

## **Emphasis - Pharmacognosy**

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### **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. Each emphasis area requires students to complete a minimum of 36 semester hours of course work and 18 hours of dissertation

### **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**

Requirements for the Ph.D. with an emphasis in Pharmacognosy include:

- Biosynthesis (PHCG 627), 3 hours;
- Advanced Biochemistry (PHCG 620, PHCL 669, or equivalent), 3 hours;
- Problems in Pharmacognosy (PHCG 541, the graduate-level equivalent of PHCG 321: Pathogenesis of Infectious Disease), 3 hours;
- Advanced Topics (PHCG 630, the graduate-level equivalent of PHCY 402);
- Foundations in BioMolecular Sciences II), 3 hours;
- Graduate Student Survival Strategies (BMS 601), 2 hours; and
- Original Research Proposal (BMS 605), 1 hour.

The student will need to select at least 13 additional elective hours (approved by their committee), at least one of which must be selected from approved offerings outside the department.

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). No more than 8 seminar hours can be used toward the 54 minimum total credit hours

#### **Other Academic Requirements**

##### **Oral/Cumulative Exam**

A student must design, write, submit, and successfully 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.

