the preceding year, in journal form, by the beginning of the third term for social developmental students. The second project will be submitted by the beginning of the fifth term for social developmental students. Satisfactory completion of the research projects is required for continuation in the program. Students who have satisfactorily completed the research requirements will be permitted to continue their work toward the doctorate with no formal requirement of a master's degree. During the student's third year, he or she will be examined in the historical, theoretical, and empirical literature related to his or her area of specialization, broadly conceived. The chair of the program, in consultation with the student and advisor, will appoint a three-member committee to administer the specialty examination. The examination includes both a written and oral portion.

Cognitive Neuroscience Program in Psychology: First-year students will do two rotations in their first year. Each rotation will last one semester with a rotation report due to the lab director on the last day of the rotation. It is ordinarily expected that one of the rotations be done in the lab of the student's primary research interest. Second-year students will be required to submit a Third Report on January 14 of their second year, to be approved by the student's primary supervisor and a second member of the program faculty. Third-year students will be required to submit a Dissertation Proposal by January 14 of their third year. An oral examination of the dissertation proposal will be scheduled within one month of submission of the written proposal.

Course Requirements

Entering Ph.D. students will take PSYC 210a and two advanced courses in the first term of residence (for social developmental students, one of these courses will be PSYC 211a if not taken prior to entering the graduate program). In the second term, first-year students will take PSYC 210b and one advanced course (for social developmental students, this will be PSYC 300a/302a). Students will take two advanced courses each term in the second year and one each term thereafter until completion of the specialty exam (social developmental students) or dissertation proposal (cognitive neuroscience students). During residency, all social developmental students are required to register and attend PSYC 316a.

Advanced courses should be selected in consultation with the student's advisor. Each term a student must take at least one graduate-level course or seminar (100-level or above) that is not an independent readings or research course. Only selected 100-level courses, determined by the psychology program, will count as advanced, graduate-level courses. Graduate-level course selection will not be restricted to the psychology program but will be arranged by the student in consultation with the faculty advisor.

Breadth Requirement

All graduate students must demonstrate breadth in the field of psychology. This breadth requirement is fulfilled by demonstrating competence in at least six of the nine areas listed below. The requirements may be satisfied in any of three ways:

- A. By having completed an undergraduate or graduate course in that area.
- B. By completing an undergraduate or graduate course offered in that area at Brandeis.
- C. By successfully passing the equivalent of any undergraduate final examination for that course.

Of the six courses, a minimum of two should be taken from areas in Group A and a minimum of two from Group B.

Group A

1. Physiological/Sensory Processes
2. Perception
3. Learning/Comparative
4. Cognition/Memory
5. Cognitive Science/Linguistics

Group B

1. Developmental
2. Social
3. Personality
4. Abnormal

Teaching Fellow Requirement

As an integral part of the graduate training program, the student is required to serve as a teaching fellow each semester until passing the specialty examination or dissertation proposal, with the exception of the first semester. All teaching fellows work closely with course instructors and receive guidance in all aspects of course preparation, teaching, and grading. Through exposure to different professors' styles, varied course formats, and presentations on teaching skills throughout their graduate training, teaching fellows come away with a wide range of experiences, providing them with invaluable preparation for academic positions.

Language Requirement

There is no foreign language requirement.

Dissertation and Defense

Following the completion of all examinations, the student will prepare a prospectus of the proposed dissertation study in consultation with a faculty dissertation sponsor. The proposal may be based on the student's preliminary research. Upon approval by the faculty of the program, a dissertation committee of three or more members will be appointed by the program chair, including the dissertation sponsor as chair of the committee. The dissertation sponsor will be responsible for advising the student throughout the performance of his or her work, in consultation with the remaining members of the committee at appropriate times in the course of the work. From time to time, the committee will report the student's progress to the program faculty.

