

Statistics	Take the following courses: <b>PY 214 PY 217</b>	<b>4</b>
Psychology	Take the following courses: <b>PY 218 PY 253 PY 315 PY 398</b> <b>PY 399 PY 499</b>	<b>21</b>
Psychology Elective	Select three of the following courses <b>PY 303 PY 312 PY 313 PY 325 PY 335</b> <b>PY 350 PY 353 PY 354 PY 361 PY 363</b> <b>PY 370 PY 372 PY 380 PY 390</b>	<b>9</b>
Practicum	Select one of the following: <b>PY 396 PY 397</b> <i>Note: Minimum of one credit hour</i>	<b>1</b>
400 level electives	9 hours at the 400 level or above	<b>9</b>
300 level electives	Any PY course at the 300 level or above	<b>3</b>
<b>Total Honors Requirements:</b>		<b>53</b>

Transfer students must complete at least 18 semester hours of advanced psychology (PY 300+) at UAB.

In addition, the B.S. in psychology requires a minimum of 6 semester hours in biology, chemistry, or physics. BY 107, BY 111, ENV 108, CH 100, and PH 100 may not be used to satisfy this requirement. Other biology, chemistry, and physics courses that satisfy the Area III Core Curriculum requirement also satisfy this requirement of the major.

### Benefits

Participation in the Psychology Honors Program provides an enriched learning environment for the student interested in pursuing a career in psychology or a related profession. The in-depth study of contemporary psychology together with the opportunity to conduct empirical research with a renowned, research-oriented faculty provides students with a strong foundation in the behavioral and social sciences. Students who complete the program will graduate "With Honors in Psychology."

### Contact

For more information and application for admission to the Honors Program in Psychology, see the <http://www.psy.uab.edu/PYundergrad/index.html>. You can also contact the honors program director at the Department of Psychology, Campbell Hall, Room 415, Birmingham, AL 35294-1170; Telephone (205) 934-3850; E-mail [ecook@uab.edu](mailto:ecook@uab.edu).

### Graduate Program

The Department of Psychology offers programs of study leading to the Doctor of Philosophy (Ph.D.) degree in three areas of psychology: medical clinical psychology (co-sponsored by the School of Medicine), behavioral neuroscience, and developmental psychology. Although the Master of Science (M.S.) degree is awarded as an intermediate degree in the Ph.D. program, a terminal M.S. degree program is not offered. Individuals interested in the graduate program should contact the Department of Psychology or the UAB Graduate School, Room 511, Hill University Center, 1400 University Boulevard, Birmingham, AL 35294-1150.

### Course Descriptions

#### Psychology (PY)

*If sections of PY 214, 217, or any PY course at the 300 or 400 level are full, enrollment may be restricted to Psychology majors, particularly those with cumulative GPAs above 3.0.*

#### **PY 101 - Intro to Psychology - 3**

Application of scientific method to behavior. Areas of psychology including learning, motivation, perception, physiological, comparative, personality, abnormal, social, clinical, child development, and individual differences (Core Area IV).

#### **PY 107 - Psychology of Adjustment - 3**

Adaptive behavior; theories, research, and personal applications relevant to desirable behavior patterns; interpersonal skills and self-control techniques.

**PY 108 - Human Sexuality - 3**

Biological and psychological bases of human sexual behavior. Genetic, hormonal, and learning foundations for development of sexual and sex-related structures and of psychosexual identity and behavior. Adult sexual structures and behavior, conception control, pregnancy, lactation and parentalism, drugs and reproduction, and sexual pathology and variances. *Prerequisite:* PY 101

**PY 109 - Drugs and Human Behavior - 3**

Historical and cultural perspectives on drug use by humans. Major classes of drugs; effects, side effects, and toxicity. Mechanisms of drug action, drug abuse, government regulations, and use of psychoactive drugs in treatment of mental disorders.

**PY 125 - Intro to Forensic Psychology - 3**

Overview of issues involving the intersection of law and psychology. Focus on role of clinical assessment of competency, scientific jury selection, expert witnesses in court, punishment and sentencing, and related issues.

