PhD in Biomedical Engineering

Admission Requirements

Applicants are considered on an individual basis. In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

- **Baccalaureate Field:** Physical sciences, engineering, computer science, mathematics, biology, or medicine. Students must have completed math through Calculus I (MATH 180), Calculus II (MATH 181), Calculus III (MATH 210), Differential Equations (MATH 220), and Applied Linear Algebra (MATH 310) prior to entering the program. Linear algebra can be waived upon request and appropriate justification.
- **Grade Point Average:** At least 3.00/4.00 for the final 60 semester (90 quarter) hours of undergraduate study.
- **Tests Required:** The GRE is waived for applicants. However, strong GRE scores (Quantitative >80th percentile, Verbal > 70th percentile, Analytical writing >4) can enhance your application. Thus, GRE scores will be accepted and, if provided, evaluated as part of your application.
- **Minimum English Competency Test Score**
  - **TOEFL** 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (iBT Test); 60, with subscores of Reading 19, Listening 17, Writing 21 (revised Paper-Delivered Test), **OR,**
  - **IELTS** 6.5, with subscores of 6.0 for all four subscores, **OR,**
  - **PTE-Academic** 54, with subscores of Reading 51, Listening 47, Speaking 53, and Writing 56.
- **Letters of Recommendation:** Three are required.
- **Personal Statement:** Required.
- **Deadlines:** Application deadlines for this program are listed on the Graduate College website, including the deadline for applicants who require funding.

Degree Requirements

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

- **Minimum Semester Hours Required:** 108 from the baccalaureate.
- **Course Work:** Students admitted with a prior master's degree in biomedical engineering or a related field must complete a minimum of 24 hours of coursework, at least 12 hours of which must be biomedical engineering courses. At least 12 hours must be at the 500 level, excluding BME 595, BME 596, and BME 599. Limited semester hours in BME 596 are allowed upon department approval. A maximum of 4 hours of BME 590 may be applied toward the degree, provided credit for BME 590 or a similar course was not applied toward the prior MS degree.
  Students admitted with a bachelor's degree in biomedical engineering or a related field must complete a minimum of 48 hours of coursework. At least 24 hours must be biomedical engineering courses. At least 20 hours must be at the 500 level, excluding BME 595, BME 596, and BME 599. A maximum of 4 hours of BME 590 may be applied toward the degree.

Code	Title	Hours
Required Courses		
BME 595	Seminar on Biomedical Engineering	
Additional required courses vary by area of study; contact the department for the specific requirements of each area.		

- **Examinations**
  - Departmental Qualifying Examination: Not required.
  - Preliminary Examination: Required.
- **Dissertation:** Required. Students must earn at least 60 semester hours in BME 599.

Interdepartmental Concentrations

Students earning a graduate degree in this department may complement their courses by enrolling in select concentrations after consulting with their graduate advisor. Interdepartmental concentrations available for this degree include:

- Neuroscience