

MAJOR TO CAREER GUIDE

B.S. Biology with a Biotechnology Concentration

College of Sciences

Mission of the College of Sciences

The College of Sciences offers programs in life sciences, chemistry, geoscience, mathematical sciences, physics and astronomy, and water management. The college has created a well-rounded curriculum by combining practical and empirical knowledge with scientific fundamentals and principles, which provides a solid foundation for a successful career in the sciences and other professional programs. The student-faculty relationship, hands-on research, and community service help ensure that students who graduate are prepared for whatever path they choose.

www.unlv.edu/sciences

About the Biology Career

Studying biology teaches us to ask questions, make observations, evaluate evidence, and solve problems. Biologists learn how living things work, how they interact with one another, and how they evolve. They may study the evolution, natural history, and conservation of plants and animals; investigate the interactions of living organisms with light, the environment, or each other; or have careers in pharmaceuticals, biotechnology, or medical research. Their work increases our understanding about the natural world in which we live and helps us address issues of personal well being and worldwide concern, such as environmental degradation, threats to human health, and maintaining viable and abundant food supplies.

Value of a Biotechnology Major

Biotechnology is the application of biological organisms, systems, or processes by various industries to learning about the science of life and the improvement of the value of materials and organisms such as pharmaceuticals, crops, and livestock. It is a relatively new and fast-developing field that integrates knowledge from several traditional sciences: biochemistry, chemistry, microbiology, and chemical engineering.

UNLV Academic Advising for Science Majors:

Academic Advisors who are eager to meet with students about their academic goals and to assist in constructing a plan for graduation. Advisors can also help students understand how their experiences at UNLV can lead to a career in their desired field.

College of Sciences Advising Center

Phone: 702-895-2077

Campus Location: MPE-A 130

<http://www.unlv.edu/sciences/advising>

Biotechnology Career Options

- Biomedical scientist*
- Pharmaceutical sales*
- Biotechnologist*
- Contract research organizations*
- Chemical companies*
- Applied research*
- Product development (diagnostics, therapeutics, or research products)*
- Clinical trials*
- Epidemiologists *
- Research scientists *
- Education professionals*

*Additional education/certification required

Professional and Student Organizations

The College of Sciences has a number of organizations students can get involved in, whether it be hosting professionals from different scientific fields, or working with the dean to address issues of concern for science students. *Students are encouraged to get involved with these societies and groups early on!*

Alpha Epsilon Delta – Pre-health Honor Society

American Nuclear Society

Association of Pre-Health Professionals

Biology Graduate Student Association (BIOS)

Chemical Interactions (American Chemical Society Student Affiliates Chapter)

Graduate & Professional Student Association (GPSA)

Minority Science Students Program (MSSP)

Undergraduate Council (UC)

<http://www.unlv.edu/sciences/student-organizations>

Graduate Program:

Master of Science or Doctor of Philosophy

We offer both Ph.D. and M.S. degrees in biology with concentrations in Cell and Molecular Biology, Ecology and Evolutionary Biology, Integrative Physiology, and Micro-biology. The Ph.D. is research intensive and is designed to prepare students for careers in academia, government, or industry. The M.S. degree is less research intensive than the Ph.D. and is designed to prepare students for a diverse set of science-related careers.

<http://sols.unlv.edu/prospective.html>

Helpful Career Information

Employers rate candidate soft skills/qualities in order of importance

- 1 Ability to verbally communicate with persons inside and outside the organization
- 2 Ability to work in a team structure
- 3 Ability to make decisions and solve problems
- 4 Ability to plan, organize and prioritize work
- 5 Ability to obtain and process information
- 6 Ability to analyze quantitative data
- 7 Technical knowledge related to the job
- 8 Proficiency with computer software programs
- 9 Ability to create and/or edit written reports
- 10 Ability to sell or influence others

Source: Job Outlook 2013

Courtesy of the National Association of Colleges and Employers

Visit the Career Occupational Handbook to learn more about a specific occupation:

<http://www.bls.gov/ooh/>

The OCH covers hundreds of occupations and describes: What They Do, Work Environment, How to Become One, Pay, and more. Each profile also includes BLS employment projections for the 2010–20 decade.

Career Exploration/Planning

FOCUS 2: UNLV's computerized assessment that profiles your interests, abilities, and values and helps you find a career that's right for you.

<http://hire.unlv.edu/careerAssessment.html>

Myers-Briggs Type Indicator (MBTI): Assessment designed to identify how you are energized, how you take in information, how you make decisions, and how you approach life.

<http://hire.unlv.edu/careerAssessmentMBTI.html>

Strong Interest Inventory: Generates an in-depth assessment of your interests among a broad range of occupations, work and leisure activities, and educational subjects.

<http://hire.unlv.edu/careerAssessmentStrong.html>

UNLV Career Services

Career Services encourages ALL UNLV students to take advantage of their services, which include:

- Assistance with developing a career plan and choosing a major
- Career counseling and guidance on building a RESUME
- Preparing for an interview, assistance with job searching and networking.

Phone: 702-895-3495

Campus Location: SSC-A 2nd Floor

<http://hire.unlv.edu/>

Internship Opportunities

UNLV's **Hire a Rebel** is a free, online recruiting system that helps students, alumni, and employers connect in a variety of ways.

Students can use **Hire a Rebel** to search for: job and internship listings, on-campus recruiting interviews, employer information sessions, resume book database, & dates for career fairs.

<http://hire.unlv.edu/careerLink.html>

MEDIAN SALARIES BY DISCIPLINE 2010-2012

Career	Salary Range	Median Salary
Biomedical Scientist	\$38,783 - \$84,494	\$59,400
Epidemiologist	\$41,091 - \$101,114	\$61,400
Biotechnologist	\$24,548 - \$68,423	\$42,500
University Biology Professor	\$49,648 - \$110,028	\$70,700

www.payscale.com

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