M.S. IN BIOMEDICAL ENGINEERING

1. The Master of Science degree offers the graduate student an opportunity to obtain advanced training in selected areas of biomedical engineering and to begin independent research.

2. General requirements for the M.S. degree are listed in this Bulletin under Engineering and under Master's Degree-General.

3. Both a 30 credit hour thesis option and a 30 credit hour non-thesis option are available.

4. There is also a 5-year BS/MS option available for qualified undergraduate students enrolled within the Department.

5. The department admits four types of students to its MS program:
   a. Students with BS degrees in Biomedical Engineering or similar engineering fields
   b. Students with BS degrees in Electrical, Computer, Mechanical, Chemical, or similar engineering fields
   c. Students with BS degrees in Physics, Mathematics, Computer Science, Chemistry, Biology or similar fields
   d. Students with MD or similar degrees

6. Students in the last two groups are generally given conditional admission and required to take additional undergraduate courses in engineering, mathematics and science depending on their previous course work as decided by the graduate program director and the designated advisor.

7. There are three paths to earn a Master of Science degree in Biomedical Engineering:
   a. The Thesis Option requires a minimum of 30 credit hours beyond the BS degree. These must include a minimum of 6 thesis credit hours (BME 810) and the completion of at least 6 credit hours of appropriate courses at the 700 level.
   b. The Non-Thesis Option requires a minimum of 30 credit hours beyond the BS degree. These must include at least 3 credit hours for an independent design or research project for which the student enrolls in BME 705. In addition, at least 9 credit hours of appropriate courses at the 700 level must be completed.
   c. The BS/MS Dual degree Program (see separate section below).

8. The student’s overall graduate program is planned by the student, adviser, graduate program director and the thesis committee (for the thesis option).
   a. The thesis committee consists of a minimum of 3 members.
   b. Two members, including the chair of the committee, shall be faculty members from the BME Department (primary or secondary), and one member must be from outside the Department.
   c. Outside members of the thesis committee can include part-time faculty that teach within the Department.
   d. One of the committee members must be a member of the Graduate Faculty.

9. The three courses of the Unified Medical Sciences sequence (BME 601, BME 602 and BME 603) were designed to apprise the engineer of the basic knowledge in the life sciences necessary to work in the broad field of biomedical engineering.

a. MS Students coming from traditional engineering field with no biology/medicine backgrounds are required to complete all of the three Unified Medical Sciences courses.
b. Other MS students are required to take at least two of the three courses unless the student holds a degree in medicine (MD, DO or equivalent) or an advanced degree (or its equivalent) in the life sciences.
c. Each such exception requires the approval of the department's faculty for the course of concern.