

**Spring 2022**  
**UNC Department of Psychology and Neuroscience**  
**Undergraduate Courses**

\*For the complete list of undergraduate Psychology courses, please refer to the [Undergraduate University Catalog\\*](#)

\*For the complete list of undergraduate Neuroscience courses, please refer to the [Undergraduate University Catalog\\*](#)

**First-Year Seminars (FYS)**

**PSYC 089H: First-Year Seminar: Critical Thinking in Psychology and Beyond: How to use Your Brain**

Instructor: Dr. Jon Abramowitz

Honors version. This course focuses on the development of critical thinking skills, especially as they relate to psychological science. In addition to learning basic skills of logic, students will learn about the logic of the scientific method and the common errors of human cognition that impede critical thinking.

**Lower-Level Undergraduate Courses (PSYC 100-399)**

**PSYC 101: General Psychology (3)**

Instructor: Dr. Jeannie Loeb (001), TBD (002)

A survey of major principles of psychology and an introduction to scientific modes of thought about behavior. Students participate in ongoing psychological research in the department. PSYC 101 is a prerequisite for all psychology courses.

**NSCI 175: Introduction to Neuroscience (3)**

Instructor: Dr. Rachel Penton (001), Dr. Monica Gaudier-Diaz (002)

Neuroscience is a field that seeks to understand the structure and function of the nervous system and brain. This course provides a broad overview of the field. Topics include current methods used in neuroscience, the function of nerve cells, neuroanatomy of the mammalian brain, neuroplasticity, and diseases of the brain.

**PSYC 180: Social Media, Technology, and the Adolescent Brain (3)**

Instructor: Dr. Rosa Li (001)

In this course, we will learn about current evidence, theory, and controversies with regards to how technology use may affect adolescent development. Questions such as how technology is changing adolescents' social relationships, impacting their mental health, and interacting with the developing brain to influence social, emotional, and cognitive development will be explored.

**PSYC 210: Statistical Principles of Psychological Research (3)**

Instructor: Dr. Patrick Harrison (001), Dr. Natasha Parikh (002)

Prerequisite: PSYC 101

Consideration of the methodological principles underlying psychological research, descriptive and inferential techniques, and the manner by which they may be employed to design psychological experiments and analyze behavioral data. Three lecture hours and one laboratory hour a week.

**PSYC 220: Biopsychology (3)**

Instructor: Dr. Natasha Parikh (001), Alexis League (002), Dr. Sylvia Fitting (003)

Prerequisite: PSYC 101

Study of the biological basis of behavior. Emphasis will be placed on human findings and applications.

**PSYC 220H: Biopsychology (3)**

Instructor: Dr. Sylvia Fitting (001)

Study of the biological basis of behavior. Emphasis will be placed on human findings and applications. Honors version.

**NSCI 222: Learning (3)**

Instructor: Dr. Todd Thiele (001), Ian Jacobs (002)

Prerequisite: PSYC 101

Topics in conditioning, verbal learning, memory, and problem solving.

**NSCI 225: Sensation and Perception (3)**

Instructor: Dr. Vicki Chanon

Prerequisite: PSYC 101

Topics in vision, audition, and the lower senses. Receptor mechanisms, psychophysical methods, and selected perceptual phenomena will be discussed.

**NSCI 225H: Sensation and Perception (3)**

Instructor: Dr. Peter Gordon

Topics in vision, audition, and the lower senses. Receptor mechanisms, psychophysical methods, and selected perceptual phenomena will be discussed. Honors version.

**PSYC 230: Cognitive Psychology (3)**

Instructor: Dr. Vicki Chanon (001), Kathryn Weatherford (002), Shaina Roth (003)

Prerequisite: PSYC 101

Topics in attention; memory; visual, auditory, and other forms of information processing; decision making; and thinking.