The dissertation should provide evidence of originality, scholarship, and research ability. It should be a contribution to knowledge, ordinarily an experimental investigation, but not necessarily so. Upon submission to the chair of the program of a copy of the dissertation, signed by all members of the dissertation committee and one member from outside of the University, and a successful defense of the dissertation before all members of the program, the award of the Ph.D. will be recommended to the Faculty Council of the Graduate School.

Courses of Instruction

(1-99) Primarily for Undergraduate Students

PSYC 1a Introduction to Psychology

[ss]

A survey of contemporary scientific psychology. Topics include brain and behavior, perception, learning, cognitive processes, plasticity, intelligence, child and adult development, personality, social behavior, and the relationship between normal and abnormal behavior. Usually offered every semester.

Mr. Sekuler

NPSY 11b Introduction to Behavioral Neuroscience

[ss sn]

Prerequisite: PSYC 1a or MATH 10a or permission of the instructor. This course may not be repeated for credit by students who have taken PSYC 11b in previous years.

Data and theories regarding current conceptions of brain-behavior relationships. Begins with an introduction to neural systems as classically defined (sensory, association, motor, autonomic), and moves on to examination of the biological underpinnings of various behaviors, from those relating to basic drives (reproduction, feeding) to those with a cognitive flavor. Throughout, the accent is on interactions between organisms and environment (learning). Usually offered every year.

Mr. Katz

NPSY 12a Sensory Processes

[ss sn]

Prerequisites: Sophomore standing or MATH 10a or permission of the instructor. Examines the human senses, emphasizing sight and hearing, studied from standpoints of anatomy, physiology, and psychophysics. Insights from the study of special observers including developmentally immature humans, members of nonhuman species, and people with abnormal sensory systems. Usually offered every year.

Mr. Sekuler

PSYC 13b Perception

[ss]

Prerequisite: PSYC 1a. Open to sophomores, juniors, and seniors.

A survey of the field including topics such as visual directions, stereoscopic vision, monocular size-distance and shape-slant perception, perception of motion and movement, form perception, and psychophysics. Usually offered every semester.

Mr. Hershenson

PSYC 14a Comparative Psychology

[ss]

Prerequisite: PSYC 1a.

The analysis of the behavior of organisms from a comparative and evolutionary perspective considering genetic, humoral, sensory, and experiential factors in the control of behavior. Usually offered every year.

Mr. Wodinsky

PSYC 15a Biological Bases of Motivation

[ss]

Prerequisite: PSYC 1a.

Topics include hunger, thirst, migration, and sexual behavior. Evidence from biology, neurophysiology, and endocrinology is evaluated. Usually offered every year.

Mr. Wodinsky

PSYC 21a Learning and Behavior

[ss]

Prerequisite: PSYC 1a.

Current theories of learning will be explored in the light of experimental evidence derived from animal roles. Usually offered every year.

Mr. Wodinsky

NPSY 22b Introduction to Cognitive Neuroscience

[ss sn]

Prerequisites: PSYC 1a or MATH 10a and sophomore standing in psychology or neuroscience.

Cognitive factors in sensory processes, attention, memory, motor control, plasticity, and language. Experimental and neuroimaging approaches are emphasized. Usually offered every year.

Mr. Sekuler

PSYC 31a Personality

[ss]

Prerequisite: PSYC 1a.

Covers major personality theories and related research. Emphasis will be on application of theory, issues in personality assessment, and personality development across the life span. Usually offered every year.

Ms. Lachman

PSYC 32a Abnormal Psychology

[ss]

Prerequisite: PSYC 1a.

A general introduction to psychopathology. Various theoretical models will be discussed. The techniques and findings of research, clinical and experimental, will be emphasized. Usually offered every year.

Mr. Knight

PSYC 33a Developmental Psychology

[ss]

Prerequisite: PSYC 1a.

An examination of normal development from conception through adolescence. Emphasis is given to theoretical issues and processes of development with an emphasis on how biological and environmental influences interact. Usually offered every year.

Mr. Watson

PSYC 34b Social Psychology

[ss]

Prerequisite: PSYC 1a.

