BIOMEDICAL ENGINEERING - MASTER OF SCIENCE (MS)

The Biomedical Engineering Master of Science (MS) degree program is designed to be flexible to meet the individual student's needs. Students will collaborate with faculty and other advisors to create a tailored degree plan based on their career interests and goals.

Students may choose either a coursework- or thesis-based MS. The thesis option requires completion of a research project with a faculty mentor, a written thesis that describes the research in detail, and an oral defense in front of a committee of program faculty.

For more information, visit the Biomedical Engineering MS Program (https://www.colorado.edu/bme/masters-program/) page.

Bachelor's–Accelerated Master's Degree Program

Students may earn this degree as part of the bachelor's–accelerated master's (BAM) degree program, which allows currently enrolled CU Boulder undergraduate students the opportunity to earn a bachelor's and master's degree in a shorter period of time.

For more information, see the Accelerated Master's tab for the associated bachelor's degree(s):

- Biomedical Engineering - Bachelor of Science (BSBM) (https://catalog.colorado.edu/undergraduate/colleges-schools/engineering-applied-science/programs-study/biomedical-engineering/biomedical-engineering-bachelor-science-bsbm/#acceleratedmasterstext)

Requirements

Biomedical Engineering MS students must complete 30 credit hours of coursework at the 5000 level or higher and obtain a minimum grade of C (2.0) in each class to count towards the degree. Students must also maintain a 3.0 cumulative GPA or higher to be in good standing with the Graduate School.

Required Courses

Code	Title	Credit Hours
Core Required Course		
BMEN 5117	Anatomy and Physiology for Biomedical Engineering (Fall)	3
Additional Coursework		
Designated biomedical engineering courses		15
Additional credit hours obtained, as needed, from other fields (e.g., business or other engineering electives). Of these 12 credit hours, MS Thesis students must complete 4-6 thesis credit hours in which they will submit a written thesis following the graduate school specifications and present their research findings to a three-member committee.		12
Total Credit Hours		**30**

For more information, visit the Biomedical Engineering MS Program (https://www.colorado.edu/bme/masters-program/#coursework_requirements-127) webpage.

Learning Outcomes

By the completion of the program, students will be able to:

- Apply principles of engineering, biology, human physiology, chemistry, physics, mathematics and statistics to solve engineering problems relevant to bio/biomedical engineering or healthcare, including those associated with the interaction between living and non-living systems.
- Analyze, model, design and realize devices, systems, components, or processes relevant to bio/biomedical engineering.
- Make measurements on and/or interpret data from engineering or living systems relevant to bio/biomedical engineering.
- Understand major challenges and needs of industry relevant to bio/biomedical engineering, including those associated with design, manufacturing and regulation.