INTRODUCTION TO THE MAJOR

The Molecular Environmental Biology (MEB) major introduces students to the organization and function of biological organisms at the molecular, cellular, organismal, and ecological levels. Students learn how to apply biological principles to understand how organisms function in their environment.

MEB graduates acquire a broad foundation across a breadth of biological core areas, which gives them especially valuable scientific training. A classic pre-medical or pre-health science major, MEB prepares students well for graduate education in pre-health fields and in biological research, as well as a variety of careers related to biology and the environment.

AMPLIFY YOUR MAJOR

• Apply to the Sponsored Project for Undergraduate Research (SPUR) program to pursue joint research with a faculty member.
• Conduct field research in French Polynesia through the Moorea program.
• Present your research at a Rausser College-sponsored Poster Session.

STRUCTURE OF THE MEB MAJOR

The lower division coursework provides a strong foundation in biological principles, and the upper division areas introduce students to the organization and function of biological organisms at the molecular, cellular, organismal, and ecological levels.

The major also offers specialization through six Areas of Concentration: 1) animal health and behavior, 2) biodiversity, 3) ecology, 4) environmental and human health, 5) insect biology, and 6) global change biology.

Molecular Environmental Biology is a fantastic way to get a taste of everything Cal has to offer in terms of biology. Animals, insects, microbes, plants—you name it. – Jonathan Huang, MEB student
MOLECULAR ENVIRONMENTAL BIOLOGY

Bachelor of Science

**FIRST YEAR**
- Explore your major
  - Familiarize yourself with MEB major requirements.
  - Meet with the MEB undergraduate advisor and sketch out a four-year plan.
  - Enroll in a Freshman Seminar or DeCal.
  - Consider taking some lower division courses over the summer.

**SECOND YEAR**
- Connect and build community
  - Take advantage of the Student Resource Center.
  - Get to know the college's peer advisors.
  - Attend Student Environmental Resource Center meetings to engage with sustainability issues on campus.
  - Get to know professors and graduate student instructors during their office hours.

**THIRD YEAR**
- Discover your passions
  - Apply for a research position through the SPUR program.
  - Visit the Office of Undergraduate Research and Scholarships to learn about student programs and resources.
  - Explore the Berkeley Natural History Museums.

**FOURTH YEAR**
- Engage locally and globally
  - Learn about service and leadership opportunities with the Public Service Center and LEAD Center.
  - Explore study abroad options with Berkeley Study Abroad.

- Reflect and plan your future
  - Explore the resources at the Career Center.
  - Join Handshake to find Berkeley-specific career opportunities and workshops.
  - Create a LinkedIn profile and resume.
  - Connect with alumni through the Career Connection Series and Cal Alumni Externship program.

**WHAT CAN I DO WITH MY MAJOR?**

**Jobs and Employers**
- Analyst, East Bay Regional Parks
- Comm. Health Fell., Horseshoe Farm
- Field Technician, UC Berkeley
- Lab Assistant, UC Berkeley
- Ophthalmic Tech., East Bay Retina
- Research Assistant, LBNL
- Research Assoc., Gladstone Institutes

**Graduate Programs**
- Dentistry
- Ecology
- Education
- Entomology
- Medicine
- Molecular Biology
- Nursing
- Optometry
- Physician Assistant
- Public Health
- Toxicology
- Veterinary Medicine
- Zoology

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

**STUDENT OUTCOMES**

- 100% of recent graduates employed, pursuing grad school, or engaged in community service.
- 85% of graduates employed in their field of study or related fields.

**LEARNING OUTCOMES**

- Apply principles of molecular, cellular, and environmental biology to solve problems.
- Conduct independent research and present findings at academic conferences.
- Communicate scientific ideas effectively in written and oral formats.
- Engage in lifelong learning and adapt to new technologies and methodologies.

**EXPERIENCE OPPORTUNITIES**

- Internships
- Research projects
- Service-learning projects
- Study abroad
- Leadership roles

**ADVICE**

- Consider adding a minor or a summer minor.
- Review the college's guidelines for study abroad.
- Finish the majority of your lower division courses.
- Choose an emphasis in MEB and enroll in related courses - some classes count in several emphases.
- Start with Area B courses - they are generally easier than Area A courses.
- Begin Area A courses. Pre-Health students should enroll in MCB 102.
- Gain hands-on skills with courses in Statistics or field biology.
- Connect your major to career opportunities focusing on areas of concentration within your major.
- Reach out to graduate student instructors who can offer guidance about post-graduation opportunities and serve as mentors.
- Become a Golden Bear Orientation Leader and welcome new students to UC Berkeley.

**COURSE Threads**

- NSF REU Programs
- Undergraduate Research Apprenticeship
- Honors Program

**RESOURCES**

- Berkeley Connect
- Get 1:1 mentoring from graduate students with Rausser College.
- Get involved with one of the many clubs.
- Student Resource Center
- Take advantage of the college's peer advisors.

**GAPS**

- Consider taking some lower division courses over the summer.
- Review the college's guidelines for study abroad.
- Consider adding a minor or a summer minor.

**APPLICATIONS**

- Fall Data Tracker
- Spring Orientation Information
- Transfer Application

**STUDY ABROAD**

- Study in Europe
- Explore study abroad options with LEAD Center.

**SIDE PROJECTS**

- Research on a topic that interests you.
- Network with faculty and graduate student instructors to find a mentor who is conducting research on a topic that interests you.

**ADDITIONAL OPPORTUNITIES**

- Tell the college's peer advisors.
- Attend Student Environmental Resource Center meetings to engage with sustainability issues on campus.
- Get to know professors and graduate student instructors during their office hours.

**NETWORKING**

- Consider the Alternative Breaks program to go on service trips over spring or winter break.
- Attend a conference such as the Clinton Global Initiative: University Conference. Look into travel grants from by college and ASUC.
- Look at fellowship and gap year opportunities.

**GRE/MCAT/DAV**

- Attend a STEM-focused recommendation letters.
- Complete any “bucket list” courses that you still wish to take.
- Consider submitting to the Berkeley Scientific Journal.
- Present your research at a Rausser College poster session.
- Teach your own DeCal course.

**Rausser College**

- Assume a leadership role in one of the many clubs.
- Get involved with one of the many clubs.
- Connect your major to career opportunities focusing on areas of concentration within your major.
- Gain hands-on skills with courses in Statistics or field biology.
- Connect your major to career opportunities focusing on areas of concentration within your major.

**FOR GRADUATION**

- Complete any “bucket list” courses that you still wish to take.
- Consider submitting to the Berkeley Scientific Journal.
- Present your research at a Rausser College poster session.
- Teach your own DeCal course.

**FOR POST-GRADUATION**

- Attend a conference such as the Clinton Global Initiative: University Conference. Look into travel grants from by college and ASUC.
- Look at fellowship and gap year opportunities.