

BIOLOGICAL AND BIOMEDICAL ENGINEERING (PH.D.)

Offered by: Biological & Biomedical Engr (Faculty of Medicine and Health Sciences)

Degree: Doctor of Philosophy

Program Description

The goal of the Biological and Biomedical Engineering Ph.D. program is for students to gain advanced training in the interdisciplinary application of methods, paradigms, technologies, and devices from engineering and the natural sciences to problems in biology, medicine, and the life sciences. The program will focus in an area of choice while integrating quantitative concepts and engineering tools for the study of life sciences and/or for patient care. As part of the Ph.D. requirement, the student will integrate the scientific method, develop critical and deep thinking, and acquire advanced writing and presentation skills that will form the foundation for his/her career. Under the guidance of his/her supervisor, the student will tackle a research challenge and make original contributions to the advancement of science and engineering in an area of Biological and Biomedical Engineering. The program will prepare students for careers in academia, industry, hospitals and government. Students who complete the program will obtain a Doctor of Philosophy in Biological and Biomedical Engineering. The best preparation for this program is a Master's degree in BBME or a related discipline.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Thesis

A thesis for the doctoral degree must constitute original scholarship and must be a distinct contribution to knowledge. It must show familiarity with previous work in the field and must demonstrate ability to plan and carry out research, organize results, and defend the approach and conclusions in a scholarly manner. The research presented must meet current standards of the discipline; as well, the thesis must clearly demonstrate how the research advances knowledge in the field. Finally, the thesis must be written in compliance with norms for academic and scholarly expression and for publication in the public domain.

Required Course

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Course	Title	Credits
BBME 701	Ph.D. Comprehensive Examination.	0

Students must be registered in this course at the time of the Thesis Proposal and Comprehensive Exam Meeting.

Further courses may be required by the supervisor(s) in consultation with the Graduate Program Director, depending on the educational background of individual students.