Biology

Biology is a discipline of natural science that examines life and living organisms. Biology examines subjects like structure, function, growth, distribution, origin, mutation, evolution, and taxonomy. Biologists learn how living things work and how they interact with their environment. Biologists study various aspects of the natural world in a variety of settings. Biologists may examine cells under a microscope; collect flora samples in a greenhouse, rainforest, or bog; study human biology and disease in a lab or clinical setting; or observe animals or insects in their natural habitat. The work of biologist can help to address issues as broad as worldwide health, or environmental or natural resource concerns.

Whether it is a course on forensic molecular biology, herpetology, endocrinology, epidemiology, pathophysiology, ethology, mycology, marine biology, outdoor survival, electron microscopy, or tropical ecosystems, the Biology program at Colorado Mesa University strives to integrate traditional approaches with innovative techniques to offer students exciting and challenging opportunities to learn. This commitment, in combination with our small class sizes, allows CMU to offer undergraduates a premier education in the biological sciences. Additionally, students can take advantage of unique opportunities in order to broaden their experiences and make themselves a more marketable candidate for graduate school or the workplace. Opportunities include field experiences locally, nationally, or abroad; undergraduate research opportunities; clubs; and internships and independent study options.

A person in this career field may:

- Collect, analyze, interpret, and communicate biological data.
- Use microscopes to examine, identify, and classify micro-organisms.
- Conduct chemical analysis of substances, such as acids, alcohols, and enzymes.
- Use and program computers to store and manipulate data.
- Conduct experiments and report outcomes.
- Study and/or manage animal or plant populations.
- Supervise technicians or research assistants.
- Use and train others in various outdoor-sport techniques to collect samples including hiking, climbing, angling, canoeing, swimming and diving.
- Conduct studies and prepare reports to communicate to interested parties in the academic, commercial, government, and/or public sectors.
- Prepare proposals or write grants or explanation of work for the purpose of funding.

Major Skills & Characteristics

- Analytical & quantitative abilities
- Biology theory & practical knowledge
- Curiosity and creativity
- Independent worker
- Information handling & organization
- Innovative talents
- Numerical computation
- Operate scientific equipment
- Oral & written communication
- Problem solving
- Statistical awareness
- Teamwork
- Technical skills

Organizations that Often Employ Biology Majors:

- Agricultural industries and laboratories
- Animal, insect, land management, and environmental agencies
- Aquariums
- Conservatories
- Educational institutions
- Environmental industries, laboratories, and organizations
- Government agencies, such as the BLM or Department of Agriculture
- Fisheries
- Food processing and safety industries, agencies, and laboratories
- Greenhouses
- Health agencies
- Industries specializing in the use of natural resources, such as: mining, hydrology, and petroleum industries
- Laboratories, such as: government, industrial, medical, pharmaceutical, academic, etc.
- Port & harbor facilities
- Research departments and/or facilities
- Wildlife and game management agencies
- Zoos and animal preserves

Related Careers

- Agronomist
- Animal Scientist
- Aqua culturist
- Aquaculture Farmer
- Aquarium Worker
- Aquarium Technician
- Aquatic Biologist
- Barrier Beach Manager
- Biochemist
- Bio-Engineer
- Biometrician
- Bio-Technologist
- Boat Technician
- Botanist
- Brewery Laboratory Assistant
- Chemical Oceanographer
- Chiropractor
- Coastal Guesthouse Proprietor
- Coastal Resources Worker
- Commercial Fishing
- Coroner
- Dentist
- Dietitian & Nutritionist
- Ecologist
- Engineer
- Environmental Engineer
- Environmental Health Specialist
- Environmental Protection Worker
- Ergonomist
- Fish Hatchery Technician
- Fish Processor
- Fisheries Conservationist
- Fishing Captain
- Florist
- Food Scientist-Technologist
- Forester
- Genetic Engineer
- Geographer
- Geophysicist/Physicist
- Health Officer
- Horticulturist
- Hospital Administrator
- Hydrographic Survey Tech.
- Industrial Hygienist
- Industrial Marine Economist
- Limnological Technician
- Marina Worker
- Marine & Coastal Consultant
- Marine Bacteriologist
- Marine Biologist
- Marine Ecologist
- Marine Engineering Tech
- Marine Fisheries/Worker
- Marine Geologist/
- Marine Sales
- Marine Tourist Worker
- Market Research Analyst
- Medical Illustrator
- Medical Laboratory Tech
- Medical Librarian
- Medical Technologist
- Merchant Marine
- Meteorologist
- Microbiologist
- Mining & Petroleum Industry Consultant
- Molecular Biologist
- Mortician
- Museum/Aquarium Administrator
- Mycologist
- Naval Architect
- Net Designer
- Neurobiologist
- Oceanographer
- Paramedic
- Parasitologist
- Pharmaceutical Sales Representative
- Pharmacy Technician
- Physical Therapist
- Physician
- Public Health Worker
- Ranger Manager
- Salt Marsh Manager
- Science Laboratory Tech.
- Science Teacher
- Science Writer/Illustrator/ Film Maker
- Seafood Researcher
- Shipbuilder/Repair
- Soil Conservationist
- Sport fisher
- State Parks & Recreation
- Systems Analyst
- Technical Writer
- Test and Inspection Technician
- Toxicologist
- Transportation Worker
- Underwater Technician
- Veterinarian
- Water Quality Technician
- Water Transportation Worker
- Wildlife Biologist
- Wildlife Resources Worker
- Zoologist

Note: *Some of the occupations listed above may require additional education, experience, or training beyond a Bachelor's Degree. To research these occupations use the Career Research Resources links below.*

Career Research Resources:

Use these sites to research information about specific occupations such as nature of the work, training or qualifications, employment or job outlook, projections, earnings and wages.

Occupational Outlook Handbook: http://www.bls.gov/ooh/

The Bureau of Labor Statistics

- **View OOH information on Life and Physical Science Professions** at
- http://www.bls.gov/ooh/life-physical-and-social-science/home.htm
- Use the A-Z index to select the occupation you are researching.

O*NET-Online: http://www.onetonline.org

The U.S. Department of Labor

- In the occupational search box type in key words, job titles, or occupational codes to research various careers.

My Future.com: http://www.myfuture.com

The Department of Defense

- This site compiles information from departments of Commerce, Education and Labor.

Organizations and Associations Links

- American Aquarium and Zoo Association: http://aza.org
- The American Institute of Biological Sciences: http://www.aibs.org
- American Society for Cell Biology: www.ascb.org
- European Molecular Biology Organization: http://www.embo.org
- Human Biology Association: http://www.humbio.org
- International Biometric Society: http://www.tibs.org
- The Company of Biologists Limited: http://www.biologists.com
- Society for Mathematical Biology: http://www.smb.org

Job Listings/Job Search Sites:

- American Aquarium and Zoo Association Job Listing: http://www.aza.org/joblistings
- American Association of Zoo Keepers: http://www.aazk.org/job_listings.php
- American Association for the Advancement of Science-Careers: http://sciencecareers.sciencemag.org
- American Society of Cell Biology, Job Board: http://jobboard.ascb.org/jobs
- Biology Jobs.com: http://www.biologyjobs.com
- Higher Ed Jobs: www.higheredjobs.com
- Indeed: http://www.indeed.com
- Medline Plus, Health Occupations: http://www.nlm.nih.gov/medlineplus/healthoccupations.html
- NIH Career Services: https://www.training.nih.gov/career_services/jobs
- The Riley Guide: www.rileyguide.com
- Wet Feet: http://www.wetfeet.com