# Biomedical Engineering

## Department Information

- **Department Phone:** 701-231-8839
- **Department Web Site:** [www.ndsu.edu/coe/bme](http://www.ndsu.edu/coe/bme/)
- **Credential Offered:** Minor
- **Program Overview:** [bulletin.ndsu.edu/programs-study/undergraduate/biomedical-engineering/](http://bulletin.ndsu.edu/programs-study/undergraduate/biomedical-engineering/)

## Minor Requirements

### Minor: Biomedical Engineering

**Required Credits:** 21

### Minor Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150 &amp; 150L</td>
<td>General Biology I and General Biology I Laboratory</td>
<td>4</td>
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<tr>
<td>BIOL 151</td>
<td>General Biology II</td>
<td>3</td>
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<tr>
<td>BIOL 370 or BIOL 460</td>
<td>Cell Biology or Animal Physiology</td>
<td>3</td>
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**Elective Requirements (at least 9 of the 11 credits must be courses with an engineering prefix):**

- BIOC 461: Foundations of Biochemistry and Molecular Biology II
- BIOL 220: Human Anatomy and Physiology I
- BIOL 220L: Human Anatomy and Physiology I Laboratory
- BIOL 221: Human Anatomy and Physiology II
- BIOL 221L: Human Anatomy and Physiology II Laboratory
- BIOL 370: Cell Biology (if not used in the core)
- BIOL 460: Animal Physiology (if not used in the core)
- CE 486: Nanotechnology and Nanomaterials
- ECE 483: Instrumentation for Engineers
- ECE 485: Biomedical Engineering
- ECE 487: Cardiovascular Engineering
- ECE 488: Cardiovascular Engineering II
- IME 411: Human Factors Engineering
- IME 453: Hospital Management Engineering
- ME 331: Materials Science and Engineering
- ME 468: Introduction to Biomechanics
- ME 480: Biofluid Mechanics
- ME 486: Nanotechnology and Nanomaterials
- MICR 445: Animal Cell Culture Techniques

**Undergraduate Research:** ENGR 193, 293, 393, 493, 194, 294, 394 or 494

**Total Credits:** 21
Minor Requirements and Notes

• A minimum of 8 credits must be taken at NDSU.
• Course pre-requisites apply.
• At least 12 credits that apply to this minor must be unique from courses that apply to the student’s major.