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.

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.

“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
MICROBIAL BIOLOGY
Bachelor of Science

EXPLORE YOUR MAJOR

- Meet with your college advisor to discuss your academic plans.
- Review major and college requirements.
- Talk to the college’s peer advisors about life in the major.
- Visit the PMB website to learn about the five emphases within the MB major.

CONNECT AND BUILD COMMUNITY

- Take advantage of the college’s Student Resource Center.
- Join a student group such as the Microbiology Sciences Association.
- Follow PMB on Facebook and Twitter.
- Meet current students and alumni at the Rausser College Homecoming Picnic.

DISCOVER YOUR PASSIONS

- Discover new interests in a Freshman Seminar such as PLANTIBIAG.
- Visit the Office of Undergraduate Research and Scholarships.
- Learn about research opportunities by attending the college’s Honors Symposium.
- Enroll in a student-led DeCal course.
- Explore research at the Berkeley Natural History Museums.
- Assist faculty and graduate students in their research through URAP or SURF-SMART.
- Check out research by your peers at a poster session.
- Consider the Alternative Breaks program to go on service-learning trips over school breaks.
- Enjoy teaching! Explore a career in education while gaining teaching skills with CallTeach.
- Check out the Moorea program for fieldwork opportunities abroad.
- Experience life at another UC or college on a visitor and exchange program.
- Apply for a Rausser College Travel Grant to fund travel for academic conferences or research.
- Apply for fellowships to fund your own research project.
- Find research and funding opportunities in the OURS database, SPUR, or URAP.
- Experience life at another UC or college on a visitor and exchange program.
- Apply for a Rausser College Travel Grant to fund travel for academic conferences or research.
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- Apply for fellowships to fund your own research project.
- Find research and funding opportunities in the OURS database, SPUR, or URAP.

ENGAGE LOCALLY AND GLOBALLY

- Attend the Calapalooza student activities fair and get involved with a student organization.
- Find service opportunities through the Public Service Center.
- Research abroad options for MB students, including programs in biological and environmental sciences.
- Consider the Alternative Breaks program to go on service-learning trips over school breaks.
- Enjoy teaching! Explore a career in education while gaining teaching skills with CallTeach.
- Check out the Moorea program for fieldwork opportunities abroad.

REFLECT AND PLAN YOUR FUTURE

- Visit the Career Center and Career Counseling Library.
- Join Handshake to find Berkeley-specific internship opportunities and Career Development workshops.
- Check out the Microbial Biology Career Snapshot.
- Take advantage of career and pre-health advising for Rausser college students.
- Explore career fields through the Career Connections Series or a winter internship.
- Learn about graduate and professional school.
- See Step-by-Step for planning help.
- Think about doing an internship and attend an internship fair.
- Conduct informational interviews.
- Discuss graduate school options with advisors. Ask professors and graduate student instructors for recommendation letters.
- Update your resume and LinkedIn.

WHAT CAN I DO WITH MY MAJOR?

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.

JOBS AND EMPLOYERS

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

GRADUATE PROGRAMS

Biochemistry, Masters
Biology, Masters
Dentistry, DDS
Medicine, MD
Microbiology, PhD
Pharmacy, PharmD

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