What Can I Do With a Major In…

Biochemistry

http://biology.unt.edu/undergraduate-programs/biochemistry-programs

General Information on Careers for Biochemistry Majors:
Do you enjoy biology or chemistry and working in a laboratory? Do you have strong oral and written communication skills? Are you patient and self-disciplined? Then, you should consider a bachelor’s degree in Biochemistry at the University of North Texas. If you choose biochemistry as your major, you may be considering a research career. To be considered a professional researcher and teach at a university, you will need to earn a master’s and possibly a doctoral degree in biochemistry, biology or chemistry.

Researchers in biochemistry work in various government agencies, clinics and hospitals; and nonprofit and private laboratories. Manufacturers of agricultural chemicals, cosmetics, food and medicine also employ biochemistry majors. You may be a product inspector or sales representative in a chemical or pharmaceutical company or teach high school science. A major in biochemistry also prepares you to enter dental, medical or veterinary school or a training program to become an optometrist or an allied health care professional such as a pharmacist. UNT offers pre-professional advising for students planning a career in health care.

Many of our Biochemistry majors accept research positions with government agencies, clinics and hospitals, and nonprofit and private laboratories. Other potential employers include:

- Agricultural chemical manufacturers
- Biotechnology companies
- Consulting agencies
- Cosmetic manufacturers
- Educational institutions
- Environmental organizations and labs
- Food manufacturers
- Independent research firms
- Pharmaceutical companies
- Utility companies
Majoring in Biochemistry:

As a biochemistry major, you will study chemical reactions, compounds and solutions of chemical elements, electrochemistry, nuclear chemistry and the periodic table. You also will take courses in cell biology, molecular biology of genes, organic chemistry, physical chemistry, statistical measurements and methods used in research, and trends in biochemistry. You will be required to take technical writing, calculus-based physics, and calculus courses and to minor in biology. UNT’s biochemistry program includes a Bachelor of Science degree plan if you are planning a research or medical career and a Bachelor of Arts degree plan if you wish to teach science in the public schools or enter allied health fields.

Faculty members in UNT’s biological sciences and chemistry departments are dedicated to excellence in teaching. Several faculty members were named Regents Professors for their outstanding teaching and research. Regents Professors devote at least half of their teaching load to introductory-level courses. One biological sciences professor received UNT’s President’s Council University Teaching Award, and another received the Shelton Excellence in Teaching Award.

*For more information about specific classes and requirements for students beginning in 2016-2017 follow the links provided below.

- BA Biochemistry,  
- BS Biochemistry,  
- BS Biochemistry with Forensics Certification,  
- Chemistry teacher certification for Biochemistry students,  
- Physical Science teacher certification for Biochemistry students,  
Related Career Titles

**Entry-Level (Bachelor's Degree):**

- Research Assistant/Technician
- **Process Chemist**
- **Food Scientist/Technician**
- Flavorist/Flavor Chemist
- Quality Control Technician
- **Quality Assurance Analyst**
- **Regulatory Affairs Specialist**
- Clinical Research Associate
- **Chemical Hygiene Officer**
- Medical Device/Pharmaceutical Salesperson
- Park Naturalist
- Environmental Technician/Specialist
- Environmental Compliance Inspector
- Environmental Monitor
- Wildlife Rehabilitator
- Range Manager
- **Water Quality Specialist**
- Hazardous Waste Manager
- Soil and Water Conservationist
- Chemical Indexer/Document Analyst
- Scientific Writer
- Grant Writer
- Middle/High School Teacher
- Guide/Educator/Interpreter
- Public Health Sanitarian
- Community Health Worker

**Jobs Requiring Additional Experience (Master's, Doctorate, Certifications):**

- Senior Researcher
- Project Manager
- **Biochemist**
- **Biochemical Engineer**
- Epidemiologist
- Geneticist
- Immunologist
- Environmental Restoration Planner
- Soil/Plan Scientist
- Hydrologist
Industrial Ecologist
Animal Scientist
Zoologist/Wildlife Biologist
Molecular and Cellular Biologist
Scientific Policy Analyst/Lobbyist
University/College Professor

Biotechnologist
Bioinformatics Scientist
Biostatistician
Sales Associate/Manager
Regulatory Affairs Specialist
Scientific/Patent Lawyer

Health Professions requiring additional schooling and/or certifications

Medical Researcher
Medical Laboratory Technologist
Cytotechnologist
Pharmacist
Pharmacy Technician
Dentist
Dental Assistant
Physician

Physician Assistant
Physical Therapist
Occupational Therapist
Veterinarian
Optometrist
Podiatrist
Healthcare Administrator
Athletic Trainer

Work Environments

State and Federal Government
US Food and Drug Administration
US Environmental Protection Agency
US Department of Agriculture
US Department of Energy
National/State Park Services
NASA

National Institute of Health
Center for Disease Control
Health Departments
Public Health Organizations
Biotechnology Firms
Research Laboratories
Medical Research Laboratories
Hospitals/Clinics  Quality Assurance Departments
Private Research Labs  Environmental Agencies
Government Research Labs
Private Business/Corporations

