Biochemistry

The Biochemistry major focuses on the study of the chemical processes within and related to living organisms. Students gain a deep understanding of biological molecules, such as proteins, enzymes, and DNA, and how they interact to sustain life. The major combines principles from both biology and chemistry to prepare students for careers in research, healthcare, and biotechnology. Typical industry sectors for biochemistry majors include pharmaceuticals, biotechnology, healthcare, environmental science, and academic research.

Job Title Examples:

- Research Assistant
- Laboratory Technician
- Biochemical Analyst
- Clinical Research Coordinator
- Quality Control Technician
- Pharmaceutical Scientist
- Biotechnology Technician
- Molecular Biologist
- Regulatory Affairs Associate
- Environmental Scientist

Hard and Soft Skills Needed:

Hard Skills:

1. Laboratory Techniques
2. Protein Purification
3. DNA/RNA Analysis
4. Spectroscopy
5. Data Analysis and Interpretation

Soft Skills:

1. Problem-Solving
2. Critical Thinking
3. Communication
4. Teamwork
5. Attention to Detail

Further Education/Training Required and/or Suggested:

A BS in Biochemistry qualifies students for entry-level roles, but additional training or certifications can enhance career prospects:

To Enter the Field:

1. Certified Clinical Laboratory Technician (CLT):
    - Optional for clinical lab work.

To Advance:

1. Master's or Doctoral Degree (e.g., in Biochemistry, Molecular Biology):
    - For advanced research, teaching, or specialized roles.
2. Specialized Certifications (e.g., in analytical techniques, pharmaceutical industry):
    - For specific career paths in pharmaceuticals or biotechnology.

Summary:

Advanced degrees and certifications enhance career opportunities and progression in research or specialized fields.

Professional or Student Associations:

- American Society for Biochemistry and Molecular Biology (ASBMB)
- Biochemical Society