NEUROSCIENCE (NEUR)

NEUR 1520 INTRODUCTION TO NEUROSCIENCE I (3 credits)
The nervous system is intricate, complex, and is the subject of one of the most exciting fields in the life sciences. This course is part 1 of a 2-semester sequence designed for neuroscience majors or students who are contemplating neuroscience as a major. This course will focus on understanding how the nervous system interacts at the cellular and molecular levels: anatomy and function of neurons, communication within and between neurons, and how neurons interact to perceive and process sensory information.

Prerequisite(s)/Corequisite(s): High school biology and chemistry. Not open to non-degree graduate students.

NEUR 1540 INTRODUCTION TO NEUROSCIENCE II (3 credits)
The nervous system is intricate, complex, and is the subject of one of the most exciting fields in the life sciences. This course is part 2 of a 2-semester sequence designed for neuroscience majors or students who are contemplating neuroscience as a major. This course will focus on understanding how the nervous system interacts at the organismal, behavioral and cognitive levels: how the nervous system develops, how the motor system, hormones, and physiology influences behavior, and how cognition and systems neuroscience leads to understanding of the mind.

Prerequisite(s)/Corequisite(s): NEUR 1520 or permission of instructor. Not open to non-degree graduate students.

NEUR 3500 BIOLOGICAL PRINCIPLES OF AGING (3 credits)
The Biological Bases of Aging Course provides a survey of the primary topics in the biology of aging field for undergraduate students. This is a required course for the Gerontology major. By the end of the course, students will understand major theories, biological methods, and seminal research studies in the biology of aging field. Furthermore, students will learn how to critically analyze and interpret primary research about biological aging. This course provides preparation for students considering graduate school in gerontology or biology, geriatric nursing and social work, geriatric medicine, neuroscience, psychology, and exercise science.

(Cross-listed with GERO 3500, BIOL 3500)
Prerequisite(s)/Corequisite(s): Sophomore/Junior/Senior Standing. Not open to non-degree graduate students.

NEUR 4000 SYSTEMS NEUROSCIENCE (3 credits)
This is an advanced course for the Neuroscience major designed to provide a solid understanding of the peripheral and central connections that make the systems of the body function. Data and theories of brain-behavior relationships from current research in neuroscience will be discussed.

(Cross-listed with NEUR 8006).
Prerequisite(s)/Corequisite(s): NEUR 1500, BIOL 1450, BIOL 1750, and PSYC 1010; or permission. Not open to non-degree graduate students.

NEUR 4200 ADVANCED NEUROSCIENCE LABORATORY (3 credits)
This course is designed as a capstone laboratory course for Neuroscience majors. The course will provide students with hands-on experience in collecting data in diverse areas of neuroscience, analyzing these data, interpreting the data, and preparing written and verbal presentations of the data.

Prerequisite(s)/Corequisite(s): PSYC 3130, PSYC 3140, BIOL 1450, BIOL 1750, and NEUR 1500 are prerequisites for the course. Not open to non-degree graduate students.

NEUR 4330 SOCIAL NEUROSCIENCE (3 credits)
This course will evaluate the biological substrates of sociality and social behavior, and explore the impact of social environments on brain function and development. Students in the course will explore the molecular, cellular, neurotransmitter, and endocrine influences on social behavior, including affiliative care, aggression, social bonding, altruism, and social cognition.

(Cross-listed with PSYC 8336)
Prerequisite(s)/Corequisite(s): PSYC 1010 BIOL 1450, and NEUR 1500.
Not open to non-degree graduate students.