# BIOCHEMISTRY

## What can I do with this degree?

### AREAS

- **Research**
  - Basic
  - Applied
  - Medical
  - Administration

- **Teaching**
  - Elementary
  - Secondary
  - Post-secondary

### EMPLOYERS

- University laboratories
- Federal government laboratories/agencies:
  - National Science Foundation
  - National Institutes of Health
  - Food and Drug Administration
  - Environmental Protection Agency
  - Department of Agriculture
  - Army/Navy
- State and local government laboratories/agencies
- Public health departments
- Hospital laboratories
- Commercial medical laboratories
- Independent research foundations
- Industry laboratories:
  - Pharmaceutical companies
  - Biotechnology firms
  - Food processors
  - Cosmetic manufacturers
  - Chemical and petroleum industries

### STRATEGIES

- Bachelor’s degree in biochemistry, biology, or chemistry to qualify for laboratory technician/research assistant positions.
- Choose courses with laboratory work.
- Get on the job experience in a laboratory and/or do a senior research project.
- Complete a certificate training program, usually one year, to learn specialized laboratory techniques.
- 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.

- Complete an accredited teacher preparation program for certification/licensure in biology and/or chemistry.
- Earn a higher degree in biochemistry and gain research experience. Ph.D. required for four-year research institutions.
### AREAS

**BUSINESS**
- Sales/Marketing
- Technical Writing
- Scientific Journalism
- Regulatory Affairs
- Administration/Management

**PROFESSIONAL**
- Intellectual Property/Patent Law
- Medicine

### EMPLOYERS

- Biotechnology industry
- Pharmaceutical and chemical companies
- Publishers:
  - textbook, magazine, newspaper, book
- Software firms
- Regulatory agencies

### STRATEGIES

- Take business and/or computer classes.
- Become familiar with desktop publishing and other software packages.
- Develop written and oral communication skills.
- Obtain an MBA or Ph.D. to reach high levels of administration.
- Law firms
- Legal departments of corporations
- Hospitals
- Private practice
- Obtain a J.D.
- Earn an M.D.

### GENERAL INFORMATION

- Seek laboratory experiences as an undergraduate:
  - research projects, volunteer to help professors, summer jobs, internships, co-op experiences.
- Participate in research programs - some sponsored by 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.
- Gain a Ph.D. to work on high-level research projects, to direct research programs, to enter high levels of administration, and to teach at a four-year post-secondary institution.
- Postdoctoral fellowships may also be required.
- Learn to work independently and as a part of a team.
- Need the ability to communicate clearly.
- Gain competencies in computers and mathematics.
- Read scientific journals and join related professional organizations.

Prepared by the Career Planning staff of Career Services at The University of Tennessee, Knoxville. (1996)

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