

BIOLOGICAL SCIENCES

What can I do with this degree?

AREAS

EMPLOYERS

STRATEGIES

BIOTECHNOLOGY

Research and Development
Laboratory Testing
Teaching

Colleges and universities
Pharmaceutical companies
Agricultural industry including:
Fertilizer manufacturers, animal and plant
breeding and production
Federal and state government laboratories and
agencies
Industry, particularly biotechnology firms

Develop excellent laboratory skills.
Acquire Ph.D. for college and university teaching and
advanced positions in research, development,
and management.
Learn federal and state government job application
process.
Take additional courses in science and mathematics.
Learn to problem solve.
Develop work habits that are systematic, precise and
patient.

GENETICS

Research and Development related to:
Animals
Plants
Humans

Colleges and universities
Pharmaceutical manufacturers
Large producers of seed, livestock and poultry
Large fur breeding farms
Government laboratories, including:
Department of Agriculture
Fish and Wildlife Service
National Institutes of Health

Acquire broad background in sciences, mathematics
and computer technology.
Obtain Ph.D. for advanced positions in research and
management.
Learn federal government job application
process.

MICROBIOLOGY

Research
Teaching
Production
Quality Control

Colleges and universities
Professional schools of medicine, dentistry, public
health, nursing, pharmacy, veterinary medicine
and agriculture
Private research foundations
Government research laboratories and service
agencies
Hospitals and public health facilities
Agricultural experiment stations
Food, chemical, pharmaceutical and cosmetic
companies
Industry including: wood products, paper, textiles,
optical equipment, leather and electrical
equipment
Environmental and pollution control agencies

Obtain Ph.D. for teaching and advanced research
and management positions.
Take additional courses in chemistry, biology,
mathematics and physics.
Take courses related to field of interest: botany,
plant pathology, chemical engineering.
Learn federal, state and local government job
application process.
May need to obtain specialized certification for some
medical areas.
Develop necessary eye-hand coordination and group
interaction skills.

AREAS

EMPLOYERS

STRATEGIES

MYCOLOGY

Teaching
Research

Colleges and universities
Professional schools of medicine, forestry, and agriculture
Medical research laboratories
Private research institutes
Pharmaceutical industry
Public Health Service
Industries and laboratories involved in production of food, leather, textiles, and forestry products
Chemical manufacturers
State and federal government laboratories

Acquire knowledge and skills in specialized areas; knowledge of industry chemistry especially helpful.
Take courses in organic chemistry, biochemistry and physics.
Acquire graduate degree for more opportunities.
Obtain Ph.D. for teaching and advanced positions in research and management.
Learn federal and state government job application process.

SYSTEMATIC BIOLOGY

Teaching
Research
Field and Laboratory
Taxonomy
Toxicology
Consulting
Medicine

Private and public schools
Colleges, universities and agricultural colleges
Federal agencies including:
 Departments of Agriculture and Interior
Private research foundations
Museums
Botanical gardens and arboretums
Zoos and aquariums
State and local agencies
Public health laboratories
Hospitals
Oil companies
Organizations involved in ecological studies
National and international environmental research programs

Become certified/licensed for public school teaching.
Earn Ph.D. for college and university teaching and advanced research and management positions.
Learn federal, state and local government job application process.
Develop excellent laboratory skills.

Develop foreign language abilities for international opportunities.

ENTOMOLOGY

Teaching
Research
Biological Control
Toxicology
Biological Survey
Extension
Inspection

Colleges and universities, especially colleges of agriculture and veterinary medicine
Industry, including:
 Food producers and processors
 Chemicals for insect control
 Lumber and pulp

Acquire Ph.D. for college and university teaching and advanced research and management positions.

AREAS

EMPLOYERS

STRATEGIES

Entomology, Continued

Chemical companies
Pest control companies
Federal and state government
Health agencies
Agricultural Experiment Stations
Inspection agencies and control boards
Conservation agencies
Museums

Entomology, Continued

Learn federal, state and local government job application process.
Specialize in areas.

MARINE AND AQUATIC BIOLOGY

Food
Research
Inspection
Teaching
Analysis

Federal, state and local agencies
International agencies
Inspection organizations
Private recreation organizations
Research laboratories
Colleges and universities
Zoos
Armed services
Shipping industry
Manufacturing
Fish hatcheries and organizations raising fish

Develop good foundation in mathematics, computer science, statistics and humanities.
Learn federal, state and local government job application process.
Acquire Ph.D. for college and university teaching and advanced research and management positions.
Obtain experience related to fishing and boating.

