**BIOMEDICAL ENGINEERING MS**

**Degree Requirements**

The following requirements are in addition to, or further elaborate upon, those requirements outlined in The Graduate School Policy Guide (https://catalogs.northwestern.edu/tgs/academic-policies-procedures/).

**MS-Only Degree without Thesis**

**Total Units Required: 12**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BMD_ENG 304-0</td>
<td>Quantitative Systems Physiology</td>
</tr>
<tr>
<td>BMD_ENG 353-0</td>
<td>Bioelectronics</td>
</tr>
<tr>
<td>BMD_ENG 306-0</td>
<td>Quantitative Systems Physiology</td>
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</tbody>
</table>

Quantitative science and engineering courses from approved list or by permission (2 units)

Advanced statistics course from approved list or by permission (1 unit)

Other engineering and science courses (4 units)

Restricted Electives (2 units)

**Research Seminar (3 quarters - 0 units):**

BMD_ENG 512-0 Graduate Research Seminar in Biomedical Engineering

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1 Students who have taken similar physiology courses may petition to take advanced life sciences courses as replacements.

2 Courses in the following areas may not count: research for credit (BMD_ENG 499-0 Projects), global health (except BMD_ENG 380-0 Medical Devices, Disease & Global Health), business, design, NUvention (except for 1 quarter of NUvention Medical), seminar, or survey courses.

3 Students may take design, global health, and business classes to fulfill this category. Students taking a basic statistics course may count it towards this category. Students may opt to take additional math/science/engineering courses to fulfill this category as well.

**Other Requirements**

- Signed copy of MS Mentor/Mentee Agreement (https://www.mccormick.northwestern.edu/biomedical/documents/graduate/mentor_mentee-agreement_v2.pdf)
- Examinations: defend master's thesis
- Research/Projects: see master's thesis
- Master's Thesis: required
- Other: 5 out of 9 courses must be engineering. Restricted elective courses do not count as engineering courses.

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**MS-Only Degree with Thesis**

**Total Units Required: 9**

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Quantitative science and engineering courses from approved list or by permission (2 units)

Advanced statistics course from approved list or by permission (1 unit)

Other engineering and sciences courses (2 units)

Restricted Elective (1 unit)

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1 Students who have taken similar physiology courses may petition to take advanced life sciences courses as replacements.

2 Courses in the following areas may not count: research for credit (BMD_ENG 499-0 Projects), global health (except BMD_ENG 380-0 Medical Devices, Disease & Global Health), business, design, NUvention (except for 1 quarter of NUvention Medical), seminar, or survey courses.

3 Students may take design, global health, and business classes to fulfill this category. Students taking a basic statistics course may count it towards this category. Students may opt to take additional math/science/engineering courses to fulfill this category as well.

**Other Requirements**

- Examinations: none specified
- Research/Projects: either (1) approved project (one quarter minimum of BMD_ENG 499-0 Projects) or (2) three courses with significant project components from approved list
- Other: 7 of the 12 courses must be engineering courses. Restricted electives courses do not count as engineering courses.