WHAT CAN I DO WITH A MAJOR IN … BIOLOGY

OCCUPATIONAL OVERVIEW:
Biology is the study of life in all forms, from single-celled organisms to more complex fungi, plants, and animals. Majors in biology are provided the basic foundation for pursuing a career in biological sciences. The University of New Mexico’s Department of Biology explains that Majors may go into research, teaching, medicine, veterinary medicine, dentistry, and various applied and technical fields. Introductory courses cover the concepts, theories and processes of biology, and the diversity of life on all levels.

EMPLOYMENT REQUIREMENTS:
A bachelor's degree is the minimum formal education required. A Bachelor's degree qualifies you for laboratory technician or technical assistant positions in education, industry, government, museums, parks, and botanical gardens. However, many employers also require graduate school. For example, they may require a master's degree, and some require a Ph.D., M.D. Consult O*Net for more information on the specific KSAs (Knowledge, Skill, Ability) that are needed for a career in Biology.

THE UNIVERSITY OF NEW MEXICO:
The University of New Mexico has a very large and diverse Biology department. Members of this department conduct research and teach in a wide variety of areas that include Botany, Evolution, Ecology, Microbiology, Molecular and Cellular Biology, Physiology and Zoology. The Biology department offers a Bachelor of Arts (B.A.) and a Bachelor of Science (B.S.) as well as M.S. and Ph.D. degrees. Students who major with a B.A. often plan to pursue a career outside Biology, but need a foundation in biological principles. Some careers may include: science education, law school, environmental journalism, or community planning. The B.S. track provides students with the skills and information needed to pursue for careers as scientists and health professionals. Advanced courses and individual research courses with faculty are available in several sub-disciplines, go to: http://biology.unm.edu/faculty-researcharea.shtml to look up faculty research areas. Further information can be found on the UNM Department of Biology website.

INDUSTRIES & TARGET EMPLOYERS:
A variety of employers specifically recruit UNM students and alumni. Consult UNM’s Lobo Career Connection for a complete list of employers and current job postings. Speak with a Career Development Facilitator at the UNM Office of Career Services for help with identifying employers or additional resources for your occupation of choice.

Biomedical
- Physiology, Biophysics, Biochemistry, Pharmacology, Nutrition, Immunology, Pathology, Research/Teaching

Biomedical Quality Control
- Professional Schools, Pharmaceutical Companies, Federal Laboratories, Industry, Armed Services

Botany, Horticulture, Forestry
- Research/Teaching, Agronomy, Biotechnology, Plant Ecology, Food Science and Technology, Natural Resource Management, Plant Pathology, State and federal government: Departments of Agriculture, Interior, and Health

Entomology
- Research/Teaching, Biological Control, Toxicology, Agricultural Extension, Inspection

Genetics &Biotechnology
- Laboratory Testing, Teaching, Research and Development related to: Animals, Plants, or Humans, Immunology

Law
- Agricultural, Environmental, Biotechnological, U.S. Patent Office, Legal Firms
Marine & Aquatic Biology
Food Industry, Research/Teaching, Marine Ecology, Inspection, Analysis

Mycology
Medical Research labs, Pharmaceutical Industry, Chemical Manufacturers, State and Government labs

Technical Sales

Wildlife Conservation
Resource/Range Management, Wildlife/Fisheries, Resource Management at Local, State and Federal Levels

Zoology
Animal Care/Training, Research/Teaching, Animal Ecology, Curator: Wildlife Preserves, Zoos and Aquariums, Museums, Federal and State Agencies

SUGGESTED STRATEGIES

• Gain related professional experience through involvement in internships, student employment, Co-ops, and/or volunteer opportunities.
• Subscribe to the Biology Club (Bioclub-L) email list to receive e-mail about jobs, course announcements, summer internships, special lectures, research opportunities, workshops etc. Check here for directions http://biology.unm.edu/undergrad/undergrad-guide.shtml
• Shadow professionals in the field to gain a better understanding of the occupation and to build relationships with professional mentors.
• Conduct undergraduate research with professors. Join related professional organizations.
• Try to get into a lab as a work-study person or a volunteer or as a research assistant.
• Build your network and get involved on campus through student organizations and campus events. Find organizations and events at the Student Activities Center website.
• Attend career related campus events such as career fairs, company information sessions, and or career workshops.
• Students who are interested in graduate school should maintain a high undergraduate GPA and develop relationships with faculty and community leaders. Opportunities for scholarships arise during the year—remember, someone has to know who you are and that you’re interested so we can connect you with these opportunities.
• Speak with mentors and faculty about career opportunities.
• The summer after your sophomore or junior year, you should think about going somewhere for a summer research program. Good web sites to begin your search are: http://www.ams.org/employment/reu.htm, http://faculty.juniata.edu/keeney/summer%20research.htm, http://www.columbia.edu/cu/biology/ug/intern.html

STATE & NATIONAL WAGES:
Adapted from CareerOneStop (2013)

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BIOLOGICAL SCIENTISTS, ALL OTHER:
INFORMATIONAL WEBSITES:

UNM Department of Biology
http://biology.unm.edu/
Sloan Foundation Careers in Science, Technology, & Medicine
http://www.careercornerstone.org/
Professional Science Masters
http://www.scientemasters.com/
Science Careers
http://recruit.sciencemag.org/
PhDs.org
http://www.phds.org/
Science Jobs
http://www.scijobs.org/
American Society of Cell Biology
http://www.ascb.org/
American Society of Microbiology
http://www.asm.org/
The National Academies
http://www.nas.edu/
Life Sciences World
http://www.lifesciencesworld.com/
National Human Genome Research Institute
http://www.genome.gov/
American Society for Biochemistry & Molecular Biology
http://www.asbmb.org/
Bio.org
http://www.bio.org/speeches/pubs/er/
American Academy of Forensic Sciences
http://www.aafs.org/
National Wildlife Federation
http://www.nwf.org/
National Association of Marine Labs
http://www.mbl.edu/naml/
International Marine Animals Training Association
http://www.imata.org/
Dolphin Research Center
http://www.dolphins.org/
National Biological Information Infrastructure
http://www.nbii.org/portal/server.pt
The American Institute of Biological Sciences: Careers
http://www.aibs.org/careers/index.html
Hire Health
Careers in Marine Science
http://oceanlink.island.net/career/career2.html
Sea Grant Marine Careers
http://www.marinecareers.net/careerfields.html
N.I.H.: Explore Health and Medical Science Careers
http://science.education.nih.gov/lifeworks.nsf/Interviews

OTHER INFORMATIONAL WEBSITES:

http://online.onetcenter.org
http://www.bls.gov/oco/

REFERENCES
