

PHARMACY— 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 6189 CNS Drug Discovery 3 Credits

Grading Scheme: Letter Grade

An exploration of drug design concepts and preclinical assays used in CNS drug discovery in addition to the drug approval process. Topics include rational drug design, targets and receptors, small and large molecule drugs, blood brain barrier, in vitro assays, in vivo assays, and clinical trials.

Prerequisite: PHA 6185 and PHA 6508 and PHA 6509.

PHA 6508 Systems Physiology and Pathophysiology I 3 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 3 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 6564 Pathophysiology of Diseases II 3 Credits, Max 3 Credits

Grading Scheme: Letter Grade

The Pathophysiology of Disease II is a 3 credit course pertinent to the development and progression of various diseases. The basics of immunology, gastrointestinal system, neurological system and endocrine system will be discussed in addition to the relevant disease states that caused by pathophysiological abnormalities.

Prerequisite: Anatomy and Physiology I and II, General Biology I and 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 7900 Journal Club in Pharmaceutical Research 1 Credit, Max 8 Credits

Grading Scheme: S/U

Critical presentation and discussion of recent original research articles in Pharmaceutical Sciences.

PHA 7939 Journal Club in Pharmaceutical Sciences 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