

Photo credit: Shannon Ciston

#### **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.

#### **CONNECT WITH US**

#### **Cal Day**

Come to UC Berkeley's annual **Open House** in April for information sessions, campus tours, special talks, and more.

#### **Golden Bear Orientation**

Join your peers in the campus-wide UC Berkeley **orientation** program for all new students.

#### **Events**

Attend department events with students, faculty, and staff. Visit **chemistry.berkeley.edu** for news and updates.

#### **ADVISING**

Staff advisors are located in 121 Gilman Hall and are available to assist with schedule planning, course enrollment, study abroad, and other academic matters.

Faculty mentors are available to talk with you about career planning, research, internships, graduate school, and many other questions related to becoming a scientist.

Visit **chemistry.berkeley.edu/ugrad/current-students/advisers** to find your staff advisor and faculty mentor, and to book an appointment.

Visit **vcue.berkeley.edu/majormaps** for the latest version of this major map.

## Berkeley

College of Chemistry Undergraduate Student Services
121 Gilman Hall
Berkeley, CA 94720-1460
chemistry.berkeley.edu/ugrad/student-services

# CHEMICAL ENGINEERING

Bachelor of Science



#### INTRODUCTION TO THE MAJOR

The **Chemical Engineering** major equips students for professional work in development, design, and operation of chemical processes and of process equipment, as well as preparing students for graduate study. The program incorporates both breadth requirements and a technical curriculum to ensure that students develop a foundation in engineering and science along with developing the skills to write clearly, persuasively, and read critically and effectively.

Students go on to careers of leadership and innovation in chemical engineering and related fields, and expand the base of engineering knowledge through original research and creating new technologies that can benefit the public. The program is accredited by the Engineering Accreditation Commission of ABET.

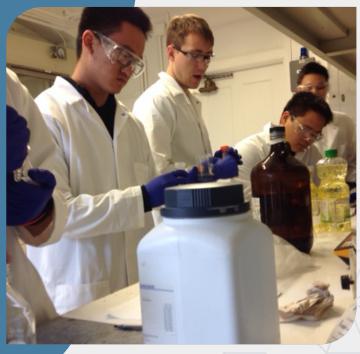


Photo credit: Shannon Ciston

CC Chemical engineering allows you to craft elegant solutions to seemingly unsolvable problems—the program and faculty will transform you.

- Aditya Nandy, recent graduate

#### **STUDY OPTIONS**

Students can pursue a **concentration** in biotechnology, chemical processing, environmental technology, materials science and technology, applied physical science, and business and management.

Students can also choose to pursue a **joint major** with the College of Engineering in Materials Science or Nuclear Engineering, or a **simultaneous degree** in Business Administration through the Haas School of Business.

#### **AMPLIFY YOUR MAJOR**

- Apply to the Chemistry and Chemical Engineering Scholars Program to be an Undergraduate Student Instructor.
- Join a ChemE student organization such as AIChE, Aurum Cosmetics, Biofuels Technology Club, or ChemE Car.
- Present your research at the College of Chemistry poster session in April.
- Apply to the **CBE Innovation Incubator**, a lab to conduct student-directed projects.

## CHEMICAL ENGINEERING

Bachelor of Science

**College of Chemistry website.** 

#### **DESIGN YOUR JOURNEY**

opportunities.



	FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
ore				
your major	Meet with your <b>staff advisor</b> to discuss your academic plans.  Familiarize yourself with <b>major</b> and <b>college</b>	Complete lower division prerequisites and start planning your upper division courses.  Review the college guidelines for <b>study abroad</b> .	Focus on upper division requirements.  Review your degree progress with your <b>staff advisor</b> .	Do a degree check to ensure you are on track to graduate.  Complete any "bucket list" courses and
	requirements.  Learn about undergraduate student services		Declare a <b>concentration</b> to give more focus to your upper division coursework.	finish remaining major, college, and campus requirements.
	from the college.  Talk to <b>peer advisors</b> about life in the major.		Ask the staff advisor about the college <b>honors programs</b> .	Complement your major with a <b>certificate</b> , <b>course thread</b> , or <b>summer minor</b> .
nect				
and build community	Visit <b>peer tutors</b> in Bixby Commons for help with chemistry, math, physics, and other classes.	Join a College of Chemistry <b>student</b> organization such as <b>AIChE</b> , Aurum Cosmetics, Biofuels Technology club, or ChemE Car.  Explore the college's <b>centers &amp; institutes</b> .  Attend college <b>seminars and events</b> to learn about new research and meet guest speakers.	Give back by becoming a <b>peer advisor</b> or <b>peer tutor</b> in the college.	Join a professional organization related to your interests, such as <b>Alpha Chi Sigma</b> .
	Find study groups, tutoring, and academic support at the <b>Student Learning Center</b> .		Welcome new students to UC Berkeley as a <b>Golden Bear Orientation Leader</b> .	Connect with <b>alumni groups</b> and build your <b>network</b> as you prepare to graduate.
	Get help from <b>peer advisors</b> in 121 Gilman Hall.		Get to know professors and graduate student instructors during their office hours.	
	Join the <b>College of Chemistry group</b> on LinkedIn.			
over				
your passions	Talk to your <b>faculty mentor</b> about research, internships, careers, and graduate school.	Browse the <b>faculty research</b> taking place in the college and talk to faculty about research opportunities for students.  Apply to a <b>REU research program</b> . Check Berkeley Lab and UCSF for more options.  Explore a career in education while gaining teaching skills with <b>CalTeach</b> .	Become an apprentice instructor, mentor, or an Undergraduate Student Instructor through the Chemistry Undergraduate Teacher Scholar Program or the Chemistry and Chemical Engineering Scholars Program.  Apply to the CBE Innovation Incubator, a lab to conduct student-directed projects.	Apply for a <b>Conference Travel Grant</b> .  Teach your own <b>DeCal course</b> .
	Explore <b>research opportunities</b> in ChemE.			Keep pursuing your interests through a <b>fellowship</b> or <b>gap year</b> after graduation.  Present your research at the College of Chemistry poster session in April.
	Visit the Office of Undergraduate Research and Scholarships.			
	Discover new interests in a <b>Freshman Seminar</b> or student-run <b>DeCal course</b> .			
gage lly and	Attend the <b>Calapalooza</b> student activities fair	Contribute to a community organization with	Experience life at another UC or college on a	Hone your leadership skills with the <b>Peter E.</b>
globally	and get involved with a student organization.  Find service opportunities through the <b>Public</b>	an American Cultures Engaged Scholarship course.  Go on a service-learning trip with the Alternative Breaks Program.  Consider a Berkeley Global Internship in the United States or abroad.	visitor and exchange program.  Study and intern in Washington D.C. with  UCDC or Cal in the Capital.	Haas Public Service Leaders program.  Explore service opportunities after graduation, such as Peace Corps, Teach for America, or
	Service Center.			
	Explore study, internship, and research abroad			U.S. Department of State.
	options with <b>Berkeley Study Abroad</b> .			
flect				
and plan your future	Visit the Career Center and Career Counseling Library.	Meet with a <b>career counselor</b> to discuss your career options and goals.  Explore <b>career fields</b> through the <b>Career Connections Series</b> or a <b>winter externship</b> .  Learn about <b>graduate and professional school</b> . See <b>Step-by-Step</b> for planning help.	Conduct <b>informational interviews</b> .	Utilize <b>job search tools</b> from the Career Center.
	Check out the Career Center <b>Yearly Planner</b> .		Discuss post-graduate options with advisors and professors.	Ask professors and graduate student instructors for recommendation letters.
	Sign up for <b>Handshake</b> and <b>CareerMail</b> .		Attend career and graduate school fairs	Meet employers at <b>Employer Info Sessions</b> and
	Learn about <b>chemical engineering as a profession</b> and explore career resources on the		such as the STEM Career & Internship Fair.  Join industry information sessions hosted by	On-Campus Recruiting.  Apply to jobs, graduate school, and other
	College of Chamistry website		the CDE Department or efficient deliber	Apply to jobs, graduate scribbl, and other

the CBE Department or affiliated clubs.

Think about doing an **internship** and attend an

internship fair.

### WHAT CAN I DO WITH MY MAJOR?

#### **Jobs and Employers**

Applications Engineer, KLA-Tencor Associate Analyst, ZS Associates Consultant, IBM Corp Engineer, ExxonMobil Lab Technician, Full Cycle Bioplastics Process Engineer, Abaxis R&D Process Engineer, PLANTPV Research Assistant, Zymergen

#### **Graduate Programs**

BioPhysics, PhD Chemical Engineering, PhD Materials Engineering, PhD Physical & Theoretical Chem. PhD

Examples gathered from the

First Destination Survey of recent
Berkeley graduates.

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