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 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.
**FIRST YEAR**

- Review the Bioengineering concentrations and general degree requirements.
- Look for classes that spark your interest (such as Freshman Seminars).
- Choose your concentration.
- Attend the BioE Town Hall.

**SECOND YEAR**

- Finish lower division courses.
- Talk with adviser(s) and use the multi-year teaching plan to plan your prerequisites and courses.
- Considering a minor or summer minor? Sketch out how it'll fit into your 4-year plan.
- Attend the BioE Town Hall.

**THIRD YEAR**

- Choose classes from your concentration that will build the career skills you need.
- Check in with a major adviser on degree progress.
- Plan time for non-major courses on your bucket list.
- Attend the BioE Town Hall.

**FOURTH YEAR**

- Meet with your major and college adviser to ensure you are fulfilling all major, college, and campus requirements.
- Take the Bioengineering Capstone Design course if you haven't fulfilled your Design Requirement.
- Attend the BioE Town Hall.

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**Connect and build community**

- Meet other bioengineers at events and student groups like BioEHS and BMES.
- Go to office hours and study groups (SLC, ESS).
- Seek mentorship from upper division students.
- **Get help if you need it** and respect your limits.

**Discover your passions**

- Find opportunities in BioE Announcements.
- Go to the BioE weekly announcements to get inspired.
- Read about faculty research in Bioengineering, but don't worry about joining a lab your first year.

**Engage locally and globally**

- Interested in studying abroad later? Check out the requirements now.
- Explore volunteering opportunities on campus.
- Apply for study abroad.
- Prime time for volunteering in the community - check out PIE, BEAM, BioEHS.
- Apply to NSF Research Experience for Undergraduates (REU) and internship programs.

**Explore**

- Attend BioTech Career Connections and BioTech Connect to learn about industry careers.
- Check out career paths through the Bioengineering Connections Networking Series.
- This is a great time for an off-campus internship!
- Visit another university for an REU.

**WHAT CAN I DO WITH MY MAJOR?**

**Jobs and Employers**

- Clinical Research Coordinator, UCSF
- Eng. Tech., Verily Life Sciences
- Jr. Officer Specialist, UC Berkeley
- Optometric Asst., Golden Gate Opt.
- Process Engineer, Illumina
- Research Asst., Innovative Genomics Research Fellow, ETH Zurich
- Scientific Lab Asst., Adv. Clinical Software Developer, IBM
- Software Engineer, Capital One
- Software Engineer, Google
- System Engineer Assoc., JHrhythm
- Systems Engineer, Bio-Techne
- Technical Services, Epic Systems
- Wireless Engineer Intern, Kaiser

**Graduate Programs**

- Biological Sciences
- Biomedical Engineering
- Chemical Engineering
- Computer Science
- Genetics
- Medicine
- Molecular Biology
- Natural Resources Mgmt & Policy
- Neurobiology

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Examples gathered from the First Destination Survey of recent Berkeley graduates.