An introduction to theory and research on the psychological processes that relate the individual to his or her larger social world in terms of behaviors, thoughts, and feelings. Topics include attitudes, social perception, prejudice and discrimination, attraction, behavior in groups, and the role of culture. Usually offered every year.

Mr. Isaacowitz

PSYC 36b Adolescence and the Transition to Maturity

[ss]

Prerequisite: PSYC 1a.

Examines the core issues (identity, intimacy, sexuality, spirituality, etc.) that define development during adolescence. Heavy emphasis is placed on the integration of research and theory in understanding adolescence. Usually offered every year.

Staff

PSYC 51a Statistics

[ss qr]

Prerequisite: PSYC 1a or the permission of the instructor. Students must consult with the department one semester before anticipated enrollment. This course normally should be completed by the end of the sophomore year.

Covers the fundamentals of descriptive and inferential statistics. Techniques useful in the behavioral sciences will be emphasized. Students learn the theory of statistical decisions, practical application of computer programs, and how to analyze journal articles. Usually offered every semester.

Messrs. DiZio and Knight

PSYC 52a Research Methods in Psychology

[wi ss qr]

Prerequisites: PSYC 1a and 51a. In order to pre-enroll in this course, students must consult with the department one semester before anticipated enrollment. This course normally should be completed by the end of the sophomore year. This course may not be repeated for credit by students who have taken PSYC 152a in previous years. Refer to the Schedule of Classes each semester for information regarding applicability to the writing intensive requirement.

The laboratory/lecture offers supervised practice in experimental design, data analysis and interpretation, and formal presentation of experimental results. Usually offered every semester.

Mr. DiZio and Ms. Sherman

PSYC 92a Internship and Analysis in Psychology

Provides an opportunity for the student to supplement an off-campus internship experience with a related research project. The specific requirements of the research component are negotiated by the student and the sponsoring faculty member. Usually offered every year.

Staff

PSYC 98a Readings in Psychological Literature

Usually offered every year.
Staff

PSYC 98b Readings in Psychological Literature

Usually offered every year.
Staff

PSYC 99d Senior Research

Usually offered every year.
Staff

(100-199) For Both Undergraduate and Graduate Students**PSYC 101b The Psychology of Adult Development and Aging**

[ss]

Describes the sensory, cognitive, personality, and social changes that occur in normal aging. Emphasis on pathways to successful aging in the context of a shifting balance of gains and losses in psychological and physical functioning. Usually offered every second year.

Mr. Isaacowitz and Ms. Lachman

PSYC 103a Seminar in the Neuropsychology of Language

[ss]

Prerequisite: LING 173a or permission of the instructor. This course may not be repeated for credit by students who have taken PSYC 203a in previous years. Considers empirical and experimental analysis of the neurological organization of the language faculty. Usually offered every fourth year.

Staff

PSYC 110b Psychology of Attractiveness

[ss]

Prerequisites: PSYC 51a and PSYC 52a or permission of the instructor.

Using current theoretical and empirical research articles, looks at the influence of attractiveness on behavior, cross-cultural agreement on what traits are found attractive and possible reasons why. A basic background in statistics and research methodology is required. Special one time offering, spring 2006.

Mr. Luevano

PSYC 111a Interpersonal Behavior: The Role of Emotion

[ss]

Prerequisites: PSYC 1a. Open to juniors, seniors, and graduate students.

Seminar describes theoretical and applied research on the emotional antecedents of interpersonal behavior, primarily behaviors elicited by felt emotions and others' emotions. Detection of emotional expressions of others and the individual differences that might influence subsequent behavior are also discussed. Special one time offering, fall 2005.

Ms. DeLancey

NPSY 120b Man in Space

[ss sn]

Prerequisite: PHYS 10a.

Topics include how orbital flight is achieved, spacecraft life support systems, circulatory dynamics, sensory-motor control and vestibular function in free fall, the physiological and psychological adaptations necessary in space flight, and how astronauts must readapt on return to Earth. Usually offered every year.

