

# 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 non-degree-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

**Andrew Simmons, Chair**  
(Academic Affairs)

**Bulbul Chakraborty**  
(Physics)

**Peter Conrad**  
(Sociology)

**Leslie Griffith**  
(Biology)

**Sarah Lamb**  
(Anthropology)

**Jennifer Lewis**  
(Academic Affairs)

**Susan Parker**  
(Mathematics)

**William Silen**  
(Biology)

**Neil Simister**  
(Biology)

**Thompson Williams**  
(Transitional Year Program)

## 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, 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

### Biology

**BIOL 18a General Biology Laboratory**  
Usually offered every year.  
Ms. Tsipis

**BIOL 18b General Biology Laboratory**  
Usually offered every year.  
Ms. Tsipis

**BIOL 22a Genetics and Molecular Biology (formerly BIBC 22a)**  
Usually offered every year.  
Ms. Sengupta

**BIOL 22b Cell Structure and Function**  
Usually offered every year.  
Mr. Simister

### Chemistry

**CHEM 11a General Chemistry: Principles of Material Evolution**  
Usually offered every year.  
Mr. Pochapsky

**CHEM 11b General Chemistry: Principles of Material Evolution**  
Usually offered every year.  
Mr. Petsko

**CHEM 18a General Chemistry Laboratory I**  
Usually offered every year.  
Mr. Dolnik

**CHEM 18b General Chemistry Laboratory II**  
Usually offered every year.  
Mr. Dolnik

**CHEM 25a Organic Chemistry, Lectures**  
Usually offered every year. Multiple sections.  
Mr. Hendrickson

**CHEM 25b Organic Chemistry, Lectures**  
Usually offered every year. Multiple sections.  
Mr. Keehn

**CHEM 29a Organic Chemistry Laboratory I**  
Usually offered every year.  
Mr. Keehn

**CHEM 29b Organic Chemistry Laboratory II**  
Usually offered every year.  
Mr. Snider

**Physics****PHYS 10a Physics for the Life Sciences I**

Usually offered every year.  
Ms. Chakraborty

**PHYS 10b Physics for the Life Sciences II**

Usually offered every year.  
Ms. Chakraborty

**PHYS 18a Introductory Laboratory I**

Usually offered every year.  
Mr. Bensinger

**PHYS 18b Introductory Laboratory II**

Usually offered every year.  
Mr. Wellenstein

## 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 informed consumers of psychology 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, aggression, emotion, personality and cognition in adulthood and old age, social relations and health, stereotypes, and nonverbal communication.

**Faculty****Joseph Cunningham, Chair**

Emotional development and nonverbal communication. Clinical psychology.

**Theodore Cross**

Psychological statistics.

**Paul DiZio**

Human spatial orientation and motor control.

**Maurice Hershenson**

Visual space perception. Visual information processing.

**Derek Isaacowitz**

Emotion and aging.

**Ray Jackendoff**

Linguistics. Semantic theory. Music. Consciousness.

**Michael Kahana**

Human memory and learning.

**Donald Katz**

Neural dynamics of gustatory perception and learning.

**Raymond Knight**

Clinical psychology. Experimental psychopathology.

**Margie Lachman, Graduate Advising Head**

Life span development. Adult personality.

**James Lackner**

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

**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).

**Joan Maling**

Linguistics. Syntactic theory. Historical syntax. Metrics.

**Andrew Molinsky**

Organizational behavior

**Ricardo Morant**

Experimental psychology. Perceptual mechanism. Sensation and perception.

**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**

Social psychology. Person perception.

**Requirements for the Undergraduate Major**

**A.** Of the 10 courses required for the major, a minimum of seven must be psychology 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] or BIOL 21b; 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). 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 (social, developmental, and cognitive), as well as direct experience in research methods (data collection, data analysis, inferential statistics, and experimental design). 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 and Developmental 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.

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 and Women's 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 and 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 studies.

**E.** One additional course in psychology from 100-level courses.

**F.** WMNS 205a or another designated foundational course in women's studies.

**G.** Two courses listed as electives with the Women's Studies Program.

**H.** Eight-part colloquium series.

## 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 four courses per term during residency.

### 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

**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 and by the end of the third term for perception/cognition students. The second project will be submitted by the beginning of the fifth term for social/developmental students and by the end of the fifth term for perception/cognition 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.

**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 students will take PSYC 210a and two advanced courses in the first term of residence, and one advanced course and PSYC 210b in the second term. After that they will take two advanced courses each term in the second year and one each term thereafter until completion of the specialty examination. The 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.

