**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.

**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.

**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.

**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.

**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**

**Design Your Journey**

**Bachelor of Science**

---

**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 prereqs and classes.
- 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.

---

**Explore Your Major**

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

**Connect and Build Community**

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

**Discover Your Passions**

- Find opportunities in BioE Announcements.
- 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.

**Engage Locally and Globally**

- Interested in studying abroad later? Check out the requirements now.
- Explore volunteering opportunities on campus.
- Attend Biotech Career Connections and BioTech Connect to learn about industry careers.
- Check out career paths through the Career Connections Networking Series.
- This is a great time for an off-campus internship! Visit another university for an REU.

**Reflect and Plan for the Future**

- Check out the Career Center Yearly Planner.
- Join Handshake for Career resources.
- Apply for scholarships and awards as available.
- What are you doing this summer? Look into jobs, volunteering, courses, and internships (watch BioE Announcements).
- Attend BioTech Connect and Employer Info Sessions.
- Going to grad school? Take GRE/LSAT/MCAT.
- Explore post-grad options with Career Counselors and at Career Fairs and Graduate School Fairs.
- This is a great summer for an industry internship!

---

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

**Jobs and Employers**

- Clinical Research Coordinator, UCSF
- Engin. Tech., Verily Life Sciences
- Junior 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 Developer, IBM
- Scientific Lab Asst., Adv. Clinical Research Fellow, ETH Zurich
- Research Asst., Innovative Genomics
- Process Engineer, Illumina
- Optometric Asst, Golden Gate Opt.
- Junior Specialist, UC Berkeley
- Engin. Tech., Verily Life Sciences

**Graduate Programs**

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

**Examples gathered from the Career Destinations Survey of recent Berkeley graduates.**

---

Updated Last: 04/09/2019