

# BIOMEDICAL ENGINEERING: RESEARCH, MS

## REQUIREMENTS

### MINIMUM GRADUATE SCHOOL REQUIREMENTS

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

### NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

#### 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

#### Requirement Detail

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	15 credits must be graduate-level coursework. Refer to the Graduate School: Minimum Graduate Coursework (50%) Requirement policy: <a href="https://policy.wisc.edu/library/UW-1244">https://policy.wisc.edu/library/UW-1244</a> ( <a href="https://policy.wisc.edu/library/UW-1244/">https://policy.wisc.edu/library/UW-1244/</a> ).

Overall Graduate GPA Requirement	3.00 GPA required. Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: <a href="https://policy.wisc.edu/library/UW-1203">https://policy.wisc.edu/library/UW-1203</a> ( <a href="https://policy.wisc.edu/library/UW-1203/">https://policy.wisc.edu/library/UW-1203/</a> ).
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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.

Code	Title	Credits
<b>Research (such as B M E 790)</b>		<b>6</b>
<b>Coursework</b>		<b>24</b>
	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 <sup>1</sup>	
	<i>At least 3 credits of bioscience from the following list (or other bioscience course with advisor approval):</i>	
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	
NTP 735	Neurobiology of Disease	
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	
ZOOLOGY 625	Development of the Nervous System	

ZOOLOGY 570 Cell Biology

**Total Credits**

**30**

<sup>1</sup> 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.