Psychological and Brain Sciences

Chair
• Mark S. Blumberg

Undergraduate major: psychology (B.A., B.S.)
Undergraduate minor: psychology
Graduate degrees: M.A. in psychology; Ph.D. in psychology
Faculty: https://psychology.uiowa.edu/people/faculty
Website: https://psychology.uiowa.edu

The Department of Psychological and Brain Sciences offers an undergraduate major and minor as well as graduate degree programs. It also offers courses that undergraduate students in all majors may use to satisfy the GE CLAS Core Social Sciences requirement and a First-Year Seminar designed for entering undergraduate students.

Faculty

Faculty members of the Department of Psychological and Brain Sciences are nationally and internationally renowned leaders in a variety of subdisciplines. Their research is funded by numerous federal and private research grants, their findings are documented in many publications, and their accomplishments have won many awards.

Programs

Undergraduate Programs of Study

Majors
• Major in Psychology (Bachelor of Arts)
• Major in Psychology (Bachelor of Science)

Minor
• Minor in Psychology

Graduate Programs of Study

Majors
• Master of Arts in Psychology
• Doctor of Philosophy in Psychology

Facilities

The department's facilities for graduate training and research are among the finest in the country. The Kenneth W. Spence Laboratories of Psychology, adjoining space in Seashore Hall, and the newly renovated Stuit Hall provide a variety of laboratories for human and animal studies. Facilities include animal housing areas; a histology laboratory; observation suites with remote audiovisual control and recording equipment; soundproof chambers; electrophysiological recording rooms; conditioning laboratories; the Seashore Clinic; and well-equipped electronic, mechanical, and woodworking shops. Office space for graduate students and faculty members is provided in Seashore Hall.

Currently, a new building is being constructed that will house the Department of Psychological and Brain Sciences. It will contain the department's offices, faculty and administrative staff, classrooms, laboratories, work and study space, a student learning commons, and conference rooms. The new facility will be adjacent to Seashore Hall.

The research and teaching activities of the department benefit greatly from the facilities and staff of other University and local agencies, including University of Iowa Hospitals and Clinics, the Iowa City VA Health Care System, the University Counseling Service, the Center for Disabilities and Development, the Wendell Johnson Speech and Hearing Clinic, the Center for Health Policy and Research, and the School of Social Work.

Courses

The following courses are open to first-year students who have satisfactorily completed an introductory psychology course (PSY:1001 Elementary Psychology or equivalent). Other courses numbered from 1000-2999 are considered lower-level undergraduate courses.

PSY:2301 Introduction to Clinical Psychology
PSY:2401 Introduction to Developmental Science
PSY:2501 Introduction to Social Psychology
PSY:2601 Introduction to Cognitive Psychology
PSY:2701 Introduction to Behavioral Neuroscience
PSY:2910 Industrial/Organizational Psychology

Before enrolling in any advanced undergraduate courses, students must complete all specified lower-level prerequisites or obtain consent of the instructor. Courses numbered 3000-4999 are considered advanced undergraduate courses. Those numbered 5000-7610 are considered graduate-level courses.

Psychological and Brain Sciences Courses

PSY:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first- or second-semester standing.

PSY:1001 Elementary Psychology 3 s.h.
Psychology as a behavioral science. GE: Social Sciences.

PSY:1010 Your Brain Unlocked: Learning About Learning 1 s.h.
Research about the human mind and brain that students can use to foster academic success at the UI; presentation of research findings that indicate best practices for studying, learning, and succeeding at the UI (not a remedial study skills course); topics range from retrieving information stored in memory to maintaining psychological health under stress; course format consists of lecture, student response to reading assignments, and discussion; readings are primarily original documents (journal articles).

PSY:2130 Advanced Psychology for Pre-Medical Track 3 s.h.
Psychology as a behavioral science; elementary psychology in more depth, advanced topics. Prerequisites: PSY:1001. Requirements: non-psychology major.
PSY:2301 Introduction to Clinical Psychology 3 s.h.
Introduction to abnormal psychology; scientist-practitioner model, training, ethics, research methods in clinical psychology; current approaches to intellectual, personality, behavioral assessment; theories, research on treatment of psychological disorders. Prerequisites: PSY:1001. GE: Social Sciences.

PSY:2401 Introduction to Developmental Science 3 s.h.
Current research in developmental science; prenatal development, brain development, motor and physical development, perceptual development, language development, cognitive development, aspects of socio-emotional development; emphasis on modern theoretical approaches. Prerequisites: PSY:1001. GE: Social Sciences.

