OKLAHOMA CENTER FOR NEUROSCIENCE (OCNS)

OCNS 5401. Current Topics In Neuroscience. 1 Clock Hour.
May be repeated; maximum credit 3 hours. The Oklahoma Center for Neuroscience cosponsors with the departments of Cell Biology, Physiology, Pathology, and Pharmacology/Toxicology, a weekly seminar series, in which faculty, students and staff describe their latest research findings.
Course Type: Lecture

OCNS 5406. Medical Neuroscience. 6 Clock Hours.
An integrated course encompassing basic and clinical science information related to the central and peripheral nervous systems. Includes material from neuroanatomy, neurophysiology, neurophathology, and neuropharmacology enhanced by additional topics from the clinical areas of neurology, neurosurgery, psychiatry, and opthalmology.
Course Type: Lecture

OCNS 5411. Survey Of Neuroscience Methods. 1 Clock Hour.
Broad based survey course of the methods used in modern neurobiological research with special emphasis on techniques to the neurosciences (e.g. electrophysiological recordings, anatomical tracing methods, whole animal behavioral paradigms, etc.)
Course Type: Lecture

OCNS 5571. Neuropharmacology. 1 Clock Hour.
Prerequisites: PHSC 5561 Cross-Listed: PHSC 5571 Course will address the biochemical, molecular and physiological mechanisms of drugs affecting the central nervous system, potential new drug targets for each condition, and methods for assessing the effectiveness of potential therapeutic agents.
Course Type: Lecture

OCNS 5960. Directed Readings. 1-6 Clock Hours.
Prerequisites: None. May be repeated; maximum 6 credit hours. Provides opportunity for independent study through review of the literature in a particular area of interest under a selected professor.
Course Type: Independent Study

OCNS 5980. Research for Masters Thesis. 1-6 Clock Hours.
Prerequisites: None. May be repeated; maximum credit 6 hours. Once enrolled, students must continue enrollment until the requirements for the degree are fulfilled. A maximum of six credit hours is allowed toward the Master's Degree.
Course Type: Laboratory

OCNS 6001. Neuroscience Journal Club. 1 Clock Hour.
Prerequisites: Admission to the OCNS graduate program or permission of the Instructor May be repeated; maximum credit 8 hours. This course is designed to keep neuroscience students abreast of recent advances in the field of neuroscience and to stimulate discussion and interaction among neuroscientists at OUHSC.
Course Type: Lecture

OCNS 6002. Pharmacogenomics: The Foundation of Personalized Medicine. 2 Clock Hours.
Prerequisites: Permission of the instructor Cross Listed: PHSC 6002/ GENC 6002 This course will prepare the graduate students to understand the influence of genetic variations among individuals and their contribution to differences in drug response. The students will learn basic principles of genetics and pharmacology and how genetic, environmental, lifestyle and nutritional factors affect drug response.
Course Type: Lecture

OCNS 6101. Neurobiology. 1 Credit Hour.
Prerequisites: BMSC 6012, BMSC 6023, BMSC 6052, and BMSC 6053, or consent of instructor. This course introduces and expands on fundamental concepts in neurobiology, including neuronal structure, organization and cellular neurophysiology. It builds fundamental knowledge for all students interested in the neurosciences.
Course Type: Lecture

OCNS 6201. Behavioral Neuroscience. 1 Clock Hour.
Prerequisites: Admission into Graduate Program in Biomedical Sciences/ Permission of instructor. Crosslisted: PSBS 6201 and PHYO 6201 This course is designed for graduate students who wish to explore a specific topic related to behavioral neuroscience, such as neural plasticity.
Course Type: Lecture

OCNS 6311. Neuroinflammation and Neuroimmunology. 1 Clock Hour.
Prerequisites: Completion of Immunology 1 and enrollment in Immunology 2 This course explores the intricacies of neuroimmune interactions and the consequences of inflammation within the central and peripheral nervous systems.
Course Type: Lecture

OCNS 6321. Molecular and Cellular Aspects of Vision. 1 Clock Hour.
Prerequisites: GPIBS Core Curriculum or Permission of Instructor. Crosslisted: CELL 6321 Topic: Biochemistry and Molecular Biology. This course is designed for graduate students to provide for the integration of the knowledge gained from the GPIBS core course and its application to the generation of research projects on basic cellular functions using the visual system as an experimental model.
Course Type: Lecture

OCNS 6401. Genes to Physiology. 1-5 Clock Hours.
Prerequisites: GPIBS Core Curriculum or permission of instructor. May be repeated; maximum credit 5 hours. Cross listed: PHYO 6401. Molecular and cellular processes that underline designated physiological systems or functions.
Course Type: Lecture

OCNS 6403. Cellular And Molecular Neuroscience. 3 Clock Hours.
Advanced study of the cellular and molecular aspects of nervous system function. Topics will focus on the mechanisms and regulation of neurotransmission, and the cellular and molecular basis of diseases of the nervous system.
Course Type: Lecture

OCNS 6503. Neurobiology of Disease. 3 Clock Hours.
Lectures will cover all aspects of neurological diseases, including clinical presentation, pathology, pathophysiology, biochemistry and molecular biology. Students will interview patients with specific disorders and present their findings in informal group discussions. Eight neurological diseases will be covered in one semester; these can vary from year-to-year.
Course Type: Lecture

OCNS 6512. Neuroanatomy. 2 Clock Hours.
Course is designed to build a basic working knowledge of the anatomy of the central nervous system (CNS) as a basis for continued study of the nervous system and neurons in a research environment. This course presents a survey of all levels of the CNS and presents major structural principles of organization. Also, the students will be exposed to the clinically significant relationships of major brain tracts and neuronal groups.
Course Type: Lecture

OCNS 6980. Research For Doctor's Dissertation. 2-16 Clock Hours.
May be repeated; maximum credit 45 hours. Once enrolled the student must continue registration until the requirements for the degree are fulfilled.
Course Type: Independent Study

OCNS 6990. Special Studies In Neuroscience. 1-3 Clock Hours.
May be repeated; maximum credit 3 hours. The student will have several options to study recent developments in Neuroscience. Some examples are: 1-selected readings with an OCNS faculty member, 2-literature review of a particularly interested new development in Neuroscience with an OCNS faculty member, and 3-bench work in an OCNS faculty member's laboratory to learn a new experimental technique.
Course Type: Independent Study

OCNS 8080. Medical Neurosciences. 115-330 Clock Hours.
May be repeated; maximum credit 330 hours. An integrated course encompassing basic and clinical science information related to the central and peripheral nervous systems. Includes material from neuroanatomy, neurophysiology, neuropathology, and neuropharmacology enhanced by additional topics from the clinical areas of neurology, neurosurgery, psychiatry, and ophthalmology.
Course Type: Lecture