



Major Description

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. As a Cell Biology major at UC Davis, you will enjoy access to extensive laboratory resources and research opportunities, meaning you can be at the forefront of exciting new frontiers in research in genetics, disease processes and developmental biology.

Starting Your Cell Biology Degree

Lower-Division Major Requirements in Cell Biology

From UC's perspective, community college is where you begin working on the first two years of your bachelor's degree. This includes taking lower-division coursework specifically related to your field of study that may be applied toward graduation in your major.

Listed below are the lower-division requirements for **Cell Biology, B.S.** that may be satisfied with approved community college courses unless otherwise noted. To find out which of these requirements are shared by other UC campuses, see the UC Statewide Transfer Preparation Path in Cell Biology.

- General Biology (full sequence for Biological Science majors)
- General Chemistry (full sequence)
- Organic Chemistry (full sequence)
- Calculus (full sequence; Multivariable Calculus is one option for completion of full sequence)
- Statistics
- Calculus-based Physics (full sequence)

!!! IMPORTANT!!!

All of these requirements do not necessarily have to be completed **before** you transfer. See the next section of this path for what you must do to be competitive for admission.

FIND YOUR COURSES

Every course at your community college that can be used to meet any of the lower-division major requirements is listed at www.assist.org

Becoming Competitive for Admission to Cell Biology

Selection Requirements

Important information on selection requirements for admission to the major, including what this campus advises applicants to complete—and by when and with what GPA—is outlined below. It is important to note that meeting these requirements does not necessarily guarantee admission to the campus or major. Majors designated as “highly selective” receive many more qualified applicants than there are spaces available. The stronger your major preparation, the more competitive you will be for these slots.

- A **highly selective** major
- To be a competitive applicant, you **must** have an overall transfer GPA of 2.8 or higher.
- You **must** complete the following lower-division major-preparation courses with a cumulative GPA of 2.5 or higher in each area, with no grades less than a C for each course: Calculus (full sequence) and General Chemistry (full sequence).
- You **must** complete at least one approved course in General Biology (sequence for Biological Science majors) with a grade of B or higher. You are strongly advised to complete the entire sequence. Students who complete two or three General Biology courses **must** earn an overall GPA of 2.5 or higher among these courses, with no grade less than a C.
- You are **strongly** advised to complete Organic Chemistry (full sequence) with a GPA of 2.5 or higher prior to transfer. Completion of Organic Chemistry will greatly enhance your ability to graduate in a timely manner.
- You are **strongly** advised to complete as many remaining lower-division major-preparation courses as possible prior to transfer.

Satisfying General Education in Cell Biology

General Education Requirements

While all UC campuses urge you to focus on your lower-division major requirements while in community college, it is important to remember that general education (GE), or “breadth,” requirements for your bachelor’s degree may also be met with approved community college courses. In fact, some majors require completion of lower-division GE coursework as part of your preparation prior to transfer. The good news is you may be able to double-count some of your lower-division major coursework for related GE requirements.

The Intersegmental General Education Transfer Curriculum (IGETC) is a series of courses at California community colleges that students may complete to satisfy GE requirements. Certain students, however, may not be well served by following this GE option. Specific information about satisfying GE requirements as a Cell Biology major is listed below.

- You **must** complete the required lower-division major-preparation coursework as a priority over GE requirements. Admission is based on completion of courses for your major, not GE courses. However, with proper advising and planning, you may be able to complete both prior to transfer. IGETC is accepted for GE requirements.

Related Majors

Preparation for the following majors may be similar to the Cell Biology major described above (consult the campus catalog and www.assist.org).

Related majors offered in the **College of Agricultural and Environmental Sciences:**

- Agricultural and Environmental Education, B.S.
- Animal Biology, B.S.
- Animal Science, B.S.
- Animal Science and Management, B.S.
- Avian Sciences, B.S.
- Biotechnology, B.S.
- Clinical Nutrition, B.S.
- Ecological Management and Restoration, B.S. (formerly: Agricultural Management and Rangeland Resources, B.S.)
- Entomology, B.S.
- Environmental Horticulture and Urban Forestry, B.S.
- Environmental Science and Management, B.S. (new, fall 2009)
- Environmental Toxicology, B.S.
- Food Science, B.S.
- Hydrology, B.S.
- International Agricultural Development, B.S.
- Nutrition Science, B.S.
- Plant Sciences, B.S. (formerly: Crop Science and Management, B.S.)
- Viticulture and Enology, B.S.
- Wildlife, Fish and Conservation Biology, B.S.

Related majors offered in the **College of Biological Sciences:**

- Biochemistry and Molecular Biology, B.S.
- Biological Sciences, A.B. and B.S.
- Evolution, Ecology and Biodiversity, A.B. and B.S.
- Exercise Biology, A.B. and B.S.
- Genetics, B.S.
- Microbiology, A.B. and B.S.
- Neurobiology, Physiology and Behavior, B.S.
- Plant Biology, A.B. and B.S.

Related majors offered in the **College of Letters and Science:**

- Anthropology, B.S.
- Chemistry, A.B., B.S.
- Natural Sciences, B.S.
- Nature and Culture, A.B.