**PSYC 242: Introduction to Clinical Psychology (3)**

Instructor: Dr. Desiree Griffin (001), Maku Orleans-Pobee (002)

Prerequisite: PSYC 101

Overview of clinical psychology: history, scientific basis, and major activities and concerns, including assessment, psychotherapy, and other psychological interventions, community psychology, ethics, and professional practice. Students may not receive credit for both PSYC 242 and 505.

**PSYC 245: Abnormal Psychology (3)**

Instructor: Dr. Anna Bardone-Cone (001), Jessica Janos (002)

Prerequisite: PSYC 101

Major forms of behavior disorders in children and adults, with an emphasis on description, causation, and treatment.

**PSYC 250: Child Development (3)**

Instructor: Dr. Rosa Li (001), Janae Shaheed (002), Kylie Garber (003), James Capella (004)

Prerequisite: PSYC 101

Study of the development of social and intellectual behavior in normal children and the processes that underlie this development. Emphasis is typically on theory and research.

**PSYC 260: Social Psychology (3)**

Instructor: Dr. Steven Buzinski (001), Joseph Leshin (002), Taylor West (003)

Prerequisite: PSYC 101

Introductory survey of experimental social psychology covering attitudes, interpersonal processes, and small groups.

**PSYC 270: Laboratory Research in Psychology (3)**

Instructor: Dr. Patrick Harrison (001), Dr. Natasha Parikh (002)

Prerequisites: PSYC 101

Experiments in biological, behavioral, cognitive, developmental, personality, and social psychology will be discussed, prepared, performed, and reported. One lecture hour and four laboratory hours per week.

**NSCI 278: Molecular Imaging of the Brain (3)**

Instructor: Dr. Sabrina Robertson (001 & 002)

Prerequisites: NSCI 175 and one of the following: PSYC 210 or STOR 155

Students will design novel experiments to examine and visualize sex differences in the nervous system.

Students will learn how to handle brain slices, neuroanatomy, microscopy, immunohistochemistry and imaging analysis techniques by studying neuronal diversity in the norepinephrine system of mice. Students will have the opportunity to develop and test their own hypotheses, write a research proposal, and present their work in poster form.

**NSCI 279: Microglia Laboratory: Examining Morphology and Cytokines (3)**

Instructor: Dr. Monica Gaudier-Diaz (001)

Prerequisites: NSCI 175 and PSYC 210 or STOR 155

In this laboratory course, students will utilize molecular biology techniques commonly used in neuroimmunology research while developing and testing hypotheses regarding how environmental or experimental conditions alter microglia, the innate immune cells of the brain. Particularly, they will examine brain tissue for 1) microglia phenotype using immunohistochemistry and 2) inflammatory proteins using enzyme-linked immunosorbent assay (ELISA). Using their knowledge about the bidirectional communication between the nervous and immune systems, students will make predictions about the state and reactivity of microglia. Groups of students will work together to collect, analyze, and report data. The collaborative nature of this course-based undergraduate research experience (CURE) will also allow them to recognize the value of networking and teamwork in scientific research.

**NSCI 290: Neurophysiology Data Science Lab (3)**

Instructor: Dr. Rachel Penton (001)

Prerequisites: NSCI 175 and COMP 110 or COMP 116

In this research-based course, students will design novel experiments to examine sex differences in large neurophysiology datasets. Students will use Python to access and analyze data. Students will also learn research literature analysis, experimental design, data analysis, collaboration, and presentation skills by developing a research proposal, paper, and poster.

### **NSCI 326: Neuroscience Career Development, Networking & Applications in the Working World (3)**

Instructor: Dr. Sabrina Robertson (001)

Prerequisites: NSCI 175

This course provides students interested in the neuroscience field an opportunity to gain valuable networking, job application and interviewing skills. Over the course of the semester students will meet with neuroscience professionals and create application packages. Students will learn from individuals in neuroscience related jobs about the diverse careers options available and strategies for navigating the job market successfully. Students will explore advances in neuroscience research and how they relate to industry, research, etc.