### Specialty Examination

For students in the Social Developmental Program in Psychology: 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 qualifying examination. The examination may be in either oral or written form. A student may petition the program to take the examination a second time if necessary.

### Specialty Examination

For Students in The Cognitive Neuroscience Program in Psychology: A formal dissertation proposal will be presented in their third year in lieu of the specialty examination.

### 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 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 prospectus 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 ]

*Enrollment limited to 125.*

A survey of contemporary scientific psychology. Topics include brain and behavior, perception, learning, cognitive processes, motivation, 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

(formerly PSYC 11b)

[ sn ss ]

*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. Last offered in the spring of 2003.

Mr. Katz

#### NPSY 12a Sensory Processes

[ sn ss ]

*Prerequisites: PSYC 1a and 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. Will be offered in the fall of 2003.

Mr. Sekuler

#### PSYC 13b Perception

[ ss ]

*Prerequisite: PSYC 1a. Open to sophomores, juniors, and seniors. Enrollment limited to 35.*

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 year. Will be offered in the fall of 2003.

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. Will be offered in the fall of 2003.

Mr. Wodinsky

#### PSYC 15a Biological Bases of Motivation

[ ss ]

*Prerequisite: PSYC 1a. Enrollment limited to 20.*

Topics include hunger, thirst, migration, and sexual behavior. Evidence from biology, neurophysiology, and endocrinology is evaluated. Usually offered every year. Last offered in the spring of 2003.

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. Will be offered in the fall of 2003.

Mr. Wodinsky

#### NPSY 22b Introduction to Cognitive Neuroscience

[ sn ss ]

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

Cognitive factors in perception, attention, memory, and language. Experimental investigations will be emphasized. Usually offered every year. Will be offered in the fall of 2003.

Messrs. Kahana and Wingfield

#### 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. Will be offered in the fall of 2003.

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. Last offered in the spring of 2003.

Mr. Knight

#### PSYC 33a Developmental Psychology

[ ss ]

*Prerequisite: PSYC 1a.*

An examination of normal development from conception through adolescence. Emphasis will be given to theoretical issues and processes of development in the cognitive and social domains with an emphasis on how biological and environmental influences interact. Usually offered every year. Will be offered in the fall of 2003.

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. Last offered in the spring of 2003.

Mr. Isaacowitz

#### PSYC 36b Adolescence and the Transition to Maturity

[ ss ]

*Prerequisite: PSYC 1a and signature of the instructor required.*

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. Last offered in the spring of 2003.

Staff

#### PSYC 51a Statistics

[ qr ss ]

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

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 (formerly PSYC 152a)

[ qr ss ]

*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. A library-intensive course. Signature of the instructor required. Refer to the*

*"University Writing" section of this Bulletin for information regarding applicability to the writing-intensive requirements.*

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**

*Signature of the instructor required.* 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**

*Signature of the instructor required.* Usually offered every year. Staff

#### **PSYC 98b Readings in Psychological Literature**

*Signature of the instructor required* Usually offered every year. Staff

#### **PSYC 99d Senior Research**

*Signature of the instructor required.* Usually offered every year. Staff

### **(100-199) For Both Undergraduate and Graduate Students**

#### **PSYC 101b The Psychology of Adult Development and Aging**

[ ss ] This course describes the sensory, cognitive, personality, and social changes that occur in normal aging. The emphasis will be 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. Will be offered in the fall of 2003. Mr. Isaacowitz and Ms. Lachman

#### **PSYC 103a Seminar in the Neuropsychology of Language**

[ ss ] *Prerequisite: LING 173a or permission of the instructor. Signature of the instructor required. 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. Last offered in the fall of 1999. Staff

#### **NPSY 120b Man in Space**

[ sn ss ] *Prerequisite: PHYS 10a. Enrollment limited to 25.* Topics include how orbital flight is achieved, spacecraft life support systems, circulatory dynamics, sensory-motor control and vestibular function in free fall, and the physiological and psychological adaptations necessary in space flight, and how astronauts must readapt on return to Earth. Usually offered every year. Will be offered in the spring of 2004. Mr. Lackner

#### **NPSY 125a Advanced Topics in Perception and Adaptation**

[ sn ss ] *Prerequisites: MATH 10b, NBIO 104b and PHYS 10a. Enrollment limited to 23.* 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. Will be offered in the fall of 2003. Mr. Lackner

#### **NPSY 127a Motor Control**

[ sn ss ] *Prerequisites: NPSY 11b (formerly PSYC 11b), NPSY 12a or permission of the instructor. Enrollment limited to 20.* 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. Last offered in the fall of 2001. 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. Signature of the instructor required.* 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. Will be offered in the spring of 2004. Ms. Lachman