**PY 201 - Honors Intro to Psychology - 3**

Advanced seminar in scientific study of behavior and cognitive processes. *Prerequisite:* permission of Director of Undergraduate Studies. (Satisfies Core Area IV Requirement)

**PY 212 - Developmental Psychology - 3**

Human development from prenatal period to old age. Genetic and environmental determinants of behavior. Language, cognition, personality, social and emotional behavior, intelligence, and physical and sexual development. Applied areas include child rearing, childhood psychoses, and child abuse. *Prerequisite:* PY 101 (Satisfies Core Area IV Requirement)

**PY 213 - Cross-Cult Persp on Child Dev - 3**

Cultural differences in determinants of child development. Effects of culturally distinct approaches to child rearing and education on infant attachment, temperament, aggression, cognitive development, peer interaction, sex-role socialization, and moral reasoning. *Prerequisite:* PY 101

**PY 214 - Elem Stats Methods and Design - 3**

Descriptive and inferential statistics with emphasis on behavioral science applications. Measures of central tendency and variability, frequency distributions, probability, t-test, correlation, analysis of variance, and regression. *Prerequisite:* MA 102 or MA 110

**PY 217 - Elem Stats Methods/Design Lab - 1**

Use of computers in statistical analysis of psychological research data. Laboratory component of PY 214. Required for all psychology majors. *Prerequisites:* CS 101 or equivalent and MA 102 or MA 110 and PY 214 (may be concurrent enrollment)

**PY 218 - Abnormal Psychology - 3**

Research-oriented study of different types of maladaptive behavior, including symptoms, development, classification, and treatment. *Prerequisite:* PY 101

**PY 220 - Contemporary Issues in Psych - 1 to 3**

Issues of current interest in psychology. *Prerequisites:* PY 101

**PY 253 - Brain Mind and Behavior - 3**

How brain functions during dreaming, visual perception, aggression, learning and memory, sex, and language. Left versus right hemisphere specializations, recovery after brain damage, and neurological basis of illnesses such as schizophrenia, autism, and Parkinson's disease. *Prerequisite:* PY 101

**PY 302 - History and Systems of Psych - 3**

Historical origins and development of major approaches to psychology. *Prerequisite:* PY 101

**PY 303 - Intro to Cognitive Science - 3**

Introduction to the exciting new discipline of cognitive science, the interdisciplinary study of mind and intelligence. This course draws on a number of disciplines involved in unraveling the mysteries of the mind and intelligent life. *Prerequisite:* PY 101

**PY 305 - Medical Psychology - 3**

Psychological methods applied to health problems. Development of medical problems, psychological/behavioral treatment of medical disorders, prevention of disease, and promotion of health. *Prerequisite:* PY 101

**PY 312 - Adv Developmental Psychology - 3**

Current research and theory in childhood and adolescence with focus on perceptual/cognitive and social/emotional issues. Relationship between spoken language development and learning to read, linguistic development in special populations (e.g., hearing-impaired children), applications of memory research to children's courtroom testimony, impact of preschool experience (e.g., Head Start) on academic achievement, and family and peer influence on cognitive and social development. *Prerequisite:* PY 212

**PY 313 - Intro to Language Development - 3**

Children's acquisition of the ability to speak and understand their native language. Learning to read and write. Language abilities in special populations (e.g., the hearing-impaired, mentally-retarded, elderly individuals). Communication abilities in nonhumans. *Prerequisites:* PY 212 or PY 213

**PY 315 - Methods Psychological Research - 4**

Fundamentals of experimentation with psychological phenomena. Conceptual and practical exploration of problem definition and hypothesis formation; observation, definition, and measurement; design and control of experiments for valid causal inference; quasi-experimental designs; generalization and ecological validity; explanation and interpretation of results; scientific communication. *Prerequisites:* PY 214 and PY 217

**PY 318 - Child and Adolescent Abnormal - 3**

Manifestations, causes, and treatment of psychological disorders from infancy through adolescence. Developmental and research perspective on these disorders with clinical and social implications. *Prerequisites:* PY 212 or PY 218

**PY 319 - Psychopathology and Culture - 3**

Cultural differences with respect to types of behavior viewed as abnormal and how such behaviors are classified and treated. *Prerequisite:* PY 101