PSY:2501 Introduction to Social Psychology 3 s.h.
Research and theories on people's thoughts, feelings, and behaviors in social situations; attributes, attributions, person perception, aggression, stereotypes and prejudice, attraction, relationships, social influence, group processes, altruism. Prerequisites: PSY:1001.

PSY:2601 Introduction to Cognitive Psychology 3 s.h.
Individual human cognition; perception, attention, memory, language, learning, problem solving, decision making, thought considered from viewpoint of information processing. Prerequisites: PSY:1001. GE: Social Sciences.

PSY:2701 Introduction to Behavioral Neuroscience 4 s.h.
Biological mechanisms of behavior; comparative study of behavior, behavioral organization, animal intelligence, social behavior, communication; behavioral neuroscience, how brain systems control sensation, movement, homeostasis, emotion, learning. Prerequisites: PSY:1001.

PSY:2810 Research Methods in Psychology 4 s.h.
Logic of experimental and nonexperimental methods, application of methods to analysis of behavioral phenomena; skills for critical evaluation of professional and public literature dealing with scientific study of behavior: philosophy of scientific psychology, principles of research design and control, psychological testing, applications in several research areas. Prerequisites: STAT:1020 or STAT:1020 or PSQF:4143 or SOC:2160 or STAT:1030 or PSQF:4143 or STAT:3510.

PSY:2811 Research Methods and Data Analysis in Psychology I 3 s.h.
Foundational knowledge in psychological research methods and corresponding statistical concepts; basic concepts of statistics, statistical inference, and research design as applied in psychological research; study of descriptive statistics, measurement, survey design, correlational analyses, and regression analysis; first in a sequence of two courses. Prerequisites: PSY:1001 or PSY:2701. GE: Quantitative or Formal Reasoning.

PSY:2812 Research Methods and Data Analysis in Psychology II 3 s.h.
Foundational knowledge in psychological research methods and corresponding statistical concepts; basic concepts of statistics, statistical inference, and research design as they are applied in psychological research; study of experimental control, experimental design, and hypothesis testing; second in a sequence of two courses. Prerequisites: PSY:2811 with a minimum grade of C-.

PSY:2910 Industrial/Organizational Psychology 3 s.h.
Applications of psychology to problems in world of work; emphasis on personnel selection, training, attitudes, motivation, measurement of job performance. Prerequisites: PSY:1001.

PSY:2920 Fundamentals of Human Neuropsychology 3 s.h.
Basic understanding of relationship between brain and behavior through examination of behavioral and cognitive consequences of brain damage from disease or trauma; foundations of neuropsychology, structure of the nervous system, functional specialization of the brain, cognitive functions, and assessments of brain disorders. Prerequisites: PSY:1001. Requirements: non-psychology major.

PSY:2930 Abnormal Psychology: Health Professions 3 s.h.
Introduction to psychological disorders; description of psychopathology; general issues in etiology and treatment; for non-psychology students in allied health professions. Prerequisites: PSY:1001. Requirements: non-psychology major.

PSY:2975 Introduction to Cognitive Neuroscience 3 s.h.
Analysis of brain systems and neuroanatomy that underlie cognitive tasks such as vision, hearing, emotion, attention, language, decision making, learning, and memory. Prerequisites: PSY:2701.

PSY:3010 Health Psychology 3 s.h.
Psychological contributions to understanding etiology, prevention, treatment of physical illness; basic and clinical research that addresses reciprocal effects of behavior and physical health. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2301 with a minimum grade of C- or PSY:2501 with a minimum grade of C- or PSY:2701 with a minimum grade of C-).

PSY:3015 Psychology of Interpersonal Relations 3 s.h.
Theories, empirical findings, speculation from social psychology and related disciplines regarding how people form, maintain, and alter close, interpersonal relationships. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2501 with a minimum grade of C- or PSY:2701 with a minimum grade of C-).

PSY:3020 Mind and Behavior 3 s.h.
Theories of what it is to act and know, of what intelligence might be in animals, humans, machines; perspectives from philosophy, psychology. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2701 with a minimum grade of C- or PSY:2601 with a minimum grade of C-). Requirements: junior or senior standing.

