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.

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

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

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
- Visit the MCB website to learn about the five emphases within the MCB major.
- Meet with an MCB Peer advisor to discuss your options and map out a 4-year plan.
- Enroll in Freshman Seminars on interesting topics, explore major opportunities and resources.

SECOND YEAR
- Continue completing lower division requirements.
- Consider a minor or summer minor to complement your MCB major.
- Talk to an MCB staff advisor to review your major requirements and discuss declaring.

THIRD YEAR
- Finish lower division requirements for the major and start your emphasis-specific upper division courses.
- If still undeclared, visit the MCB website to start the declaration process.
- Expand your studies with an enrichment course or elective in another department.

FOURTH YEAR
- Check your Academic Progress Report (APR) and meet with an MCB staff advisor and college advisor to ensure you are on track to fulfill all major, college, and campus requirements.
- Finish any remaining major and college requirements.
- Complete an optional senior honors thesis.

EXPLORE YOUR MAJOR
- Attend a career development workshop.
- Explore opportunities in MCB-related fields.
- Take introductory courses in MCB.
- Explore new topics in student-facilitated DeCal courses.

CONNECT AND BUILD COMMUNITY
- Attend the CalPalooza student activities fair and explore student organizations such as MCBUSA and MCBcDNA.
- Form a study group and get tutoring in the Student Learning Center.
- Follow MCB on Facebook, Instagram, and Twitter.

DISCOVER YOUR PASSIONS
- Visit the Office of Undergraduate Research and Scholarships to learn about research opportunities and resources on campus.
- Take L&S1 for an introduction to the College.
- Explore new topics in student-facilitated DeCal courses.

ENGAGE LOCALLY AND GLOBALLY
- Research study abroad options for MCB students.
- Explore volunteering opportunities on campus and in the Berkeley community such as Berkeley Free Clinic or SuitsCase Clinic.
- Learn about community service with the Public Service Center.

REFLECT AND PLAN YOUR FUTURE
- Join Handshake to find Berkeley-specific internship opportunities and career development workshops.
- Shadow alumni with a winter externship.
- Visit the Career Counseling Library to explore all of the career options in MCB.

WHAT CAN I DO WITH MY MAJOR?
- Jobs and Employers

GRADUATE PROGRAMS
- Biochemistry
- Biological Sciences
- Biomedical Engineering
- Biomedical Sciences
- Biostatistics
- Chemistry
- Dentistry
- Education
- Genetics
- Immunology
- Medicine
- Neurobiology
- Optometry
- Organic Chemistry
- Pharmacy
- Physiology
- Podiatry
- Public Health

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

Updated: 11.07.23