Pharmaceutical Sciences: Medicinal Chemistry Option — PhD

The Auburn University Harrison College 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 PhD program requires a minimum of 60 semester hours earned through instruction beyond the bachelor's degree including 1) a minimum of 30 semester hours graded (e.g. A, B) graduate course work (6000–8999); and 2) a minimum of 30 semester hours of additional graduate course work (6000–8999) that may include ungraded courses, and must include at least 10 hours of research and dissertation. A general examination, often called the preliminary examination, is required of all applicants for the degree of doctor of philosophy. It consists of written and oral testing. The student becomes a candidate for the degree upon successful completion of the general examination. Students working on the dissertation, submitting their dissertation or awaiting approval of their final examination must register for Research and Dissertation in the semester(s) when these steps occur. Candidates for the PhD degree must complete a dissertation proposal and successfully defend their proposal during the final examination.

For the PhD program, students must complete a core curriculum outlined below.

Code	Title	Hours
DRDD 7090	Pharmaceutical Science I: Targets	4
DRDD 7100	Pharmaceutical Science II: ADME	4
DRDD 7230	Advanced Medicinal Chemistry I	3
DRDD 7240	Advanced Medicinal Chemistry II	3
DRDD 7250	Drug Action and Design	3
DRDD 7260	Separation Science	4
DRDD 7270	Mass Spectrometry of Organic Compounds	4
DRDD 7600	Heterocyclic Medicinal Chemistry	3
DRDD 8950	Seminar (May be repeated multiple times for credit.)	1
DRDD 8990	Research And Dissertation (Total of 10 CR required)	1-10

In addition to the specific core and option course requirements listed above, students must complete committee approved graduate electives (6000–8999) to reach the 60 hour degree requirement.