



## Biotechnology Technician Certificate

### START here

**1**

SEMESTER 1 – FALL	CREDITS	MILESTONE	COMPLETED
BIO 131 – General Biology I	4		<input type="checkbox"/>
CHE 121 – Introduction to Chemistry	4		<input type="checkbox"/>
ENG 101 – English Composition I	3		<input type="checkbox"/>
TMA 100 – Math for Technology	4		<input type="checkbox"/>

TOTAL CREDITS 15

**2**

SEMESTER 2 – SPRING	CREDITS	MILESTONE	COMPLETED
BIT 150 – Methods of Biotechnology	4		<input type="checkbox"/>
BIT 155 – Quality Control and Good Manufacturing Practices	3		<input type="checkbox"/>
BIO 240 – Microbiology for Industrial Applications	4		<input type="checkbox"/>

TOTAL CREDITS 11

**3**

SEMESTER 3 – FALL	CREDITS	MILESTONE	COMPLETED
BIT 200 – Biotechnology Internship	3		<input type="checkbox"/>

TOTAL CREDITS 3

### You've FINISHED!

**Milestone Courses**

should be taken in the order shown. This will help you stay on track and graduate on time.

### Helpful Hints

- The college offers accelerated math and writing classes during the summer to help students meet entrance requirements for the fall.
- Students should take the required English and mathematics courses early in the program. Writing and mathematics are fundamental to every subsequent course in the certificate program.
- BIO 131, CHE 121 and ENG 101 are prerequisites for second semester courses.
- Some courses are available only in Lowell.
- All credits earned for the Biotechnology Technician Certificate transfer toward the associate degree in biotechnology.

### Certificate Programs

Certificate programs can serve as the basis for further higher education or professional studies. Certificate programs require students to complete specified coursework, mainly related to particular fields of employment.

While many students enroll in a certificate program in preparation for direct entry into employment, they often return to college, part time or full time, and apply the credits previously earned to an associate degree program.

### Career and Transfer Outlook

Students who complete this certificate program work as laboratory technicians in various departments within the biotechnology industry. These departments have included, but are not limited to: production support, validation, manufacturing, process operation and quality control.

To learn more, call us at **1-800-818-3434** or visit **www.middlesex.mass.edu**



Pathways to Achievement, Completion, Career & Transfer

# *ACADEMIC MAP*

2023-2024





## Biotechnology Technician

The **Biotechnology Technician** program at Middlesex Community College offers a clear pathway so you can meet your educational and career goals. You may start by earning a Biotechnology Certificate and then move on to earning an Associate in Science Degree in Biotechnology. You may also continue your studies into a bachelor's degree program with Mass Transfer to a Massachusetts state university or to other universities, such as Boston University Metropolitan College. Your job options grow with each extra step, as does earning potential! **Program Outcome skill competencies** can be found on the individual program pages of the MCC Academic Catalog at [www.middlesex.mass.edu/catalog](http://www.middlesex.mass.edu/catalog)

### BIOTECHNOLOGY CERTIFICATE

**Competencies:** Prepares students for employment in a variety of entry-level biotech positions.

Learn more about the competencies at [www.middlesex.mass.edu/catalog](http://www.middlesex.mass.edu/catalog)

### JOB OPTIONS

Cell Culture Technician  
Microbiology Technician  
QC Technician  
Manufacturing Technician

### STARTING BASE SALARY RANGE

\$25,000 - \$31,000 \*



### ASSOCIATE DEGREE

**Competencies:** Prepares students either for employment in a variety of entry-level biotech positions or for transfer to related bachelor degree programs, such as Biomedical Laboratory and Clinical Science, Clinical Laboratory Sciences, and Bioengineering.

Learn more about the competencies at [www.middlesex.mass.edu/catalog](http://www.middlesex.mass.edu/catalog)

### JOB OPTIONS

Laboratory/QC Assistant  
Research Assistant  
Facilities Assistant/Safety Officer  
Engineering Records Coordinator  
ELISA Assay Development Specialist  
HPLC Technician

### STARTING BASE SALARY RANGE

\$33,000 - \$42,000 \*



**\* Note: The above Base Salary Range increases significantly depending upon the shift worked.**

### CAREER GROWTH

Job opportunities for those with a Bachelor's degree include: Research Associate, Quality Assurance Specialist, Chromatography/Protein Purification Specialist, Field Service Engineer, Formulations Development Specialist, Lyophilization Development Specialist, Client Technical Reports/ Project Manager



Learn more about biotechnology jobs, salaries, required education, and employment outlook by visiting:  
**the Bureau of Labor Statistics at <http://www.bls.gov/ooh/> or**  
**MassBioEd at <http://www.massbioed.org>**



Average **starting salary** for  
students earning a

**Bachelor's degree is \$50,500**

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