INTRODUCTION TO THE MAJOR

Bioengineering is the application of engineering principles to biological systems. Students in the Bioengineering Major study math, physics, chemistry, and biology, in addition to computer sciences, electrical and mechanical engineering, and/or materials sciences. They bring these skills together in bioengineering courses where they learn to analyze, understand, repair, and alter biological materials and systems.

Collaboration and interdisciplinary perspectives are key skills we encourage in all of our students, and we prize cooperation over competition whenever possible. BioE graduates pursue successful careers in industry, further study in medical school, and/or graduate studies in bioengineering and related disciplines at top universities.

THE FUTURE OF BIOLOGY. THE FUTURE OF ENGINEERING.

Our curriculum provides a strong foundation in engineering and the biological sciences, with the freedom to explore a variety of topics and specialize in advanced areas of research. All students take bioengineering fundamentals courses in areas such as biomechanics, instrumentation, and computational biology, and choose from a growing list of bioengineering topics for specialized advanced coursework. In addition, students will take BioE laboratory courses and complete a design or research project under faculty supervision.

Students can pursue a concentration in Biomedical Devices; Biomedical Imaging; Cell & Tissue Engineering; or Synthetic & Computational Biology.

AMPLIFY YOUR MAJOR

- Engage in undergraduate research on a faculty-initiated project or your own research topic.
- Get teaching experience as an Undergraduate Student Instructor or DeCal facilitator.
- Berkeley offers a wealth of opportunities, from supplemental classes like Bioprinting @ Berkeley to the Summer Biodesign Immersion Experience, and the Fung Fellowship in wellness and technology.

How to Use This Map

Use this map to help plan and guide your experience at UC Berkeley, including academic, co-curricular, and discovery opportunities. Everyone's Berkeley experience is different and activities in this map are suggestions. Always consult with your advisors whenever possible for new opportunities and updates.

Bioengineering faculty care about my learning and success both as a student and as a future professional.

– BioEngineering student

This document is part of the Spring 2019 Major Maps Pilot. For the latest version, visit vcue.berkeley.edu/majormaps.