Mr. Lackner

NPSY 125a Advanced Topics in Perception and Adaptation

[ss sn]

Prerequisites: MATH 10b, NPIO 104b, and PHYS 10a.

Covers current issues and theories in vision, vestibular function, proprioception, and adaptation to unusual force environments from psychological and biological perspectives. Usually offered every third year.

Mr. Lackner

NPSY 127a Motor Control

[ss sn]

Prerequisites: NPSY 11b (formerly PSYC 11b), or NPSY 12a, or permission of the instructor.

Surveys control of posture, movement, gesture, and speech from various perspectives including muscle properties, reflex organization, central neural mechanisms, spatial representations, learning, and development. Emphasizes research in physiology, psychology, biomechanics, and artificial intelligence. Usually offered every second year.

Mr. DiZio

NPSY 128b Motor Control, Orientation, and Adaptation

[ss sn]

Prerequisite: NPIO 140b.

A seminar critically reviewing and discussing current research about spatially adapted animal movement. The analysis focuses on behavioral properties, biophysics, and neural substrates. Topics include sensorimotor transformations, learning, memory, context specificity, and sensorimotor adaptation. Usually offered every second year.

Mr. DiZio

PSYC 130b Life Span Development: Adulthood and Old Age

[ss]

Prerequisites: PSYC 1a, 31a or 33a, 51a, 52a (formerly 152a), or permission of the instructor.

Seminar on advanced topics in life span developmental theory and methodology. Substantive emphasis will be on cognitive, personality, social, and physical changes that occur in midlife and later life. Usually offered every second year.

Ms. Lachman

PSYC 131b Seminar in Health Psychology

[wi ss]

Prerequisite: PSYC 1a.

An examination of the social and psychological factors important for well-being, physical health, and effective medical care. Psychological perspectives are applied to such topics as health promotion and compromise, the stress-illness relationship, social relations, chronic illness, death and dying, and health care provider and patient interactions. Usually offered every second year.

Ms. Sherman

PSYC 132a Children's Play and the Developing Imagination

[ss]

Examines the origins, forms, effects, and determinants of children's play including parent/infant play, peer play, play common to different age groups, and the use of play in educational and therapeutic settings. Readings of classic and current papers on play, student observation studies, analyses of children's jokes, toys, games, playgrounds, and problem playing. Usually offered every summer.

Staff

PSYC 133a Seminar in Nonverbal Communication

[ss]

Prerequisites: PSYC 1a, 51a, and 52a (formerly 152a) or permission of the instructor.

Seminar in advanced topics in nonverbal communication covering theoretical and methodological issues. Topics will include the nonverbal communication of various attributes (emotion, demographic qualities, identity, and personality traits) through various modalities (face, voice, body) and the factors that influence the accuracy of nonverbal communication. Usually offered every second year.

Ms. Zebrowitz

PSYC 134a Emotions and Well-Being

[ss]

Prerequisites: PSYC 34b, 51a, 52a (formerly 152a).

Who is happy? Are emotions universal? Investigates psychological theory and research on emotion and well-being. Considers the nature of emotional experience, and focuses on the causes and consequences of well-being and happiness. Usually offered every year.

Mr. Isaacowitz

PSYC 135b Seminar in Social Cognition

[ss]

Prerequisites: PSYC 1a, 34b, 51a, 52a (formerly 152a), or permission of the instructor.

Considers the general nature of stereotypes, prejudice, and discrimination, theoretical explanations for these phenomena, and methods for assessing them. Specific examples of stereotyping are discussed in light of research methods and theoretical issues. Attention is given to stereotype accuracy, self-fulfilling prophecy effects, and mechanisms for coping with stereotypes. Usually offered every second year.

Ms. Zebrowitz

PSYC 136b Advanced Topics in Developmental Psychology

[ss]

Prerequisite: PSYC 33a. Juniors and seniors have priority for enrollment. Although topics vary from year to year, the course may NOT be repeated for credit.