**PY 320 - Contemporary Issues in Psych - 1 to 3**

Issues of current interest in psychology. *Prerequisite:* PY 101

**PY 325 - Clinical Child Psychology - 3**

Diagnosis, prevention and treatment of psychological problems in children and adolescents. Interview techniques, behavioral and cognitive interventions, and community prevention programs. Developmental considerations emphasized. *Prerequisites:* PY 212 or PY 213

**PY 326 - Industrial/Organizational Psy - 3**

Psychological methods applied to people at work. Selection, placement, performance appraisal, training, attitude measurement, work motivation, leadership, industrial safety, and human performance. *Prerequisite:* PY 101

**PY 327 - Comparative Organ Psych - 3**

Responses of organization members to organizational structures and processes as function of cultural differences. Attitudes, production, decision making, and organizational commitment.

**PY 330 - Sport Psychology - 3**

Psychological factors in athletic performance. Psychological characteristics of successful athletes; anxiety, arousal, motivation, attention, concentration, attribution, cognition, and imagery. *Prerequisite:* PY 101

**PY 335 - Motivation and Emotion - 3**

Psychobiological basis of eating, drinking, sleep, sex, and aggression, and the role of emotion and reinforcement in shaping these behaviors. Underlying mechanisms involved in these motivated behaviors from basic biological need (homeostasis) to abnormal conditions as occurs in eating and sleep disorders, genetic anomalies, drug addiction and violence. *Prerequisite:* PY 101

**PY 350 - Personality/Intellect Assess - 3**

Measurement of personality and other psychological characteristics through psychological tests. Selection, administration, and interpretation of psychological tests. *Prerequisite:* PY 214

**PY 353 - Behavioral Neuroscience - 3**

Neurobiological basis of behavior. Central nervous system mechanisms that mediate processes such as learning, motivation, sensation, speech, and emotional behavior. *Prerequisite:* PY 101

**PY 354 - Autism: Brain and Cognition - 3**

Autism is a disorder that affects every facet of human functioning. Its multidimensional manifestation is enigmatic to researchers as well as to affected families. This course will examine the scientific research that has illuminated the nature of autism, focusing on its cognitive and biological aspects. We will examine different perspectives of thinking and various biological underpinnings of brain function, to converge on the most recent scientific consensus on the biological and psychological characterization of autism. There will be a special focus on structural and functional brain imaging studies of autism. *Prerequisite:* PY 101 and PY 253

**PY 361 - Psychology of Learning - 3**

Issues of learning in terms of current theoretical positions. Classical conditioning, instrumental conditioning, forgetting, role of motivation, and transfer of training. *Prerequisite:* PY 101

**PY 363 - Cognitive Psychology - 3**

Human cognitive functioning. Selective attention, information processing, models of learning, memory, perception, and free and structured thought processes. *Prerequisite:* PY 101

**PY 370 - Personality - 3**

Comparison of major theories of personality, including philosophy of human nature; structure, dynamics, and development of personality. *Prerequisite:* PY 101

**PY 372 - Social Psychology - 3**

Major theories and research in social psychology. Social perception and attribution, behavior in interpersonal relationships, and group influences on individual behavior. *Prerequisite:* PY 101

**PY 375 - Philosophy of Mind - 3**

Mind; its nature, forms, and functions. Consciousness, self-consciousness, action, belief, desire, rationality, personal identity; problems such as mind-body, psychological explanation, and freedom of will. Prerequisite: one previous PHL course or permission of instructor.

