

Doctoral Degree in Pharmaceutical Sciences
Specialization: Pharmacology

60 credit program: 45 credits of course work beyond baccalaureate degree and a minimum of 15 credits of research PHS 950.

30 credit program: 15 credits beyond the M.S. degree including the basic requirements in area of specialty and a minimum of 15 credits of research PHS 950.

REQUIRED CORE COURSES

select one	PHS 212 Applied Biochemistry I or PHS 259 Cell Signals & Systems	3
PAS 252	Biostatistics	3
PHS 256	Pharmaceutical Analysis Lab	3
PHS 251	Doctoral Seminar I	0
PHS 252	Doctoral Seminar II	0
PHS 253	Doctoral Seminar III	0
PHS 254	Doctoral Seminar IV	1
PAS 265*	Scientific Inquiry: Regulation and Ethical Challenges	3*

ELECTIVES COURSES:

PHM 101	Special Problems	3
PHM 102	Principles of Pharmacology I	3
PHM 103	Principles of Pharmacology II	3
PHM 201	Pharmacology of the Autonomic Nervous System	3
PHM 202	Advanced Pharmacology	3
PHM 203	Research Methods in Pharmacology	3
PHM 209	Pharmacological Aspects of Respiratory Disease	3
PHM 211	Biochemical Neuropharmacology	3
PHM 216	Advanced Psychopharmacology	3
PHM 221	Clinical Pharmacology	3
PHM 232	Pharmacology Journal Club	2
PHM 240	Pharmacology of Anticancer Drugs	3
PHM 246	Pharmacology of Drugs Abuse	3
PHM 247	Reproductive Pharmacology	3
PHM 249	Cardiovascular Pharmacology	3
MCM 223	Design of Nucleoside Analogs	3
MCM 224	Design of Enzyme Inhibitors	3
MCM 245	Laboratory Use of Radiotracers	3
MCM 248	Receptors and Mechanism of Drug Action	3
PHS 213	Applied Biochemistry II	3
PHS 250	Cell & Tissue Culture (Co-Requisite 250L)	3
PHS 250L	Laboratory in Cell and Tissue Culture (Co-Requisite 250)	1
PHS 257	Gene Technology in the Pharmaceutical & Health Science	3

Elective courses offered by a different department such as Chemistry must be approved by the Major Advisor and the Department Chair.

Note: Student without adequate background in Pharmacology will be required to take PHM 102 and PHM 103. These credits will not be counted towards the degree.

Please note course PAS 265* Scientific Inquiry: Regulation and Ethical Challenges is required but the credits will not be counted toward the degree credit requirement. Credits **do** count towards student status as full time students