BIOMEDICAL ENGINEERING

The biomedical engineering minor provides NDSU students opportunities in one of today's most in-demand fields. The program builds on the strength of current faculty in the areas of biomedical engineering and biomechanics, allowing graduates to be ready to contribute to the global demand for medical technologies and innovations. It is open to students in a variety of engineering and science disciplines. The biomedical engineering minor also prepares students for further specialization through a graduate program in the field. Biomedical industry employers have encouraged the addition of a biomedical engineering minor at NDSU.

The Program

The biomedical engineering minor is an interdisciplinary minor consisting of at least 21 credits in both fundamental sciences and applied engineering. At least 12 credits must be in addition to the credits applied to the student's major. The minor includes required core science courses and elective courses in three areas related to biomedical applications—chemistry, biology, and engineering.

The Purpose

The purpose of the minor is to meet the needs of undergraduate students interested in pursuing rewarding careers or a graduate degree in the biomedical engineering field. Coursework and research opportunities apply to biomedical device development concerning a wide spectrum of biomedical topics.

For Further Information

MAILING ADDRESS
Mechanical Engineering Attn: BME
NDSU Dept 2490
PO Box 6050
Fargo, ND 58108-6050

DEPT PHONE
(701) 231-8839

DEPT WEBSITE
www.ndsu.edu/coe//future_students/biomedical_engineering/bme_minor/

Biomedical Engineering Minor Requirements

Required Courses (10 credits)	Credits
BIOL 150 General Biology I	3
BIOL 150L General Biology I Lab	1
CHEM 121 General Chemistry I	3
BIOL 370 Cell Biology or BIOL 460 Animal Physiology	3
Electives (11 credits)	**Credits**
BIOC 461 Foundations of Biochemistry and Molecular Biology II	3
BIOL 220 Human Anatomy and Physiology I	3
BIOL 220L Human Anatomy and Physiology I Lab	1
BIOL 221 Human Anatomy and Physiology II	3
BIOL 221L Human Anatomy Physiology II Lab	1
BIOL 370 Cell Biology (if not used in the core)	3
BIOL 460 Animal Physiology (if not used in the core)	3
CE/ME 486 Nanotechnology and Nanomaterials	3
ECE 483 Instrumentation for Engineers	3
ECE 485 Biomedical Engineering	3
ECE 487 Cardiovascular Engineering I	3
ECE 488 Cardiovascular Engineering II	3
IME 411 Human Factors Engineering	3
IME 453 Hospital Management Engineering	3
ME 331 Materials Science and Engineering	4
ME 468 Introduction to Biomechanics	3
ME 480 Biofluid Mechanics	3
MICR 445 Animal Cell Culture Techniques	2
Undergraduate Research: ENGR (BME) 193, 293, 393,493, 194, 294, 394 or 494	1-9
Total Credits	**21**

MINOR REQUIREMENTS AND NOTES

- A minimum of 8 credits must be taken at NDSU.
- Course prerequisites do not count for the minor.
- At least 12 credits that apply to this minor must be unique from courses used to meet requirements for the student's major.

View NDSU equivalencies of transfer courses at: www.ndsu.edu/transfer/equivalencies