Biomedical Engineering

Biomedical engineering is highly relevant to the 21st century research and education needs of the citizens of North Dakota and providing opportunity to students in one of the highest demand fields today. The current high quality education received by engineering students at NDSU will be augmented with the biomedical engineering minor allowing graduates to more readily be able to contribute to the global demand for medical technologies and innovations. Employers are supportive and encouraging the addition of biomedical minor at NDSU.

Minor Requirements

Biomedical Engineering Minor

Required Credits: 21

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 150</td>
<td>General Biology I and General Biology I Laboratory</td>
<td>4</td>
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<tr>
<td>CHEM 121</td>
<td>General Chemistry I</td>
<td>3</td>
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<tr>
<td>ZOO 370</td>
<td>Cell Biology</td>
<td>3</td>
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<tr>
<td>or ZOO 460</td>
<td>Animal Physiology</td>
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Electives

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>CE 486</td>
<td>Nanotechnology and Nanomaterials</td>
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<tr>
<td>ECE 483</td>
<td>Instrumentation for Engineers</td>
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<tr>
<td>ECE 485</td>
<td>Biomedical Engineering</td>
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<tr>
<td>ECE 487</td>
<td>Cardiovascular Engineering</td>
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<td>ECE 488</td>
<td>Cardiovascular Engineering II</td>
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<td>IME 411</td>
<td>Human Factors Engineering</td>
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<td>IME 453</td>
<td>Hospital Management Engineering</td>
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<tr>
<td>ME 331</td>
<td>Materials Science and Engineering</td>
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<tr>
<td>ME 468</td>
<td>Introduction to Biomechanics</td>
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<td>ME 480</td>
<td>Biofluid Mechanics</td>
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<tr>
<td>ME 486</td>
<td>Nanotechnology and Nanomaterials</td>
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<td>MICR 445</td>
<td>Animal Cell Culture Techniques</td>
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<td>ZOO 460</td>
<td>Animal Physiology</td>
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<tr>
<td>Undergraduate Research: ENGR 193, 293, 393, or 494</td>
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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.