

**UC Davis Minor in Biomedical Engineering (EBIM)**  
**Offered by the Department of Biomedical Engineering**  
**2303 Genome & Biomedical Sciences Facility (GBSF) ♦ (530) 752-0801**

The minor in BME is restricted to enrolled College of Engineering students. The intent is to build upon their existing core strengths and add expertise in biomedical applications. This additional training would make students more attractive to employers in the medical device industry, and would also position 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 (BIM102) and the other at the physiological level (NPB101 or BIM116). The remaining 12 units are to be selected in consultation with an advisor from the list of upper division BIM courses. Students will be advised to select additional courses to complement their existing curricula. Examples of relevant coursework for different majors are provided as a reference. These listings classify the upper division BIM courses into categories and provide a suggested subset of coursework for the majors most likely to have students interested in health-related applications.

Successful completion of the minor requires the following:

1. Completing 21 units of minor coursework. All courses must be taken for a letter grade.
2. Minimum overall GPA of 2.000 and no grade lower than a C- for coursework completed in the minor.
3. **No more than 1 course can be counted towards both the student's major and the minor.**

Successful completion of the minor will result in the transcript notation-“Minor: Biomedical Engineering”

**Required Courses (9 units)**

NPB 101 or BIM 116 Physiology	5
BIM 102 Cellular Dynamics	4

**Elective Courses (12 units)**

Choose any 12 units from upper division BIM courses, in consultation with the academic advisor, Rosalind Christian ([rchristian@ucdavis.edu](mailto:rchristian@ucdavis.edu)).

Electives			EE	CS	ME	ChE/MS
BIM 117	4	Analysis of Molecular and Cellular Networks		X		
BIM 141	4	Cell and Tissue Mechanics			X	X
BIM 142	4	Principles and Practices of Biomedical Imaging	X	X		
BIM 143 <sup>a</sup>	4	Biomolecular Systems Engineering: Synthetic Biology	X			X
BIM 143L <sup>a</sup>	2	Synthetic Biology Lab	X			X
BIM 144	4	Fundamentals of Biophotonics and Bioimaging	X	X		
BIM 152	4	Molecular Control of Biosystems	X	X		
BIM 161A <sup>a</sup>	4	Biomolecular Engineering				X
BIM 162	4	Introduction to the Biophysics of Molecules and Cells			X	X
BIM 163	4	Bioelectricity, Biomechanics, and Signaling Systems	X		X	X
BIM 167	4	Biomedical Fluid Mechanics			X	X
BIM 171	4	Clinical Applications for Biomedical Device Design	X		X	
BIM 173	4	Cell and Tissue Engineering				X
BIM 189A	4	Immuno-engineering				X
BIM 189C	4	Intro to Design and Analysis of Experiments for BME				
BIM 189C	4	Computational Genomics		X		
BIM 189C	2	Microfluidic Lab	X		X	
BIM 189C	4	Introduction to Materials Science for BME				X
BIM 189C	4	Computational tools in Bioengineering & Biomedicine		X		

*These courses are offered only once per year, unless labeled otherwise: <sup>a</sup> alternate years*