# **PhD** in the Pharmaceutical Sciences Program

## MEDICINAL CHEMISTRY AND PHARMACOGNOSY TRACK

The Medicinal Chemistry and Pharmacognosy track focus on the discovery of potential novel drugs that function via interaction with biologically relevant proteins that are involved in human diseases. This will be accomplished via the synthesis of new small-molecule compounds, or via discovery and/or modification of biologically active natural products, when applicable supported by computational tools for optimization of activities. This track is directed towards students that are interested to apply basic chemistry knowledge towards the development of potential clinical therapies.

### **FIRST YEAR**

FIRST SEMESTER		SECOND SEMESTER	
Course	Credits	Course	Credits
PHSC 8516 Principles of Pharmaceutical Sciences	3	PHSC 8338 Business, Quality and Project Management	3
PHSC 8236 Applied Biostatistics	3	PHSC 8116 Advanced Instrumental Analysis	3
PHSC 8447 Principles of Drug Discovery and Development	3	PHSC 8602 Seminar II	1
PHSC 8425 Laboratory Rotation	1	PHSC 8335 Ethics in Research	2
PHSC 8602 Seminar I	1	PHSC 8601 Research	3
Total credits	11	Total credits	12

### SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
Course	Credits	Course	Credits
PHSC 8122 Advanced Medicinal Chemistry and Pharmacognosy I	3	PHSC 8123 Advanced Medicinal Chemistry and Pharmacognosy II	3
PHSC 8127 Advanced Molecular Biochemistry	3	PHSC 8237 Advanced Methods in Synthetic Organic Chemistry	3
PHSC 8602 Seminar III	1	PHSC 8602 Seminar IV	1
PHSC 8600 Principles of Research Design	2	PHSC 8601 Research	3
PHSC 8601 Research	3	Elective	3
Total Credits	12	Total Credits	13

### THIRD YEAR

FIRST SEMESTER		SECOND SEMESTER	
Course	Credits	Course	Credits
PHSC 8601 Research	3	PHSC 8601 Research	3
Total Credits	3	Total Credits	3

### **FOURTH YEAR**

FIRST SEMESTER		SECOND SEMESTER	
Course	Credits	Course	Credits
PHSC 8601 Research	3	PHSC XXXX Thesis	3
Total Credits	3	Total Credits	3