**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: 54**

**COURSE REQUIREMENTS**

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

**Emphasis - Pharmacognosy**

**DESCRIPTION**

A Ph.D. in pharmaceutical sciences with emphasis in pharmacognosy prepares a graduate to do basic research in the study of bioactive natural substances found in terrestrial and marine organisms. In such research, a pharmacognosist works in the interdisciplinary worlds of chemical structure and function relative to biological structure and function. The field is devoted to the discovery and development of new agents in the treatment of diseases and the program prepares students for academic or research positions in universities, and industrial or government institutions.

Note: For more information, refer to the student handbook

<http://pharmacy.olemiss.edu/biomolecularsciences/gradprogram/bms-graduate-student-handbook/>

**GOALS/MISSION STATEMENT**

The academic mission of the Department of BioMolecular Sciences, Division of Pharmacognosy is to apply natural products 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 targets.

**COURSE REQUIREMENTS**

The requirements for the Ph.D. with emphasis in pharmacognosy consist of a minimum of 7 core course hours (PHCG 627: Biosynthesis- 3h, PHCG 620: Advanced Biochemistry-3h, and BMS 605: ORP- 1h) and 2 common core hours (BMS 601: Graduate Student Survival Strategies- 2h), in addition to a minimum of 12 course hour electives, exclusive of graded seminars (see below), from BioMolecular Sciences, Biology, Chemistry, or other graduate level programs (contingent upon Division of Pharmacognosy faculty approval).

A minimum of 18 hours of dissertation research must also be taken to meet degree requirements.

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).

**OTHER ACADEMIC REQUIREMENTS**

Graduate students are required to audit the undergraduate Pharmacognosy courses (PHCG 321: Pathogenesis of Infectious Diseases, and PHCG 422: Antibiotics) or take the graded graduate equivalents as electives.

Original Research Proposal - A student must prepare, submit, and successfully (orally) defend an original research proposal (ORP). Procedures for this requirement will be provided by the department. Students will register for BMS 605 (Original Research Proposal BioMolecular Sciences) in the semester they anticipate defending their ORP.

Dissertation - A student must prepare and orally defend a dissertation based on original, independent research in partial fulfillment of their Ph.D. degree.

**DEGREE REQUIREMENTS AND EXPECTATIONS**

Pharmacognosy 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).