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	**Entomology, Continued**
	Chemical companies Pest control companies Federal and state government Health agencies Agricultural experiment stations Inspection agencies and control boards Conservation agencies Museums	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, industry, 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 specialization; 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		
Lobbyist	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.
Congressional Fellows	Federal government	Get experience in sales. Acquire Ph.D.

GENERAL INFORMATION

- 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 equipement.
- Obtain summer, part-time, volunteer, co-op or internship experience.
- Complete various trainining 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.

Prepared by the Career Planning staff of Career Services at The University of Tennessee, Knoxville. (1995)
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