



Photo credit: Bonnie Azab Powell

## 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.

Visit [ue.berkeley.edu/majormaps](https://ue.berkeley.edu/majormaps) for the latest version of this major map.

**Berkeley**

**Molecular and Cell Biology**

142 Life Sciences Addition #3200  
Berkeley, CA 94720-3200  
[mcb.berkeley.edu](https://mcb.berkeley.edu)

## 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 [mcb.berkeley.edu](https://mcb.berkeley.edu) for news and updates.

## ADVISING

**Staff advisors** are here to support you through remote and in-person appointments, plus drop-in advising options.

Junior and senior MCB students also provide **peer advising** on the content of specific classes, help you to develop plans, and answer general questions about being a student at Berkeley.

After you declare the MCB major, you can meet with a **faculty advisor** — MCB professors assigned to advise students about the MCB department, courses, research, and other academic issues.

# MOLECULAR AND CELL BIOLOGY

Bachelor of Arts

**Berkeley**  
UNIVERSITY OF CALIFORNIA

## INTRODUCTION TO THE MAJOR

The **Molecular and Cell Biology** (MCB) major focuses on the study of molecular structures and processes of cellular life and their roles in the function, reproduction, and development of living organisms. This covers a broad range of specialized disciplines, such as biochemistry, microbiology, biophysics, molecular biology, genetics, cell physiology, cell anatomy, immunology, and neurobiology.

The MCB major provides excellent preparation for many careers and post-baccalaureate training programs, including graduate programs and health-related professional programs (e.g., medicine, dentistry, optometry, pharmacy), science writing, law school, biotechnology, teaching, and academic research.



Photo credit: Elena Zhukova

“ *My classes challenge me to think critically in an experimental setting, and my professors are constantly updating the course material with the latest findings.* ”

– Joanna Maltbaek, MCB major

## EMPHASES IN MCB

All MCB students complete the same lower division coursework to gain critical training in Biology, Mathematics, Chemistry, and Physics. Upon declaring the major, MCB students choose an emphasis, or concentration, which determines their upper division core courses and elective courses. There are five emphases in MCB:

- Biochemistry & Molecular Biology
- Cell & Developmental Biology
- Genetics, Genomics & Development
- Immunology & Pathogenesis
- Neurobiology

## AMPLIFY YOUR MAJOR

- Take advantage of **summer research opportunities** in Berkeley or beyond.
- Explore math and science education and learn teaching skills with **CalTeach**.
- Conduct research and present your findings as part of the **MCB Honors Program**.

