BIOMEDICAL ENGINEERING, MINOR

College of Engineering

The minor in Biomedical Engineering is restricted to enrolled College of Engineering students. The intent is to build upon the existing core strengths in other engineering majors by adding expertise in biomedical applications. This additional training makes students more attractive to employers in the medical device industry, and positions students for graduate training in health related applications of engineering.

The minor requires two life sciences courses not typically required for engineering students, one at the cellular level (BIM 102) and the other at the physiological level (NPB 101 or BIM 116). The remaining 12 units are to be selected in consultation with an advisor from this list of upper division Biomedical Engineering courses. Students will be advised to select courses that complement their existing curricula.

Minor Advisors

Andrew Cones, Marquis Aaron, Dr. Jennifer Choi

Successful completion of the minor requires the following:

- Completing 21 units of minor coursework; all courses must be taken for a letter grade.
- Minimum overall GPA of 2.000 and no grade lower than a C- for coursework completed in the minor.
- No more than one course can be counted towards both the student's major and the minor.

Code	Title	Units
Required Courses		
NPB 101	Systemic Physiology	5
or BIM 116	Quantitative Physiology	
BIM 102	Cellular Dynamics	4
Elective Courses		
Choose 12 units from upper division BIM courses, in consultation with the academic advisor.		12
BIM 140	Protein Engineering	
BIM 141	Cell & Tissue Mechanics	
BIM 142	Principles & Practices of Biomedical Imaging	
BIM 143	Biomolecular Systems Engineering: Synthetic Biology	
BIM 143L	Synthetic Biology Laboratory	
BIM 144	Principles of Biophotonics	
BIM 152	Molecular Control of Biosystems	
BIM 154	Computational Genomics	
BIM 161A	Biomolecular Engineering	
BIM 162	Introduction to the Biophysics of Molecules & Cells	
BIM 163	Bioelectricity, Biomechanics, & Signaling Systems	
BIM 171	Clinical Applications for Biomedical Device Design	
BIM 172	Introduction to Neuroengineering Lab	
BIM 173	Cell & Tissue Engineering	
BIM 189A	Topics in Biomedical Engineering: Cellular & Molecular Engineering	
BIM 189B	Topics in Biomedical Engineering: Biomedical Imaging	
BIM 189C	Topics in Biomedical Engineering: Biomedical Engineering	
Total Units		**21**