What can I do with a degree in Biochemistry?

Research Areas
- Basic
- Applied
- Medical
- Grant Writing
- Administration

Employers
- University laboratories
- Federal government laboratories/agencies
- State and local government laboratories/agencies
- Public health departments
- Hospital laboratories
- Commercial medical laboratories
- Private testing laboratories including forensics
- Independent research foundations
- Industry laboratories

Strategies
- 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
Areas
Elementary
Secondary
Post-secondary

Employers
Public and private elementary, middle, and high schools
Two-year community colleges/technical institutes
Four-year institutions
Medical schools

Strategies
- 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
Areas
Medicine, dentistry, optometry, podiatry
Pharmacy
Veterinary Medicine
Allied Health
Occupational and physical Therapy

Employers
Hospitals
Medical centers
Nursing homes

Private practice

Strategies
- 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 back up 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.

Other Professional Opportunities
Areas
Sales/Marketing
Technical Writing
Scientific Journalism or Illustration
Regulatory Affairs
Administration/Management
Scientific/Technical Recruiting
Intellectual Property/Patent Law

Employers
Biotechnology industry
Pharmaceutical and chemical companies
Publishers: Textbook, magazine, newspaper, book
Software firms
Regulatory agencies
Search firms
Law firms
Legal departments of corporations

Strategies

- 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.

General Information

- 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.

Prepared by the Career Planning staff of Career Services at The University of Tennessee, Knoxville.

Career Exploration
Occupational Outlook Handbook - Biological Scientists
http://www.bls.gov/oco/ocos047.htm

Occupational Outlook Handbook - Veterinarians
http://stats.bls.gov/oco/ocos076.htm

Occupational Outlook Handbook - Physicians & Surgeons
http://www.bls.gov/oco/ocos074.htm

Occupational Outlook Handbook - Physicians Assistants
http://www.bls.gov/oco/ocos081.htm

Occupational Outlook Handbook - Science Technicians
http://stats.bls.gov/oco/ocos115.htm

Occupational Outlook Handbook - Teachers—Postsecondary
http://stats.bls.gov/oco/ocos066.htm

Exploring Majoring in Biochemistry
Major Resources Kit
http://www.udel.edu/CSC/chem.html

Job Postings
SMC Student Job Search - www.stmarys-ca.edu/studentjobs
http://sciencecareers.scientificmag.org
LifeSciencesWorld  
http://www.lifesciencesworld.com/jobs/

American Society for Biochemistry and Molecular Biology  
http://www.asbmb.org/

**Professional Organizations or Associations**  
Bay Bio  
www.baybio.org

Biotechnology Industry Organization  
www.bio.org

American Society for Biochemistry and Molecular Biology  
http://www.asbmb.org/

California Separation Science Society (CaSSS)  
http://www.casss.org

Net Sci - Extensive list of biotech professional associations  
http://www.netsci.org/Resources/Web/society_biotech.html