PSY:3030 Social and Personality Development 3 s.h.
Emotional, social, and personality development from infancy to adolescence; major theories and empirical research; child temperament, parent-child relationship, and social context as contributors to individual differences. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2501 with a minimum grade of C- or PSY:2401 with a minimum grade of C-).
PSY:3040 Psychology of Learning 3 s.h.
Psychological science of acquired behavior; interests in experimental study of Pavlovian conditioning, operant conditioning, cognition in humans and nonhuman animals, relevance to behavioral adaptation. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2701 with a minimum grade of C- or PSY:2601 with a minimum grade of C-).

PSY:3050 Applied Psychology: Addressing Real-World Problems 3 s.h.
Bringing the basic applied research divide in psychology; contributions of cognitive, clinical, social, and developmental psychology to understand real-world problems (e.g., traffic safety, screen time). Prerequisites: PSY:2301 with a minimum grade of C- or PSY:2401 with a minimum grade of C- or PSY:2501 with a minimum grade of C- or PSY:2601 with a minimum grade of C-.

PSY:3060 Visual Perception and Cognition 3 s.h.
Psychological and neurophysiological examination of vision. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2601 with a minimum grade of C- or PSY:2701 with a minimum grade of C-).

PSY:3065 The Aging Mind and Brain 3 s.h.
Current theories and research on biological, cognitive, and emotional changes that occur during aging; methodologies for studying cognitive and brain aging. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2701 with a minimum grade of C- or PSY:2601 with a minimum grade of C-).

PSY:3071 Cognition and the Brain 3 s.h.
Analysis of brain systems and neuroanatomy that underlie cognitive tasks such as vision, hearing, emotion, attention, language, decision making, learning, and memory. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2701 with a minimum grade of C- or PSY:2601 with a minimum grade of C-).

Similarities and differences in human language and animal communication; contexts of communication, function of communication, cognitive and neurobiological mechanisms of communication. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2401 with a minimum grade of C- or PSY:2701 with a minimum grade of C-).

PSY:3090 Psychology of Workplace Behaviors 3 s.h.
Introduction to theory and research of workplace and work-related behaviors; focus on industrial and organizational psychology. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2501 with a minimum grade of C- or PSY:2601 with a minimum grade of C-).

PSY:3095 Psychology of Relationship Violence 3 s.h.
Introduction to psychological theory and research on violence in relationships; topics will include intimate partner violence, sexual assault and rape, sexual harassment, and stalking; includes a service learning component. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2301 with a minimum grade of C- or PSY:2501 with a minimum grade of C-).

PSY:3220 Behavioral Neuroscience 3 s.h.
Basic concepts and techniques in neurosciences, their application to analysis of sensory processes, arousal mechanisms, motivation, learning. Prerequisites: PSY:2701 with a minimum grade of C- and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-).

PSY:3230 Psychopharmacology 3 s.h.
How drugs act to influence behavior; general principles of drug action on the nervous system; licit and illicit drugs, use/abuse, historical perspective on drug use. Prerequisites: (PSY:2701 with a minimum grade of C- and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-)) or (HHP:1300 with a minimum grade of C- or HHP:3500 with a minimum grade of C-). Same as HHP:3230.

PSY:3240 Motivation, Addiction, and the Brain 3 s.h.
Analysis of motivated behaviors (e.g., behaviors to obtain specific goals, such as food) and the brain processes that guide such behavior; exploration of brain processes underlying addiction. Prerequisites: PSY:2701 with a minimum grade of C- and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-).

PSY:3250 Neuroscience of Learning and Memory 3 s.h.
Major topics in the neuroscience of learning and memory; focus on anatomical, cellular, molecular bases of various learning and memory processes. Prerequisites: PSY:2701 with a minimum grade of C- and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-).

PSY:3270 Neurobiology of Stress 3 s.h.
Introduction to concept of stress and physiological systems involved; factors modulating stress vulnerability versus resilience; stress interactions with other systems with health relevance; emphasis on current research on brain mechanisms. Prerequisites: PSY:2701 with a minimum grade of C- and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-).

PSY:3280 Introduction to Health Biopsychology 3 s.h.
Physiological basis of behavior and cognition; interaction between brain and body in normal and pathological states. Prerequisites: PSY:2701 with a minimum grade of C- and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-).

PSY:3320 Abnormal Psychology 3 s.h.
Etiology, phenomenology, and treatment of child and adult DSM-IV psychological disorders (e.g., mood disorders, psychotic disorders, anxiety disorders, personality disorders). Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2301 with a minimum grade of C-.

