

Biochemistry and Molecular Biology • Biological Sciences • Cell Biology
Evolution, Ecology and Biodiversity • Exercise Biology • Genetics • Microbiology
Neurobiology, Physiology and Behavior • Plant Biology • Undeclared—Life Sciences
Other Major Options

From biotechnology to rainforest ecology, neuroscience to cancer research, some of the most exciting advances in contemporary society are being made in the biological sciences. Many students enter biological science programs to prepare for careers in the health sciences, but the analytical skills and broad thinking required in these majors will prepare you for a career or graduate study in virtually any area.

BIOLOGICAL SCIENCES MAJORS

Biochemistry and Molecular Biology

At its most fundamental level, the study of life is the study of chemical processes. A major in biochemistry and molecular biology trains you in the experimental techniques used to probe the structures and functions of biologically important molecules. The strong laboratory and research focus of this major prepares you for graduate study or to enter careers in high-growth areas such as biotechnology and health care research.

Questions? Contact an adviser at 156 Briggs, (530) 752-9032, sbbogle@ucdavis.edu, www.mcb.ucdavis.edu/advising.

Biological Sciences

A single nerve cell, transmitting electrical impulses in a continuous chain of stimulus and response. A wind-polished cypress tree, its roots digging deeper into the soil with every passing season. A patient receiving chemotherapy to help target and destroy the cancer invading her body. Each of these situations, and every function of every living being, is within the scope of interest of a major in biological sciences. Providing excellent preparation for graduate or professional study or for a career in virtually any field, the biological sciences program at UC Davis gives you access to world-class faculty, exciting research and internship opportunities and a wealth of library and laboratory resources.

Questions? Contact an adviser at 202 Life Sciences Addition, (530) 752-0410, biosci.ucdavis.edu.

Cell Biology

Cells — the basic units of organization of all life — carry out the fundamental processes necessary for organisms to grow, reproduce and negotiate their environments. Cell biologists study these processes and the principles that govern the organization and function of cells within the body. Cell biology integrates principles from many disciplines, including chemistry, physics, genetics, biochemistry and physiology, for a more complete understanding of cell function. At UC Davis, molecular and cell biology majors enjoy access to extensive laboratory resources and research opportunities, meaning you can be at the forefront of exciting new research in genetics, disease processes and developmental biology.

Questions? Contact an adviser at 156 Briggs, (530) 752-0202, cfnicholson@ucdavis.edu, www.mcb.ucdavis.edu/advising.

Evolution, Ecology and Biodiversity

How have plants and animals adapted and changed since the beginning of life on Earth? How do different organisms fit into complex environmental systems? These broad questions are addressed by evolution, ecology and biodiversity, the study of the variance and distribution of living organisms. As an evolution, ecology and biodiversity major at UC Davis, you can choose to pursue a Bachelor of Arts degree, allowing you greater flexibility to take courses in areas outside your major; or a Bachelor of Science degree, providing a more in-depth study of science topics such as biochemistry. Whichever track you choose, you'll have access to resources like the Bodega Marine

Laboratory, a study center on California's central coast where you can take courses toward your degree while working alongside visiting marine biologists from around the world.

Questions? Contact an adviser at 2320 Storer Hall, (530) 752-8523, eve.ucdavis.edu.

Exercise Biology

What are the secrets of human performance? How do training, nutrition, psychology and other factors affect competitive athletes and “weekend warriors” as well as a person's general health and well-being? Majors in exercise biology address the physiological, biomechanical and psychological aspects of sports, exercise and physical activity. This unique interdisciplinary major can prepare you for a career in any field related to human biology and performance, such as medicine, physical therapy, nursing, athletic training, coaching, teaching and research among many others.

Questions? Contact an adviser at (530) 752-2292, npb.ucdavis.edu.

Genetics

Geneticists seek to answer fundamental questions about how organisms inherit characteristics and transmit them to their offspring. Concepts of heredity and evolution are important in many areas of modern science and industry, including biotechnology, medicine and agriculture. As a genetics major, you'll have the opportunity to participate in research projects with faculty members and develop your own interests in preparation for a science career or graduate study.

Questions? Contact an adviser at 156 Briggs, (530) 752-0202, cfnicholson@ucdavis.edu, www.mcb.ucdavis.edu/advising.

Microbiology

The trillions of tiny organisms dwelling around us and within us, far too small to be visible to the naked eye, affect our lives in profound ways. Some are vital to the functioning of our bodies or to aspects of our economy such as food production; others cause destructive diseases in humans or in species of special importance to humans. Microbiologists study the structure, function and environmental importance of bacteria, yeasts and other fungi, algae, protozoa and viruses. Advances in microbiology have had great impact in areas such as agriculture, biotechnology, ecology, medicine and veterinary science.

Questions? Contact an adviser at 357 Briggs Hall, (530) 752-0261, microbiology.ucdavis.edu.

Neurobiology, Physiology and Behavior

A sea urchin, a gecko, a horse and a human are very different creatures at first glance. Yet each relies for its survival on a few basic functions common to all animals such as growth, reproduction and response to stimuli. Majors in neurobiology, physiology and behavior study these vital processes: their functional mechanisms; the control, regulation and integration of these mechanisms; and the behavior relating to these mechanisms.

Questions? Contact an adviser at 188 Briggs Hall, (530) 752-9696, dsabbott@ucdavis.edu, npb.ucdavis.edu.

Plant Biology

Plants are important to humanity for food, environmental enhancement and personal enjoyment. Plants are also the foundations of healthy ecosystems from the Arctic to the tropics. As a plant biology major, you'll study the structure and function of plants as living organisms, from the cellular and molecular to the ecological level. You may customize the major to suit your own goals, and you'll learn from some of the most widely acclaimed plant biologists working today.

Questions? Contact an adviser at 2131 Life Sciences Addition, (530) 752-7094, ajstemler@ucdavis.edu, www.plb.ucdavis.edu.

Undeclared—Life Sciences

If you'll be entering UC Davis as a freshman and you're undecided on your major, consider the College of Biological Sciences' undeclared—life sciences option. You'll benefit from professional guidance as you investigate possible majors and develop new personal strengths. Visit the Counseling Center for personal interest assessment testing, or use the Internship and Career Center's computerized career assessment tools to help you find majors that align with your interests.

Other Major Options

The College of Biological Sciences offers an individual major for students who want to forge their own academic path. Students with strong interests in more than one academic discipline may wish to consider a double major. Many UC Davis majors are offered as academic minors, as well.

The individual major program is designed for the student with multiple interests and educational goals not satisfied within the limits of an already established undergraduate major. The program essentially integrates courses from two or more specialization areas. The major is designed by the student and is subject to approval by faculty advisers and appropriate college committees.

Another approach to individualized academic planning that allows a student to combine two or more interests is the minor program. For most students, the minor either complements the major and/or covers a field of study significantly different from the major. The minor is certified on the student's transcript.

The double major program is still another alternative, but one which leaves even less time for elective courses. The double major requires approval by the appropriate faculty advisers and dean, and students must show that there is a significant difference between the disciplines and requirements of both majors involved. Cross-college majors can be developed with majors in two different colleges.

Questions? Contact an adviser at 202 Life Sciences Addition, (530) 752-0410, biosci.ucdavis.edu.

Want to hear from students and faculty in these majors? Visit admissions.ucdavis.edu/majors.

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