Pharmaceutical Companies  Water Treatment Plants
Food/Beverage Companies  Waste Management Companies
Cosmetic Companies  Wildlife Preserves, Zoos, Parks
Adhesive/Paint/Synthetic Companies  Agricultural Chemical Companies
Plastics Companies  Plant and Animal Breeders
Photographic Companies  Museums
Petroleum/Gas Industry  Magazines/Journals
Product Development Departments  Colleges/Universities
Analysis Departments  Middle/High Schools
Testing Departments  Law Firms
Publishing Firms

Skills Used and Developed

• Science  • Information Handling & Organization
• Time Management  • Curiosity and Creativity
• Judgment and Decision Making  • Oral Expression
• Critical Thinking  • Inductive Reasoning
• Analytical & quantitative abilities  • Written Comprehension & Expression
• Complex Problem Solving  • Category Flexibility
• Equipment Selection  • Problem Sensitivity

Websites for Exploring Biochemistry Careers

Sloan Foundation Careers in Science Technology and Medicine-
http://www.careercornerstone.org/

Hundreds of possible Health Careers-
www.Explorehealthcareers.org

The Student Doctor Network-
http://www.studentdoctor.net/

Cell & Molecular Biology Career Resources-
http://www.cellbio.com/careers.html
USDA Food, Agriculture and Natural Resource Careers-
http://www.agriculture.purdue.edu/usda/careers/

Life Sciences World Careers Page-
http://www.lifesciencesworld.com/

Explore Health Careers
http://explorehealthcareers.org/en/home

Biology Careers: Emporia State University-

Careers in Marine Science
http://oceanlink.island.net/career/career2.html

International Marine Animal Trainer’s Association
http://www.imata.org/

National Wildlife Federation
http://www.nwf.org/

American Physiological Society: Careers
http://www.the-aps.org/mm/Career

Association of Zoos and Aquariums: Career Page
https://www.aza.org/careers-zoos-aquariums/


Careers in Science- http://www.careercornerstone.org/

Chemistry Career Profiles- http://www.rsc.org/careers/future/what-jobs-can-i-do

Pharmaceutical Careers- http://www.phrma.org/

Environmental Chemist Careers-

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**Student Organizations at UNT-** *(Learn more at UNT ORGSYNC)*

- Beta Beta Beta Biological Honor Society
- Alpha Chi Sigma Chemistry Fraternity
- SACNAS: Society of Scientists for the success of Hispanic/Chicano and Native American Scientists
- Forensic Science Club
- Society for Microbiology
- UNT Botanical Society
- The Triple Helix
- Eagles Pre-Pharmacy Association
- Alpha Delta: The Minority Pre-Health Organization
- Alpha Epsilon Delta: Health Pre-Professional Honor Society
• Medically Dedicated Students Organization
• Pre-Dental Association
• Pre-Physical Therapy Club
• Pre-Physician Assistant Club
• Pre-Veterinary Club

• Conversation Peer Education group-Peer health Educators
• Mean Green for Animals
• North Texas Animal Club
• Organization for Reinforcement Contingencies with Animals

**Biochemistry Job Search Sites**

http://chemistryjobs.acs.org/jobs
http://sciencecareers.sciencemag.org/for_employers
http://jobs.newscientist.com/

http://www.Biologyjobs.com
http://www.newscientistjobs.com/jobs/default.aspx
http://www.bioplanet.com/
http://sciencecareers.sciencemag.org/
http://www.nature.com/naturejobs/index.html
http://www.ecoemploy.com/jobs/
http://www.eco.org/
http://www.phds.org/

US Department of the Interior internship site: YouthGo.gov
http://www.healthjobsnationwide.com/
http://www.hospitaljobsonline.com/

**Professional Organizations**

American Veterinary Medical Association, [http://www.avma.org/](http://www.avma.org/)
American Chemical Society, http://www.acs.org/content/acs/en.html
Soap and Detergent Association, http://www.cleaninginstitute.org/
American Association of for Clinical Chemistry, www.aacc.org
Council for chemical Research, http://www.ccrhq.org/
American Petroleum Institute, http://www.api.org/
American Association of Immunologists, http://www.aai.org

Additional Resources

O*NET OnLine: http://www.onetonline.org/
Eagle Careers: http://studentaffairs.unt.edu/eagle-careers
LinkedIn: http://university.linkedin.com/linkedin-for-students.html
mySkills myFuture: http://www.myskillsmyfuture.org/
USAjobs: https://www.usajobs.gov/StudentsAndGrads
CareerOneStop: http://www.careeronestop.org/
CareerRookie: http://www.careerrookie.com/
Need help figuring all this out? Call the Career Center and make an appointment with your Career Advisor! You can also get help with resume and cover letter writing and interview skills preparation.

*Information for this handout compiled from the following Career Services Departments:

Central Washington University: http://www.cwu.edu/career/

Indiana University-Purdue University Fort Wayne: http://www.ipfw.edu/offices/career/

Texas State University: http://www.careerservices.txstate.edu/

University of North Carolina Wilmington: http://www.uncw.edu/career/index.html

University of North Texas: http://careercenter.unt.edu/

University of Tennessee-Knoxville: http://career.utk.edu/

University of Wisconsin-Eau Claire: http://www.uwec.edu/Career/index.htm