NEXT 601 Advanced Neuroscience
Credits 2. 1 Lecture Hour. 2 Lab Hours.
Details of mammalian nervous system, including humans; focus on organization of functional neural systems and their integrative action; use of original research papers.
Prerequisites: Approval of instructor.

NEXT 603 Neuropsychopharmacology
Credits 4. 4 Lecture Hours.
Pharmacology as it relates to behavior and the central nervous system.
Prerequisites: MSCI 601, MSCI 602 or equivalents or course director approval.

NEXT 604 Special Regional Human Dissections
Credits 1 to 3. 1 to 3 Lecture Hours.
Dissection of special regions with more detail than the medical gross anatomy course; histological, neural and gross anatomical material utilized.
Prerequisites: Approval of instructor.

NEXT 605 Molecular Mechanisms of Drug and Toxin Action I
Credits 4. 4 Lecture Hours.
Introduction to the major tools and concepts of pharmacology. This is a two part series. By the end of these courses, the student will understand how selectivity of drug action is determined by pharmacological principles and will have a scientific basis for a rational approach to the study of drug actions and side effects.
Prerequisite: Approval of instructor.

NEXT 606 Molecular Mechanisms of Drug and Toxin Action II
Credits 4. 4 Lecture Hours.
Survey of ocular drugs, overview of molecular signaling mechanisms and selected topics in developmental neuropharmacology.
Prerequisite: Approval of instructor.

NEXT 607 Molecular Mechanisms of Drug and Toxin Action III
Credits 4. 4 Lecture Hours.
Interaction of drugs and toxins with neurotransmitter systems with primary emphasis on mechanisms involving receptor function that impacts central nervous system integration.
Prerequisite: Approval of instructor.

NEXT 608 Methods in Neurohistology
Credits 2. 2 Lecture Hours.
Instruction in anesthetization, perfusion of animals; removal of neural tissues; histological processing, staining of tissues, including immunohistochemistry.
Prerequisites: Approval of instructor.

NEXT 620 Gross Anatomy
Credits 8. 8 Lecture Hours.
This course will study the relationship of structures and the functional significance of the human body during its development and adult form as revealed through dissection.
Prerequisite: Approval of instructor.