PSY:3330 Childhood Psychopathology 3 s.h.
Major forms of childhood psychopathology; current theoretical approaches and methodological issues in diagnosis, conceptualization, treatment of developmental psychopathology. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2301 with a minimum grade of C-.

PSY:3340 Behavior Modification 3 s.h.
Basic approaches to modification of clinically distressing behavior; learning theory principles underlying techniques, translation into procedures, experimental evaluation of effectiveness. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2301 with a minimum grade of C-.
PSY:3350 Psychotherapies 3 s.h.
Current theories and research on frequently used psychotherapeutic approaches; focus on methodology in psychotherapy research, specific types of therapy, and empirically supported therapies. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2301 with a minimum grade of C-.

PSY:3420 Cognitive Development of Children 3 s.h.
Developmental research, theory concerning children's concepts, thinking, problem solving, memory, communication. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2401 with a minimum grade of C-.

PSY:3451 Infant Development 3 s.h.
Physical, motor, perceptual, cognitive, and social development during first two years of life; focus on early mechanisms of change; locomotion, perceptual abilities, precursors of cognition, early language acquisition, social interaction. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2401 with a minimum grade of C-.

PSY:3460 Language and Communication Development 3 s.h.
Vocal and social development from prelinguistic communication through early language; precursors of language development; social cognitive aspects of language development; comparative perspectives of communication development. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2401 with a minimum grade of C-.

PSY:3530 Personality 3 s.h.
Classic theoretical models and contemporary empirical research in personality, including influence of heredity and environment, consistency and stability of behavior. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and (PSY:2301 with a minimum grade of C- or PSY:2501 with a minimum grade of C-).

PSY:3540 Attitude Change 3 s.h.
Current theoretical approaches; laboratory and field methods of research; basic processes of change considered within broader framework of psychology. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2501 with a minimum grade of C-.

PSY:3560 Psychology of Gender 3 s.h.
Origins of gender roles, gender socialization in childhood, gender differences across lifespan; research on gender differences in cognition, emotions, behavior, physical and mental disorders, communication. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2501 with a minimum grade of C-.

PSY:3570 Social Cognition 3 s.h.
Research and theory on cognitive structures and processes that underlie judgment, decision, belief, and behavior in social situations; attribution, heuristics, schemas, person perception, stereotypes, attitudes. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2501 with a minimum grade of C-.

PSY:3580 Judgment and Decision Making 3 s.h.
Processes and biases that shape judgments and decisions of various types (e.g., about other people, the future, competitions, products, medical treatments, health risks, crime suspects). Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2501 with a minimum grade of C-.

PSY:3590 Stereotyping and Prejudice 3 s.h.
Research and theory on prejudice, stereotyping, discrimination, and stigmatization; focus on nature, origins, and impact of prejudice and stereotypes. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2501 with a minimum grade of C-.

PSY:3595 Psychology of Negotiation 3 s.h.
Distributive and integrative bargaining; cognitive, motivational, and emotional processes that inhibit or facilitate effectiveness in negotiating; team and multiparty negotiations; agency and ethics; complex disputes; and cross-cultural issues. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2501 with a minimum grade of C-.

PSY:3620 Human Memory 3 s.h.
Contemporary psychological theory and research on short-term and long-term memory, acquisition processes, related topics in cognition. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2601 with a minimum grade of C-.

PSY:3670 Language Processes 3 s.h.
Psychological processes involved in using languages, including speech perception and production, the meaning of words, understanding and producing sentences, and basics of discourse and pragmatics; developmental and neural bases of language processes. Prerequisites: (PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and PSY:2601 with a minimum grade of C- or PSY:2501 with a minimum grade of C- or PSY:2301 with a minimum grade of C-).

PSY:3680 Introduction to Computational Cognitive Modeling 3 s.h.
Introduction to computational modeling as a methodology for studying cognition; role and use of computational models as a framework for thinking about cognition; emphasis on hands-on simulation exercises. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-) and CS:1020 with a minimum grade of C- or PSY:2301 with a minimum grade of C- or CSD:1015 or LING:3001. Same as LING:3670.

PSY:3994 Research Practicum in Psychology 1-3 s.h.
Small-group participation in faculty research projects; literature review, study planning, data collection, analysis, interpretation, write-up.

PSY:3995 Advanced Research Practicum 1-3 s.h.
Individual participation in faculty research projects; significant reading and writing. Requirements: two semesters of PSY:3994 or HONR:3994.

