

Five-Year BS/MS Degree Program in Biomedical Engineering

1. Program Description.

This program allows students to earn both their Master of Science (MS) degree and a Bachelor of Science (BS) degree in Biomedical Engineering (BME) in five years. Students currently enrolled in the undergraduate degree program in BME at Marquette University (MU) with a **GPA of 3.5 or above** may apply for admission to the five-year program **during their junior year**. Students must submit an application to the MU Graduate School via Slate, indicate their interest in the five-year BS/MS degree program, and meet all other admission criteria as stated in the Application Requirements section.

Students may take graduate level courses in their senior undergraduate year. These graduate courses (**maximum of 9 credit hours**) count towards both the undergraduate and graduate degrees. The remaining courses are taken during the students' fifth year. Work on the students' theses research begins the summer between the junior and senior years. Students will continue to gain research laboratory experience the summer between the senior and fifth year, continuing through the final year, culminating in preparation of a written thesis and defense. Upon completion of the first term as MS candidates, students must petition the Graduate School to transfer courses taken as undergraduates to the MS degree.

2. Admission Requirements.

- In Fall semester (usually November), the Chair meets with Junior students that are interested in the 5-yr BS/MS degree program or graduate school in general.
- The 5-year BS/MS degree program is also available to co-op students. Their eligibility would be determined by where they are in the co-op schedule. For co-op students, there is a change noted below.
- In Spring, the Department sends an invitation to apply to the 5-year BS/MS degree program to all Junior students with a 3.5 GPA or above.
- Those who are interested, they complete the regular graduate student admissions packet except for the GRE scores. The GRE must be taken before their 5th year, but not before they apply as juniors. **Optional for fall 2023 and spring 2024 admission.**
- These applications are circulated among the BME Department faculty for acceptance recommendations.
- Students are notified of their admission decisions and are assigned an academic advisor. Note that acceptances are provisional and the student will still need to have a final undergraduate GPA of ≥ 3.0 and "acceptable" GRE scores before they are fully admitted to the MS degree program.

3. Program Requirements.

- Students will be given a welcoming letter from the BME Department and a course planning form. They will discuss the form and the course choices with their advisor before choosing Fall semester senior-level courses. The advisor should keep a copy of this form in the student's file, or it can be kept in the department office, if preferred.
- Students must register for graduate credit in these three senior classes: BIEN 5320 and their two BIEN electives. This is done by filling out a "Permission to Enroll in a Graduate Course" form (available online at the Graduate School website,

http://www.marquette.edu/grad/forms_index.shtml). One form has to be filled out for each of the three classes and must be submitted before registration for the respective class. Note: Co-op students do not receive graduate credit for their co-op experience, so they would take BIEN 5320 and one BIEN elective (6 credits total) for graduate credit.

- Students must take their GRE exam and have scores back to MU before the Fall semester of their 5th year. The GRE is now taken via computer, so a variety of dates are available. They can pick up a GRE Registration bulletin from the Graduate School. This bulletin lists the testing facilities, charges, etc. as well as an application to take the test. **Note that GRE is optional for fall 2023 and spring 2024 admission.**
- During the winter break or early in January of their 5th year, students must transfer the 9 graduate credits they took as seniors to their graduate degree program. This is done by filling out a “Master’s Degree Transfer of Credit Request” form from the MU Graduate School. The form cannot be submitted until the student completes one semester of graduate study.
- In the 5th year, students need to register for 7 credits or more to maintain full-time status. These 7 credits include thesis credits. If students are not enrolled in at least 7 credits per semester they must fill out a continuous enrollment form (from the Graduate School website), which will maintain their full-time status.
- A total of 30 credit hours of graduate level courses inclusive of thesis credits, 6xxx level and above, and approved upper division undergraduate courses.
- Students apply for graduation using the normal procedures.

N.B.: Awarding any form of financial aid to 5-year students who have not received their Bachelor’s degree yet is not advisable. It is very important to realize that any financial aid offered to an undergraduate student will likely decrease the student’s financial aid award by the same amount or more, perhaps doing more harm than good. For this reason, all awards should be discussed in detail with the Graduate School early in the funding decision process.

A non-exhaustive list of existing pertinent graduate courses can be found here: <https://mcw.marquette.edu/biomedical-engineering/documents/graduate-courses-2023.pdf>