### **Upper-Level Undergraduate Courses (PSYC 400-699)**

#### **NSCI 405: Advanced Molecular Neuropharmacology (3)**

Instructor: Dr. Rachel Penton (001)

Prerequisites: NSCI 175 or both PSYC 101 and PSYC 220; plus NSCI 320

This course provides a detailed study of the mechanisms of drug action at the molecular level by examining primary literature in depth. The focus will be on ligand-receptor interactions and modulation of receptor number, structure, and function by drugs. Detailed examples will examine the molecular details of both ligand gated-ion channels and G-protein coupled receptors. The course will use primary literature to delve into research where central themes will include developing critical thinking and communication skills.

#### **NSCI 422: Genetics of Brain Diseases (3)**

Instructor: Dr. William Snider (001)

Prerequisites: An introductory course in neuroscience, PSYC 220 or NSCI 175

This course will explore the manifestations and causes of important neurological and psychiatric diseases. A major focus will be the impact of advances in genetics and genomics on our understanding of brain disorders. Diseases having a major impact on society including autism, schizophrenia and Alzheimer's Disease will be studied in detail. The course will provide excellent preparation for further study of brain disorders in the setting of psychology, medicine, public health, or public policy. Course credits count towards a major in Psychology and a minor or major in Neuroscience.

#### **PSYC 430: Human Memory (3)**

Instructor: Dr. Neil Mulligan (001)

Prerequisites: PSYC 101, and NSCI 222 or PSYC 230

This course explores classic and current issues in the study of human memory. Topics include working memory, encoding and retrieval processes, implicit memory, reconstructive processes in memory, eyewitness memory, developmental changes in memory, neuropsychology and neuroscience of memory and memory disorders, memory improvement, and the repressed/recovered memory controversy.

#### **PSYC 438: Research Topics in the Psychology of Language (3)**

Instructor: Dr. Jennifer Arnold (001)

Prerequisites: PSYC 101; Recommended: PSYC 270 and any course in linguistics (PSYCH 472, any LING course, or any course with a substantial linguistics component)

Examines the cognitive mechanisms behind language comprehension, focusing on how we make predictions about the speaker's meaning, based on context, background, gestures, and other cues. In this course-based undergraduate research experience (CURE), groups of students generate novel research questions, perform their own research experiments, and present the results in spoken and written format.

**PSYC 467: The Development of Black Children (3)**

Instructor: Dr. Shauna Cooper (001)

Prerequisites: PSYC 101 and PSYC 250; PSYC 210 or 215 recommended

A survey of the literature on the development of black children. Topics include peer and social relations, self-esteem, identity development, cognitive development, school achievement, parenting, family management, and neighborhood influences.

**PSYC 469: Evolution and Development of Biobehavioral Systems (3)**

Instructor: Dr. Jean-Louis Garipey (001)

Prerequisites: BIOL 101 and PSYCH 101, 210, or 215

Examines the evolution and development of behavior patterns and their physiological substrates.

**PSYC 490: Sport and Performance Psychology (3)**

Instructor: Dr. Desiree Griffin (001)

Prerequisites: PSYC 101 and PSYC 245 or PSYC 242

The course will examine the mental health of athletes, coaches, and spectators as well as the psychological factors that impact performance and participation in sports (including the spectator role). We will be applying psychological theories to exercise, sports, competition, and health. In addition to better understanding the mental health and performance of people involved in sports via clinical psychology theories (including behavioral, cognitive, humanistic, third-wave, personality), this course will also examine the role and tasks of sports psychologist including consultation, assessment, and treatment. Other topics covered in this class under the umbrella of a clinical psychological perspective of sport and performance will include (but won't be limited to) examining the culture and intersectionality of athletes, interpersonal violence within the culture of sports, and common psychopathology in athletes/spectators (e.g., eating disorders, substance use disorders, anxiety, etc).

**NSCI 490: Glial Neuroscience (3)**

Instructor: Dr. Kate Reissner (001)

Prerequisites: NSCI 175 or PSYC 220

This upper-level NSCI seminar will provide an in-depth examination of structure and function of glia, and will explore the fundamental roles that glia play in the healthy and diseased brain. The course will utilize a blend of didactic instruction with active learning, and emphasis on critical analysis and discussion of primary literature. Focus will be placed on research methods as well as findings and results. Guest speakers responsible for fundamental studies will visit class remotely to provide historical context and first hand accounts of the papers we study.