PSY:3996 External Practicum in Psychology 1-3 s.h.
Student participation in career-related professional activities in community and University of Iowa agencies.

PSY:3997 Teaching/Advising Practicum in Psychology 1-3 s.h.
Participation in faculty teaching as undergraduate teaching assistant or the Psychology Peer Advisor Program.
**PSY:3998 Individual Readings and Projects** 1-3 s.h.
Requirements: psychology major and undergraduate standing.

**PSY:4020 Laboratory in Psychology** 4 s.h.
Laboratory study of an aspect of behavior; topics in a particular area (e.g., learning and memory, perception, social behavior, operant behavior, physiological processes). Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-).

**PSY:4090 Psychology Seminar** 3 s.h.
Readings from original sources, presentations, papers, student participation. Prerequisites: PSY:2701 and (PSY:2812 with a minimum grade of C- or PSY:2810 with a minimum grade of C-). Requirements: psychology B.S. enrollment and senior standing.

**PSY:4990 Honors Thesis Research** 1-3 s.h.
Supervised original project; leads to written thesis, oral defense. Requirements: honors standing.

**PSY:4995 Honors Research in Neuroscience** arr.
Students conduct independent scientific research related to the field of neuroscience. Requirements: honors standing in neuroscience, U.I g.p.a. of at least 3.33, and neuroscience g.p.a. of at least 3.33. Same as BIOL:4995.

**PSY:5050 Quantitative Methods in Psychology** 4 s.h.
Overview of statistical methods based on the general linear model, including ANOVA, ANCOVA, and multiple regression; how to conduct these analyses using SPSS. Requirements: first-year graduate standing in psychology.

**PSY:5055 Mixed-Effects Modeling in Psychology** 4 s.h.
Introduction to mixed-effects analysis of hierarchically structured and cross-classified psychological data using R. Prerequisites: PSY:5050.

**PSY:5203 Fundamental Neurobiology** 3 s.h.
Neurobiology from molecular/cellular to systems levels, including cell biology of the neuron; membrane electrophysiology; synaptic transmission and plasticity, functional neuroanatomy, peripheral and CNS sensory systems, peripheral and CNS motor systems, autonomic systems, emotion, memory, sleep, language, attention and cognition, neuronal development. Same as BIOL:5653, NSCI:5653.

**PSY:5204 Fundamental Neurobiology Discussion** 1 s.h.
Discussion of selected papers, including classics from neurobiology literature; coordinated with BIOL:5653 lecture material. Same as BIOL:5658, NSCI:5658.

**PSY:5210 Fundamentals of Behavioral Neuroscience** 3-4 s.h.
Concepts, methods, and findings in behavioral and cognitive neurosciences; emphasis on principles of neuroscience, sensation, motivation, emotion. Same as NSCI:5210.

**PSY:5212 Foundations in Behavioral and Cognitive Neuroscience** 4 s.h.
Concepts, methods, and findings in behavioral and cognitive neurosciences. Prerequisites: BIOL:3253 or PSY:5210 or NSCI:5210. Same as NSCI:5212.

**PSY:5320 Descriptive Psychopathology** 3 s.h.
Psychiatric syndromes, including description, etiology, experimental and clinical research; development, function of classification systems.

**PSY:5330 Principles of Psychological Assessment** 4 s.h.
Assessment theory and basic psychometric principles in test construction, evaluation, application; ethical, social, psychological, psychometric issues and controversies in assessment.

**PSY:5365 Seminar: Neuropsychology and Neuroscience** arr.
Clinical neuropsychology and cognitive neuroscience: cutting-edge research from scientific journals, case presentations in clinical neuropsychology, and current research. Same as NEUR:5365, NSCI:5365.

**PSY:5410 Proseminar in Developmental Science** 3 s.h.
Introduction to developmental process and developmental science; topics organized around mechanisms of development, with cross-disciplinary focus.

**PSY:5610 Proseminar in Cognition and Perception** 3 s.h.
Broad overview of study of cognition, including cognitive psychology, computer science and artificial intelligence, linguistics, neuroscience, philosophy of mind.

**PSY:5710 Introduction to Health and Behavioral Science** 3 s.h.
Evolution of health psychology; survey of major physiological systems in which pathology is affected by behavioral processes; review of theoretical approaches, experimental paradigms from behavioral science as they may apply to assessment of health problems; prevention, intervention, psychological adaptation to physical disease.