#### **PSYC 131b Seminar in Health Psychology**

[ ss ] *Prerequisite: PSYC 1a, 51a, and 52a (formerly 152a). Signature of the instructor required.* 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. Will be offered in the fall of 2003. 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. Last offered in the summer of 2000. Staff

#### **PSYC 133a Seminar in Nonverbal Communication**

[ ss ] *Prerequisites: PSYC 1a, 51a, and 52a (formerly 152a) or permission of the instructor. Signature of the instructor required.* 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. Will be offered in the spring of 2004. Ms. Zebrowitz

#### **PSYC 134a Emotions and Well-Being**

[ ss ] *Prerequisites: PSYC 34b, 51a, 52a (formerly 152a). Enrollment limited to 20.* 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 second year. Will be offered in the fall of 2003. Mr. Isaacowitz

**PSYC 135b Seminar in Social Cognition**

[ ss ]

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

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. Will be offered in the fall of 2003. Ms. Zebrowitz

**PSYC 136b Advanced Topics in Developmental Psychology**

[ ss ]

*Prerequisite: PSYC 33a. Juniors and seniors have priority for enrollment. Signature of the instructor required. 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. Last offered in the spring of 2003.

Mr. Watson

**NPSY 137b Cognitive Modeling**

[ sn ss ]

*Prerequisites: MATH 10b, and PSYC 51a or NBIO 136b. Enrollment limited to 18.*

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. Will be offered in the spring of 2004.

Mr. Kahana

**PSYC 145b Aging in a Changing World**

[ ss ]

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

What does it mean to age successfully? Examines theory and research on successful aging from a multidisciplinary perspective. Topics include the scientific study of longevity, maintenance of cognitive and physical functioning in old age, as well as well-being and happiness late in life. Usually offered every second year. Last offered in the spring of 2003.

Mr. Isaacowitz

**PSYC 150b Organizational Behavior**

[ ss ]

*Prerequisites: PSYC 1a, PSYC 51a, and PSYC 52a (formerly 152a). Enrollment limited to 20.*

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. Will be offered in the fall of 2003.

Mr. Molinsky

**NPSY 154a Human Memory**

[ sn ss ]

*Prerequisite: NPSY 22b. Enrollment limited to 18.*

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. Last offered in the spring of 2000.

Mr. Kahana

**PSYC 155a Seminar in Visual Space Perception: Perceptual Development**

[ ss ]

*Prerequisite: PSYC 13b. Signature of the instructor required.*

Seminar will discuss current issues in the development of visual space perception. Usually offered every fourth year. Will be offered in the spring of 2004.

Mr. Hershenson

**NPSY 159a Advanced Topics in Episodic Memory**

[ ss sn ]

*Prerequisite: NBIO 140b or NPSY 154a, and permission of the instructor. Signature of the instructor required.*

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. Last offered in the spring of 2003.

Mr. Kahana

**PSYC 160b Seminar on Sex Differences**

[ ss ]

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

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. Last offered in the spring of 2003.

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 161b in the spring semester. Signature of the instructor required.*

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. Will be offered in the fall of 2003.

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. Signature of the instructor required.*

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. Will be offered in the spring of 2004.

Mr. Cunningham

**PSYC 164b Social Relations and Health Across the Lifespan**

[ ss ]

*Prerequisites: PSYC 1a, PSYC 51a, and 52a (formerly 152a). Signature of the instructor required.*

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. Last offered in the fall of 2002.

Ms. Sherman

**PSYC 165a Seminar in Experimental Psychopathology**

[ ss ]

*Prerequisites: PSYC 32a, 51a, 52a (formerly 152a), or permission of the instructor. Signature of the instructor required.*

Focuses on how researchers study deviant behavior and what they have learned about the causes and life course of psychopathology. Focuses on two broad classes of psychopathology—sexual aggression and schizophrenia—and examines the interplay of biological and environmental variables that cause and sustain disordered behavior. Usually offered every second year. Last offered in the spring of 1998.

