Emphasis - Biomedical Engineering

Ph.D. in Engineering Science

Description

The Ph.D. in engineering science is offered in a number of emphasis areas: aeroacoustics, chemical engineering, civil engineering, computational hydroscience, computer engineering, computer science, electrical engineering, electromagnetics, environmental engineering, geology, geological engineering, hydrology, mechanical engineering, and material science and engineering.

Minimum Total Credit Hours: 54

Course Requirements

A student must complete the requirements for one of the emphasis areas. All doctoral programs require completion of a comprehensive examination, dissertation prospectus, and a dissertation. See the department chair or adviser for specific requirements for an emphasis area.

Emphasis - Biomedical Engineering

Description

A degree of Ph.D. in engineering science with an emphasis in biomedical engineering prepares graduates to apply interdisciplinary science and engineering tools to advance biology and medicine. Graduates will be able to independently solve problems, execute complex projects, and pursue successful careers in research, development, or management within engineering or biomedical science fields, as well as professional degrees such as medicine or law. Graduates will be especially prepared to enter research positions in academia, industry, or government agencies.

Course Requirements

The Ph.D. with an emphasis in biomedical engineering requires a minimum of 54 hours of graduate credit past the bachelor's degree. The only required courses are BME 600 (Graduate Professional Development) and 3 hours of BME 601 (Biomedical Engineering seminar). The remainder of the coursework is agreed upon by the student and his or her committee, 18 hours of which must be dissertation (Engr 797) credit. Students whose undergraduate degree is not in biomedical engineering may need to take additional courses to satisfy prerequisites.

Other Academic Requirements

Students in the Ph.D. program must achieve a GPA of 3.25 or higher on 12 credit hours selected by the committee before being eligible to take the Ph.D. candidacy exam. Selection must be done by the end of the first semester.

To be admitted to candidacy, the student must successfully write and orally defend an Original Research Proposal (ORP). The BME department will allow the ORP to be in the domain of the student’s main research thrust with an understanding that the committee’s job will be to ensure (through questions at the oral exam) that the student has mastered the course materials identified by the committee as the 12 hours on which he or she must achieve a 3.25 GPA. If a student fails the candidacy exam, he or she may retake the exam one time and this second attempt must be within six months of the first failed attempt.

After successfully passing the candidacy exam, the Ph.D. candidate must successfully write and defend a dissertation prospectus to his or her committee. Two opportunities are given to successfully complete the prospectus. If a student does not pass the first attempt, the second attempt must be completed within six months of the first failed defense. After successfully defending the dissertation prospectus, the Ph.D. candidate is eligible to write and defend his or her dissertation. The prospectus defense and dissertation defense cannot occur within the same academic term. A candidate may defend his or her prospectus no more than twice. If a defense is not successful after the second attempt, the candidate will have to leave the program.

Dissertation

The student will be eligible to defend his or her dissertation upon: * Completion of at least 18 hours of Engr 797 * Having anticipated completion of the minimum 54 total credit hours by the end of the term of graduation * Approval by the student’s committee who will evaluate if the elements of the prospectus have been sufficiently addressed. This defense approval committee meeting cannot occur during the same full term (fall, spring, full summer) as the anticipated defense, and there must be a minimum of four calendar months between these events. The committee’s approval or denial to proceed toward a goal dissertation date must be submitted to and acknowledged by the graduate program coordinator. If denied, there must be written justification.

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.