PHARMACOLOGY AND PHYSIOLOGY (PPY)

PPY 2540 - Human Physiology
Credit(s): 4 Credits
An introductory course in the fundamental mechanisms of human physiology. Emphasis is given to basic cell functions and biological control systems, as well as to coordinate body functions.

PPY 2545 - Human Physiology
Credit(s): 4 Credits
An introductory course in the fundamental mechanisms of human physiology. Emphasis is given to basic cell functions and biological control systems, as well as to coordinate body functions.

PPY 5040 - General Physiology
Credit(s): 4 Credits
Physiology survey course for non-majors with emphasis on mammals. Lecture four hours per week. Offered every fall semester.

PPY 5110 - Introduction to Pharmacology
Credit(s): 1 Credit
PPY-5110 presents an introduction to quantitative pharmacology including pharmacokinetics, drug-receptor theory, medicinal chemistry, and quantitative/statistical approaches to assay development and operations. Prerequisite: Successful completion of the Basic Biomedical Science core curriculum. Exceptions permitted with the permission of instructor. Offered every fall semester.

PPY 5120 - Systems Physiology and Pharmacology I
Credit(s): 2 Credits
PPY-5120 presents an introduction to the pharmacology and physiology of the central and peripheral nervous systems, cardiovascular system, kidney, and lungs. Prerequisite: Successful completion of the Basic Biomedical Science core curriculum. Exceptions permitted with the permission of instructor. Offered every fall semester.

PPY 5130 - Systems Physiology and Pharmacology II
Credit(s): 3 Credits
PPY-5130 presents an introduction to the pharmacology and physiology of the gastrointestinal and endocrine systems, and principles of energy storage and usage. Prerequisite: Successful completion of the Basic Biomedical Science core curriculum. Exceptions permitted with the permission of instructor. Offered every spring semester.

PPY 5140 - Fundamentals of Effective Grant Construction
Credit(s): 1 Credit
PPY-5140 consists of a mixture of didactic lectures, mentoring sessions, and dedicated writing time (see Appendix 3). Each student is required to write an NIH-style R01 grant application that incorporates concepts in the Pharmacological Sciences such as receptor theory, drug bioactivity, drug discovery, and chemical biology. The course starts with lectures on funding mechanisms and the fundamentals of writing an effective grant proposal. This is followed by class periods designated as dedicated writing time for constructing specific portions of their proposals, during which time a mentoring team is available during this time to answer questions. The mentoring team consists of two PPY faculty members student’s dissertation advisor. At the end of the course, the completed grant application is reviewed by a mock study section who determines the student’s final grade. Prerequisite: Successful completion of the Basic Biomedical Science core curriculum. Exceptions permitted with the permission of instructor. Offered every spring semester.

PPY 5950 - Special Study for Exams
Credit(s): 0 Credits (Repeatable for credit)

PPY 5990 - Thesis Research
Credit(s): 0-6 Credits

PPY 6000 - Pharmacology and Physiological Topics in Human Therapeutics
Credit(s): 2 Credits
Selected topics and readings in human therapeutics. Offered occasionally.

PPY 6010 - Pharmacology and Physiological Topics in Cardiovascular Science
Credit(s): 4 Credits
Represents current thinking and concepts of cardiovascular science. Special emphasis is placed on the various control systems in normal and pathophysiological conditions, as well as interactions of drugs and physiological concepts ranging from the molecular level to highly integrative systems. Meets two days a week for one semester. Offered occasionally.

PPY 6550 - Signal Transduction Mechanisms
Credit(s): 4 Credits
This course covers the mechanisms of action of hormones, neuromodulators and drugs at the cellular, biochemical and molecular levels. The major classes of receptors, signal transduction pathways, and effector systems will be covered in a comprehensive manner. Historical breakthroughs as well as our current understanding of mechanisms will be examined. As an advanced graduate course, the methodology used to elucidate and evaluate these mechanisms will be stressed. Meets two days a week for one semester. Offered occasionally.

PPY 6660 - Pharmacology and Physiological Topics in the Nervous System
Credit(s): 4 Credits
This course represents current thinking and concepts involving the action of drugs on the nervous system. Special emphasis is placed on the function of neurotransmitters and neuromodulators in normal and pathophysiological conditions as well as the interaction of drugs and physiological concepts ranging from the molecular level to highly integrative systems. Meets two days a week for one semester. Offered occasionally.

PPY 6800 - Pharm & Phys Science Seminar
Credit(s): 0-1 Credits (Repeatable for credit)
PPY 6900 - Pharmacology and Physiological Science Journal Club  
Credit(s): 0-1 Credits (Repeatable for credit)  

PPY 6950 - Special Study for Exams  
Credit(s): 0 Credits (Repeatable for credit)  

PPY 6970 - Research Topics  
Credit(s): 1 Credit (Repeatable for credit)  

PPY 6980 - Graduate Reading Course  
Credit(s): 0-3 Credits (Repeatable for credit)  

PPY 6990 - Dissertation Research  
Credit(s): 0-6 Credits (Repeatable for credit)