### BACHELOR OF SCIENCE DEGREE IN BIOMEDICAL ENGINEERING

**BMEN**

**Pre-Med, Biotechnology Track**

**Recommended Course of Study**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td><strong>Freshman Year</strong></td>
<td><strong>Spring</strong></td>
</tr>
<tr>
<td>CHEM 1410 General Chemistry</td>
<td>3 PHYS 1710 Mechanics</td>
</tr>
<tr>
<td>CHEM 1430 General Chemistry Laboratory</td>
<td>3 PHYS 1730 Laboratory in Mechanics</td>
</tr>
<tr>
<td>ENGL 1310 College Writing I</td>
<td>4 CSCE 1030 Computer Science I</td>
</tr>
<tr>
<td>BMEN 1300 Discover BMEN</td>
<td>3 TECM 2700 Technical Writing</td>
</tr>
<tr>
<td>MATH 1710 Calculus I</td>
<td>4 MATH 1720 Calculus II</td>
</tr>
<tr>
<td>PSCI 1040 American Government</td>
<td>3 PSCI 1050 American Government</td>
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<tr>
<td><strong>Total Hours 17</strong></td>
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### Sophomore Year

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<th>Fall</th>
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<tbody>
<tr>
<td>BIOL 1710 Principles of Biology I</td>
<td>3 BMEN 2320 Biomedical Instrumentation I</td>
</tr>
<tr>
<td>MATH 2730 Multivariate calculus</td>
<td>3 MATH 2700 Linear Algebra</td>
</tr>
<tr>
<td>EENG 2610 Circuit Analysis</td>
<td>3 BIOL 1720 Biology II</td>
</tr>
<tr>
<td>PHYS 2220 Electricity &amp; Magnetism</td>
<td>3 EENG 2710 Digital Logic</td>
</tr>
<tr>
<td>PHYS 2240 Lab in WM, Elec, Mag &amp; Optics</td>
<td>1</td>
</tr>
<tr>
<td>BMEN 2210 Biomed DAQ Practices</td>
<td>2</td>
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<tr>
<td><strong>Total Hours 15</strong></td>
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### Junior Year

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<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>MATH 3410 Differential Equations</td>
<td>3 BMEN 3312 Introduction to Biomechanics</td>
</tr>
<tr>
<td>BMEN 3311 Biomedical Signal Analysis</td>
<td>3 MATH3680 Statistics and Probability</td>
</tr>
<tr>
<td>BMEN3310 Human Systems</td>
<td>3 BMEN 3321 Biomaterials</td>
</tr>
<tr>
<td>XXXX Language Philosphy and Culture</td>
<td>3 HIST 2610 History I</td>
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<tr>
<td>BIOC 3621 Elementary Biochemistry</td>
<td>3 BIOL 3451 Genetics</td>
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<tr>
<td></td>
<td>BIOL 3452 Genetics Lab</td>
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<tr>
<td><strong>Total Hours 15</strong></td>
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### Senior Year

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<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>BMEN 4310 Biomedical Modeling</td>
<td>3 HIST 2620 History II</td>
</tr>
<tr>
<td>BIOL 4770 Biotechnology</td>
<td>3 BMEN 4321 Advanced Topic in BMEN</td>
</tr>
<tr>
<td>BMEN 4212 Senior Design I</td>
<td>1 BMEN 4222 Senior Design II</td>
</tr>
<tr>
<td>BMEN 4311 Advanced Topic in BMEN</td>
<td>3 XXXX Visual and Performing Arts</td>
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<tr>
<td>XXXX Social and Behavioral Sciences</td>
<td>3 BIOL 4580 Molecular Biology &amp; Biotechnology Laboratory</td>
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<td><strong>Total Hours 13</strong></td>
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**Additional Pre-Med Requirements:**

1) CHEM 1420 & CHEM 1440 lab to be taken concurrently with BIOL 2041/2042  
2) Organic Chemistry [CHEM 2370 & CHEM 3210; CHEM 2380 & CHEM 3220]  
3) BIOL 1760 - Biology Lab

Total Hours 14