

BIOCHEMISTRY

What can I do with this degree?

AREAS	EMPLOYERS	PREPARATION
RESEARCH <ul style="list-style-type: none"> • Basic • Applied • Medical • Grant Writing • Administration 	<ul style="list-style-type: none"> • University laboratories • Federal government laboratories/agencies including: National Science Foundation, National Institutes of Health, Food and Drug Administration, Environmental Protection Agency, Department of Agriculture, Armed Services • State and local government laboratories/agencies • Public health departments • Hospital laboratories • Commercial medical laboratories • Private testing laboratories including forensics • Independent research foundations • Industry laboratories: Pharmaceutical companies, Biotechnology firms, Food processors, Cosmetic manufacturers, Chemical and petroleum industries, Agricultural industry 	<ul style="list-style-type: none"> ❖ Bachelor's degree in biochemistry, biology, or chemistry qualifies one for laboratory technician or research assistant positions. ❖ Choose courses with laboratory work. ❖ Get on the job experience in a laboratory and/or complete a senior research project. ❖ Complete a certificate training program, usually one year, to learn specialized laboratory techniques. ❖ Take a course in grant writing. ❖ Earn master's degree in biochemistry for better positions, advancement opportunities, more responsibility and higher pay. ❖ Obtain Ph.D. to direct research projects and lead research teams.
TEACHING <ul style="list-style-type: none"> • Elementary • Secondary • Post-secondary 	<ul style="list-style-type: none"> • Public and private elementary, middle, and high schools • Two-year community colleges/technical institutes • Four-year institutions • Medical schools 	<ul style="list-style-type: none"> ❖ 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. ❖ Learn to communicate effectively.
HEALTHCARE <ul style="list-style-type: none"> • Medicine • Dentistry • Optometry • Podiatry • Pharmacy • Veterinary Medicine • Allied Health • Occupational Therapy • Physical Therapy 	<ul style="list-style-type: none"> • Hospitals • Medical centers • Nursing homes • Private practice 	<ul style="list-style-type: none"> ❖ Plan on attending medical school or other related graduate program. ❖ Maintain an outstanding grade point average, particularly in the sciences. ❖ Secure strong faculty recommendations. ❖ Meet with a pre-health advisor periodically. ❖ Join related student organizations. Demonstrate leadership abilities. ❖ Volunteer to work in a hospital or healthcare setting. ❖ Find a summer job or internship in a hospital. ❖ Develop a backup plan in case medical/graduate school admission is denied. ❖ Consider alternative but related careers such as physician assistants. ❖ Research all of the various fields within medicine to determine a particular career goal.

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<p>OTHER PROFESSIONAL OPPORTUNITIES</p> <ul style="list-style-type: none"> • Sales/Marketing • Technical Writing • Scientific Journalism • Scientific Illustration • Regulatory Affairs • Administration/Management • Scientific/Technical Recruiting • Intellectual Property/Patent Law 	<ul style="list-style-type: none"> • Biotechnology industry • Pharmaceutical and chemical companies • Publishers: Textbook, magazine, newspaper, book • Software firms • Regulatory agencies • Search firms • Law firms • Legal departments of corporations 	<ul style="list-style-type: none"> ❖ 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. ❖ Obtain 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.
STRATEGIES		LINKS
<ul style="list-style-type: none"> • As an undergraduate, seek laboratory experiences such as research projects, volunteering with professors, summer jobs, or internships. • Participate in research programs sponsored by organizations like the National Science Foundation and the National Institutes of Health. • Consider a certificate program or specialized master's program to qualify for research technician positions. • Earn master's degree for greater variety and autonomy on the job. • Earn a Ph.D. to work on high-level research projects, to direct research programs, to enter high levels of administration, and to teach at four-year post-secondary institutions. Postdoctoral fellowships may also be required. • Learn to work independently and as part of a team. • Develop the ability to communicate clearly. • Gain competencies in computers and mathematics. • Read scientific journals and join related professional organizations. • Combine an undergraduate degree in biochemistry with a degree in law, computer programming, business, education, information science, or other discipline to expand career opportunities. 		<p><u>American Society for Biochemistry & Molecular Biology</u></p> <p><u>Biochemical Society</u></p> <p><u>Cell & Molecular Biology Online</u></p> <p><u>NASA</u></p> <p><u>National Center for Biotechnology Information</u></p> <p><u>National Institute of Health</u></p> <p><u>National Science Foundation</u></p> <p><u>Office of Science</u></p> <p><u>Science Jobs.com</u></p> <p><u>United States Office of Personnel Management</u></p>