Biomedical Engineering, BS degree, typical course sequence  
*(Total Semester Units: 129)*

**First Year**

Year One
- Intro to Biomedical Engineering (BIME-181)
- Intro to Programming for BME (BIME-182)
- General Chemistry I & II and labs (CHMG-141/145/142/146)
- University Physics I with Lab (PHYS-211)
- Calculus I & II (MATH-181/182)
- Writing Seminar
- Arts & Science Perspective
- Gen Ed Elective
- Wellness Education

**Second Year**

- Intro to Musculoskeletal Biomechanics (BIME-200)
- Biosystems Process Analysis (BIME-250)
- Intro to Biomaterials Science (BIME-370)
- Fluid Mechanics (BIME-320)
- Biomechanics & Biomaterials Lab (BIME-391)
- Cell & Molecular Biology for Engineers I, II (BIOM-140/141)
- Differential Equations (MATH-231)
- Multiple Variable & Vector Calculus (MATH-221)
- University Physics II with Lab (PHYS-212)
- Co-op Prep Seminar
- Art & Science Perspective
- Co-op - Summer (optional)

**Third Year**

- Co-op - Fall
- Systems Physiology I (BIME-410)
- Biomedical Signals & Analysis (BIME-440)
- Biocompatibility & the Immune System (BIOM-142)
- Probability & Statistics for Engineers I (STAT-251)
- Arts & Science Perspective (2 courses)
- Co-op—Summer

**Fourth Year**

- System Physiology II (BIME-411)
- Numerical and Statistical Analysis of Complex Biosystems (BIME-450)
- Quantitative Physiological Signal Analysis Lab (BIME-491)
- Biomedical Device Engineering (MECE-407)
- Design of Experiments for Biomedical Engineers (ISEE-325)
- Arts & Sciences Immersion (1 course)
- Co-op-Spring
- Co-op—Summer

**Fifth Year**

- Multidisciplinary Design I & II (BIME-497/498)
- Dynamics and Control of Biomedical Systems (BIME-460)
- Systems Physiology Control & Dynamics Lab (BIME-492)
- Professional Technical Electives (2 courses)
- Arts & Sciences Immersion (2 courses)
- Free Electives (2 courses)
- Wellness Education

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<p>| Distribution of classes and co-ops for a BS in Biomedical Engineering |
|-----------------------------|-----------------|-----------------|------------------|</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
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