

# NEUROSCIENCE (NSC)

## **NSC 1101 New Student Seminar in Psychology and Neuroscience (1)**

Cross-listed as PSY 1101

See PSY 1101 for course information.

## **NSC 1106 Introduction to Neuroscience Laboratory (1)**

Pre-requisite(s): NSC 1306 or concurrent enrollment

Laboratory experiments illustrating procedures in neuroanatomy, behavioral neuroscience, animal learning and behavior, and human sensation and perception.

## **NSC 1306 Introduction to Neuroscience (3)**

An introduction to the biological bases of human and animal behavior. Emphasis is placed upon neuroanatomical, neurophysiological, and behavioral methodologies which contribute to an understanding of brain-behavior relationships.

## **NSC 1V9R Research (3)**

Pre-requisite(s): Consent of the instructor

Undergraduate research undertaken with the supervision of a faculty member. May be taken for a maximum of 6 hours.

## **NSC 2306 Research Methods in Neuroscience (3)**

Pre-requisite(s): NSC 1306 with a grade of B or better

An introduction to fundamental principles, techniques, and procedures that underlie neuroscience research.

## **NSC 2V9R Research (3)**

Pre-requisite(s): Consent of the instructor

Undergraduate research undertaken with the supervision of a faculty member. May be taken for a maximum of 6 hours.

## **NSC 3101 Peer Leadership and Mentoring (1)**

Cross-listed as PSY 3101

See PSY 3101 for course information.

## **NSC 3111 Laboratory in Cognition (1)**

Cross-listed as PSY 3111

Pre-requisite(s): NSC 3311 or concurrent enrollment

Laboratory experiments illustrating methods and procedures in cognitive psychology.

## **NSC 3120 Laboratory in Learning and Behavior (1)**

Cross-listed as PSY 3120

Pre-requisite(s): NSC 3320 or PSY 3320 or concurrent enrollment

Laboratory experiments illustrating methods and procedures in learning and behavior.

## **NSC 3123 Laboratory in Sensation and Perception (1)**

Cross-listed as PSY 3123

Pre-requisite(s): NSC 3323 or PSY 3323 or concurrent enrollment

Laboratory experiments illustrating methods and procedures in sensation and perception.

## **NSC 3311 Cognition (3)**

Cross-listed as PSY 3311

Pre-requisite(s): NSC 1106-1306, and either PSY 2402 or MTH 1321; or consent of instructor

Introduction to the structures and processes involved in human cognition, including thinking, problem solving, language, attention, and memory.

## **NSC 3320 Learning and Behavior (3)**

Cross-listed as PSY 3320

Pre-requisite(s): NSC 1106-1306, and either PSY 2402 or MTH 1321 or consent of instructor

An examination of human and animal learning and behavior within a nature-nurture framework.

## **NSC 3323 Sensation and Perception (3)**

Cross-listed as PSY 3323

Pre-requisite(s): NSC 1106-1306, and either PSY 2402 or MTH 1321 or consent of instructor

An introduction to the anatomical, physiological, motivational, and cognitive factors which determine conscious sensory and perceptual experience.

## **NSC 3333 Biopsychology of Health Disparities (3)**

Cross-listed as PSY 3333

Pre-requisite(s): PSY 1305

The study of the biopsychosocial factors leading to socioeconomic health disparities.

## **NSC 3370 Affective Neuroscience (3)**

Cross-listed as PSY 3370

Pre-requisite(s): NSC 1306 and 1106

Explores the underlying neural circuits important for normal and abnormal emotional behavior and experience. Focus on neuroimaging studies of human disorders for which there is a critical mass of data regarding the neural underpinnings of psychopathology.

## **NSC 3375 Sleep (3)**

Cross-listed as PSY 3375

Pre-requisite(s): NSC 1306

The psychology and neuroscience underlying healthy sleep, circadian rhythms, the effects of sleep deprivation, clinical sleep disorders, and solutions for improving sleep. Includes engaged learning activities such as community-based term projects.

## **NSC 3381 Neuroscience and the Law (3)**

Pre-requisite(s): NSC 1306 and (PSY 2405 or NSC 2306)

Examines neuroscience methods and research related to criminal and civil law and society at large, providing a broad overview of the major topics in the area.

## **NSC 3390 Developmental Neuroscience (3)**

Pre-requisite(s): NSC 2306 or PSY 2405 and instructor approval

An overview of the molecular and cellular processes involved in nervous system development, including neural proliferation, synaptogenesis, and neurodevelopmental disorders.

## **NSC 3V9R Research (3)**

Pre-requisite(s): Consent of the instructor

Undergraduate research undertaken with the supervision of a faculty member. May be taken for a maximum of 6 hours.

## **NSC 4119 Laboratory in Clinical Neuroscience (1)**

Cross-listed as PSY 4119

Pre-requisite(s): Credit or concurrent enrollment in either NSC 4319 or PSY 4319

Laboratory experiments illustrating methods and procedures in neuroanatomy and clinical neuroscience.

## **NSC 4130 Advanced Laboratory in Neural Science (1)**

Cross-listed as PSY 4130

Pre-requisite(s): NSC/PSY 4330 or concurrent enrollment

Laboratory experiments illustrating methods and procedures in Behavioral Neuroscience.

**NSC 4312 Behavioral Medicine (3)**

Cross-listed as PSY 4312

Pre-requisite(s): NSC 1106 and 1306 or consent of instructor

Major issues in Behavioral Medicine from the contribution of psychological, behavioral, and physiological factors and processes, to health and illness, to the application of psychological theories and techniques, to the prevention and amelioration of illness and the promotion of health. Uses engaged learning methods.

**NSC 4317 Literature of Behavioral Neuroscience (3)**

Cross-listed as PSY 4317

Pre-requisite(s): NSC 1106-1306 and PSY 2402 or consent of instructor

An intensive introduction to the scientific literature in behavioral neuroscience. Students will be exposed to the contemporary literature through an examination of fundamental contributions in several areas. Preparation of a serious paper in a specific area of current research interest is required.

**NSC 4319 Clinical Neuroscience (3)**

Cross-listed as PSY 4319

Pre-requisite(s): NSC 1106 and 1306, and either PSY 2405 or MTH 1321 or consent of instructor

A survey of current neuroscientific contributions to the understanding of the etiology of various mental disorders. The course covers basic principles of neural science followed by an examination of motivation and emotions within a neuroscience framework.

**NSC 4324 Research on the Senses and Perception (3)**

Cross-listed as PSY 4324

Pre-requisite(s): NSC 1106-1306 and PSY 2402 or consent of instructor

A study of individual problems in perception through directed reading, independent research, and/or laboratory work.

**NSC 4330 Advanced Principles of Neural Science (3)**

Cross-listed as PSY 4330

Pre-requisite(s): NSC 1106-1306 and PSY 1305, or consent of instructor

A study of the structure and function of the human nervous system as related to behavior.

**NSC 4356 Neuropharmacology (3)**

Pre-requisite(s): NSC 1306

The pharmacology of major drugs that work primarily on the nervous system, with an emphasis on pharmacodynamics (receptor subtypes, locations, and functions).

**NSC 4371 Advanced Research in Neuroscience (3)**

Pre-requisite(s): Consent of instructor

An in-depth laboratory research experience in neuroscience as supervised by a faculty mentor.

**NSC 4V96 Special Topics in Neuroscience (1-4)**

Pre-requisite(s): Consent of instructor

May be repeated once with change of topic.

**NSC 4V9R Research (3)**

Pre-requisite(s): Consent of the instructor

Undergraduate research undertaken with the supervision of a faculty member. May be taken for a maximum of 6 hours.