

# Biomedical Engineering, PhD

## Requirements

The Doctor of Philosophy program in biomedical engineering requires a minimum of 72 s.h. of graduate work, including acceptable transfer credit. At least 42 s.h. must be earned in formal coursework taken after the BSE is awarded, and at least 12 s.h. must be earned through research and the thesis. Students who enter with an MS may count a maximum of 30 s.h. of approved transfer credit toward the PhD, but they must earn 39 s.h. of graduate credit at the University of Iowa, including at least 12 s.h. in research and the thesis. Based on a student's research progress, examination results, or other measures, the graduate committee may require additional formal coursework to strengthen perceived areas of weakness.

All PhD students must successfully complete the Graduate Core Courses as part of their graduate curriculum. Students are expected to complete them during their first year of study. Additionally, students must complete 18 s.h. of graduate-level coursework in the College of Engineering over the course of their studies. Medical scientist training program students are required to complete 12 s.h. of graduate-level coursework in the College of Engineering.

## Graduate Core Courses

Course #	Title	Hours
ENGR:7270	Engineering Ethics	1
HHP:3550	Human Physiology With Laboratory	5
ME:5113	Mathematical Methods in Engineering (or equivalent graduate mathematics course; approval of academic advisor required before registering)	3

Depending upon a student's performance in Graduate Core Courses and the nature of their research project, the student's examining committee may specify additional coursework to be completed to satisfy the Graduate Core Courses requirement.

Graduate Core Courses may be substituted by other equivalent courses at the discretion of the student's examining committee. Equivalent coursework taken as part of a student's undergraduate or graduate studies prior to starting the biomedical engineering graduate program at the University of Iowa may satisfy one or more of the Graduate Core Courses requirements. Students who wish to request a substitution or a waiver for HHP:3550 Human Physiology With Laboratory or ME:5113 Mathematical Methods in Engineering must submit a core course substitution or waiver form. Forms may be obtained from the graduate program coordinator.

Admission to the PhD program is conditional until students successfully complete a qualifying examination. The biomedical engineering faculty administers the exam and decides whether a student's performance is adequate for admission to the PhD program.

Admission to PhD candidacy requires a grade-point average (GPA) of at least 3.00 on all graduate work at the University

of Iowa. Upon completion of the coursework specified in the plan of study and with the required GPA and the advisor's recommendation, students are admitted to the comprehensive examination by their committee.

After satisfactorily completing the comprehensive examination, students must complete and defend their dissertations at the final examination. Requirements for the PhD generally can be completed in three to four years beyond the master's degree.