Mr. Knight

**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. Last offered in the spring of 2003.  
Mr. Knight

**PSYC 169b Disorders of Childhood**

[ ss ]

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

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. Will be offered in the fall of 2003.  
Mr. Cunningham

**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. Last offered in the spring of 2002.  
Mr. Sekuler

**NPSY 175b The Neuroscience of Vision**

[ sn ss ]

*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. Will be offered in the spring of 2004.  
Mr. Sekuler

**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. Will be offered in the fall of 2003.  
Mr. Knight

**PSYC 195a Seminar in Psychological Theory**

[ ss ]

*Enrollment limited to 23.*

Analysis of relationship between theory and observation for modern psychological theories emphasizing the nature of explanation in psychology. Historical approaches are discussed in modern context. Usually offered every year. Will be offered in the fall of 2003.  
Mr. Hershenson

**NPSY 196b Advanced Topics in Cognition**

[ sn ss ]

*Prerequisite: NPSY 159a or permission of the instructor. Signature of the instructor required.*

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 year. Will be offered in the fall of 2003.  
Mr. Wingfield

**NPSY 197a Advanced Topics in Behavioral Neuroscience**

[ sn ss ]

*Prerequisites: NPSY 11b (formerly PSYC 11b) or NBIO 140b, or permission of the instructor. Signature of the instructor required.*

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. Will be offered in the fall of 2003.  
Mr. Katz

**NPSY 199a Human Neuropsychology**

[ sn ss ]

*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. Will be offered in the spring of 2004.  
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. Last offered in the fall of 2002.  
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. Will be offered in the fall of 2003.  
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. Will be offered in the spring of 2004.  
Mr. Cross

**PSYC 211a Graduate Research Methods in Psychology**

*Prerequisites: PSYC 1a and 51a. A required course for all masters degree and first-year doctoral students, 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. Signature of the instructor required. A library-intensive course.* 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 220-244a and b Courses in Research**

Usually offered every year.

**220a and b Research in Spatial Orientation**

Mr. Lackner

**221a and b Research in Semantics and Conceptual Structure**

Mr. Jackendoff

**222a and b Research in Human Spatial Orientation**

Mr. Morant

**223a and b Research in Behavioral Neuroscience**

Mr. Katz

**224a and b Research in Speech Perception and Cognitive Processes**

Mr. Wingfield

**225a and b Research in Visual Space Perception**

Mr. Hershenson

**226a and b Research in Cognitive Processes and Psychopathology**

Mr. Knight

**227a and b Research in Neurolinguistics and Psycholinguistics**

Staff

**228a and b Research in Syntax and Comparative Germanic**

Ms. Maling

**229a and b Research in Person Perception**

Ms. Zebrowitz

**230a and b Research in Animal Behavior**

Mr. Wodinsky

**231a and b Research in Social Psychology**

Staff

**232a and b Research in Developmental Psychopathology**

Mr. Cunningham

**234a and b Research in Life Span Development; Adult Personality**

Ms. Lachman

**236a and b Research in Developmental Psychology**

Mr. Watson

**238a and b Research in Human Memory**

Mr. Kahana

**239a and b Research in Human Motor Control**

Mr. DiZio

**242a and b Research in Forensics**

Mr. Knight

**243a and b Research in Emotion and Aging**

Mr. Isaacowitz

**244a and b Research in Health and Aging**

Ms. Sherman

**PSYC 250a Advanced Research Project**

Usually offered every year. Specific sections for individual faculty members as requested.

Staff

**PSYC 250b Master's Project Readings**

Usually offered every year.

Staff

**PSYC 253a Advanced Research Methods in Social Perception***Prerequisite: PSYC 52a (formerly PSYC 152a), PSYC 51a or PSYC 210a.*

Usually offered every year.

Ms. Zebrowitz

**PSYC 280a and b Advanced Readings**

Offered every year. Specific sections for individual faculty members as requested.

Staff

**PSYC 300a Proseminar in Social and 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. Last offered in the spring of 2003.

Staff

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

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 315d Faculty Research Seminar**

Required of all first-year graduate students. Taught by all faculty members of the program, the course exposes students to faculty members' current research. Usually offered every year.

Staff

**PSYC 316a Social/Developmental Psychology Research Seminar**

Required of all social/developmental graduate students who have not been admitted to candidacy. Usually offered every year. Last offered in the spring of 2003.

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.*

Scientists are becoming increasingly aware of the importance of addressing ethical issues and values associated with scientific research. This course, taught by University faculty from several graduate disciplines, will cover 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 will be complemented by two public lectures during the course. Usually offered every year.

Ms. Press

**Cross-Listed Courses****ANTH 161b**

Culture and Cognition

**COSI 310b**

Seminar in Artificial Intelligence

**ED 157b**

The Psychology of Student Learning

**HS 373a**

Mental Health: Children and Families of Color

**LING 100a**

Introduction to Linguistics

**LING 153a**

Consciousness

**LING 173a**

Psycholinguistics

**LING 183a**

Social Cognition from a Cognitive Science Perspective

**LING 197a**

Language Acquisition and Development

**PHIL 39b**

Philosophy of Mind

**PHIL 141b**

Topics in Philosophy and Cognitive Science