

What is MCDB?

The Molecular, Cellular, and Developmental Biology (MCDB) department offers the Bachelor of Science degree in four departmental majors: Biochemistry-Molecular Biology, Cell and Developmental Biology, Microbiology, and Pharmacology. It also collaborates with the Department of Ecology, Evolution, and Marine Biology to offer B.A. or B.S. degrees in Biological Sciences. All students in the department are first admitted to the pre-biology major before choosing a specific major.

All the majors within the department involve the study of living matter. Biochemistry-Molecular Biology is concerned with the life and composition of the cell, including chemical composition and life processes occurring at the molecular level. Cell and Developmental Biology attempts to explain the nature and behavior of cells and how cells work together to assemble an organism. Microbiology is the study of microorganisms and includes emphases in: general microbiology, biomedical sciences, or genetic engineering. Pharmacology is the study of the active effects of drugs and chemical agents within living organisms. Biological Sciences is a general field that involves studying the nature and activity of all living forms.

How Can I Tell if I Would Like MCDB?

MCDB majors are often curious about current issues including biotechnology, immunology, genetics, and biomedical research. They enjoy developing their abilities to think analytically, apply information, and solve problems. Many MCDB majors enjoy conducting research and have a strong foundation in biology, chemistry, physics, and math.



What are Potential Topics within this Major?

Although the following list can provide students with topics that may be covered in this major, look at the UCSB catalog and consult with the Undergraduate Department Advisor for more detailed information about requirements and course offerings.

Developmental Biology

Ethics of Biomedical Technology

Molecular and Cellular Immunobiology

Basic Pharmacology

What can I do to make my Major more Marketable?

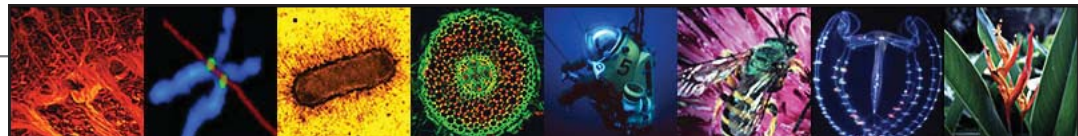
- ◆ Pursue relevant work, internship, volunteer, and/or research experience.
- ◆ Choose a complementary minor.
- ◆ Specialize in an area; take courses in related fields.
- ◆ Develop your computer skills.
- ◆ Learn a foreign language.
- ◆ Study abroad.
- ◆ Join professional associations.
- ◆ Get involved in student clubs.
- ◆ Participate in community organizations.
- ◆ Seek out leadership positions.
- ◆ Research specific prerequisites for different positions.
- ◆ Network with others in fields that interest you.

What are Some Possible Career Options?

Note: On its own, your major does not dictate what your job will be. The following list provides only a handful of possibilities. MCDB majors may pursue career options in hundreds of fields. Depending on experience, specialized coursework, and possible graduate study, options include:

Biomedical Scientist
Biotechnology Researcher
Clinical Microbiologist
Environmental Impact Analyst
Forensics Investigator
Genetic Engineering Researcher
Health Professions Provider (Dentist, Genetic Counselor, Nurse, Pharmacist,

Physician, Public Health Administrator)
Lab Technician
Pharmaceutical Industry Researcher
Pharmaceutical Salesperson
Professor or Teacher
Technical Writer or Illustrator
Veterinarian



What are some Additional Sources of Information?

If you are in the process of choosing or changing a major, Career Services has some tools that may assist you in your decision.

- ◆ MyRoad allows you to explore college majors and careers.
- ◆ The Strong Interest Inventory® compares your interests against six broad categories of work. The College Edition adds a section on Making College Fit Your Interests, which identifies majors that match your interests and suggests potential college activities to explore.
- ◆ Check with a peer in the Career Resource Room for details on registering for any assessments.

websites:

CAREERS BY MAJOR

UCSB Career Services:

http://www.career.ucsb.edu/students/career_planning/CareersByMajor.html

UCSB Office of Student Life:

<http://www.sa.ucsb.edu/osl/>

UCSB MCDB Department:

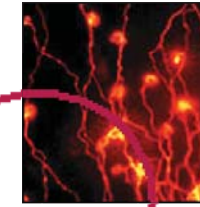
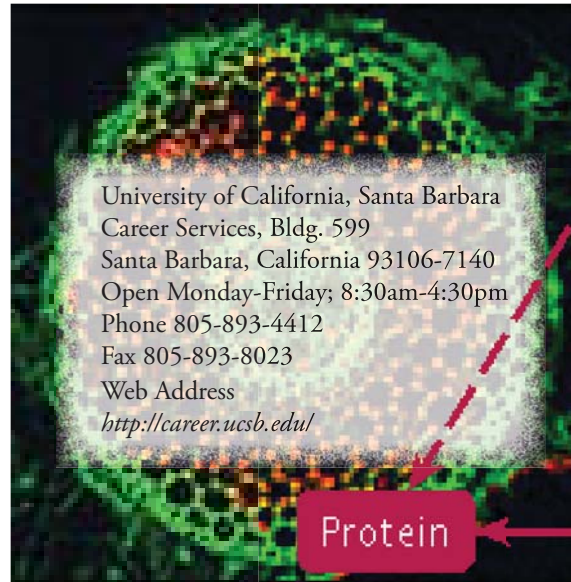
<http://www.lifesci.ucsb.edu/mcdb/>

American Institute of Biological Sciences:

<http://www.aibs.org/core/index.html>

A Few Books from our Career Resource Room:

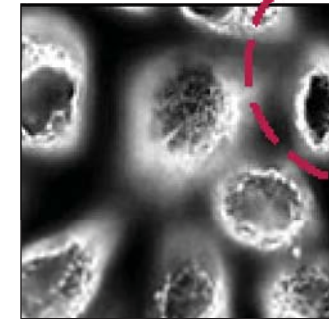
- Opportunities in Biotechnology Careers (55.06)
- Great Jobs for Biology Majors (115.03)
- Careers in Focus: Biology (115.04)



DNA

Protein

RNA



Choosing your Major

What is MCDB?

Making your Major More Marketable

How Can I Tell if I Would Like MCDB?

Potential Topics

Career Options

Molecular, Cellular, and Developmental Biology

Sources of information used in writing this brochure include UCSB Admissions and Outreach Services, UCSB MCDB, and American Society for Biochemistry and Molecular Biology web sites.