Provides students with detailed information about theories and special topics of research in developmental psychology. Usually offered every year.

Mr. Watson

NPSY 137b Cognitive Modeling

[ss sn]

Prerequisites: MATH 10b, and PSYC 51a or NBIO 136b.

A general introduction to the construction and simulation of mathematical models of human cognitive processes. The major emphasis will be on models of human learning and memory. Students will be expected to have some background in computer programming. Usually offered every second year.

Staff

PSYC 145b Aging in a Changing World

[ss]

Prerequisites: PSYC 1a, 51a, 52a (formerly 152a), or permission of the instructor.

Psychological issues related to the aging process are examined in a multidisciplinary perspective. Topics include intellectual functioning, memory loss, personality changes, and physiological changes in later life. Usually offered every third year.

Mr. Isaacowitz and Ms. Lachman

PSYC 150b Organizational Behavior

[ss]

Prerequisites: PSYC 1a, PSYC 51a, and PSYC 52a (formerly 152a).

Covers the fundamentals of industrial/organizational psychology, including the topics of leadership, work motivation, organizational culture, organizational structure, group dynamics, perception, decision-making, and cross-cultural interaction. Assignments include group project analysis of real organizational dilemma using concepts covered in class. Usually offered every year.

Mr. Molinsky

PSYC 153a Consciousness

[ss]

May not be repeated for credit by students who have taken LING 153a in previous years.

Explores the nature of conscious awareness and its relation to the mind and body. After going through the philosophical history of the mind-body problem, the class discusses the role of consciousness in cognitive science. Usually offered every fourth year.

Staff

NPSY 154a Human Memory

[ss sn]

Prerequisite: NPSY 22b.

Presents a systematic analysis of current memory research and theory with an emphasis on list learning experiments and neural network models. Usually offered every third year.

Staff

PSYC 155a Perceptual Development

[ss]

Seminar will discuss current issues in the development of visual space perception. Usually offered every third year.

Mr. Hershenson

NPSY 159a Advanced Topics in Episodic Memory

[ss sn]

Prerequisite: NBIO 140b or NPSY 154a and permission of the instructor.

Deals with current topics in the study of episodic memory. Discussions and readings on topics such as memory for temporal order, category learning, associative symmetry, item versus associative recognition, theories of search in free recall, and the memory systems controversy.

Usually offered every second year.

Staff

PSYC 160b Seminar on Sex Differences

[ss]

Prerequisite: PSYC 1a, 51a, 52a (formerly 152a) or permission of the instructor.

Considers research evidence bearing on sex differences in the cognitive domain and in the social domain, evaluating this evidence in light of biological, cultural, and social-cognitive theories as well as methodological issues. Usually offered every second year.

Ms. Zebrowitz

PSYC 161a Clinical Psychology Practicum I

[ss]

Prerequisites: PSYC 1a and 31a or 32a.

Students must enroll in this course in order to enroll in PSYC 161b and should only enroll in this course if they are also able to enroll in 161b in the spring semester.

In conjunction with PSYC 161b, provides intensive supervised experience in mental health intervention. Students do clinical work eight hours a week and relate their experience to empirical and literary readings in weekly group supervision.

Usually offered every year.

Mr. Cunningham

PSYC 161b Clinical Psychology Practicum II

[ss]

Prerequisites: Students may enroll in the course only if they have completed PSYC 161a in the previous semester.

In conjunction with PSYC 161a, provides intensive supervised experience in mental health intervention. Students do clinical work eight hours a week and relate their experience to empirical and literary readings in weekly group supervision.

Usually offered every year.

Mr. Cunningham

PSYC 164b Social Relations and Health Across the Lifespan

[ss]

Prerequisites: PSYC 1a, PSYC 51a, and 52a (formerly 152a).

