NEUROSCIENCE (NEUR)

NEUR 10100  SEMINAR IN NEUROSCIENCE  1 Credit Hour
Course provides an overview of the neuroscience field, including areas of
neuroscience research, foundational principles in neuroscience, current
questions and techniques, career possibilities and examples of research
being conducted by neuroscience faculty.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Satisfactory/Unsatisfactory

NEUR 30100  NEUROSCIENCE I  3 Credit Hours
(Cross-listed with BSCI 30100) Course covers basic principles in
neuroscience, from the cellular to systems levels. Provides students a
basic understanding of how the nervous system is organized,
electrophysiology properties of neurons, sensory systems and motor
pathways.
Prerequisite: BSCI 30140.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NEUR 30200  NEUROSCIENCE II  3 Credit Hours
(Cross-listed with BSCI 30200) Course builds off of the principles taught
in Neuroscience I by providing more depth and breadth to the functioning
of the nervous system. Course provides students a more complete
understanding of the neuroanatomy, neurophysiology and neural circuitry
involved in sensory processing, motor control and higher order cognitive
functioning.
Prerequisite: NEUR 30100 or BSCI 30100.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

NEUR 30300  EXPERIMENTAL METHODS IN NEUROSCIENCE  1 Credit Hour
(Cross-listed with BSCI 30300) Accompanying laboratory for NEUR 30200
or BSCI 30200. Course provides a greater depth of understanding into
and hand-on experience with the principles discussed in NEUR 30200 or
BSCI 30200. Course provides students a full understanding in the major
research techniques used in neuroscience. The major topics covered
include: electrophysiology, neuroanatomy, learning and memory, the
neuromuscular junction and sensory perception.
Prerequisite: NEUR 30100 or BSCI 30100 with minimum C grade.
Pre/corequisite: NEUR 30200 or BSCI 30200.
Schedule Type: Laboratory
Contact Hours: 3 lab
Grade Mode: Standard Letter

NEUR 30889  BEAUTY AND THE BRAIN: EXPLORING FLORENCE
THROUGH THE SENSES (ELR)  3 Credit Hours
(Cross-listed with BSCI 30889) This is an introductory sensory
neuroscience course for undergraduate students. By exploring the
sensory richness of Florence, Italy, students delve into the biology of
their sensory systems. Through a combination of field trips, laboratory
exercises, lectures and presentations, students learn how our sensory
systems function to change diverse environmental signals into
information that can be interpreted by the brain. Site visits are used to
highlight specific sensory systems and laboratories/lectures provide the
conceptual framework. Together, these experiences lay the foundation for
students’ understanding of vision, taste, smell, touch and hearing in the
unique environment of Florence, Italy.
Prerequisite: Special approval.
Schedule Type: International Experience, Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

NEUR 40192  INTERNSHIP IN NEUROSCIENCE (ELR)  3-12 Credit Hours
Work experience and training in neuroscience under the supervision of
appropriate personnel in a government agency, nonprofit organization or
business.
Prerequisite: NEUR 30200; and special approval.
Schedule Type: Practical Experience
Contact Hours: 9-36 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

NEUR 40195  SPECIAL TOPICS IN NEUROSCIENCE  1-3 Credit Hours
Topics in neuroscience vary per course offering.
Prerequisite: NEUR 30200.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 1-3 lecture, 2-6 lab
Grade Mode: Standard Letter

NEUR 40196  INDIVIDUAL INVESTIGATION IN NEUROSCIENCE  1-3 Credit Hours
(Repeatable for credit) Research study under the guidance of a
neuroscience faculty member and under the direction of a Biological
Sciences faculty mentor.
Prerequisite: NEUR 30200; and special approval.
Schedule Type: Individual Investigation
Contact Hours: 3-9 other
Grade Mode: Standard Letter

NEUR 40429  NEURAL CONTROL OF REPRODUCTIVE FUNCTION  2 Credit Hours
(Cross-listed with BSCI 40429) (Slashed with BSCI 50429 and
BSCI 70429) Course explores the role of the brain in regulating functions
that are essential to ensure successful reproduction. Topics covered
include an overview of the endocrine and neuroendocrine systems
involved in reproduction, as well as regulation of puberty, fertility,
pregnancy and lactation. The course also explores disorders, such as
polycystic ovary syndrome, affecting the central regulation of
reproduction.
Prerequisite: BSCI 30130 or BSCI 40430 or NEUR 30100.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter
NEUR 47387    NEUROPSYCHOPHARMACOLOGY    3 Credit Hours
(Cross-listed with PSYC 47387) Neuropsychopharmacology is the study of how drugs and other chemicals affect brain and behavior. This course introduces students to the behavioral effects of psychoactive therapeutic drugs and neurotoxic chemicals in relation to their neural and molecular mechanisms of action. Covers general principles of neuropsychopharmacology; nervous system structure in relation to behavior and mind, brain and behavioral systems that are affected by different classes of drugs and toxic chemicals; and methods employed in neuropsychopharmacology research.
Prerequisite: PSYC 11762.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter