

# PHARMACEUTICAL SCIENCES, M.S.

The University of South Carolina College of Pharmacy offers the MS in Pharmaceutical Sciences with an emphasis in either:

- Drug Discovery and Biomedical Sciences through the Department of Drug Discovery and Biomedical Sciences (DDBS), or
- Pharmacy Administration through the Department of Clinical Pharmacy and Outcomes Sciences (CPOS).

The learning outcomes are similar for both options in that students will demonstrate a proficiency in their respective fields. Specifically, students will be able to:

1. Demonstrate a basic knowledge of the theories, principles and methods underlying the pharmaceutical sciences as they relate to the area of emphasis.
2. Identify a research problem, formulate a research plan, analyze data and communicate findings through oral presentations, abstracts, and papers.
3. Critically analyze and synthesize relevant literature.

## Drug Discovery and Biomedical Sciences

The MS track in Drug Discovery and Biomedical Sciences requires a minimum of 30 hours beyond the baccalaureate degree, including at least 9 credit hours of thesis preparation. The MS degree requirements include an admission-to-candidacy examination, a comprehensive examination, and a thesis.

## Pharmacy Administration

Students who enter the MS program in Pharmacy Administration with a post-baccalaureate degree (BS or PharmD) must successfully complete at least 35 hours of graduate course work, including at least 6 credit hours of thesis. The MS degree requirements include an admission-to-candidacy examination, a comprehensive examination, and a thesis.

## MS Degree, Drug Discovery and Biomedical Sciences Option

1. A research advisor must be chosen by the end of the first year.
2. Admission to candidacy must occur by the end of the third semester, and includes the following: a.) Submission of a program of study form. Satisfactory completion of all coursework taken in the first three semesters will be evaluated by the committee. b.) Submission of a written initial research proposal, followed by an oral presentation and defense of the proposal to the thesis committee.
3. The comprehensive written and oral examination must be completed.
4. A written thesis, along with an oral presentation and defense, is required for the completion of the MS degree.

In addition to the general requirements listed above, candidates for the MS degree are required to complete two departmental seminar courses.

Course	Title	Credits
<b>Required Courses:</b>		
PHAR 700	Principles of Pharmacology, Medicinal Chemistry, and Pharmaceutics	4

PHAR 701	Current Topics in Pharmaceutical Sciences	4
PHAR 712A	Seminar in Pharmaceutical Sciences <sup>1</sup>	1
PHAR 712B	Seminar in Pharmaceutical Sciences <sup>1</sup>	1
PHAR 799	Thesis Preparation	1-6
<b>Select 11 hours of electives <sup>2</sup></b>		<b>11</b>

<sup>1</sup> A maximum of 2 hours credit can be earned for PHAR 712.

<sup>2</sup> Electives will be chosen based on the needs of the graduate student. Areas of emphasis include Biomedical Chemistry, Synthetic Medicinal Chemistry, Pharmaceutics, and Pharmacology. Electives will be chosen based on the area of emphasis and must be approved by the advisory committee and the Graduate Program Director. Electives must be 700 level and above, or any course approved by the Graduate School for Graduate Credit.

## MS Degree, Pharmacy Administration Option

All students must successfully complete at least 35 hours of graduate course work. In addition to the general requirements listed above, candidates for the MS degree are required to complete two departmental seminar courses (PHAR 711 A-B). All students must submit a thesis based upon original research, meeting all requirements of The Graduate School prior to award of the degree. No more than six hours of credit for PHAR 799 will be allowed for thesis research and writing. Further degree requirements are listed below

Course	Title	Credits
PHAR 711	Seminar in Pharmacy Administration (A-B)	1
PHAR 740	Socio-Economics of Pharmacy Practice	3
PHAR 742	Research Methods in Pharmaceutical and Health Outcomes Sciences	3
PHAR 748	Principles of Pharmacoeconomics	3
ECON 720	Managerial Economics	3
MKTG 701	Marketing Management	3
ACCT 728	Financial Accounting	3
ACCT 729	Managerial Accounting	3
BIOS 700	Introduction to Biostatistics <sup>1</sup>	3
or BIOS 701	Concepts and Methods of Biostatistics	
BIOS 757	Intermediate Biostatistics	3
PHAR 799	Thesis Preparation	1-6

<sup>1</sup> STAT 515/516 may be substituted for BIOS 701/757