

B.S.B.E. in Biomedical Engineering

[Overview](#)

[Degree Requirements](#)

Description

This Bachelor of Science in Biomedical Engineering (BME) degree program will prepare engineering students at the University of Mississippi to capably apply advanced mathematics, science, and engineering to solve the problems at the interface of engineering, biology, and medicine. Moreover, the curriculum will prepare graduates with the ability to make measurements on and interpret data from living systems, addressing the problems associated with the interaction between living and non-living materials and systems.

The graduates of the program will be able to pursue (i) employment in biomedical or related industries (ii) graduate studies in biomedical engineering or related discipline, and (iii) pursue professional careers in medicine, dentistry, pharmacy, or patent law.

Minimum Total Credit Hours: 127

General Education Requirements

The general education requirements of the program are consistent with The University of Mississippi's tradition of educating engineering leaders through the school's strong interaction with the university's liberal arts programs. Further, these requirements are established to fulfill the school's published mission of preparing "students with a broad-based education" intended to develop "leadership skills" and "communication skills." The core/general education requirements for the School of Engineering include WRIT 101, WRIT 102; Math 261-262; and a minimum of 8 credit hours of laboratory science courses as specified by each department. In addition, 18 credit hours, as described below, must be taken. Students should check with their department to learn the specific course requirements for an individual program. Fifteen Credits of Liberal Arts – Students must complete at least 15 semester hours consisting of social/behavioral sciences, humanities, and fine arts course work. At least 6 credit hours must be in the social/behavioral sciences, and at least 9 credit hours must be in combined humanities and fine arts courses with at least 3 semester hours from each of these areas. For the purpose of these requirements, social/behavioral sciences will include anthropology, economics, political science, psychology, and sociology; humanities will include classics, literature, history, modern languages, philosophy, religion, African American Studies, Gender Studies, and Southern Studies; and fine arts will include courses in the history, appreciation, and criticism of art, dance, music, and theatre arts. (Courses emphasizing the enhancement of skills and performance are not acceptable.) Honors courses may be used to meet these requirements as appropriate. An additional 3 hours of are required in Econ 310: Engineering Economy (3 Hrs.)

Course Requirements

Additional requirements for all Biomedical Engineering Tracks include:

Sem Hours	Category	Courses
9	Math	Math 263, 264 and 353
24	Natural (laboratory) Sciences	Chem 105, 106, 115, 116, 221, 225; Bisc 160, 161; and Phys 211, 212, 221, 222
36	Biomedical Engineering Core	Csci 251, Ch E 307, Ch E 308, EI E 313, EI E 314, BME 461, BME 462, Engr 310, Engr 360, EI E 331, Engr 400, BME 200, BME 322, BME 333, BME 444, BME 461, and BME 461

In addition to the major course requirements, students must complete the requirements for an emphasis area, each with its own specific requirements.

Specializations

- [Emphasis - Bioinformatics](#)
- [Emphasis - Biomedical](#)
- [Emphasis - Biomolecular](#)

