

Pharmaceutical Sciences: Medicinal Chemistry Option - MS

The Auburn University Harrison School of Pharmacy offers interdisciplinary MS and PhD degree programs in Pharmaceutical Sciences. Those pursuing one of these degrees must select one of four curricular options: 1) Medicinal Chemistry, 2) Pharmaceutics, 3) Pharmacology, or 4) Health Outcomes Research and Policy.

The Medicinal Chemistry, Pharmaceutics and Pharmacology options are designed for students interested in the drug discovery or development processes, and are affiliated with the Department of Drug Discovery and Development. Areas of interest include neurodegenerative diseases, cardiovascular diseases, infectious diseases, cancer, diabetes and other metabolic diseases, synthetic organic chemistry, forensic analytical chemistry and drug delivery, disposition and formulation.

The Health Outcomes Research and Policy option is designed for students interested in studying healthcare delivery, medication use and outcomes. This option is affiliated with the Department of Health Outcomes Research and Policy.

Note that courses used to fulfill program core requirements may also be used to fulfill option specific requirements.

The MS degree is offered under the thesis option. Students must earn a minimum of 30 semester hours of graduate courses (6000 - 8999). Thesis students register for Research and Thesis in semester(s) when working on the thesis, when submitting, defending or awaiting final approval of the thesis, and when taking final examinations. Candidates for the MS degree are required to prepare a thesis proposal and complete a proposal defense.

For the MS Program, students must complete a Core Curriculum outlined below.

Scientific Communications (Three credits required)		3
HORP 7950	Seminar (may be repeated multiple times for credit)	
DRDD 7000	Introduction to Grant Writing	
DRDD 7950	Seminar	
Data Analyses and Interpretation (Three credits required)		3
ERMA 7300 or ERMA 7306	Design and Analysis in Education I	
DRDD 7010	Pharmacokinetics	
DRDD 7030	Drug Products and Biopharm	
DRDD 7230	ADVANCED MEDICINAL CHEMISTRY I	
DRDD 7340	ORGAN SYSTEMS PHARMACOLOGY I	
DRDD 7360	CELLULAR & MOLECULAR PHARMACOLOGY & TOXICOLOGY I	
STAT 7000	Experimental Statistics I	
Experimental Design (Three credits required)		3
HORP 7990	Research And Thesis (may be repeated multiple times for credit)	
DRDD 7990	Research and Thesis (may be repeated multiple times for credit)	
Option specific requirements for MS students pursuing the Medicinal Chemistry option include:		
CHEM 7200	Advanced Organic Chemistry I	3
CHEM 7220	Advanced Organic Chemistry III	3
DRDD 7230	ADVANCED MEDICINAL CHEMISTRY I	3
DRDD 7240	ADVANCED MEDICINAL CHEMISTRY II	3
DRDD 7260	Separation Science	4
DRDD 7950	Seminar (may be repeated multiple times for credit)	1
DRDD 7990	Research and Thesis (total of 6 CR required)	6
In addition to the specific core and option course requirements listed above, students must complete instructor approved graduate electives (6000-8999) to reach the 30 hour degree requirement.		