Examines ways in which our relationships with others are intricately intertwined with many aspects of our health across the human lifespan. Discusses the current literature related to social relations and occurrence of, and coping with, specific diseases (e.g., AIDS, cancer, heart disease, arthritis) and the relationship of social relations to prevention of illness. Considers issues of gender, race/ethnicity, and other social categories that interact with social relations and health in adulthood. Usually offered every second year.

Ms. Sherman

PSYC 167b Schools of Psychotherapy

[ss]

Prerequisites: PSYC 1a and 32a. (Latter may be taken concurrently.)

The theories and techniques of several schools of psychotherapy and behavior modification are considered. The theories of personality, methods of intervention, goals of therapy, and relevant research will be emphasized. Usually offered every third year.

Mr. Knight

NPSY 168b Electrophysiology of Human Memory

[ss sn]

Prerequisites: PSYC 51a, NBIO 140b, NPSY 22b.

Laboratory course covering experimental methods and data analysis of electroencephalographic recordings during memory tasks. Projects involve data collection using a 128 channel EEG system. Topics cover time- and frequency-based methods as well as source modeling. Usually offered every year.

Staff

PSYC 169b Disorders of Childhood

[ss]

Prerequisites: PSYC 1a, 33a, or permission of the instructor. Seniors and juniors have priority for admission.

Issues of theory, research, and practice in the areas of child and family psychopathology and treatment are reviewed in the context of normal developmental processes. Usually offered every fall.

Mr. Cunningham

PSYC 173a Psycholinguistics

[ss]

This course may not be repeated for credit by students who have taken LING 173a in previous years.

An introduction to modern psycholinguistics, with an emphasis on sentence comprehension and production. Questions concerning species-specificity and the neurological organization of language are included for consideration. Usually offered every second year.

Staff

NPSY 174b Visual Cognition

[ss sn]

Prerequisite: NPSY 12a or permission of the instructor.

Higher-order processes in vision. Visual impact of cognitive and other top-down influences, including attention, expectation, plasticity, and learning. Focus on visual recognition, contour formation, segmentation, temporal binding, and face and object perception. Studies of visual perception in brain-damaged individuals. Usually offered every second year.

Mr. Sekuler

NPSY 175b The Neuroscience of Vision

[ss sn]

Prerequisite: NPSY 12a or permission of the instructor.

Examines the neural basis of human vision from several complementary perspectives. Relates visual capacities of human observers to the structure and function of the visual system. Considers computational and functional neuroimaging approaches to vision. Usually offered every second year.

Mr. Sekuler

PSYC 183a Social Cognition from a Cognitive Science Perspective

[ss]

This course may not be repeated for credit by students who have taken LING 183a in previous years.

In order for an organism to behave socially, it must have internalized knowledge of the distinctions and options available for social and cultural interaction. Explores the character of such knowledge, drawing on literature in ethology and evolutionary psychology and on parallels with linguistics. Usually offered every third year.

Staff

PSYC 193b Tests and Measurements

[ss]

Prerequisites: PSYC 1a and 51a.

Covers test theory, types of measurement, the theory and measurement of reliability and validity, and test construction. The measurement of intelligence, achievement, and personality are considered. Usually offered every second year.

Mr. Knight

PSYC 195a History of Psychology

[ss]

Structuralism, Gestalt theory, William James (consciousness), functionalism, behaviorism, learning theories, psychoanalysis, Piaget, cognitive theories, etc. Recommended for students taking the psychology GRE. Usually offered every semester.

Mr. Hershenson

NPSY 196b Advanced Topics in Cognition

[ss sn]

Prerequisite: NPSY 159a or permission of the instructor.

This seminar covers current issues and research in memory, speech perception, and processing resource limitations. Emphasis will be placed on the current literature in the field. Usually offered every second year.

Mr. Wingfield

NPSY 197a Advanced Topics in Behavioral Neuroscience

[ss sn]

Prerequisites: NPSY 11b (formerly PSYC 11b) and NBIO 140b or permission of the instructor.

Covers current research and issues pertaining to the neurobiology of perception (focusing mainly but not exclusively on perception of chemosensory signals) as well as the neurobiology of simple learning. Usually offered every year.