**PY 376 - Psychology and Law - 3**

Interaction between theories and applications of psychology and practice of civil and criminal law. Insanity, malpractice, competency, civil commitment, violence, jury selection, and expert-witness testimony. Prerequisite: PY 101

**PY 380 - Perception - 3**

Contemporary theory and empirical research in sensory coding of perceptual information. Sensory transduction, physiology and anatomy of sensory systems, and psychophysical measurement techniques. Visual perception, hearing and speech, smell, and taste. Prerequisite: PY 101

**PY 390 - Animal Behavior - 3**

Theoretical and applied aspects of animal behavior. Learning and natural selection, evolutionary stable strategies, reasoning, mimicry, perception and intelligence. Prerequisite: PY 101

**PY 396 - Teaching Practicum in Psych - 1 to 3**

Teaching experience in psychology courses, supervised by a faculty member. Student must have previously taken the course for which the student will work within. Prerequisite: Permission of Director of Undergraduate studies or PY Advisor

**PY 397 - Community-Based Practicum in Psychology - 1 to 6**

Community work in various supervised settings such as Crisis Center, Department of Human Resources, etc. Prerequisite: Permission of Psychology Advisor. (Pass/Fail)

**PY 398 - Research Practicum in Psychology - 1 to 6**

Project or research activity supervised by faculty. Cannot be taken Pass/Fail. Prerequisite: permission of Director of Undergraduate Studies or PY Advisor

**PY 399 - Psychology Honors Seminar - 1**

Seminar for honors students. Conduct of special project (PY 398) required. Prerequisite: permission of Director of Psychology Honors Program.

**PY 402 - History and Systems of Psychology - 3**

Historical origins and development of major approaches to psychology. Prerequisite: PY 315

**PY 405 - Biofeedback/Meditat/Self-Reg - 3**

History and current applications of biofeedback, meditation, and relaxation techniques. Prerequisite: PY 315

**PY 407 - Pathology of Memory - 3**

Memory disorders from standpoint of experimental psychology and neuropsychology. Amnesic syndrome, dementia, transient memory disorders, Alzheimer's disease, and epidemiology and public health issues. Prerequisite: PY 315

**PY 411 - Cognitive Development - 3**

Development of memory, perception, learning, and thinking in children. Prerequisites: PY 212 and PY 315

**PY 412 - Social Development - 3**

Contemporary theoretical models and empirical research in social development. Attachment formation in infancy, parent-child and family interactions, peer relationships, moral and pro-social development, aggression, and sex role development. Prerequisites: PY 212 and PY 315

**PY 413 - Psych of the African-Amer Child - 3**

Psychological development of African American children from birth through adolescence. Prenatal influences on growth and development, cognitive development, practices of African American families, Black English and language development, psychological testing, self-concept, racial identification, and motivation and academic achievement. Prerequisites: (AAS 320 or PY 212) and PY 315

**PY 414 - Perceptual Development - 3**

Changes in sensory capacities from birth to old age, including all sensory modalities. Life-span development of higher-level perceptual processes, including development of perceptual constancies and intermodal perception. Prerequisites: PY 212 and PY 315

**PY 415 - Mental Retard/Dev Disabilities - 3**

History, causes, treatment/education, behavioral interventions, and family issues related to mental retardation and other developmental disabilities. Psychologist as member of interdisciplinary treatment team. Prerequisites: PY 212 and PY 315

**PY 416 - Adv Methods in Psych Research - 3**

Method for understanding psychological research; its strengths, weaknesses, and conclusions. How best psychological studies are designed and how one experiment leads to another. Prerequisite: PY 315

**PY 418 - Psychotherapy/Behavior Change - 3**

Different therapeutic approaches and issues relating to their effectiveness. Principles of behavior modification. Prerequisites: (PY 218 or PY 319) and PY 315

**PY 420 - Contemporary Issues in Psychology –1 to 3**

Issues of current interest in psychology. *Prerequisites:* PY 315

**PY 423 - Abnormal Child Development - 3**

Current research and theories related to aberrations of normal development processes, including autism, childhood schizophrenia, and other disorders of childhood. *Prerequisites:* (PY 212 or PY 218) and PY 315

**PY 425 - Psychology of Aging - 3**

Age changes in human cognition and behavior. Sensory processes, memory, intelligence, physiology and health, psychopathology, and life-span development and adjustment. *Prerequisites:* PY 212 or PY 315

**PY 430 - Psychology of Chronic Pain - 3**

Major empirical and theoretical contributions to causes, evaluation, and treatment of chronic pain. *Prerequisites:* PY 315

