

DEPARTMENT OF BIOLOGICAL SCIENCES

UNDERGRADUATE STUDIES

OVERVIEW

THE DEPARTMENT OF **BIOLOGICAL SCIENCES** IS THE LARGEST AND ONE OF THE MOST DIVERSE ON CAMPUS IN TERMS OF THE RESEARCH INTERESTS OF ITS ACADEMIC STAFF. THIS DIVERSITY DRIVES NUMEROUS FACULTY RESEARCH COLLABORATIONS AS THEY DISCOVER COMMON THEMES AND APPROACHES WITHIN THEIR RESEARCH PROGRAMS. STUDENTS CAN CHOOSE FROM OVER 130 UNDERGRADUATE COURSES SPANNING A WIDE VARIETY OF TOPICS.

DEGREE PROGRAMS

We offer Bachelor of Science Specialization and Honors degrees in the disciplines below. Students can also select a Biological Sciences major or minor, as well as a bioinformatics minor within the Bachelor of Science General program.

ECOLOGY, EVOLUTION, AND ENVIRONMENTAL BIOLOGY

The Ecology, Evolution and Environmental Biology program introduces students to the study of the interactions of organisms with their environment, diversity of organisms both extant and extinct, adaptations, and mechanisms behind evolutionary change.

INTEGRATIVE PHYSIOLOGY

Integrative Physiology studies the processes that occur within all living organisms including the regulation of functions at the subcellular, cell, tissue, organ and whole organism levels, as well as their interactions and integration.

MOLECULAR, CELLULAR, AND DEVELOPMENTAL BIOLOGY

Molecular, Cellular, and Developmental Biology introduces students to molecular structures and processes of cellular life and their roles in the function, reproduction, and development of living organisms.

IMMUNOLOGY AND INFECTION

This program, offered jointly by the Faculty of Science and the Faculty of Medicine, focuses on infectious diseases from both the pathogen and host immune system perspectives.

PALEONTOLOGY

Paleontology programs are concerned with the evolutionary history of life beginning billions of years ago, when matter and energy first organized life out of chaos, to the present day's astonishing diversity of living things. As a science, paleontology examines and explains the patterns and processes of evolution as preserved in the fossil record. This program is jointly offered with the Department of Earth and Atmospheric Sciences.

See ualberta.ca/admissions for admission requirements.

RESEARCH AREAS

- + Ecology and Evolution
- + Entomology
- + Genomics
- + Immunology and Infection
- + Marine Biology
- + Microbiology
- + Molecular and Cellular Genetics
- + Paleontology
- + Physiology and Development
- + Plant Biology
- + Study Organisms

UNIQUE OFFERINGS

The Department of Biological Sciences has several unique collections and museums. The E. H. Strickland Entomological Museum houses over one million specimens, with close to 300,000 specimens from the beetle family and over 108,000 specimens of moths and butterflies. For a full list visit ualberta.ca/biological-sciences/collections-and-museums.

CAREERS

Recent exciting discoveries across all branches of biology touch nearly every aspect of today's society. Career opportunities for graduates with a solid understanding of biology are numerous, highly varied, and constantly expanding. Biologists work in the laboratory, field, and classroom, and are employed by industry, government, health industry, and educational institutions. A degree in biology can open doors to a wide range of professional programs, including:

- + Aquatic Technician
- + Biological Technician
- + Biologist
- + Botanist

- + Cancer Researcher
- + Conservationist
- + Ecologist
- + Entomologist
- + Environmental Education Specialist
- + Field Biologist
- + Forensic Laboratory Analyst
- + Geneticist
- + Healthcare Professions
- + Project Manager, Environmental Assessment Agencies
- + Pharmaceutical Sales

For more information on the programs and opportunities in Biological Sciences, visit: uab.ca/biosci

CONTACT

For admission related questions, contact science.recruiting@ualberta.ca.

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UNIVERSITY OF ALBERTA
FACULTY OF SCIENCE
Department of Biological Sciences