# MOLECULAR AND CELL BIOLOGY

Bachelor of Arts

DESIGN YOUR JOURNEY

	FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR	WHAT CAN I DO WITH MY MAJOR?
<b>Explore</b> your major	<p>Visit the <b>MCB website</b> to learn about the five <b>emphases</b> within the MCB major.</p> <p>Meet with an <b>MCB Peer advisor</b> to discuss your options and map out a <b>4-year plan</b>.</p> <p>Enroll in <b>Freshman Seminars</b> on interesting topics, explore major opportunities and resources.</p>	<p>Continue completing lower division requirements.</p> <p>Consider a <b>minor</b> or <b>summer minor</b> to complement your MCB major.</p> <p>Talk to an MCB <b>staff advisor</b> to review your major requirements and discuss declaring.</p>	<p>Finish lower division requirements for the major and start your emphasis-specific <b>upper division courses</b>.</p> <p>If still undeclared, visit the MCB website to start the <b>declaration process</b>.</p> <p>Expand your studies with an enrichment course or elective in another department.</p>	<p>Check your Academic Progress Report (APR) and meet with an MCB <b>staff advisor</b> and <b>college advisor</b> to ensure you are on track to fulfill all major, college, and campus requirements.</p> <p>Finish any remaining major and college requirements.</p> <p>Complete an optional <b>senior honors thesis</b>.</p>	<p><b>Jobs and Employers</b></p> <p>Clinical Laboratory Tech., Illumina Clinical Research Coordinator, UCSF Consultant, Deloitte Consulting Fellow-Comm. Health, Peace Corps Histology Tech., Kaiser Permanente Lab Technician, UC Berkeley Life Sci. Strat. Anlst., Huron Consulting Medical Scribe, PhysAssist Recruiting Coordinator, Google Research Associate, Genentech Research Technician, CalTech Sales Rep., Vanda Pharmaceuticals Inc. Teacher, Teach for America</p> <p><b>Graduate Programs</b></p> <p>Biochemistry Biological Sciences Biomedical Engineering Biomedical Sciences Biostatistics Chemistry Dentistry Education Genetics Immunology Medicine Neurobiology Optometry Organic Chemistry Pharmacy Physiology Podiatry Public Health</p> <p>Examples gathered from the <b>First Destination Survey</b> of recent Berkeley graduates.</p>
<b>Connect</b> and build community	<p>Attend the <b>Calpalooza</b> student activities fair and explore student organizations such as <b>MCBUS</b>A and <b>MCBcDNA</b>.</p> <p>Form a study group and get tutoring in the <b>Student Learning Center</b>.</p> <p>Follow MCB on <b>Facebook, Instagram</b> and <b>Twitter</b>.</p>	<p>Go to office hours to build relationships with <b>MCB faculty</b> and graduate student instructors.</p> <p>Sign up for the <b>MCB newsletter</b> to find out about events happening in the department.</p> <p>Connect with a community of biology students in the <b>Biology Scholars Program</b>.</p>	<p>Give back by becoming an <b>MCB Peer Advisor</b> or tutor at the <b>Student Learning Center</b>.</p> <p>Get involved with <b>citizen science</b>.</p> <p>Grow your study groups into communities of support.</p> <p>Apply for leadership positions in student organizations.</p>	<p>Connect with faculty and advisors about future career goals and opportunities.</p> <p>Present at or attend the <b>MCB Fall Poster Session</b>.</p>	
<b>Discover</b> your passions	<p>Visit the <b>Office of Undergraduate Research and Scholarships</b> to learn about research opportunities and resources on campus.</p> <p>Take <b>L&amp;S1</b> for an introduction to the College.</p> <p>Explore new topics in student-facilitated <b>DeCal courses</b>.</p>	<p>Learn about the many ways to <b>find research</b> in MCB-related fields.</p> <p>Apply to the <b>Undergraduate Research Apprenticeship Program</b>.</p> <p>Develop skills teaching math and science to K-12 students in the <b>CalTeach Program</b>.</p>	<p>Apply to summer research opportunities such as <b>SURF</b> and the <b>Haas Scholars Program</b>.</p> <p>Apply for <b>fellowships</b> to fund your own research project.</p> <p>Talk to your <b>major advisor</b> about the <b>MCB Honors Program</b>.</p>	<p>Teach your own <b>DeCal course</b>.</p> <p>Enroll in non-major courses you haven't had time to pursue or courses that are outside your comfort zone.</p> <p>Talk with professors about research conferences to present at or attend.</p>	
<b>Engage</b> locally and globally	<p>Research <b>study abroad</b> options for MCB students.</p> <p>Explore volunteering opportunities on campus and in the Berkeley community such as <b>Berkeley Free Clinic</b> or <b>Suitcase Clinic</b>.</p> <p>Learn about community service with the <b>Public Service Center</b>.</p>	<p>Apply to <b>study abroad programs</b> to fulfill breadth or major requirements.</p> <p>Consider the <b>Alternative Breaks</b> program to go on service-learning trips over school breaks.</p> <p>Look into the Career Center's list of <b>health volunteer opportunities</b>.</p>	<p>Apply for <b>NSF Research Experience for Undergraduates</b> at colleges around the country.</p> <p>Attend professional association conferences for networking opportunities.</p> <p>Explore science and policy in Washington D.C. with <b>UCDC</b> or <b>Cal in the Capital</b>.</p>	<p>Apply for <b>fellowships</b> available to recent Berkeley graduates.</p> <p>Explore gap year opportunities prior to embarking on your next academic or career adventure.</p>	
<b>Reflect</b> and plan your future	<p>Join <b>Handshake</b> to find Berkeley-specific internship opportunities and career development workshops.</p> <p>Shadow alumni with the <b>Cal Job Shadow Program</b>.</p> <p>Visit the <b>Career Counseling Library</b> to explore all of the career options in MCB.</p>	<p>Meet alumni and learn about their career paths in the <b>Career Connections Networking Series</b>.</p> <p>Conduct <b>informational interviews</b> to learn more about different <b>career fields</b>.</p> <p>Attend <b>internship fairs</b>.</p>	<p>Build job search skills and confidence with <b>Berkeley Career Engagement workshops</b>.</p> <p>Explore post-grad options at <b>career and graduate school fairs</b>.</p> <p>Ask professors for letters of recommendation.</p> <p>Plan for any post-grad exams (GRE, MCAT, etc).</p>	<p>Update <b>resume</b> and practice interviewing skills.</p> <p>Find jobs and internships through the <b>On-Campus Recruiting</b> program.</p> <p>Attend <b>Employer Info Sessions</b> and network through the <b>MCB Industry Affiliates Program</b>.</p> <p>Apply for graduate schools, jobs, and research opportunities.</p>	