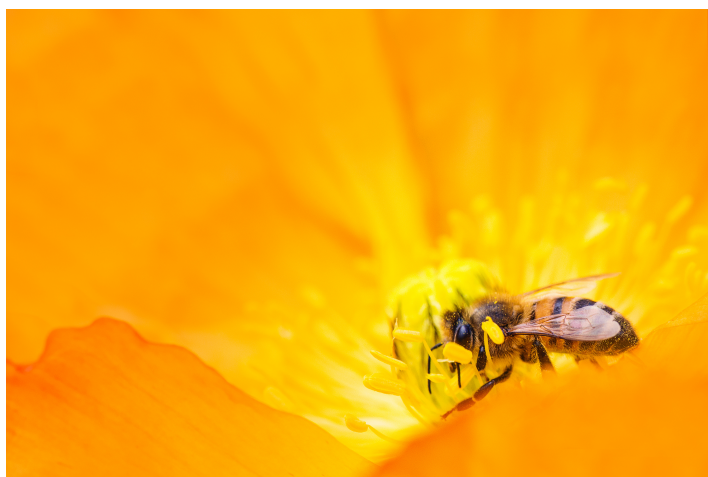


MAJOR IN BIOLOGICAL SCIENCE



Biology is the study of all living things—including microscopic bacteria and viruses, plants and animals, and their relationship to their environments. Biology majors study the structure and function of cells, organ systems and tissues of animals and plants, ecology (the relationship between living things and their environment), animal behavior, genetics/genomics and evolution. They learn about physiology, behavior, genetics and heredity, aquatic systems, microscopic organisms such as bacteria, and techniques for diverse areas ranging from field research to biotechnology. This major provides a solid foundation of understanding the basic biological sciences. It also offers an opportunity to choose an area of emphasis within life sciences that relates to particular career goals (for example: pre-health biology; cellular, molecular and genetic biology; behavioral biology; microbiology; botany; zoology; ecology; aquatic biology; evolution, genetics and systematics; etc.).

Learning Objectives

In addition to mastery of biological knowledge and skills, students will:

1. Interpret scientific data both mathematically and statistically.
2. Demonstrate organizational and laboratory skills.
3. Define scientific hypotheses and design experiments or observations to test them.
4. Work effectively in groups.
5. Demonstrate strong writing and oral communication skills.

Potential Occupations

Training in biology prepares students for a wide variety of occupations. A degree in biological science offers a broad foundation for professional degrees in nursing, dental, medical or veterinary school, and a number of health professions such as physician's assistant, physical therapy, occupational therapy, optometry or public health. Graduates often pursue advanced degrees in life sciences to carry out basic research or advance into leadership positions in industry. Participation in internships and/or laboratory research experience is highly recommended and strongly encouraged by the department to enhance practical training and development. Our biology graduates have gone on to careers as:



- Aquarium, zoo, and museum worker
- Assistant research scientist
- Research technician in industry or university laboratories
- Biology photographer
- Biotechnologist
- Brewery laboratory assistant
- Fisheries biologist or conservationist
- Consumer product researcher
- Marine bacteriologist
- Field ecologist
- Nuclear medicine technician
- Park naturalist
- Pharmaceutical researcher or salesperson
- Public health officer
- Science librarian
- Environmental educator, health specialist, or impact specialist
- Industrial hygienist
- Occupational therapist (with a master's degree)
- Medical or clinical laboratory technologist

Combining biology with additional skills can lead to other exciting transdisciplinary careers. Biology and computer science can be linked to the ever-expanding and exciting area of bioinformatics. Biology and writing can be incorporated into a career as a technical writer or science fiction novelist. Biology and visual arts combine in medical and scientific illustration. Biology and other humanities may lead to studies of the history of science or medicine. Work in both biology and philosophy/religion can be incorporated in careers in bioethics. Biology is linked with psychology for the neuroscientist or genetic counselor. Study biology and political science to work in environmental law or be a patent lawyer in biotechnology. Try mixing biology and business to get into

hospital administration, small business or biotechnology administration. Specialized master's degrees are designed for many of these unique career paths.

Concentrations

- Biological Science Concentration (<https://catalog.colostate.edu/general-catalog/colleges/natural-sciences/biology/biological-science-major-biological-science-concentration/>)
- Botany Concentration (<https://catalog.colostate.edu/general-catalog/colleges/natural-sciences/biology/biological-science-major-botany-concentration/>)

Change of Major Process

- **For future or incoming CSU students:** Please contact Admissions (<https://admissions.colostate.edu/>) to declare Biological Science.
- **For current on-campus CSU students:** To learn more about Biological Science and decide if you are interested in declaring, you must first review the major requirements (<https://www.biology.colostate.edu/undergraduate-students/>), then sign up for and attend a Major Information Session (<https://www.biology.colostate.edu/advising/>):
 - These are 50-minute group sessions led by advisors with individualized course recommendations and built-in time to answer your questions.
 - If you are exploring the Biological Science major, or if you are registering before your session, we recommend you review the program links above and register for any open courses that you are eligible to add.