**PSY:6050 Clinical Behavioral Medicine** 3 s.h.
Biopsychosocial framework applied to study, treatment of chronic and acute physical conditions; clinical concepts, procedures.

**PSY:6101 Cognitive Science of Language Proseminar I** 3 s.h.
Survey of five major disciplines within language sciences: formal linguistic, communication disorders, psychological, neuroscience, and computational approaches. Requirements: graduate standing in communication sciences and disorders, linguistics, psychology, or neuroscience. Same as CSD:6101, LING:6101.

**PSY:6102 Cognitive Science of Language Proseminar II** 3 s.h.
Survey of five major disciplines within language sciences: formal linguistic, communication disorders, psychological, neuroscience, and computational approaches. Requirements: graduate standing in communication sciences and disorders, linguistics, psychology, or neuroscience. Same as CSD:6102, LING:6102.

**PSY:6210 Behavioral Pharmacology** 3 s.h.
Behavioral analysis of drug action; emphasis on physiological and biological mechanisms underlying behavioral processes in experimental animals, humans.

**PSY:6230 Foundations of Learning, Memory, and Cognition** 3 s.h.
Determinants of adaptive behavior in humans and animals; emphasis on behavioral analysis of learning, memory, and cognition; relevance of laboratory research to real life activities.

**PSY:6250 Neurobiology of Drug Addiction and Stress** 3 s.h.
Neurobiology of drug addiction and stress from molecular/cellular to systems level; discussion of classic and recent journal articles.

**PSY:6265 Neuroscience Seminar** 0-1 s.h.
Research presentations. Same as ACB:6265, BIOL:6265, MPB:6265, NSCI:6265.
PSY:6270 Fundamentals of Health Biopsychology 3 s.h.
Biological basis of behavior and cognition in relation to disordered regulation of body-brain systems in pathological states.

PSY:6280 Structural and Functional MRI Methods and Application 3 s.h.
Introduction to basic principles of magnetic resonance imaging and its application to psychology; imaging of brain structure; focus on functional MRI. Requirements: graduate-level introductory statistics.

PSY:6340 Psychological Therapies 3 s.h.
Historical development and current status of empirically based therapies for psychological disorders, including anxiety, depression, schizophrenia, childhood disorders; emphasis on critical evaluation of therapy techniques.

PSY:6350 Ethics and Professional Concerns arr.
Major ethical and legal issues relevant to clinical psychologists' varied roles; understanding of legal and ethical issues encountered by psychologists in varied settings, development of personal working model for resolving ethical and professional concerns.

PSY:6370 Principles of Neuropsychology 3 s.h.
Principles of human neuropsychology, including foundations (history, methods, approaches), major functional systems (vision, memory, language, spatial processing), executive functions (emotional processing and personality), and applications (experimental, clinical). Recommendations: prior course work in psychological assessment, psychopathology, and neuroanatomy.

PSY:6440 Developmental Cognitive Neuroscience 3 s.h.
Overview of current developmental cognitive neuroscience theory, research, and methods (PET, fMRI, optical imaging, EEG, ERPs); neural development; computational neuroscience, and methods.

PSY:6460 Translating Developmental Science to Applied Problems 3 s.h.
Relationship between basic and applied research in development; individual differences work and how applied work informs theory.

PSY:6480 Computational Approaches to Development 3 s.h.
Use of computational models to understand development; model development, specific approaches, model evaluation, and hands-on model work.

PSY:6510 Advanced Social-Personality Psychology 3 s.h.
Classic and contemporary theory, research, methodological issues in social-personality psychology.

PSY:6520 Attitudes and Persuasion 3 s.h.
Classic and current theories and findings on persuasion, the formation and measurement of attitudes.

PSY:6530 Advanced Social Cognition 3 s.h.
Research and theory on cognitive processes that underlie judgment, decision, belief, and behavior in social situations; attribution, heuristics, counterfactual thinking, schemas, person perception, stereotypes, attitudes.

PSY:6550 Advanced Social and Personality Development 3 s.h.
Theory and research on social and personality development; overview of development and individual differences in emotions, temperament, attachment, self, social cognition, conscience; influence of biological factors, social relationships, and broader ecology on adaptive and maladaptive developmental pathways.

PSY:6560 Stereotyping, Prejudice, and Discrimination 3 s.h.
Theory and research on origins and mechanisms of stereotyping, prejudice, and discrimination; implications for perceivers, targets, and interpersonal interactions.