Specialize in fisheries science.

ZOOLOGY

Animal Care/Training
Research
Curator
Teaching
Specialized Areas

Wildlife preserves and parks
Zoos, aquariums and other collections of animals
Museums
Research organizations
Pharmaceutical, industrial, chemical and agricultural service industries
Federal and state agencies
Colleges and universities

Acquire excellent communication skills.
Obtain experience working with animals and various related laboratory equipment.
Develop broad background in biology and other related subjects--chemistry, physics, mathematics and statistics.
Acquire graduate degree for advancement and specialized positions.
Obtain Ph.D. for teaching and advanced research and management positions.
Learn federal and state government job application process.

AREAS

EMPLOYERS

STRATEGIES

BIOMEDICAL

Physiology
Biophysics
Biochemistry
Pharmacology
Nutrition
Immunology
Pathology
Research
Teaching
Quality Control

Colleges and universities
Professional schools including colleges of
pharmacy, dentistry, medicine, veterinary
medicine and agriculture
Clinics and hospitals
Private research foundations
Drug companies
Federal laboratories and regulatory agencies
Independent testing laboratories
Public health departments
Agricultural Experiment Stations
Industrial laboratories including:
chemical, petroleum, food processing, drug and
cosmetic manufacturers
Armed services

Obtain Ph.D. for college and university teaching
and advanced research positions.
Acquire background in physics, organic and
physical chemistry, mathematics, and anatomy.
Take courses in area(s) of specialization.
Acquire advanced degrees in areas of specializa-
tion; some may require M.D.
Learn federal, state and local government job
application process.

Engineering

Obtain degree in biomedical engineering or
engineering technology.

TECHNICAL WRITING

Editing
Writing

Newspapers
Publishing companies including:
scientific magazines
professional journals
periodicals
textbooks
biological books

Take technical writing classes or minor.
Develop strong writing skills and command of
English language.
Minor in Journalism.
Acquire word processing and desktop publishing
skills.

ILLUSTRATION

Publishing companies of:
textbooks
scientific magazines and books
Medical and veterinary colleges

Double major or minor in graphic illustration.
Find part-time, summer, co-op or internship
position.

TECHNICAL SALES

Manufacturing firms including:
pharmaceuticals
animal pharmaceuticals
laboratory equipment
medical supplies and prostheses

Develop excellent communication and interpersonal
skills.
Take courses in anatomy and pharmacology.
Obtain retail or selling experience.
Acquire a minor in business.
Hold leadership positions in campus organizations.
Join student American Marketing Association.

AREAS

EMPLOYERS

STRATEGIES

BIOLOGICAL PHOTOGRAPHY

Major medical, dental and veterinary schools
Research centers
Federal government
Museums
Zoological societies
Pharmaceutical companies
Publishing houses
Free-lance

Acquire thorough knowledge of photographic procedures and technology.
Become skilled with medical and scientific instruments including microscopes.
Take specific courses in biological, medical and ophthalmic photography; courses in illustration and printing helpful.
Learn federal government job application process.

LEGISLATION

Lobbyists

Federal and state government
Companies and industries

Acquire internships in federal or state government.
Develop excellent communications and interpersonal skills.
Learn federal and state government job application process.
Get experience in sales.
Acquire Ph.D.

Congressional Fellows

Federal government

GENERAL INFORMATION

General Information, Continued

- A bachelor's degree will qualify for work as a laboratory assistant, technician, technologist or research assistant. These individuals work as part of a team performing practical operations, e.g., operating laboratory equipment, designing and constructing new equipment, making drawings, building models and assisting in interpretation of results.
- An undergraduate degree can be used for nontechnical work in writing, illustration, sales, photography and legislation.
- Graduate degrees will allow for more responsibility and advancement.
- Some work environments, particularly medical, require special certification.
- Learn laboratory procedures and become familiar with equipment.
- Obtain summer, part-time, volunteer, co-op or internship experience.
- Complete various training courses working with laboratory equipment and procedures to enhance job skills and abilities.
- Join professional associations and community organizations to enhance knowledge, abilities and contacts in the field.