BS in Biomedical Engineering Technical Electives

In addition to the required courses, BME students can design their upper-division curriculum to match their interests. Students select a minimum of 9 units of BME technical electives and up to 12 units of general technical electives from the following courses.

BME Technical Electives

- BME 302: Applications of Numerical Methods in Biomedical Engineering
- BME 416: Biomedical Imaging
- BME 417: Measurement & Data Analysis
- BME 420: Biophotonics
- BME 461: Biologic & Synthetic Materials
- BME 466: Biomechanical Engineering
- BME 477: Introduction Biomedical Informatics
- BME 481A: Innovation, Translation and Entrepreneurship
- BME 481B: Cell and Tissue Engineering
- BME 483: Micro Biomechanics
- BME 485: Nanoscience and Nanotechnology for Biomedical Engineers
- BME 486: Biomaterial-Tissue Interactions
- BME 492: Directed Research

General Technical Electives

- All BME technical electives
- BME 493B: Clinical and Translational Research Experience
- BME 499: Independent Study
- AME 324A: Mechanical Behavior of Engineering Materials
- AME/ABE 489A: Fabrication Techniques for Micro and Nano Technology
- BE 487: Bioinformatics
- BIOC 385: Metabolic Chemistry
- CHEM 241A & 243B: Organic Chemistry 1
- CHEM 241B & 243B: Organic Chemistry 2
- ECE 330B: Computational Techniques
- ECE 381A: Introductory Electromagnetics
- ECE 429: Digital Signal Processing
- ECE 459: Fundamental Optics for Electrical Engineers
- ECOL 346: Bioinformatics
- ESOC: 414 Computational Social Sciences
- ISTA 422: Applied Cyberinfrastructure Concepts
- LIS 471: Introduction to Information Technology
- MSE 331R: Fundamentals of Materials for Manufacturing

Most upper-division engineering courses qualify but require approval by the academic adviser.

Many non-engineering courses qualify also but require approval by Undergraduate Studies Committee.