

**UNIVERSITY OF CALIFORNIA, DAVIS**  
*Bachelor of Science in Biomedical Engineering*  
 2022-2023 Undergraduate Curriculum

**Lower Division Program**

Subject Areas	Courses	Minimum Units
BIS 2A	Introduction to Biology	5
CHE 2A, 2B, 2C	General Chemistry	15
CHE 8A or 118A; CHE 8B or 118B	Organic Chemistry	6
MAT 21A, 21B, 21C, 21D	Calculus	16
MAT 22A or 27A	Linear Algebra	3
MAT 22B or 27B	Differential Equations	3
PHY 9A or 9HA; 9B, 9C	Classical Physics	15
ENG 6	Engineering Problem Solving	4
ENG 17	Circuits I	4
BIM 1	Introduction to Biomedical Engineering	2
BIM 20	Fundamentals of Bioengineering	4
BIM 20L	Graphics Design BME	2
One course from the following: UWP 1, 1Y, ENL 3, Comp Lit 1, 2, 3, 4, NAS 5 (grade of C- or better required)	Lower Division Composition	4

**Upper Division Program**

Subject Areas	Courses	Minimum Units
NPB 101 or BIM 116	Physiology	5
ENG 100 or EEC 100	Circuits	3
ENG 105	Thermodynamics	4
ENG 190	Professional Responsibilities of Engineers	3
BIM 105	Probability & Data Science for Biomedical Engineers	4
BIM 106	Biotransport Phenomena	4
BIM 107	Manufacturing Processes for BME	2
BIM 108	Biomedical Signals and Control	4
BIM 109	Biomaterials	4
BIM 110ABC	BME Senior Design Experience	9
BIM 111	Biomedical Instrumentation Laboratory	6
Science Electives	According to Specialization	7
Engineering Electives	According to Specialization	20
One course from the following: UWP 101, 101Y, 102B, 102E, 104A, 104AY, 104E, 104F, 104FY, 104I, 104T (grade of C- or better required); <b>or</b> passing the Upper Division Composition Exam offered by the College of Letters and Science	Upper Division Composition or exam	4/0

**Minimum Total Units for Major: 158**

***General Education Electives: 29***

**MINIMUM TOTAL UNITS FOR B.S. IN BIOMEDICAL ENGINEERING: 187**

**Additional elective policies:**

- 1 unit from MAT 27A/BIS 27A, and 1 unit from MAT 27B/BIS 27B may be applied to Science Electives.
- 2 units from CHE118A may be applied towards Science electives if CHE 118A is also used to satisfy lower division subject credit.
- 2 units from EEC 100 may be applied towards Engineering electives if EEC 100 is taken to satisfy upper division subject credit.
- Science and Engineering electives are to be selected in consultation with a staff or faculty advisor.