**PSYC 493: Internship in Psychology (3)**

Instructor: Dr. Steven Buzinski (001)

Prerequisites: PSYC 101 and completion of application process

Karen M. Gil Internship Program course.

**PSYC 500: Developmental Psychopathology (3)**

Instructor: Dr. Eric Youngstrom (001)

Prerequisites: PSYC 101, 245, and 250

A survey of theories bearing on atypical development and disordered behavior, and an examination of major child and adolescent behavior problems and clinical syndromes.

**PSYC 514: Mania and Depression (3)**

Instructor: Dr. Desiree Griffin (001)

Prerequisites: PSYC 101 and 245

The social, developmental, and biological contributions to mania and depression are examined, as well as the impact of these moods on the brain, creativity, relationships, quality of life, and health

**PSYC 525: Psychological Archival Data Science (3)**

Instructor: Dr. Eric Youngstrom (001)

Prerequisites: PSYC 270 and PSYC 245 or PSYC 500

This course addresses techniques in answering new questions with existing data. Students will learn about data from multiple perspectives: different data source and types, intended audiences, and visualization, analysis, and presentation formats. This will make students more savvy consumers as well as producers of data.

**PSYC 532H: Quantitative Psychology (3)**

Instructor: Dr. Patrick Curran

Prerequisites: PSYCH 210, 215, SOCI 252, or STOR 155

This course examines the science of quantitative psychology. Topics include the analysis of data, the design of questionnaires, and the assessment of psychological attributes, among others. Honors version.

**PSYC 564: Interpersonal Relationships (3)**

Instructor: Dr. Sara Algoe (001)

Prerequisites: PSYC 101, PSYC 260, and either PSYC 210 or 215. PSYC 270 recommended

This advanced course will comprehensively cover the social psychological literature on normally-developing interpersonal relationships, with implications for relationships with family, friends, co-workers, and romantic partners. This is a research-intensive course with a major aspect involving an independent research project to facilitate learning by doing.

**PSYC 570: The Social Psychology of Self-Regulation (3)**

Instructor: Dr. Steve Buzinski (001)

Prerequisites: PSYC 101, PSYC 210, PSYC 260. PSYC 270 recommended

Surveys cutting-edge research across the field of social psychology and how it matters for everyday life. Topics include morality, mind perception, judgment and decision making, happiness, affective forecasting, emotion, relationships, negotiation, personality, free will, stress/health, and religion. Clear communication of research also emphasized through figures, presentations, and papers.

**PSYC 601: Psychology and Law (3)**

Instructor: Dr. Neil Mulligan (001)

Prerequisites: PSYC 101 and 210 or 215

Examines the legal system from the perspective of psychology methods and research, with a focus on criminal law. Discusses dilemmas within the law and between the legal system and psychology.

**PSYC 602: Evolutionary Psychology (3)**

Instructor: Dr. Charlie Wiss (001)

Prerequisites: PSYC 101

Major topics of general psychology are examined from an evolutionary perspective with an emphasis on empirical studies asking why much current human behavior and experience would have been adaptive for our early ancestors.

**PSYC 694H: Honors in Psychology II (3)**

Instructor: Dr. Keely Muscatell (001 & 002)

Prerequisites: PSYC 693H

Admission to the psychology honors program required. To be taken as the second course in the two-semester honors sequence. Students conduct research under the direction of a faculty advisor and receive classroom instruction in research-related topics.

**NSCI 694H: Honors in Neuroscience II (3)**

Instructor: Dr. Charlotte Boettiger (001)

Prerequisites: NSCI 693H

To be taken as the second course in the two-semester honors sequence. Students conduct research under the direction of a faculty advisor and receive classroom instruction in research-related topics. Admission to the neuroscience honors program required.