



Photo credit: David Galvez

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 nature.berkeley.edu for news and updates.

ADVISING

The Undergraduate Advisors for all Rausser College majors are located in the Office of Instruction and Student Affairs in 260 Mulford Hall.

Staff advisors provide support and assistance in completing the Microbial Biology major and preparing for after graduation. Visit nature.berkeley.edu/advising/meet-rausser-advisors for detailed office hours and appointment booking links. You may email general advising questions to pmb.ugrad@berkeley.edu.

Peer advisors are available for advising class content, planning help, and answering general questions. Declared students can meet with a **faculty advisor**—professors who advise on the department, courses, research, and academic issues.

MICROBIAL BIOLOGY

Bachelor of Science

Berkeley
UNIVERSITY OF CALIFORNIA

INTRODUCTION TO THE MAJOR

Microbial Biology focuses on the study of small life forms such as microbes, viruses, and fungi that make up the majority of planetary biomass.

The Department of Plant and Microbiology offers a major in **Microbial Biology**, as well as in **Genetics and Plant Biology**. The Microbial Biology major investigates interactions between microorganisms and the environment to determine the role microbes play in maintaining the health of our biosphere. Classes range in content, and include Virology, California Mushrooms, Plant Genetics, and Modern Applications of Plant Biotechnology.



Photo credit: Elena Zhukova

“MB’s versatile curriculum allows me to pursue computational bio with a strong micro bio foundation in a small college with lower student counts.”

– Jason Chang, MB student

EMPHASES IN MICROBIAL BIOLOGY

All Microbial Biology students complete the same lower division coursework to gain critical training in biology, mathematics, chemistry, and physics. Upon declaring the major, MB students choose an emphasis, or concentration, which determines their upper division core courses and elective courses. There are five emphases in Microbial Biology:

- Host-Pathogen Interactions
- Evolution/Computational Microbiology
- Ecology & Environmental Microbiology
- Microbial Biotechnology
- General Microbiology (design your own)

AMPLIFY YOUR MAJOR

- Take advantage of **summer research opportunities** in Berkeley or beyond.
- Build your community by joining clubs and organizations such as the **Cal AMEBA**.
- Conduct research and present your findings by applying to the **Rausser College Honors Program**.

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

Berkeley

Rausser College of Natural Resources
260 Mulford Hall # 3100
Berkeley, CA 94720-3100
nature.berkeley.edu

