# BME UNDERGRADUATE CURRICULUM

## Medical Devices

### FRESHMAN

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Winter</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Winter</strong></td>
<td><strong>Spring</strong></td>
<td></td>
</tr>
<tr>
<td>MAT 21A Calculus</td>
<td>4</td>
<td>MAT 21B Calculus</td>
<td>4</td>
</tr>
<tr>
<td>CHE 2A General Chemistry</td>
<td>5</td>
<td>CHE 2B General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>BIM 1 Intro to BME</td>
<td>2</td>
<td>BIS 2A Intro to Biology</td>
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<tr>
<td>Lower Division Composition</td>
<td>4</td>
<td>GE elective</td>
<td>GE elective</td>
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### SOPHOMORE

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<thead>
<tr>
<th></th>
<th>Fall</th>
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<tbody>
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<td><strong>Fall</strong></td>
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<tr>
<td>MAT 21D Vector Analysis</td>
<td>4</td>
<td>MAT 22A Linear Algebra</td>
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<tr>
<td>CHE 8A Organic Chemistry</td>
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<td>CHE 8B Organic Chemistry</td>
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<tr>
<td>PHY 9B Classical Physics</td>
<td>5</td>
<td>PHY 9C Classical Physics</td>
<td>5</td>
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<tr>
<td>ENG 6 MATLAB</td>
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<td>EE: ENG 35 Statics</td>
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### JUNIOR

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<td><strong>Fall</strong></td>
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<tr>
<td>BIM 105 Probability and Stats for BME</td>
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<td>BIM 106 Biotransport</td>
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<td>BIM 116 Physiology</td>
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<td>ENG 100 Circuits II</td>
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<tr>
<td>SE: ECS 32A</td>
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<td>SE: ECS 32B</td>
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<tr>
<td>Upper Division Composition Course=4 units, Exam=0 units</td>
<td>4/0</td>
<td>EE: BIM 170 Aspects of Medical Device Design &amp; Manufacturing BIM 107 Mfg for BME*</td>
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### SENIOR

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<tr>
<td>BIM 110L BME Senior Design Lab</td>
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<td>BIM 110A BME Senior Design</td>
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<tr>
<td>BIM 111 Biomedical Instrumentation Lab</td>
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<td>EE: BIM 120 Intro to Materials Science for BME</td>
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<tr>
<td>EE: BIM 171 Clinical Applications for Biomedical Device Design</td>
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<td>EE: BIM 189C Intro to Rapid Prototyping</td>
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<tr>
<td>ENG 105 Thermodynamics</td>
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<td>ENG 190 Professional Responsibility Engineers</td>
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*2021-22 Degree requirements will require BIM 20L and BIM 107*

Other courses: EE - BIM Skills Modules – 172 Neuroengineering, 174 Microcontrollers, 189C/175 Metalworking, 176 Microfluidics, ENG 102 Dynamics. BIM 189 Biomedical/Pharmaceutical Polymers

September 2020