

WHAT CAN I DO WITH A MAJOR IN ... **BIOCHEMISTRY**

OCCUPATIONAL OVERVIEW:

Research or study chemical composition and processes of living organisms that affect vital processes such as growth and aging to determine chemical actions and effects on organisms such as the action of foods, drugs, or other substances on body functions and tissues.

EMPLOYMENT REQUIREMENTS:

[Extensive Job Preparation Needed]

A bachelor's degree is the minimum formal education required. However, many employers also require graduate school. For example, they may require a master's degree, and some require a Ph.D., M.D., or J.D. (law degree).

EMPLOYERS & SUGGESTED STRATEGY:

Please ask your Career Advisor (CDF) for identifying employers or additional resources for your occupation of choice.

Research: Agricultural industry - Biotechnology firms - Chemical and petroleum industries - Commercial medical laboratories - Cosmetic manufacturers - Federal government laboratories and agencies - Independent research foundations - Pharmaceutical companies - Private testing laboratories including forensics - State government laboratories and agencies - University laboratories

Suggested Strategy: As an undergraduate obtain a laboratory technician or research assistant position. Choose courses with laboratory work to gather experience. Get on the job experience in a laboratory and/or complete a senior research project. Consider completing a certificate training program, usually one year, to learn specialized laboratory techniques and taking a course in grant writing. Earn your master's degree in biochemistry for better positions, advancement opportunities, more responsibility and higher pay. Obtain a Ph.D. to direct research projects and lead research teams.

Teaching: Four-year private or state institutions - Medical schools - Public and private high schools - Two-year community colleges or technical institutes

Suggested Strategy: Complete an accredited teacher preparation program for certification/licensure in biology and/or chemistry. Ph.D. required for college or university teaching. Some teaching positions in two-year institutions may be available for those with a master's degree. Prepare to attend graduate school by maintaining a high grade point average and securing strong faculty recommendations. Serve as a tutor for high school or college students.

Healthcare: Hospitals - Medical centers - Nursing homes - Private practice

Suggested Strategy: Plan on attending medical school or other related graduate program. Maintain an outstanding grade point average, particularly in the sciences. Secure strong faculty recommendations. Join related student organizations and demonstrate leadership abilities. Volunteer to work in a hospital or healthcare setting and/or find a summer job or internship in a hospital. Develop a back up plan in case medical/graduate school admission is denied.

Other Areas: Biotechnology industry - Law firms or legal departments of corporations - Pharmaceutical and chemical companies - Publishers: Textbook, magazine, newspaper, book - Regulatory agencies - Software firms

Suggested Strategy: For sales positions, gain sales experience through internships, part-time work, or summer jobs. Take business and/or computer classes. Become familiar with desktop publishing and other software packages. Develop strong written and oral communication skills. Get experience writing for a school or local newspaper. Obtain an MBA or Ph.D. to reach high levels of administration. Plan on attending law school if interested in law.

NATIONAL WAGES (2006) FOR BIOCHEMISTS AND BIOPHYSICISTS:

	10 %	25 %	Median	75 %	90 %
United States	\$ 40,800	\$ 53,400	\$ 76,300	\$ 100,100	\$ 129,500

INFORMATIONAL WEBSITES:

Professional Science Masters

Science Careers

HireHealth (Pharmaceutical Jobs)

Science Jobs

Biotechnology Industry Organization

Life Sciences World

American Society for Biochemistry & Molecular Biology

American Institute of Biological Sciences

International Union of Biochemistry & Molecular Biology

The National Academies

The Forensic Science Society

<http://www.sciencemasters.com/>

<http://recruit.sciencemag.org/>

<http://www.hirehealth.com/>

<http://www.scijobs.org/>

<http://www.bio.org/speeches/pubs/er/>

<http://www.lifesciencesworld.com/>

<http://www.asbmb.org>

<http://www.aibs.org/core/index.html>

<http://www.iubmb.org/>

<http://www.nas.edu/>

<http://www.forensic-science-society.org.uk/>

OTHER INFORMATIONAL WEBSITES:



<http://online.onetcenter.org>



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