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.

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.
## Explore your major

- **FIRST YEAR**
  - Review the Bioengineering concentrations and general degree requirements.
  - Take first-year BioE classes (BioE 10 & 26).
  - 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 advisor(s) and use the multi-year teaching plan to plan your prerequisites 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 advisor 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 advisor 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.

## Connect and build community

- **FIRST YEAR**
  - 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.

- **SECOND YEAR**
  - Keep going to office hours and study groups to build your connections.
  - Get to know faculty and grad students at professor lunches, Town Hall, research exhibitions, etc.
  - Gain leadership experience in student organizations and ESS.

- **THIRD YEAR**
  - Don’t stop going to events and seminars to hide in the lab. Time at Berkeley is precious!
  - Push your boundaries - connect with new student groups through the LEAD Center or become a Golden Bear Orientation Leader.

- **FOURTH YEAR**
  - You’ve made it! Now be a mentor for others.
  - Cement your knowledge by teaching: become a Engineering peer advisor or tutor at the Student Learning Center.
  - Do your BioE and UCUES student surveys. Your perspective is at its most valuable.

## Discover your passions

- **FIRST YEAR**
  - Find opportunities in BioE Announcements emails.
  - 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.

- **SECOND YEAR**
  - Plan for research. Make a resume, talk to faculty.
  - Into health entrepreneurship? Apply for the Fung Fellowship.
  - What kind of problems do you want to solve? Start thinking about how they relate to potential careers and what skills you’ll need.

- **THIRD YEAR**
  - Doing research? Present your work whenever possible (Coli poster session, Cal Day) and apply for the Dr. Buddinger Award.
  - Narrow your career list and make a plan to get there. Faculty advisers can help.

- **FOURTH YEAR**
  - Attack your career plans. Job shadow, visit grad schools, network!
  - Keep seeking out new experiences.
  - Earn a certificate through the Sutardja Center for Entrepreneurship & Technology. Jacobs Institute for Design and Innovation, or Arts + Design.

## Engage locally and globally

- **FIRST YEAR**
  - Interested in studying abroad later? Check out the requirements now. Explore volunteering opportunities on campus.

- **SECOND YEAR**
  - 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.

- **THIRD YEAR**
  - Find opportunities to pursue your passions that go beyond campus, such as a Berkeley Global Internship, community volunteering, or independent project.

- **FOURTH YEAR**
  - Apply for fellowships available to recent Berkeley graduates.
  - Explore gap year opportunities prior to embarking on your next academic or career adventure.

## Reflect and plan your future

- **FIRST YEAR**
  - 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).

- **SECOND YEAR**
  - 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.

- **THIRD YEAR**
  - Attend Bio-Tech 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!

- **FOURTH YEAR**
  - Grad school? Talk to grad students and advisors. Ask for letters of recommendation EARLY. Apply for fellowships (hint: NSF).

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### WHAT CAN I DO WITH MY MAJOR?

#### Jobs and Employers

- Clinical Research Coordinator, UCSF<br>  - Engin. Tech., Verly Life Sciences<br>  - Junior Specialist, UC Berkeley

#### Graduate Programs

- Biological Sciences<br>  - Biomedical Engineering<br>  - Chemical Engineering<br>  - Computer Science<br>  - Genetics
- Medicine<br>  - Molecular Biology<br>  - Natural Resources Mgmnt & Policy<br>  - Neurobiology

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

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