

Biotechnology Biological Sciences Option

Associate Degree • Delaware Technical & Community College • 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
- Research laboratories
- Public health 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

Barbara Wiggins
Department Chair

(302) 855-1652 bwiggins@dtcc.edu

Sheridan Shupe
Instructional Coordinator

(302) 855-5974 sshupe@dtcc.edu

Delaware Technical & Community College
Jack F. Owens Campus
P.O. Box 610, Georgetown, DE 19947
(302) 856-5400

www.dtcc.edu

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 *or*
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), 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.