BIOMEDICAL ENGINEERING: RESEARCH, M.S.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (http://guide.wisc.edu/graduate/#policiesandrequirementstext), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

<table>
<thead>
<tr>
<th>Face to Face</th>
<th>Evening/Weekend</th>
<th>Online</th>
<th>Hybrid</th>
<th>Accelerated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Mode of Instruction Definitions

**Accelerated:** Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

**Evening/Weekend:** Courses meet on the UW–Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

**Face-to-Face:** Courses typically meet during weekdays on the UW-Madison Campus.

**Hybrid:** These programs combine face-to-face and online learning formats. Contact the program for more specific information.

**Online:** These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

CURRICULAR REQUIREMENTS

<table>
<thead>
<tr>
<th>Requirement Detail</th>
<th>Minimum Credit Requirement</th>
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</thead>
<tbody>
<tr>
<td>Minimum Credit Requirement</td>
<td>30 credits</td>
</tr>
<tr>
<td>Minimum Residence Credit Requirement</td>
<td>16 credits</td>
</tr>
<tr>
<td>Minimum Graduate Coursework Requirement</td>
<td>15 credits must be graduate-level coursework. Details can be found in the Graduate School's Minimum Graduate Coursework (50%) policy (<a href="https://policy.wisc.edu/library/UW-1244">https://policy.wisc.edu/library/UW-1244</a>).</td>
</tr>
</tbody>
</table>

Overall GPA Requirement: 3.00 GPA required.
Graduate GPA Requirement: This program follows the Graduate School’s GPA Requirement policy (https://policy.wisc.edu/library/UW-1203/).
Other Grade Requirements: n/a
Assessments and Examinations: There are no degree-specific assessments and examinations outside of those given in individual courses.
Language Requirements: n/a

REQUIRED COURSES

Specific course selection is very flexible and draws upon a variety of courses. The required coursework is designed to complement each student’s interests and background in biomedical engineering.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title (such as B M E 790)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Coursework</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

- Two semesters of B M E 701 Seminar in Biomedical Engineering
- At least 12 credits of College of Engineering courses, numbered 400 or above
- At least 15 credits, numbered 400 or above, in one area of specialization
- At least 3 credits of bioscience from the following list (or other bioscience course with advisor approval):
  - ANAT&PHY 335 Physiology
  - ANAT&PHY 435 Fundamentals of Human Physiology
  - BIOCHEM 501 Introduction to Biochemistry
  - CRB 640 Fundamentals of Stem Cell and Regenerative Biology
  - CRB 650 Molecular and Cellular Organogenesis
  - CRB/B M E 670 Biology of Heart Disease and Regeneration
  - NTP/NEURODPT 610 Cellular and Molecular Neuroscience
  - ZOOLOGY/BIOCHEM/PHMCOL-M 630 Cellular Signal Transduction Mechanisms
  - ZOOLOGY/PSYCH 523 Neurobiology
  - BIOCHEM/GENETICS/MICROBIO 612 Prokaryotic Molecular Biology
  - BIOCHEM/GENETICS/MD GENET 620 Eukaryotic Molecular Biology
  - ONCOLOGY 401 Introduction to Experimental Oncology
  - M M & I/PATH-BIO 528 Immunology
  - PATH 750 Cellular and Molecular Biology/Pathology
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZOOLOGY 625</td>
<td>Development of the Nervous System</td>
<td></td>
</tr>
<tr>
<td>NEUROL/ NTP 735</td>
<td>Neurobiology of Disease</td>
<td></td>
</tr>
<tr>
<td>ZOOLOGY 570</td>
<td>Cell Biology</td>
<td></td>
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</tbody>
</table>

**Total Credits** 30

Areas of specialization are defined by the student and faculty advisor in relation to each student’s research. Please keep written communication (emails are acceptable) of approvals from your faculty advisor.