MICROBIAL BIOLOGY

Bachelor of Science

DESIGN YOUR JOURNEY



	FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR	WHAT CAN I DO WITH MY MAJOR?
Explore your major	<p>Meet with your college advisor to discuss your academic plans.</p> <p>Review major and college requirements.</p> <p>Talk to the college's peer advisors about life in the major.</p> <p>Visit the PMB website to learn about the five emphases within the MB major.</p>	<p>Continue completing lower division requirements</p> <p>Consider a minor to complement your MB major.</p> <p>Talk to a peer advisor to review your requirements and discuss which concentration you are interested in.</p>	<p>Finish lower division requirements for the major and start your emphasis-specific upper division courses.</p> <p>Ask your college advisor about the Rausser College Honors program.</p>	<p>Do a degree check to ensure you are on track to graduate.</p> <p>Finish any remaining major and college requirements.</p> <p>Complete a course thread such as Sciences & Society or Humanities & Environment.</p> <p>Complete an optional honors thesis.</p>	<p>The Microbial Biology major provides excellent preparation for students interested in positions in government, industry, and academia. This major is intended for pre-med/health students, those interested in biology, those interested in pursuing graduate degrees in biology and biology-related fields, and those wishing to teach biology at the secondary school level.</p> <p>Jobs and Employers</p> <p>Account Executive, A&R Partners Assoc. Scientist, AbbVie Stemcentrx Lab Tech., Fortiphyte Medical Asst., Alta Bates Hospital Research Asst., MD Anderson Cancer Research Assoc., Amunix Scientific Program Analyst, NIH Scribe, Kaiser Permanente</p> <p>Graduate Programs</p> <p>Biochemistry, Masters Biology, Masters Dentistry, DDS Medicine, MD Microbiology, PhD Pharmacy, PharmD</p> <p>Examples gathered from the First Destination Survey of recent Berkeley graduates.</p>
Connect and build community	<p>Take advantage of the college's Student Resource Center.</p> <p>Join a student group such as the Microbial Sciences Association.</p> <p>Follow PMB on Facebook and Twitter.</p>	<p>Sign up for the college's newsletter to find out about events happening in the department.</p> <p>Attend Student Environmental Resource Center meetings to engage with sustainability issues on campus.</p> <p>Attend the weekly Seminar Series.</p>	<p>Help other students as a Rausser College Peer Advisor.</p> <p>Become a Golden Bear Orientation Leader and welcome new students to UC Berkeley.</p> <p>Connect with MB alumni through the Rausser College Alumni Association.</p>	<p>Join a professional organization such as the American Society for Microbiology.</p> <p>Connect with the college's alumni group on LinkedIn and build your network as you prepare to graduate.</p> <p>Connect with alumni groups and Cooperative Extension Specialists.</p>	
Discover your passions	<p>Discover new interests in a Freshman Seminar such as PLANTBI 24.</p> <p>Visit the Office of Undergraduate Research and Scholarships.</p> <p>Learn about research opportunities by attending the college's Honors Symposium.</p>	<p>Enroll in a student-led DeCal course.</p> <p>Explore research at the Berkeley Natural History Museums.</p> <p>Assist faculty and graduate students in their research through URAP.</p> <p>Check out research by your peers at a poster session.</p>	<p>Apply for a Rausser College Travel Grant to fund travel for academic conferences or research.</p> <p>Apply for fellowships to fund your own research project.</p> <p>Find research and funding opportunities in the OURS database, SPUR, or URAP.</p>	<p>Teach your own DeCal course.</p> <p>Present your research at the college's poster session or submit it to the Berkeley Scientific Journal.</p> <p>Keep pursuing your interests through a fellowship or gap year after graduation.</p>	
Engage locally and globally	<p>Attend the Calapalooza student activities fair and get involved with a student organization.</p> <p>Find service opportunities through the Public Service Center.</p> <p>Research study abroad options for MB students, including programs in biological and environmental sciences.</p>	<p>Consider the Alternative Breaks program to go on service-learning trips over school breaks.</p> <p>Enjoy teaching? Explore a career in education while gaining teaching skills with CalTeach.</p> <p>Check out the Moorea program for fieldwork opportunities abroad.</p>	<p>Experience life at another UC or college on a visitor and exchange program.</p> <p>Apply your skills in projects for the Green Initiative Fund.</p> <p>Attend professional association conferences like the Clinton Global Initiative for networking opportunities.</p> <p>Research post-grad service opportunities.</p>	<p>Explore service opportunities after graduation, such as Peace Corps, Teach for America, or U.S. Department of State.</p> <p>Look into travel grants offered by the college and ASUC.</p>	
Reflect and plan your future	<p>Visit Berkeley Career Engagement and the Career Counseling Library.</p> <p>Join Handshake to find Berkeley-specific internship opportunities and Career Development workshops.</p> <p>Check out the Microbial Biology Career Snapshot.</p>	<p>Take advantage of career and pre-health advising for Rausser college students.</p> <p>Explore careers through the Career Connections Series or Cal Job Shadow Program.</p> <p>Learn about graduate and professional school. See Step-by-Step for planning help.</p> <p>Think about doing an internship and attend an internship fair.</p>	<p>Conduct informational interviews.</p> <p>Discuss graduate school options with advisors. Ask professors and graduate student instructors for recommendation letters.</p> <p>Update your resume and LinkedIn.</p>	<p>Utilize job board tools in your job search.</p> <p>Take any post-grad exams (GRE, MCAT, etc.).</p> <p>Meet employers at Employer Info Sessions and On-Campus Recruiting.</p> <p>Apply to jobs, graduate school, and other opportunities.</p>	