

# Biotechnology Biological Sciences Option

Associate Degree • Delaware Technical & Community College • [www.dtcc.edu](http://www.dtcc.edu)

*This option is designed to meet the needs of students who intend to pursue a bachelor's degree in biotechnology or biological sciences. The curriculum provides a theoretical and practical education in various aspects of biology and chemistry that can be applied to diverse careers in the medical, environmental, industrial, and agricultural fields. Standard techniques used in science laboratories are covered, and special emphasis is placed on science and math instruction to prepare students for upper-level course work.*

## What You'll Learn...

- Microbiology, molecular biology, biochemistry, organic & analytical chemistry, physics, calculus
- Commonly used laboratory practices and safety procedures
- DNA technology
- Analysis of biochemical data
- Current analytical techniques

## What You'll Earn...

- A foundation for further education and enhanced career options
- The flexibility to choose a position in a research, service, or environmental laboratory or seek employment with a chemical or pharmaceutical company after completion of a bachelor's degree
- Strong status in the job market—biotechnology grads are in demand regionally and nationally
- Relevant work experience may apply to curriculum requirements

## What You Can Do...

Transfer to University of Delaware or Delaware State University or other four-year institution OR work in:

- Industrial laboratories
- Public health laboratories
- Research laboratories

## **BIOTECHNOLOGY/ BIOLOGICAL SCIENCES OPTION**

This program provides a career path for students with an interest in science and how things work. Biotechnology is the use of living organisms or biological systems to create or modify products or processes. Using yeast to make bread or beer is an application of biotechnology that dates back thousands of years. More modern examples include DNA fingerprinting, developing strains of pest-resistant crops, producing specialized medicines, and altering bacteria for industrial waste cleanup.

Students who select the biotechnology/biological sciences option acquire a strong foundation of knowledge and skills that enables them to perform complex laboratory procedures and analyze data for research and testing purposes. The curriculum includes four semesters of science, math, computer, and core courses with a focus on preparation for transfer to a four-year institution. The program is articulated with the University of Delaware's bachelor's degrees in biotechnology and biological sciences.

### **PROGRAM FACTS**

- Exciting career opportunities and well-paid positions
- Increasing demand from regional employers for technically skilled workers

### **FOR MORE INFORMATION**

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## **REQUIRED TECHNICAL COURSES**

BIO 150	Biology I
BIO 151	Biology II
BIO 250	Principles of Microbiology
BIO 260	Biotechnology I
CHM 240	Organic Chemistry I
CHM 241	Organic Chemistry II
CHM 250	Analytical Chemistry I
CHM 251	Analytical Chemistry II

### **OTHER COURSES**

CIS 107	Intro to Computers & Applications <i>or</i>
IET 150	Computer Applications
ENG 121	Composition
ENG 122	Technical Writing & Communication
MAT 185	Precalculus
MAT 281	Calculus I
PHY 171	Physics I
PSY 121	General Psychology
SOC 111	Sociology I

### **HOW TO BEGIN —**

1. Obtain, complete, and submit an Application for Admission with a \$10 non-refundable fee to the Admissions Office. Make check payable to Delaware Technical & Community College. Applications are available via the Web ([www.dtcc.edu/admissions](http://www.dtcc.edu/admissions)), by phone or mail, or from a high school counselor.
2. Develop a financial plan to identify resources, such as financial aid, SEED, and other scholarships, to help pay for college.
3. Request that your official high school, GED, and/or college transcript be sent immediately to the Admissions Office.
4. Participate in the college testing and placement program, if required. Official scores from SAT/ACT tests or previous college credit may satisfy this requirement.
5. Meet for advisement to begin an educational plan and select courses for registration.