PSY:6580 Moral Psychology 3 s.h.
Research and theory on cognitive and affective processes that underpin moral judgment and moral behavior; neuroscience approaches to moral judgment; political differences in moral judgment; development, evolution, and clinical variation in morality.

PSY:6590 Judgment and Decision Making 3 s.h.
Theory and research on how people gather, perceive, and use information when making judgments and decisions; includes risky and uncertain contexts; social and nonsocial contexts.

PSY:6620 Computational Modeling of Cognition 3 s.h.
Introduction to computational modeling as a methodology for studying cognition; computational models' role and use as a framework for thinking about cognition; emphasis on hands-on simulation exercises.

PSY:6640 Visual Perception 3 s.h.
Theoretical and empirical analyses of low- and high-level visual functions, including edge detection, surface representation, object identification.

PSY:6650 Attention 3 s.h.
Theory and research on attention, from viewpoints of cognitive psychology and cognitive neuroscience, including historical perspectives, recent approaches.

PSY:6740 Drug Addiction 3 s.h.
Analysis of factors involved in drug addiction; social, clinical, and biological processes.

PSY:7020 Seminar: Cognitive Neuroscience 0-2 s.h.
Neurological and behavioral investigations of attention, perception, learning, memory, decision making, planning; contemporary models, theories.

PSY:7030 Seminar: Health Psychology 0-3 s.h.
Theoretical and methodological issues; focus on specific topics (i.e., chronic disease, psychoneuroimmunology).

PSY:7070 Seminar: Behavioral Biomedical Interface 1 s.h.
Ongoing seminar; discussion of research at behavioral-biomedical interface. Requirements: acceptance to Behavioral Biomedical Interface Training Program.

PSY:7110 Research Projects arr.
PSY:7120 M.A. Thesis Research arr.
PSY:7150 Current Topics in Psychology 3 s.h.
PSY:7160 Problems in Psychology arr.
Individual study.

PSY:7170 Teaching Practicum arr.
Supervised practice in teaching.

PSY:7210 Seminar: Advanced Topics in Behavioral and Cognitive Neuroscience 3 s.h.
Prerequisites: PSY:5210.
PSY:7270 **Principles of Scholarly Integrity** 1 s.h.
Training in responsible conduct of research; student/mentor responsibilities; authorship and reviewing; plagiarism/falsification/fabrication of data; intellectual property; conflict of interest; fiscal, institutional, societal; treatment of human and animal subjects; data handling. Requirements: enrollment in graduate psychology or biology program. Same as BIOL:7270.

PSY:7310 **Seminar: Orientation to Clinical Research** 0-1 s.h.
Issues in clinical research, including use of databases, advisor/advisee relationships, preparation of IRB proposals, paper presentation and publication, common early career problems, funding resources.

PSY:7350 **Introductory Practicum** arr.
Orientation to Department of Psychology clinic, including instruction in interviewing, observation of clinic procedures, attendance at clinic rounds under supervision of clinical psychology faculty members.

PSY:7355 **Assessment Practicum** arr.
Supervised practice in psychological assessment techniques.

PSY:7360 **Therapy Practicum** arr.
Supervised practice and clinical experience in application and evaluation of psychological therapies.

PSY:7365 **External Practicum** arr.
Supervised practice and clinical experience in field setting; psychological assessment techniques and/or application, evaluation of psychological therapies.

PSY:7370 **Supervision and Consultation Practicum** arr.
Supervision and training of less advanced students; consultation to other programs and agencies.

PSY:7430 **Seminar: Cognitive Development** 0-3 s.h.
Theoretical, methodological issues focused on cognitive and perceptual development.

PSY:7510 **Seminar: Social Psychology** 1 s.h.
Professional issues, current topics relevant to social psychologists.

PSY:7604 **Principles of Scholarly Integrity** 0 s.h.
Training in responsible conduct of research and scholarly activities; student/mentor responsibilities; authorship; plagiarism/falsification/fabrication of data; intellectual property; conflict of interest; fiscal, institutional, societal; treatment of human and animal subjects; data handling. Requirements: postdoctoral standing in psychology or biology. Same as BIOL:7604.

PSY:7610 **Seminar: Cognitive Psychology** 2 s.h.

PSY:7620 **Seminar: Human Perception and Performance** 1 s.h.
Professional issues and current topics relevant to psychologists studying human perception and performance.