**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)

“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

**AMPLIFY YOUR MAJOR**

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

**MICROBIAL BIOLOGY**  
Bachelor of Science

### FIRST YEAR
- **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**
  - Enroll in a student-led DeCal course.
  - Explore research at the Berkeley Natural History Museums.
  - Attend the Student Environmental Resource Center meetings to engage with sustainability issues on campus.

- **Engage locally and globally**
  - Attend the Calapalooza student activities fair.
  - Explore the Office of Undergraduate Research and Scholarships.
  - Learn about research opportunities by attending the college’s Honors Symposium.

### SECOND YEAR
- **Explore your major**
  - Continue completing lower division requirements.
  - Consider a minor to complement your MB major.
  - Talk to a peer advisor to review your requirements and discuss which concentration you are interested in.

- **Connect and build community**
  - Sign up for the college’s newsletter to find out about events happening in the department.
  - Attend Student Environmental Resource Center meetings.
  - Attend the weekly Seminar Series.

- **Discover your passions**
  - Apply for a Rausser College Travel Grant to fund travel for academic conferences or research.
  - Apply for fellowships to fund your own research project.

- **Engage locally and globally**
  - 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 CalTeach.
  - Check out the Moorsa program for fieldwork opportunities abroad.

### THIRD YEAR
- **Explore your major**
  - Finish lower division requirements for the major and start your emphasis-specific upper division courses.
  - Ask your college advisor about the Rausser College Honors program.

- **Connect and build community**
  - Help other students as a Rausser College Peer Advisor or Student Ambassador.
  - Consider applying for a Golden Bear Orientation Leader.

- **Discover your passions**
  - Apply for a fellowship to fund your own research project.
  - Find research and funding opportunities in the OURS database.
  - Check out resources for fieldwork opportunities abroad.

- **Engage locally and globally**
  - Experience life at another UC or college on an exchange program.
  - Attend professional association conferences like the Clinton Global Initiative for networking opportunities.

### FOURTH YEAR
- **Explore your major**
  - Do a degree check to ensure you are on track to graduate.
  - Finish any remaining major and college requirements.

- **Connect and build community**
  - Join a professional organization such as the American Society for Microbiology.

- **Discover your passions**
  - Present your research at the college’s poster session.

- **Engage locally and globally**
  - Conduct informational interviews.
  - Take any post-grad exams (GRE, MCAT, etc.)

### WHAT CAN I DO WITH MY MAJOR?
- **Jobs and Employers**
  - Account Executive, A&R Partners
  - Assoc. Scientist, AbbVie Stemcentrx
  - Lab Tech., Fortiphyte
  - Assoc. Scientist, AbbVie Stemcentrx

- **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.**

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