**PY 431 - The Dynamics of Pain - 3**

Physiology, pharmacology, and anatomy of acute and chronic pain. How medical treatments relieve pain. Stress-induced analgesia, transcutaneous electrical stimulation, acupuncture, inflammation, and psychological approaches to treatment of pain. *Prerequisites:* PY 315 and PY 353

**PY 441 - Princ Cell Neurosci Mod I - 3**

Module I: Molecules, genes and cell biology of the nervous system. The first module will cover the biochemistry, molecular and cellular biology of neurons and glial cells. Topics on biochemistry and molecular biology will include protein, lipid, carbohydrate and nucleic acid biosynthesis and structure. Next, the cell biology of neurons and glial cells will be introduced, including protein and membrane transport pathways, energy metabolism, protein turnover and gene regulation. Introductory basic concepts of nervous system development will be covered, including the differentiation of neurons and glial cells and the anatomical plan of the brain and spinal cord. This developmental neurobiology concepts are intended to be an introduction to a later graduate-level course taught in the second year (Developmental Neurobiology, Keyser).

**PY 442 - Princ Cell Neurosci Mod II - 3**

Module II: Membrane biophysics and synaptic transmission

The second module will introduce basic concepts of membrane biophysics, as well as the electrical and chemical signaling within and across neurons. Topics will include the resting membrane potential, passive and active propagation of electrical signals, active electrogenic properties of dendrites and axons, structure and function of voltage-gated and ligand-gated ion channels, and mechanisms of action potential conduction. The molecular and cellular mechanisms of synaptic transmission, the transfer of information between neurons, will then be covered in detail. Topics will include mechanisms of synaptic vesicle synthesis and their filling with neurotransmitters, their storage, exocytosis, endocytosis and recycling, the role of neurotransmitter transporters in clearance and termination of neurotransmitter actions, postsynaptic receptors and signal transduction pathways, as well as the dynamic changes in synaptic structure and function. Fundamental basic concepts of neurotransmitter receptor pharmacology will also be presented as the bases for understanding neuropharmacology, the effect of drugs on nerve cell function.

**PY 443 - Princ Cell Neurosci Module III - 3**

Module III: Synaptic integration, synaptic plasticity and basic neuronal circuitry

The third module will focus on the modulation and integration of all the synaptic inputs arriving on neurons. Topics will include temporal and spatial summation of synaptic inputs, metabotropic and neurotrophic factor receptors and their signal transduction mechanisms through second-messenger systems, as well as long- and short-term synaptic plasticity, including LTP and LTD as current cellular models of learning and memory. The neurochemical bases of neurological and psychiatric disorders will also be covered. Finally, sensory transduction and motor control systems will be covered as an introduction to a later graduate-level course taught in the second year (Integrative Neuroscience, Gamlin).

**PY 444 - Princ Cell Neurosci Module IV - 3**

Module IV: Discussion of classical and contemporary research articles

This class will use a journal club format to dissect and discuss primary research literature on topics that parallel the material taught in lectures. Research articles will include groundbreaking seminal papers ("classical") and modern, state-of-the-art experimental approaches in Neuroscience ("contemporary").

**PY 450 - Acquisition of Language - 3**

Communication development in infancy, development of speech perception and production, grammatical and semantic development, acquisition of literacy, individual differences and cross-cultural variation in language acquisition, and use of language in social context. *Prerequisites:* PY 212 and PY 315

**PY 453 - Adv Behavioral Neuroscience - 4**

Neurobiological and psychological research on neural systems that control behavior will be studied. Topics will include synaptic communication, sensation and perception, movement, genetic influences on behavior, motivation, emotion, learning, psychopathology, and brain plasticity. *Prerequisites:* (PY 335 or PY 353 or PY 380) and PY 315

**PY 455 - Psychology of Eating Disorders - 3**

Genetic, neurochemical, developmental, and sociocultural determinants of anorexia nervosa, bulimia, binge-eating disorder, and obesity. Diagnostic, preventive, and treatment strategies. Provocative recent findings from animal research. Unusual human eating behaviors, including patterns manifested in brain trauma and genetic disorders, craving, ingestion of non-nutritive substances, and cannibalism. *Prerequisites:* (PY 335 or PY 353) and PY 315

