PHARMACOLOGY (PHAR)

PHAR 814 SCIENTIFIC WRITING 2 Credit Hours
A lecture/discussion-based course focusing on the writing skills needed to prepare each section of a manuscript for submission to scientific journals, as well as figure design, use of reference software and responding to reviewer critiques.
Prerequisite: Second or higher year of graduate study.
Cross List: CIP 814.
Typically Offered: FALL/SPR

PHAR 815 MEDICAL PHARMACOLOGY I 5 Credit Hours
General principles governing drug absorption, distribution, and excretion, the molecular mechanisms of drug action, and the basic and clinical pharmacology of the autonomic, endocrine and cardiovascular systems.
Prerequisite: Permission of instructor.
Typically Offered: FALL

PHAR 816 MED PHARMACOLOGY II 4 Credit Hours
Basic and clinical pharmacology of agents affecting the central nervous system, pulmonary and musculoskeletal systems, the kidney and gastrointestinal tract, and infectious and malignant processes.
Prerequisite: PHAR 815 and permission.
Typically Offered: SPRING

PHAR 817 APPLIED SCIENTIFIC WRITING 1 Credit Hour
This practicum develops the writing skills needed to prepare each section of a manuscript for submission to a scientific journal, as well as figure design, use of reference software and responding to reviewer critiques. Students must have sufficient research data to support a preliminary manuscript, which will be constructed through completion of individualized assignments throughout the course.
Prerequisite: concurrent enrollment in PHAR 814, and permission of instructor.
Cross List: CIP 817.
Typically Offered: SPRING

PHAR 820 CURRENT METHODS IN NEUROSCIENCE 2-3 Credit Hours
The primary goal of this course is to provide graduate students, through lectures and practical laboratory exposure, with current techniques and methodologies in neurosciences that are most likely used in their thesis research.
Prerequisite: Permission of instructor.
Typically Offered: SPRING

PHAR 896 RSCH OTHER THAN THESIS 1-9 Credit Hours
Student research that is clearly distinct from ongoing or planned thesis/dissertation work, or research/lab rotations performed prior to selecting a permanent advisor or supervisor.
Typically Offered: FALL/SP/SU

PHAR 901 RECEPTOR & CELL SIGNALING 3 Credit Hours
A detailed description of receptors in terms of their roles in the recognition of neurotransmitters, drugs and hormones, and their regulation of signal transduction pathways in the cell. Discussion of the methods for in vitro and in vivo analysis of receptors is included.
Prerequisite: IPBS 803 and/or permission from instructor.
Typically Offered: FALL

PHAR 902 HUMAN SPECIFIC DISEASE MODELING IN MICE 2 Credit Hours
This course introduces the novel mouse models engrafted with human cells, to study human-specific diseases. The course covers research methodologies: 1. For the creation of specific mouse backgrounds that are compatible for the engraftment of human cell, tissue and tumors. 2. To study (a). human-specific infections and immune responses, (b). developmental biology and regeneration of human cells and tissues, and (c). therapeutics development.
Prerequisite: One completed immunology course and permission of instructor.
Cross List: PAMM 912.
Typically Offered: SPRING

PHAR 907 NEURAL SYSTEMS & THE PHYSIOLOGY OF NEURONAL CELL POPULATIONS 2 Credit Hours
This course aims to establish an understanding of population-level neurophysiology in human and non-human primates. Fundamental concepts to be covered will include biophysics of neural populations, dendritic potentials, cortical mini- and macro-columns, neural oscillatory dynamics, distributed processing, neural systems of the human brain, and supra-thalamic functional neuroanatomy.
Prerequisite: BRTP 824, PHAR 820 and permission of instructor. pre req is NSC 932.
Typically Offered: FALL

PHAR 930 NEUROIMMUNOLOGY 3 Credit Hours
The objective of this course is to provide essential knowledge towards a better understanding of the principles of neuroimmunology and pharmacology as they apply to the pathogenesis and pharmacotherapeutics of neurodegenerative disorders and disorders in which the immune system is implicated. nst: R. Lee Mosley, Ph.D.
Prerequisite: BRTP 821, BRTP 822, BRTP 824.
Cross List: PAMM 930.
Typically Offered: SPRING

PHAR 950A SPECIAL TOPICS JOURNAL CLUB 1-2 Credit Hours
To train students in critical analysis of the literature and in presenting the work of others and leading discussion of all aspects of scientific inquiry, experimentation, data analysis and presentation, appropriate conclusions, and the elements of good (and bad) scientific writing.
Typically Offered: FALL/SPR

PHAR 970 SEMINAR 1 Credit Hour
Attendance at weekly seminars offered by the department/program, or other activities specific to the degree program (contact the program director for more information).
Typically Offered: FALL/SP/SU

PHAR 999 DOCTORAL DISSERTATION 1-15 Credit Hours
Independent student research related to the PhD dissertation. This course may be utilized before or after successful completion of the comprehensive exam.
Typically Offered: FALL/SP/SU