PHM(PH)-PHARMACODYNAMICS

MCB 5252 Microbiology, Immunology, and Immunotherapeutics 4 Credits
Grading Scheme: Letter Grade
Microbiology and immunology for pharmacy students. Microorganisms and infection, control with antimicrobials, host immune response, immune disorders.
Prerequisite: CHM 2210, 2211, and consent of instructor.

PHA 6476 Advanced Combinatorial Chemistry in Drug Discovery 3 Credits
Grading Scheme: Letter Grade
Designed to introduce students combinatorial chemical synthesis to fully understand the functions and mechanism of action of biopolymers for medical purpose.
Prerequisite: Students are expected to have previous knowledge on general chemistry and organic synthesis.

PHA 6508 Systems Physiology and Pathophysiology I 5 Credits
Grading Scheme: Letter Grade
Systems Physiology and Pathophysiology-I is the first of a two-course sequence that aims to provide graduate students with an integrated knowledge base in the physiological functions of the human body and pathological changes pertinent to the development and progression of various diseases. As an integral component of the Ph. D. curriculum, the two courses will provide students with a solid understanding of human pathophysiology in preparation for their dissertation research.
Prerequisite: Upper level undergraduate Anatomy and Physiology

PHA 6509 Systems Physiology and Pathophysiology II 5 Credits
Grading Scheme: Letter Grade
Systems Physiology and Pathophysiology-II is the second of a two-course sequence that aims to provide graduate students with an integrated knowledge base in the physiological functions of the human body and pathological changes pertinent to the development and progression of various diseases. As an integral component of the Ph. D. curriculum, the two courses will provide students with a solid understanding of human pathophysiology in preparation for their dissertation research.
Prerequisite: Upper level undergraduate Anatomy and Physiology

PHA 6512L Experiential Research Training in Pharmacodynamics 1-4 Credits
Grading Scheme: Letter Grade
Research rotations. Practical overview of hypothesis development and testing, research design and application of statistical analysis.
Prerequisite: PHA 6521C.

PHA 6521C Research Techniques in Pharmacodynamics 1 Credit
Grading Scheme: Letter Grade
Research Techniques in Pharmacodynamics

PHA 6563 Pathophysiology of Diseases I 3 Credits
Grading Scheme: Letter Grade
Provides students with an integrated understanding of pathological changes pertinent to the development and progression of various diseases. The basics of cellular function, cardiovascular system, renal system and respiration system will be discussed in addition to the relevant disease states that caused by Pathophysiological abnormalities.
Prerequisite: Anatomy and Physiology I & II and General Biology I & II.

PHA 6910 Supervised Research 1-5 Credits, Max 5 Credits
Grading Scheme: S/U
Supervised Research

PHA 6935 Selected Topics in Pharmacy 1-4 Credits, Max 12 Credits
Grading Scheme: Letter Grade
Open to all departments in the College of Pharmacy.

PHA 6936 Advanced Topics in Pharmaceutical Sciences 1-2 Credits, Max 4 Credits
Grading Scheme: Letter Grade
Written and oral presentation of research designs, protocols, papers, and critical appraisals with discussion and critical review of such topics.

PHA 6938 Research Seminar 1 Credit, Max 3 Credits
Grading Scheme: Letter Grade
Seminar required of graduate students in the College of Pharmacy.

PHA 6940 Supervised Teaching 1-5 Credits, Max 5 Credits
Grading Scheme: S/U
Supervised Teaching

PHA 6971 Research for Master's Thesis 1-15 Credits
Grading Scheme: S/U
Research for Master's Thesis

PHA 7939 Journal Colloquy in Pharmacodynamics 1 Credit, Max 8 Credits
Grading Scheme: Letter Grade
Critical presentation and discussion of recent original articles.

PHA 7979 Advanced Research 1-12 Credits
Grading Scheme: S/U
Research for doctoral students before admission to candidacy. Designed for students with a master's degree in the field of study or for students who have been accepted for a doctoral program. Not appropriate for students who have been admitted to candidacy.

PHA 7980 Research for Doctoral Dissertation 1-15 Credits
Grading Scheme: S/U
Research for Doctoral Dissertation