Biomedical Engineering

Department Information

- **Program Coordinator:**
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- **Email:**
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- **Department Location:**
  Dolve 111C
- **Department Phone:**
  (701) 231-8839
- **Department Web Site:**
  www.ndsu.edu/coe/bme (http://www.ndsu.edu/coe/bme/)
- **Application Deadline:**
  February 15 for fall semester; September 15 for spring semester. Applications received after the deadline will still be considered, but preference is given to those submitted by the deadline.
- **Credential Offered:**
  Ph.D., M.S., on campus and online
- **English Proficiency Requirements:**
  TOEFL iBT 71, IELTS 6; Duolingo 100

The graduate-level (Master of Science (M.S.) and Doctor of Philosophy (Ph.D.)) programs in Biomedical Engineering (BME) are offered jointly by North Dakota State University's (NDSU) College of Engineering, University of North Dakota's (UND) School of Medicine and Health Sciences, and UND's College of Engineering and Mines.

The BME programs provide opportunities for technically qualified persons to attain specialized knowledge in an area of industry need, and to enhance career opportunities. The objective of the jointly sponsored, interdisciplinary graduate programs is to:

- Meet the needs of regional students interested in biomedical engineering.
- Attract women and under-represented minorities into a developing field.
- Educate and train students through courses and research focused on biomedical research and device development.
- Advance the biomedical knowledge base through collaborative research directed by faculty from UND's School of Medical and Health Sciences, College of Engineering and Mines, and NDSU's College of Engineering and other qualified researchers from the two universities.
- Through biomedical research and device development, develop intellectual property to generate company spin-offs, attract new companies, and subsequent economic development.

For more information: ndsu.edu/coe/bme/ (https://www.ndsu.edu/coe/future_students/biomedical_engineering/)

Ph.D.:

a) Bachelor of Science degree from an ABET accredited engineering program

b) Students holding a B.S. degree in other disciplines may be admitted to Qualified Status with an obligation to acquire the necessary background undergraduate engineering knowledge. The exact requirements will be determined on a case-by-case basis

c) Graduate Record Examination General Test for applicants from non-ABET accredited programs

d) Minimum GPA is 3.0 (4.0 scale) is required. Conditional admittance may be obtained for GPA less than 3.0.

M.S.:

a) Bachelor of Science degree from an ABET accredited engineering program.

b) Students holding a B.S. degree in other disciplines may be admitted to Qualified Status with an obligation to acquire the necessary background undergraduate engineering knowledge. The exact requirements will be determined on a case-by-case basis.

c) Graduate Record Examination General Test for applicants from non-ABET accredited programs.

d) Minimum GPA is 3.0 (4.0 scale) is required. Conditional admittance may be obtained for GPA less than 3.0.

Financial Assistance

Research and/or teaching assistantships may be available to qualified students. Applicants are considered based on scholarship, potential to undertake advanced study and research, and financial need. The availability of research and teaching assistantships is contingent upon current funding levels. Applicants should communicate with potential faculty advisors for funding opportunities.

For more information: ndsu.edu/coe/bme/ (http://engineering.und.edu/bme/)

Code	Title	Credits
M.S. - Plan A Master's Paper Option		**30 credits**
Anatomy & Physiology		3-6
BIOL 660	Animal Physiology (or EE 590 Advanced Electrical Engineering Problems - UND)	
BRG Related Courses		6-9
Graduate Preparation (e.g. Grant Writing)		3
BME 794	(Practicum (industrial, clinical, or research lab))	1-3
BME 790	Graduate Seminar (One credit per semester.)	3
Electives (approved by advisor)		9 (max) for thesis option
BME 798	Master's Thesis	9

Code	Title	Credits
M.S. - Plan B Master's Paper Option		**30 credits**
Anatomy & Physiology		3-6
BIOL 660	Animal Physiology (or EE 590 Advanced Electrical Engineering Problems - UND)	
BRG Related Courses		6-9
Graduate Preparation (e.g. Grant Writing)		3
BME 794	(Practicum (industrial, clinical, or research lab))	1-3
BME 790	Graduate Seminar (One credit per semester.)	3
Electives (approved by advisor)		15 (max) for paper option
BME 797	Master's Paper	2-4

Code	Title	Credits
Ph.D. (90 credits)		
Anatomy & Physiology		3-6
BIOL 660	Animal Physiology	3
BME 790	Graduate Seminar (One credit per semester)	3-6
or UND-ENGR 562 Seminar (1 credit), or UND-EE 570 Seminar (1 credit)		
BRG Related Courses		12-15
BME 899	Doctoral Dissertation	6-30
Graduate Preparation (e.g. Grant Writing; College Teaching Certificate)		3-6
Internship (industrial, clinical, or research lab):		3-6
Electives (approved by adviser)		36 (max)

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