

## Emphasis - Pharmaceutics

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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, industrial pharmacy, medicinal chemistry, pharmaceutics, 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 - Pharmaceutics** **Description**

**Minimum Credit hours required for M.S. in Pharmaceutical Sciences with an emphasis in Pharmaceutics: 33**

The M.S. in pharmaceutical sciences with emphasis in pharmaceutics deals with the science of dosage form design and embraces all facets of the process of turning a new chemical entity into a medication that can be safely and effectively used by patients.

#### **Admission**

Admission to the M.S. in pharmaceutical sciences with an emphasis in pharmaceutics in the Department of Pharmaceutics and Drug Delivery is open to superior students with a Bachelor of Science degree in pharmacy, chemistry, biology, chemical engineering, biotechnology, or a related area. A "B" average or better in undergraduate and graduate coursework is required for consideration for admission. Admission is competitive, so it is unlikely that all students who meet the minimum requirements will be admitted.

Our program encourages but does not require the GRE test score submission for those applying for fall (application deadline: April 1) or spring (application deadline: October 1) semester admissions. You are NOT required to submit GRE scores, and applications without GRE scores will be given full consideration. You may choose to submit scores if you have them, and they will be considered by the graduate faculty.

International applicants whose primary language is not English and/or who have completed their secondary or tertiary education primarily outside of the U.S. must submit official scores from the acceptable tests found on University of Mississippi's International Student and Scholar Services listing of English language requirements.

Two letters of recommendation, a resume, and a statement of purpose are used to evaluate candidates. You may apply to all of the graduate programs online and get additional application information from the University of Mississippi Graduate School website.

#### **Course Requirements**

The M.S. in pharmaceutical sciences with an emphasis in pharmaceutics requires 27 semester hours of course work. The following core courses are required:

- Statistics and Experimental Design [BISC 504 (4 hours) or HP 626 (3 hours)];
- Graduate Student Survival Strategies (BMS 601) (2 hours) or Research Ethics (GRAD 600) (1 hour);
- Applied Pharmacokinetics (PHAR 760) (3 hours);
- Product Development (PHAR 749) (3 hours);
- Formulation Development (PHAR 650) (3 hours);
- Advanced Pharmaceutics (PHAR 741) (4 hours).

In addition, at least two of the following electives is required:

- Stability of Pharmaceutical Systems (PHAR 744) (3 hours);
- Colloid and Surface Science (Ch E 545); (3 hours);
- Applied Pharmaceutics (PHAR 750); (2 hours);
- Analytical Pharmaceutics (PHAR 735) (3 hours);
- Pharmaceutical Manufacturing (PHAR 658) (3 hours);
- Regulatory Science I (PHAR 651) (3 hours);
- Regulatory Science II (PHAR 652) (3 hours);
- Problems in Pharmaceutics (PHAR 541, PHAR 542) (1-3 hours);
- Introduction to Polymer Science (Ch E 543) (3 hours);
- Coating Materials Processing and Applications (Ch E 597) (3 hours).

Additional courses may be required by the student's graduate adviser and/or advisory committee. If a required course is unavailable, the Department of Pharmaceutics and Drug Delivery graduate faculty may approve an alternative course for a particular student.

#### **Seminar Requirement**

Students are required to register for Seminar in Current Pharmaceutical Topics (PHAR 543 or PHAR 544) every semester. No more than 1 seminar hour can be used toward the 27 minimum total credit hours.

#### **Other Academic Requirements**

A thesis based upon experimental work in the general area of pharmaceutics is also required. **Enrollment in a minimum of 6 thesis hours is**



**required** with at least 3 research hours (thesis) in the last semester.

Prior to the student's thesis defense, the student must have a minimum of one completed manuscript ready for submission to a referred journal for publication.

The policies and regulations contained in this online University of Mississippi Catalog are in effect for the current or selected semester. The catalog is not a contract, but rather a guide for the convenience of students. The University of Mississippi reserves the right to 1) change or withdraw courses; 2) change the fees, rules, and schedules for admission, registration, instruction, and graduation; and 3) change other regulations affecting the student body at any time. Implicit in each student's enrollment with the university is an agreement to comply with university rules and regulations, which the university may modify to exercise properly its educational responsibility.

