

Doctoral Degree in Pharmaceutical of Sciences

Specialization: Toxicology

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 Courses

select one	PHS 212-Applied Biochemistry or PHS 259 Cell Signals & Systems or PHS 280 Intermediary Metabolism	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*

Elective Courses

TOX 101	Special Problems	3
TOX 102	Toxicology I	3
TOX 103	Toxicology II	3
TOX 201	Methods in Toxicological Evaluation	3
TOX 205	Neurotoxicology	3
TOX 207	Recent Advances in Forensic Toxicology	3
TOX 209	Advances in Clinical Toxicology	3
TOX 210	Biochemistry Toxicology	3
TOX 215	Analytical Methods in Toxicology	3
TOX 216	Environmental & Occupational Toxicology	3
TOX 217	Toxicology of the Hematopoietic & Immune System	3
TOX 218	Pathophysiology of Organ Systems	3
TOX 219	Molecular Toxicology	3
TOX 221	Hematologic Pathology	3
TOX 222	Cellular Pathophysiology	3
TOX 223	Liver and Kidney Toxicology	3
TOX 230	Toxicology Journal Club	2
TOX 250	Product Safety and Risk Assessment	3
TOX 285	Environmental Health Sciences	3
MCM 245	Laboratory Use of Radioisotopes	3
PHS 213	Applied Biochemistry II	3
PHS 240 & Lab	Electron Microscopy & Lab	4
PHS 250	Biochemical & Biophysical Aspects of Cell Culture	3
PHS 250L	Laboratory, Cell & Tissue Culture	1
PHS 271	Oxidants, Antioxidants & Free Radicals	3

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

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

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

