

BIOMEDICAL ENGINEERING M.S.

All students must meet the Requirements for the Master's Degree.

OVERVIEW

Leveraging strong ties between the University of Vermont's College of Engineering and Mathematical Sciences and the Larner College of Medicine, the Master of Science (M.S.) in Biomedical Engineering gives students the opportunity to develop advanced engineering skills and domain expertise so that they may apply engineering methods to address problems related to human health. Students enrolled in the M.S. in BME program pursue a 2-year, personalized plan of study that includes only coursework, a project, or a research-oriented thesis.

SPECIFIC REQUIREMENTS

Requirements for Admission to Graduate Studies for the Degree of Master of Science

An accredited bachelor's degree in biomedical engineering or a similar technical field. Special arrangements may be made, on an individual basis, for students who hold a bachelor's degree in other areas. No Graduate Record Examination (GRE) is required. An undergraduate grade point average above 3.0 (Based on a 4.0 scale), strong BME course grades (B average or better), and positive letters of recommendation are required.

Minimum Degree Requirements

Requirement Description	Credits
Thesis-Based	
24 credit hours of coursework, at least 6 of which must be at the 6000-level. At least 15 credit hours will come from CEE, EE, BME, ME, CS, EMGT, CMPE, CEMS and/or ENGR graduate courses. At least 6 credits will have BME designation.	24
6 credit hours of research conducted with BME associated faculty.	6
Degree Capstone: A thesis must be completed, under the supervision of a BME graduate program faculty member. The written thesis must meet Graduate College requirements and be defended orally in a public forum.	
Project-Based	
27 credit hours, at least 6 of which must be at the 6000-level. At least 15 credit hours will come from CEE, EE, BME, ME, CS, EMGT, CMPE, CEMS and/or ENGR graduate courses. At least 6 credits will have BME designation.	27
3 credit hours of project conducted with BME associated faculty.	3
Degree Capstone: A poster must be presented at Spring BME Student Symposium (or other public forum) on the project. Poster presentation must meet requirements as assessed by BME faculty.	
Coursework Option	

30 credit hours, at least 6 of which must be at the 6000-level. At least 15 credit hours will come from CEE, EE, BME, ME, CS, EMGT, CMPE, CEMS and/or ENGR graduate courses. At least 6 credits will have BME designation.	30
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Comprehensive Examination

M.S. Thesis Option: The student must orally present a proposal for their thesis research at least 3 months prior to their final semester's last day of classes. The student's thesis committee will orally examine the student based on the student's coursework and research focus.

M.S. Project Option: The student must present a written proposal for their project submitted in BME 6995. The proposal requires approval by 2 supervising faculty with at least 1 faculty from BME.

M.S. Coursework Option: The student must give a presentation on how their course work has prepared them for their career goals. The presentation will be given during their final semester (typically at the Spring BME Student Symposium) and will be assessed by at least 2 BME faculty members.

Requirements for Advancement to Candidacy for the Degree of Master of Science

Successful completion of the Comprehensive Examination.