BIOCHEMISTRY
What can I do with this degree?

AREAS

RESEARCH
Basic
Applied
Medical
Grant Writing
Administration

EMPLOYERS
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

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
Elementary
Secondary
Post-secondary
Public and private elementary, middle, and high schools
Two-year community colleges/technical institutes
Four-year institutions
Medical schools

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.
<table>
<thead>
<tr>
<th>AREAS</th>
<th>EMPLOYERS</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTHCARE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>Hospitals</td>
<td>Plan on attending medical school or other related graduate program.</td>
</tr>
<tr>
<td>Dentistry</td>
<td>Medical centers</td>
<td>Maintain an outstanding grade point average, particularly in the sciences.</td>
</tr>
<tr>
<td>Optometry</td>
<td>Nursing homes</td>
<td>Secure strong faculty recommendations.</td>
</tr>
<tr>
<td>Podiatry</td>
<td></td>
<td>Meet with a pre-health advisor periodically.</td>
</tr>
<tr>
<td>Pharmacy</td>
<td></td>
<td>Join related student organizations. Demonstrate leadership abilities.</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td></td>
<td>Volunteer to work in a hospital or healthcare setting.</td>
</tr>
<tr>
<td>Allied Health</td>
<td></td>
<td>Find a summer job or internship in a hospital.</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td></td>
<td>Develop a back up plan in case medical/graduate school admission is denied.</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td></td>
<td>Consider alternative but related careers such as physician assistants.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research all of the various fields within medicine to determine a particular career goal.</td>
</tr>
<tr>
<td>OTHER PROFESSIONAL OPPORTUNITIES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales/Marketing</td>
<td>Biotechnology industry</td>
<td>For sales positions, gain sales experience through internships, part-time work, or summer jobs.</td>
</tr>
<tr>
<td>Technical Writing</td>
<td>Pharmaceutical and chemical companies</td>
<td>Take business and/or computer classes.</td>
</tr>
<tr>
<td>Scientific Journalism</td>
<td>Publishers:</td>
<td>Become familiar with desktop publishing and other software packages.</td>
</tr>
<tr>
<td>Scientific Illustration</td>
<td>Textbook, magazine, newspaper, book</td>
<td>Develop strong written and oral communication skills.</td>
</tr>
<tr>
<td>Regulatory Affairs</td>
<td>Software firms</td>
<td>Get experience writing for a school or local newspaper.</td>
</tr>
<tr>
<td>Administration/Management</td>
<td>Regulatory agencies</td>
<td>Obtain an MBA or Ph.D. to reach high levels of administration.</td>
</tr>
<tr>
<td>Scientific/Technical Recruiting</td>
<td>Search firms</td>
<td>Plan on attending law school if interested in law.</td>
</tr>
<tr>
<td>Intellectual Property/Patent Law</td>
<td>Law firms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Legal departments of corporations</td>
<td></td>
</tr>
</tbody>
</table>
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.