Mr. Katz

NPSY 199a Human Neuropsychology

[ss sn]

Prerequisite: NPSY 22b, or NBIO 140b, or permission of the instructor.

Designed as an introduction to human neuropsychology. Topics include cerebral dominance, neuroanatomical mapping, and localization of function, with special reference to language, memory, and related cognitive function. Usually offered every year.

Mr. Wingfield

(200 and above) Primarily for Graduate Students**NPSY 207b Seminar in Perception***Prerequisites: MATH 10b, NBIO 140b, and PHYS 10a.*

Examines the various aspects of visual, vestibular, motor, and proprioceptive information by which objects and events in three-dimensional space are perceived by human observers. Current research in psychology and artificial intelligence is considered. Usually offered every second year.

Mr. Lackner

PSYC 210a Advanced Psychological Statistics I

In conjunction with PSYC 210b, this course teaches students how to do independent data analysis in psychology at a Ph.D. level. Topics include methods for describing data, exploratory data analysis, elementary probability theory, null hypothesis significance testing and alternatives, the binomial distribution, contingency table analysis, one-way and factorial analysis of variance, and repeated measures analysis. Students receive extensive instruction in the use of the Statistical Program for the Social Sciences (SPSS). Usually offered every year.

Mr. Cross

PSYC 210b Advanced Psychological Statistics II*Prerequisite: PSYC 210a.*

This course is a continuation of PSYC 210a. Topics include statistical power analysis, simple correlation and regression, multiple regression, nonparametric statistics, and a brief introduction to multivariate procedures. Students learn to use multiple regression as a general data analytic system. More advanced instruction in SPSS is also provided. Usually offered every year.
Mr. Cross

PSYC 211a Graduate Research Methods in Psychology

A required course for all masters degree students, first-year doctoral students in the Social Developmental Program, and selected undergraduate students by permission of the instructor. Students who are interested in this course must consult with the department one semester before anticipated enrollment.

The laboratory/lecture offers supervised practice in experimental design, data analysis and interpretation, and formal presentation of experimental results. Usually offered every year in the fall semester.
Ms. Lachman and Ms. Zebrowitz

