

Major Possibilities: Biology



Career Services

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Summary

- A major in biology can prepare you for further education, such as a PhD or veterinary degree, but there are some jobs that don't require more than a bachelor's degree.
- A PhD usually is required for independent research, but a master's degree is sufficient for some jobs in applied research or product development; temporary postdoctoral research positions are common.
- The bachelor's degree is adequate for some non-research jobs. For example, graduates with a bachelor's degree may start as biological scientists in testing and inspection or may work in jobs related to biological science, such as technical sales or service representatives.

Biology major synopsis

The courses offered by the department cover a broad range of topics within three main subdivisions of biology: cellular and molecular biology, organismal biology, and ecology and evolutionary biology. Most of the courses have a lecture component combined with a laboratory component. By appropriate selection of course combinations, students can prepare for various options, such as entrance into graduate or professional schools (dental, medical, medical technology, nursing, optometry, pharmacy and veterinary) and acquisition of positions in industry, government, public health and teaching. Students should consult with academic advisers and other members of the department for assistance in making proper course selections that will prepare them for their chosen career directions.

Sample job titles

Arts, Media & Entertainment

Biological Illustrator
Biological Photographer
Media Specialist
Medical Illustrator
Science Writer

Government

Agricultural Scientist
Biochemist
Biological/Medical Scientist
Botanist
Ecologist
Environmental Technician
Forester
Horticulturist
Medical Scientist

Microbiologist
Range Manager
Research Assistant
Social Scientist
Soil Conservationist
Statistician

Industry and Commerce

Animal Breeder
Aquatic Biologist
Dietician
Nutritionist
Occupational Therapy
Physical Therapy
Respiratory Therapy
Zoologist

Service and Education

Biological Technician
Chemical Technician
Chiropractor
Clinical Lab Technician
Dentist
Doctor: General Medicine
Electroneurodiagnostic Tech
Health Information Tech
Nuclear Technician
Optometrist
Petroleum Technician
Pharmacist
Physiologist
Podiatrist
Process Technician
Radiological Technician
Surgeon/Surgical Technician

Sample internship employers of SU students

Animal Hospital of Georgetown
Austin State Hospital
Cross Cultural Solutions
Federal Food and Drug Administration
FDA Office of Orphan Products Development

Georgetown Public Health Department
REU with Cornell University
REU with NSF Bodega Marina Laboratory
Williamson County Department of Health Services

Possible internship sites

Alaska State Parks
Apple Health and Fitness
Associated Colleges of the South
Carnegie Institute - Washington, DC
Ceiba Foundation for Tropical Conservation
Chicago Botanic Garden
Clean Water Action
Cumberland Center for Conservation and Sustainable Development
Dallas Services for the Visually Impaired

Institute of Paper Science and Technology
Kewalo Basin Marine Mammal Laboratory
La Sima Foundation, Inc.
Leukemia Society of America
Lunar and Planetary Institute
Organic Botanicals, LLC.
Remedy Addiction Counselors, Inc.
Sea World Adventure Camp
Seasonal Field Botanist - The Nature Conservancy

Sample full-time employers of SU grads

Clinical Research Assistant (TAMU Med. Center)
Database Management (Elfin Oil Inc.)
Filed Manager (The Fund for Public Internet Research)
Lab Assistant (Propath Laboratories)
Medical Lab (United States Army)
Optometric Assistant (Drs. Comoli and Ethridge)

Pharmacy Technician (Northwest Hills Pharmacy)
Professional Sales Rep. (Reliant Pharmaceuticals)
Receptionist (Town and Country Animal Hospital)
Research Asst., Department of Pulmonary Pathology (UT Health Science Center)
Serum Technician (Allergy and Asthma Clinic of Central Texas)

Professional associations

American Association for the Advancement of Science: www.aaas.org
American Institute of Biological Sciences: aibs.org
American Society for Biochemistry and Molecular Biology: www.asbmb.org
American Society for Cell Biology: www.ascb.org
American Society for Clinical Laboratory Science: www.ascls.org
American Society for Microbiology Careers: www.asmcareerconnections.org
American Zoo and Aquarium Association: www.aza.org
Federation of American Societies for Experimental Biology: www.faseb.org
National Science Foundation: www.nsf.gov
National Science Teacher's Association: www.nsta.org
Society for Integrative & Comparative Biology: www.sicb.org
Society for Molecular Biology and Evolution: www.smbe.org

Additional Web resources

Biology Department- Southwestern University: www.southwestern.edu/departments/biology/forstudents.php
Biotechnology Employment Site: www.biospace.com/jobs/
Biotechnology Institute: www.biotechinstitute.org
Careers in Biology: www.emporia.edu/biosci/carebiol.htm
Environmental Jobs: www.environmentalcareer.info
National Biological Information Infrastructure: www.nbi.gov
Science Careers: sciencecareers.sciencemag.org
SICB Career Info: www.sicb.org/careers/index.php3
Undergraduate Research Experience: www.nsf.gov/crssprgm/reu/reu_search.cfm

Career Services' print resources

Alternative Careers in Science
Career Opportunities in Forensic Science
Career Opportunities in Health Care
Career Opportunities in Science
Careers for Health Nuts and Others Who Like to Stay Fit
Careers in Alternative Medicine
Careers in Social and Rehabilitation Services
Chemical Careers in Brief
Childbirth Instructor Magazine Guide to Careers in Birth
Children's Health Care
Earthwatch Institute: 2008 Expedition Guide
Exploring Health Care Careers
Great Jobs for Biology Majors
Health Professions: Career and Education Directory
Medical and Pharmaceutical Sales
Opportunities in Animal and Pet Care Careers
Opportunities in Biological Science Careers
Opportunities in Biotechnology Careers
Opportunities in Dental Care Careers

Opportunities in Eye Care Careers
Opportunities in Forensic Science Careers
Opportunities in Gerontology and Aging Careers
Opportunities in Medical Sales Careers
Opportunities in Nursing Careers
Opportunities in Occupational Therapy Careers
Opportunities in Pharmacy Careers
Opportunities in Physical Therapy Careers
Opportunities in Physician Assistant Careers
Opportunities in Research and Development
Opportunities in Speech-Language Pathology
Opportunities in Veterinary Medicine Careers
Pharmaceutical Industry Guide: Drug Cos., Biotech Firms & CROs
Pharmaceutical/Medical Representative
Planning Your Career in Alternative Medicine
Top 20 Biotechnology & Pharmaceutical Firms
Vault Career Guide to Biotech
Winning the Games Scientists Play