

MAJOR IN ZOOLOGY



Zoologists study animals—their origin, behavior, diseases, and life processes. Some experiment with live animals in controlled or natural surroundings while others study the structure and function of animal cells, tissues, and organ systems. Some zoologists go on to study veterinary medicine. Zoologists participate in research that has practical outcomes in farming, medicine, pharmacy, wildlife conservation, and pest control. Zoology encompasses many specialties. At CSU, students may focus on general training in animal biology or choose a concentration in the following areas: animal behavior, development, aquatic biology, ecology (how animals adapt to their environments), genetics and evolution, invertebrate organisms, cellular/molecular biology and physiology, systematics, and morphology of vertebrate organisms.

The curriculum is designed to provide a basic understanding of zoology through a variety of laboratory experiences in combination with the study of basic theories and defining concepts. The program encourages flexibility, strength, and depth. The coursework includes a two-semester introductory biology sequence, one course each in invertebrates and vertebrates, and courses in evolution and ecology. Required courses in the physical sciences include a minimum of one year of introductory chemistry and at least one course in organic chemistry, two courses in physics (all with labs) and one in biochemistry. A course each in calculus and statistics is also required. In addition, students select a minimum of 15 credits of Zoology courses.

Learning Objectives

Students completing the Major in Zoology will attain a well-rounded education grounded in the natural sciences, with emphasis on the current state of knowledge in zoology.

Upon successful completion of the degree, students will be able to:

1. Attain a solid foundation in the natural sciences, with emphasis on biological processes and phenomena;
2. Demonstrate a fundamental understanding of biological concepts, processes, and phenomena that are broadly applicable to organisms, as well as a more detailed understanding of multiple aspects of biological concepts, processes and phenomena applicable to animals;

3. Demonstrate strong analytical, mathematical, and statistical skills, and the ability to apply these appropriately in zoological contexts;
4. Demonstrate the ability to analyze, synthesize, integrate, and evaluate material from zoology and related fields, and effectively communicate such information.

Potential Occupations

This major prepares students to work in various areas of zoology, such as research or private industry, or to begin graduate school or professional studies. Career opportunities include medical biotechnology, research technician, protective agencies such as shelters and refuges, trainers and handlers, animal-related business, aquatic/marine biologists, exotic animal specialists, and wildlife conservation. It is an appropriate major for students planning to attend medical or veterinary school. Graduates often pursue advanced degrees to carry out basic research or advance into leadership positions in industry. Participation in internships, laboratory, or research opportunities is highly recommended and encouraged by the department to enhance practical training and development.

Additional careers for Zoology majors include, but are not limited to: aquarium and museum curator/director; zoo keeper, animal trainer and instructor, science librarian, environmental technician, fish and wildlife technician, veterinary technician/assistant, marine bacteriologist or biologist or ecologist, humane society positions, cytotechnologist, ecologist, fisheries biologist or conservationist, laboratory technician, marketing researcher, medical technologist, park ranger, pharmaceutical sales representative, production supervisor, quality analysis technician in food or pharmaceutical industry, radiation protection technician, research technician, industrial hygienist, wildlife photographer.

Change of Major Process

- **For future or incoming CSU students:** Please contact Admissions (<https://admissions.colostate.edu/>) to declare Zoology.
- **For current on-campus CSU students:** To learn more about Zoology and decide if you are interested in declaring, you must first review the Zoology 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 Zoology major, or if you are registering before your session, we recommend you review the Zoology Major Requirements link above and register for any open courses that you are eligible to add.