BIOMEDICAL ENGINEERING (M.S.)

Program specialization in this master’s degree may be undertaken in these areas:

- injury biomechanics
- bioinstrumentation
- biomedical imaging
- tissue engineering and biomaterials
- systems biology and computational biology
- medicine career

These specializations are available to both part-time and full-time students, in either research or non-research degree programs.

Admission Requirements

Admission to this program is contingent upon admission to the Graduate School (http://bulletins.wayne.edu/graduate/general-information/admission). In addition, the minimum requirements for admission into the M.S. Program in Biomedical Engineering are:

1. Official transcripts from an accredited institution showing completion of an engineering baccalaureate degree. Students with a baccalaureate degree from a non-engineering discipline will be considered for admission to the program if they have the prerequisite coursework in Calculus (1, 2 and Differential Equations) and Physics (1 and 2). Students without subsequent mathematical application coursework (e.g. life science) must have passed these courses with a grade of ‘B’ or better. 2. A Grade Point Average (g.p.a.) of 3.0 or higher on a 4.0 scale will be considered for Regular Admission and g.p.a. between 2.8 and 3.0 will be considered for Qualified Admission.

2. A Grade Point Average (g.p.a.) of 3.0 or higher on a 4.0 scale will be considered for Regular Admission and g.p.a. between 2.8 and 3.0 will be considered for Qualified Admission.

3. Submission of a one-page statement of purpose describing their interest in graduate degree in biomedical engineering.

4. Applicants must also submit Graduate Record Examination (GRE) scores if applying for financial support.

This Master of Science degree in Biomedical Engineering is offered under the following options:

**Plan A:** minimum of thirty-two credits in course work including an eight credit thesis.

**Plan C:** minimum of thirty-four credits in course work.

For either plan, students must complete the following Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BME 5010</td>
<td>Quantitative Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BME 5020</td>
<td>Computer and Mathematical Applications in Biomedical Engineering</td>
<td>4</td>
</tr>
<tr>
<td>BME 8070</td>
<td>Seminar in Biomedical Engineering</td>
<td>1</td>
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</tbody>
</table>

Students with non-engineering backgrounds also need to take BME 5040.

Additional courses will be chosen from the curriculum outlined for each specialization (p. ). Students must take a minimum of six credits at the 7000-level or above if they are enrolled in Plan A, and a minimum of nine credits at the 7000-level or above (with six credits in BME or from the approved course list) if they are enrolled in Plan C.

Directed study and directed research courses (BME 7990 and BME 7996) cannot be counted toward the satisfaction of the 7000-level course requirement. A maximum of four credits in directed study or directed research (BME 5990, BME 7990, and BME 7996) may be applied towards the degree. Thesis credits are earned through satisfactory completion of BME 8999. All course work must be completed in accordance with the regulations of the Graduate School (http://bulletins.wayne.edu/graduate/general-information/academic-regulations) and the College of Engineering (http://bulletins.wayne.edu/graduate/college-engineering/academic-regulations). Courses to be applied to the degree requirements must be completed with a grade of ‘B’ minus or higher.

Students enrolled in the master’s degree program are required to file a Plan of Work with the Graduate Officer of the program by the time eight graduate credits have been earned. Following this, the applicant will petition his/her advisor to advance his/her rank to ‘candidate.’ Candidate status must be authorized by the time twelve graduate credits have been earned, or else subsequent registration will be denied.