**PY 457 - Human Psychophysiology - 3**

Physiology, instrumentation, and methodology of psychophysiological measurements, including autonomic and central nervous systems. Consideration of basic and applied research. *Prerequisite:* PY 315

**PY 461 - Research Sem Cognitive Science - 1**

Current research, theories and controversies in cognitive science. Seminar topic changes each term. *Prerequisite:* PY 315

**PY 462 - Overview of Cognitive Science - 3**

Cognitive Science is the interdisciplinary study of mind and intelligence. This course is a comprehensive overview of the historical and conceptual foundations of cognitive science. No previous courses in cognitive science are needed to participate. *Prerequisites:* PY 315 and PY 361 or PY 363

**PY 463 - Cognitive Neuroscience - 3**

Interdisciplinary study of higher-order cognitive functions in humans. Data from functional brain imaging, neurology, neuro-anatomy, and neurophysiology used in study of human perception, language, learning, and memory. *Prerequisites:* PY 315 and PY 353 or PY 363 or PY 380

**PY 480 - Sensory Processing Perception - 3**

Neural coding underlying perception. Sequence of transformation in sensory processing hierarchy from receptors to complex cortical areas, relationship to cognitive functioning, and recent progress in machine vision and perception. *Prerequisites:* PY 315 and PY 353 or PY 363 or PY 380

**PY 488 - Pediatric Psychology - 3**

Behavioral influence on health and illness; impact of health problems and illness on behavior and development of children and adolescents; family issues related to these interaction. *Prerequisites:* PY 212 and PY 315

**PY 490 - Psychology Capstone - 3**

The capstone course emphasizes the synthesis of knowledge and research skills expected of the undergraduate Psychology major. Students are guided in conducting research within a specific content area related to a 400-level Psychology seminar, in which they must be concurrently enrolled. Also includes class readings and discussions on ethical issues. Observation or community service in selected social service agencies is an integral part of the course. Concurrent enrollment in a 400-level Psychology course is required. *Prerequisite:* PY 315

**PY 499 - Psychology Honors Thesis - 2**

This capstone course represents the culmination of the undergraduate major in Psychology for participants in the Honors Program in Psychology. Students complete their honors thesis with guidance from their research mentor and the honors program Director. Students defend their thesis in the Psychology Honors Seminar and also present their research at a conference or in another public venue. *Prerequisites:* Participation in the Honors Program in Psychology, and completion of 3 semesters of PY399, one of which may be concurrently enrolled. *Prerequisite:* PY 399

## Department of Sociology

**Chair:** Mark E. LaGory

**Faculty:** Austin, Borch, Clair, Cockerham, Cotten, Drentea, Hamilton, Hwang, Needham, Ritchey, Trigg, Wallace, K. Wilson

The Department of Sociology offers two approaches for a major in sociology: (1) general sociology and (2) social psychology concentration in sociology. Minors are offered in medical sociology, social psychology, and general sociology.

General sociology involves the study of group dynamics and its impact on human populations and individuals. As a social science, the discipline analyzes the patterns of behavior in all types of social relationships. This field has broad scope and relevance. The undergraduate program in general sociology is designed to complement UAB's location in a large metropolitan area with a major medical center. Such a location provides an excellent laboratory for study in several areas, including health and aging, social psychology, social inequality, and urban sociology. Students may choose from several courses in each of these areas. A significant number of courses are available in medical and health-related sociology.

The social psychology concentration in sociology provides a perspective on interpersonal relationships that draws on research conducted by sociologists and psychologists. In the broadest sense, social psychology is the study of how people's behaviors and thoughts influence, and are influenced by, the actions of others. As a field of study, social psychology has typically focused on the study of persons in face-to-face situations and small group settings.

The central goal of both general sociology and the social psychology concentration is to provide students with a solid foundation in the basic tools of the discipline: statistical analysis, research methodology, and theoretical frameworks.

General sociology offers training for four basic types of careers. First, it provides a broad background for students who are not planning a career in sociology but who want an understanding of the nature and development of social structures and social issues. Second, it offers valuable preparation for professional careers in the social services.