PSYC 217b Research: Psychopathology
Staff**PSYC 220a Research in Spatial Orientation**
Mr. Lackner**PSYC 220b Research in Spatial Orientation**
Mr. Lackner**PSYC 221a Research in Semantics and Conceptual Structure**
Staff**PSYC 221b Research in Semantics and Conceptual Structure**
Staff**PSYC 222a Research in Human Spatial Orientation**
Staff**PSYC 222b Research in Human Spatial Orientation**
Staff**PSYC 223a Research in Behavioral Neuroscience**
Mr. Katz**PSYC 223b Research in Behavioral Neuroscience**
Mr. Katz**PSYC 224a Research in Speech Perception and Cognitive Processes**
Mr. Wingfield**PSYC 224b Research in Speech Perception and Cognitive Processes**
Mr. Wingfield**PSYC 225a Research in Visual Space Perception**
Mr. Hershenson**PSYC 225b Research in Visual Space Perception**
Staff**PSYC 226a Research in Cognitive Processes and Psychopathology**
Mr. Knight**PSYC 226b Research in Cognitive Processes and Psychopathology**
Mr. Knight**PSYC 227a Research in Neurolinguistics and Psycholinguistics**
Staff**PSYC 227b Research in Neurolinguistics and Psycholinguistics**
Staff**PSYC 228a Research in Syntax and Comparative Germanic**
Ms. Maling**PSYC 228b Research in Syntax and Comparative Germanic**
Ms. Maling**PSYC 229a Research in Person Perception**
Ms. Zebrowitz**PSYC 229b Research in Person Perception**
Ms. Zebrowitz**PSYC 230a Research in Animal Behavior**
Mr. Wodinsky**PSYC 230b Research in Animal Behavior**
Mr. Wodinsky**PSYC 231a Research in Social Psychology**
Staff**PSYC 231b Research in Social Psychology**
Staff**PSYC 232a Research in Developmental Psychopathology**
Mr. Cunningham**PSYC 232b Research in Developmental Psychopathology**
Mr. Cunningham**PSYC 233a Research in Visual Cognition**
Mr. Sekuler**PSYC 233b Research in visual Cognition**
Mr. Sekuler**PSYC 234a Research in Life Span Development; Adult Personality**
Ms. Lachman**PSYC 234b Research in Life Span Development; Adult Personality**
Ms. Lachman**PSYC 235a Research in Organizational Psychology**
Mr. Molinsky**PSYC 235b Research in Organizational Psychology**
Mr. Molinsky**PSYC 236a Research in Developmental Psychology**
Mr. Watson**PSYC 236b Research in Developmental Psychology**
Mr. Watson**PSYC 237a Research: Social and Developmental Psychology**
Staff**PSYC 237b Research in Perceptual Development**
Staff**PSYC 238a Research in Human Memory**
Staff**PSYC 238b Research in Human Memory**
Staff**PSYC 239a Research in Human Motor Control**
Mr. DiZio**PSYC 239b Research in Human Motor Control**
Mr. DiZio**PSYC 242a Research in Forensics**
Mr. Knight**PSYC 242b Research in Forensics**
Mr. Knight**PSYC 243a Research in Emotion and Aging**
Mr. Isaacowitz**PSYC 243b Research in Emotion and Aging**
Mr. Isaacowitz**PSYC 244a Research in Health and Aging**
Ms. Sherman**PSYC 244b Research in Health and Aging**
Ms. Sherman**PSYC 250a Advanced Research Project**
Usually offered every year.
Staff**PSYC 250b Master's Project Readings**
Usually offered every year.
Staff

PSYC 253a Advanced Research Methods in Social Perception

Prerequisite: PSYC 211a or PSYC 52a (formerly PSYC 125a) and PSYC 51a or PSYC 210a.

Provides supervised experience in social perception research. Students conduct research projects and discuss the design, execution, and analyses of these projects in a weekly seminar that considers methodologies for research on nonverbal communication, impression formation, and stereotyping. Usually offered every second year.

Ms. Zebrowitz

PSYC 280a Advanced Readings

Usually offered every year.
Staff

PSYC 280b Advanced Readings

Usually offered every year.
Staff

PSYC 300a Proseminar in Social Developmental Psychology I

Offers an in-depth review of primary sources in several major topic areas of social and developmental psychology. Usually offered every second year.
Staff

PSYC 302a Proseminar in Social**Developmental Psychology II**

An in-depth review of primary sources in several major topic areas of social and developmental psychology. Usually offered every second year.

Staff

PSYC 316a Social Developmental Psychology Research Seminar

Required of all social developmental program graduate students who have not been admitted to candidacy. Usually offered every year.

Staff

PSYC 400d Dissertation Research

Specific sections for individual faculty members as requested.

Staff

CONT 300b Ethical Practice in Health-Related Sciences

Required of all first-year graduate students in health-related science programs. Not for credit.

Ethics is an essential aspect of scientific research. This course, taught by University faculty from several graduate disciplines, covers major ethical issues germane to the broader scientific enterprise, including areas or applications from a number of fields of study. Lectures and relevant case studies are complemented by two public lectures during the course. Usually offered every year.

Ms. Ringe

Cross-Listed Courses**PHIL 39b**

Philosophy of Mind

LING 100a

Introduction to Linguistics

PHIL 123b

Topics in Biomedical Ethics: Mental Illness

PHIL 141b

Topics in Philosophy and Cognitive Science

ED 157b

The Psychology of Student Learning

ANTH 161b

Culture and Cognition

ANTH 172b

Cognition of Society and Culture

LING 197a

Language Acquisition and Development

COSI 310b

Seminar in Artificial Intelligence

HS 373a

Minority Children and Families