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.

At**tributes:** Prof. Studies Students Only

PPY 2930 - Special Topics  
Credit(s): 3 Credits (Repeatable for credit)

PPY 2980 - Independent Study  
Credit(s): 1 or 3 Credits (Repeatable for credit)

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 6050 - 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 6650 - 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)