

[Emphasis - Medicinal Chemistry](#)

- [M.S. in Pharmaceutical Sciences](#)
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M.S. in Pharmaceutical Sciences Description

The M.S. in pharmaceutical sciences can be completed with an emphasis in environmental toxicology, medicinal chemistry, pharmaceuticals, pharmacology, pharmacognosy, or pharmacy administration.

Minimum Total Credit Hours: 30

Course Requirements

Requirements for each emphasis area are given in the respective program description sections. Each emphasis area requires students to complete a minimum of 24 semester hours of course work and 6 hours of thesis.

Emphasis - Medicinal Chemistry Description

An M.S. in pharmaceutical sciences with emphasis in medicinal chemistry is a multidisciplinary chemistry-centered science involved in applying both chemical and biological principles to a study of drugs capable of exerting specific effects on a biological system. In practice, the medicinal chemist is involved in designing, synthesizing and characterizing medicinal agents intended for the management and/or therapy of diseases.

Note: For more information, refer to the student handbook

[Graduate Student Handbook](#)

Goals/Mission Statement

The mission of the Department of BioMolecular Sciences, Division of Medicinal Chemistry is to apply chemistry and the chemically related sciences to the teaching of professional pharmacy students and graduate students. The research mission of the department is the discovery, design, analysis, and further development of potential drugs and the discovery of potential drug design targets.

Course Requirements

Requirements for the M.S. with an emphasis in medicinal chemistry consist of:

- Graduate Student Survival Strategies (BMS 601) (2 hours);
- Advanced Medicinal Chemistry I (MEDC 501) (3 hours);
- Organic Chemistry of Drug Synthesis (MEDC 507) (3 hours);
- MEDC courses 600/700 level or BMS courses 700 level (6 hours);
- Elective Courses (6 hours).

Seminar Requirement

Students are required to register for BMS 643 (Z-grade) every semester, with the exception of those semesters in which the student presents a seminar and instead registers for BMS 641 (graded). No more than 4 seminar hours can be used toward the 24 minimum total credit hours.

A minimum of 6 hours of thesis research must also be taken to meet degree requirements.

Other Academic Requirements

A thesis based upon experimental work in the general area of medicinal chemistry is required.

Degree Requirements and Expectations

Medicinal Chemistry graduate students must meet a high level of academic achievement to maintain eligibility. Students are expected to maintain an overall GPA of at least 3.0 (B).

