

**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

Distribution of classes and co-ops for a BS in Biomedical Engineering			
Year	Fall	Spring	Summer
1	Classes	Classes	Vacation
2	Classes	Classes	Co-op (optional)
3	Co-op	Classes	Co-op
4	Classes	Co-op	Co-op
5	Classes	Classes	