## GENERAL CURRICULUM IN BIOMEDICAL ENGINEERING

This is the default curriculum required for students who do not declare a concentration.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 207</td>
<td>Mechanics of Materials II ¹</td>
<td>2-3</td>
</tr>
<tr>
<td>or EE 321</td>
<td>Electronics</td>
<td></td>
</tr>
<tr>
<td>ME 228</td>
<td>Engineering Design Communication</td>
<td>2</td>
</tr>
</tbody>
</table>

### Approved Technical Electives 12

- BMED 355: Electrical Engineering Concepts for Biomedical Engineering
- BMED 422: Medical Device Evaluation and the FDA Approval Process
- BMED 432: Micro/Nano System Design
- BMED 434/ MATE 430: Micro/Nano Fabrication
- BMED 435: Microfabrication Laboratory
- BMED 436: Characterization of Micro/Nano Scale Structures
- BMED 445: Biopotential Instrumentation
- BMED 459: Senior Thesis
- BMED 510: Principles of Tissue Engineering
- BMED 515: Introduction to Biomedical Imaging
- BMED 525: Skeletal Tissue Mechanics
- BMED/MATE 530: Biomaterials
- BMED 535: Bioseparations and Clinical Diagnostics
- BMED 550: Current and Evolving Topics in Biomedical Engineering
- IME 420: Simulation
- IME 430: Quality Engineering
- IME 435: Reliability for Design and Testing
- IME 527: Design of Experiments
- MATE 380: Thermodynamics and Physical Chemistry
- MATE 401: Materials Characterization Techniques
- MATE 410: Nanoscale Engineering
- MATE 425: Corrosion Engineering
- MATE/CHEM 446: Surface Chemistry of Materials
- ME 305: Introduction to Mechatronics
- ME 326: Intermediate Dynamics
- ME 403: Access by Design: Introduction to Rehabilitation Engineering

### Approved Support Electives 12

- BUS 310: Introduction to Entrepreneurship
- CHEM 216: Organic Chemistry I
- CHEM 217: Organic Chemistry II
- CHEM 220: Organic Chemistry Laboratory
- CHEM 218: Organic Chemistry III
- CHEM 223: Organic Chemistry Laboratory for Life Sciences III
- CHEM 312: Organic Chemistry: Fundamentals and Applications
- CHEM 314: Biochemistry: Fundamentals and Applications
- IME 327: Test Design and Analysis in Manufacturing Engineering
- MATE 215: Materials Laboratory I
- MATE 222: Materials Selection Life Cycle
- MATH 344: Linear Analysis II
- MCRO 224: General Microbiology I

**Total units:** 28-29

¹ For students following the General Curriculum or Mechanical Design Concentration in BS Biomedical Engineering, CE 208 (5) may substitute for both CE 204 (3) and CE 207 (2).