Psychological Sciences

**PSYC 6312** (ACN 6312 and HCS 6312) Research Methods in Behavioral and Brain Sciences - Part I (3 semester credit hours) This course focuses on applying, understanding, and interpreting various ANOVA-related statistical techniques in a behavioral science context. Students learn the frameworks for hypothesis testing and effect size estimation. The course provides students with an understanding of the interrelationships among statistical techniques, and computer skills required for data analyses. Students without the necessary background knowledge of basic statistics and experimental design will be required to take **PSY 3392** before registering for **ACN 6312**. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 6313** (ACN 6313 and HCS 6313) Research Methods in Behavioral and Brain Sciences - Part II (3 semester credit hours) This course focuses on applying, understanding, and interpreting regression and analysis of variance-related statistical techniques in a behavioral and brain science context. The course provides students with increased conceptual understanding of topics within regression and analysis of variance (e.g., hierarchical regression analysis, multiple regression with continuous and categorical predictors, regression diagnostics, fixed, random, and mixed effect models), along with computer skills required to interpret data analyses. Prerequisites: (ACN 6312 or HCS 6312 or PSYC 6312) and department consent required. (3-0) Y

**PSYC 6317** (HCS 6317) Research Methods in Psychology (3 semester credit hours) This course overviews research methods in psychological science. Students learn to design, conduct, and evaluate psychological research. Students will learn to critically evaluate the methodology and conclusions of existing and proposed research. Students will develop a formal research proposal and will learn about the process of grant submission and peer review. Students will also learn about issues related to professionalism, diversity, and ethics in the conduct and publication of research in psychology. Prerequisite: BBSC majors only and department consent required. (3-0) Y

**PSYC 6320** (HCS 6359 and HDCD 6320) The Developing Child: Toddler and Preschool Years (Two to Five Years) (3 semester credit hours) Relevant developmental theories and processes as well as skills acquired in motor, sensory-perceptual, cognitive, and social domains. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 6327** (HCS 6327) Personality (3 semester credit hours) Survey of trait, biological, social-cognitive, analytic, and learning theory approaches to the study of personality. Emphasis on intensive exploration of modern theoretical and empirical work. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 6330** (ACN 6330 and HCS 6330) Cognitive Science (3 semester credit hours) Cognitive, computational, and neural processing approaches to understanding perception, memory, thought, language, and emotion. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 6331** (ACN 6331 and HCS 6331) Cognitive Development (3 semester credit hours) Survey of cognitive development theories and research in a variety of domains including perception, memory, language, and problem solving. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 6332** (ACN 6332 and HCS 6332) Perception (3 semester credit hours) Psychophysical, neurophysiological, and computational foundations of sensation and perception. Basic senses of vision,
audition, chemoreception, and tactile processing, with emphasis on understanding the processes that take us from neurons to perception and action. (3-0) R

**PSYC 6333** *(ACN 6333 and HCS 6333)* Memory *(3 semester credit hours)* Research and theory on the acquisition, representation, and retrieval of information by the mind/brain. Includes information processing and neuropsychological perspectives. Prerequisites: BBSC majors only and department consent required. (3-0) R

**PSYC 6335** *(HCS 7376 and HCD 6385)* Child Psychopathology *(3 semester credit hours)* Major classes of childhood psychopathology manifested during infancy through adolescence. Normal personality development as a basis for identifying psychopathology. Issues of etiology, diagnosis, prognosis and social policy. Prerequisites: BBSC majors only and department consent required. (3-0) R

**PSYC 6338** *(ACN 6338 and HCS 6338)* Functional Neuroanatomy *(3 semester credit hours)* An introduction to human neuroanatomy organized by major brain system. Function of the neuroanatomy of each major system and relation to neurological disorders associated with damage to the neuroanatomy of the system. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 6346** *(ACN 6346 and HCS 6346)* Systems Neuroscience *(3 semester credit hours)* Integrative systems level study of the nervous system. Aspects of neural mechanisms and circuitry underlying regulation of motor behaviors, sensory and perceptual processing, biological homeostasis, and higher cognitive functions. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 6350** *(HCS 6350)* Social Development *(3 semester credit hours)* Foundations of social and personality development. Includes survey of major theoretical approaches to the study of temperament, attachment, parenting, aggression, peer relationships, self and gender development, and other contemporary issues. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 6352** Cognitive Psychology Essentials for Cyber Security *(3 semester credit hours)* Cybersecurity involves human judgment and action both on the attack and defense sides. This course is an introduction to the human-side of cyber security. It will provide an in depth overview of the scientific study of the mind and the mental processes involved in cyber-defense as well as cyber-attack. The course begins with an examination of the different cognitive processes that are important for effective cyber security. These include perception, attention, working memory, and long term memory. We next focus on different forms of reasoning and decision making relevant to interactions in cyberspace. These include inductive, deductive, analogical, and abductive reasoning. Lastly, we will consider how human judgment, heuristics, biases, expertise and social/group problem solving affect human performance. We will also consider the relevance of technology characteristics and human-computer interaction methods. These topics will all be covered from both a cyber-attack and a cyber-defense position to provide a thorough understanding of the possible mindset, motive, and capabilities of an attacker and how best to implement defense methods. The focus throughout will be on current research and theory in this rapidly evolving field. Department consent required. (3-0) R

**PSYC 6357** *(HCS 6357 and HCD 6319)* The Developing Child: Infants and Toddlers *(3 semester credit hours)* Theories of infant development in multiple content domains (cognitive, social, motor, language, physical) from conception to 24 months. Milestones of development and the understanding of relationship across domains and viewing the child as a "system" within the relationships. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 6368** *(ACN 6368 and HCS 6368)* Language Development *(3 semester credit hours)* Advanced study of
normal oral language development. The goals of this course are to consider the developmental trajectories of the different components of language; to consider the varied and critical roles of language in human development; to understand the impact of culture, different languages, child factors and the environment on development; and to be introduced to the theoretical perspectives driving research and thinking in this area of inquiry. Prerequisite: BBSC majors only. (3-0) Y

**PSYC 6376 (HCS 6376)** Social Psychology (3 semester credit hours) This course is a graduate-level introduction to the field of social psychology. The primary objective of this class is to acquaint students with some of the major topics and research methods in social psychology. Topics may include social cognition and self-justification, biases in judgment, attitudes and persuasion, conformity, compliance, group dynamics, prejudice and stereotyping, interpersonal attraction and relationships, aggression and altruism, cultural diversity, and applications relevant to these aspects of the human experience. Special attention to research paradigms of interest to students developing their own empirical work. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 6395 (ACN 6395 and HCS 6395)** Cognitive Psychology (3 semester credit hours) Theory and research on perception, learning, thinking, psycholinguistics, and memory. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 7382 (HCS 7382 and HDCD 7382)** Health Psychology (3 semester credit hours) This course is a graduate-level introduction to the field of health psychology. The course will utilize a biopsychosocial perspective to understand the biological, social, and psychological factors associated with health and well-being. Topics may include stress and coping, developmental origins of health, chronic disease, and psychoneuroimmunology. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**PSYC 7V50** Internship in Psychological Sciences (1-6 semester credit hours) Applied placement in community agency or other approved site. Pass/Fail only. May be repeated for credit (6 semester credit hours maximum). Prerequisites: BBSC majors only and department consent required. ([1-6]-0) S