Emphasis - Pharmaceutics

Ph.D. in Pharmaceutical Sciences

Description

The Ph.D. in pharmaceutical sciences can be completed with an emphasis in environmental toxicology, medicinal chemistry, pharmaceutics, pharmacology, pharmacognosy, or pharmacy administration.

Minimum Total Credit Hours: 57

Course Requirements

Requirements for each emphasis area are given in the respective program description sections.

Emphasis - Pharmaceutics

Description

The Ph.D. in pharmaceutical sciences with an 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. Pharmaceutics deals with the formulation of drugs into dosage forms such as tablets, capsules, creams, gels, ointments, transdermal and transmucosal patches, solutions, sprays, drops, injectables, and many others.

Goals/Mission Statement

The primary missions of the Department of Pharmaceutics include providing curricular content in the areas of physical pharmacy, basic pharmacokinetics, dosage forms, and drug delivery systems, and bio- pharmaceutics in both the Bachelor of Science in Pharmaceutical Sciences (B.S.P.S.) and the Doctor of Pharmacy (Pharm.D.) professional degree programs. In addition, the department's educational mission is to educate Ph.D. graduates with scientific competence in these related areas of expertise, including preformulation, formulation, pharmaceutical processing, and novel drug delivery systems. The departmental faculty also provides this same expertise as members of multidisciplinary teams, to scientific projects conducted in the National Center for Natural Product Research (NCNPR).

Course Requirements

The graduate course work requirement for the Ph.D. in pharmaceutical sciences with an emphasis in pharmaceutics includes:

- Product Development (Phar 649)
- Statistics and Experimental Design (Bisc 504 or Math 597)
- Analytical Pharmaceutics (Phar 535)
- Advanced Pharmaceutics (Phar 641, 642)
- Surface Phenomena (Phar 645 or Ch E 545)
- Special Problems in the Stability of Pharmaceutical Systems (Phar 644)
- Advanced Pharmacokinetics (Phar 660)
- Seminar in Current Pharmaceutical Topics (Phar 543, 544)
- Applied Pharmaceutics (Phar 650)

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

Other Academic Requirements

Comprehensive Examination:

After completion of all course work, including any additional course work required by the research director and/or dissertation committee, a student must successfully pass a comprehensive examination. If a student fails one of the sections of the exam, he or she will be allowed to retake a second exam from a given faculty member. If a student fails more than one section of the exam, he or she will be terminated from the Ph.D. program and allowed to enter the master's program. After passing the exam, a student enters the candidacy stage.

Dissertation Prospectus and Dissertation:

Doctoral students must prepare and orally defend a dissertation prospectus before their dissertation committee. Doctoral students must prepare and orally defend their dissertation, based on original and independent research, before the same committee. The general procedures and composition of the committee are governed by Graduate School policy.

Note: An applicant may enter the Ph.D. program directly, without having to enroll in the master's program.

Degree Requirements

The academic regulations for this degree program, as entered in the University of Mississippi Catalog, are in effect for the current or selected academic year and semester. The University of Mississippi reserves the right to 1) change or withdraw courses; 2) change rules for registration, instruction, and graduation; and 3) change other regulations affecting the student body at any time.

Ph.D. in Pharmaceutical Sciences

REQUIREMENT	HOURS	DESCRIPTION
Select an emphasis		Student must enroll in one of the Ph. D. in Pharamecuetical Sciences emphasis areas: medicinal chemistry, pharmaceutics, pharmacognosy, environmental toxicology, pharmacy administration or pharmacology/toxicology,
GPA requirements		A cumulative average of not less than 3.0 (B) must be achieved in all graduate work taken.
Pharmacy Dean's approval		This Degree Audit program is an advising tool only. The dean's office will make the final certification that the student qualifies for graduation. The dean's office will also determine if other university or school requirements (GPA, etc.) have been met.

Emphasis - Pharmaceutics

REQUIREMENT	HOURS	DESCRIPTION
Phar 535 - C min	3	Complete Phar 535 with a grade of C or better.
Phar 543 - C min	1	Complete Phar 543 with a grade of C or better.
Phar 544 - C min	1	Complete Phar 544 with a grade of C or better.
Phar 641 - C min	4	Complete Phar 641 with a grade of C or better.
Phar 642 - C min	3	Complete Phar 642 with a grade of C or better.
Phar 644 - C min	3	Complete Phar 644 with a grade of C or better.
Phar 649 - C min	3	Complete Phar 649 with a grade of C or better.
Phar 650 - C min	2	Complete Phar 650 with a grade of C or better.
Phar 660 - C min	3	Complete Phar 660 with a grade of C or better.
Phar 797	18	Complete at least 18 hours of dissertation credits (Phar 797).
Comprehensive exam		Student must pass a comprehensive examination.
Dissertation prospectus		Student must prepare and orally defend a dissertation prospectus before his/her dissertation committee.
Oral defense		Every candidate for the Ph.D. degree must successfully pass a final oral examination (defense of dissertation) administered by the student's dissertation committee and scheduled by the Graduate School.
Statistics	4	Student must complete one of the following statistics and experimental design courses with a grade of C or better: Bisc 504 or Math 597.
Submit Dissertation		Student must submit a dissertation to his/her GPC/Chair. The dissertation must conform to the regulations governing style set forth in "A Manual of Thesis and Dissertations Preparations", available in the Graduate School Office. Two copies of the dissertation must be presented to the Graduate School after the final examination for the doctorate has been accepted and before the beginning of the regular examination period for the semester in which the candidate plans to graduate.
Surface Phenomena	3	Complete at least one of the following courses with a grade of C or better: Phar 645 or Ch E 545.