



## Biotechnology Technician (Fall Start) Associate in Science

**START** here

1

| SEMESTER 1 – FALL                   | CREDITS | MILESTONE | COMPLETED                |
|-------------------------------------|---------|-----------|--------------------------|
| BIO 131 – General Biology           | 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"/> |
| ENG 102 – English Composition II                           | 3       |           | <input type="checkbox"/> |
| BIT 103 – Computer Programs for Biotechnology Industry     | 3       |           | <input type="checkbox"/> |

TOTAL CREDITS 17

3

| SEMESTER 3 – Summer  | CREDITS | MILESTONE | COMPLETED                |
|--|---------|-----------|--------------------------|
| BIT 250 – Advanced Techniques in Biotechnology   | 4       |           | <input type="checkbox"/> |
| Behavioral Science Elective – Recommended: PSY 101 – Introduction to Psychology – or – SOC 101 – Introduction to Sociology | 3       |           | <input type="checkbox"/> |

TOTAL CREDITS 7

4

| SEMESTER 4 – FALL                         | CREDITS | MILESTONE | COMPLETED                |
|---|---------|-----------|--------------------------|
| BIT 225 – Special Topics in Biotechnology | 3       |           | <input type="checkbox"/> |
| BIO 250 – Immunology                      | 4       |           | <input type="checkbox"/> |
| BIT 200 – Biotechnology Internship        | 3       |           | <input type="checkbox"/> |

TOTAL CREDITS 10

5

| SEMESTER 5 – SPRING   | CREDITS | MILESTONE | COMPLETED                |
|---|---------|-----------|--------------------------|
| BIO 255 – Molecular Biology   | 4       |           | <input type="checkbox"/> |
| CHE 160 – Principles of Biochemistry  | 4       |           | <input type="checkbox"/> |
| MAT 177 – Statistics  | 3       |           | <input type="checkbox"/> |
| ETH 105 – Introduction to Bioethics –or– ETH 101 – Ethics and Society                               | 3       |           | <input type="checkbox"/> |
| ECO 120 – Economics & Management in Technology Industry –or– ECO 140 – Principles of Macroeconomics | 3       |           | <input type="checkbox"/> |

TOTAL CREDITS 17

**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

- Students needing to satisfy prerequisites for MAT 177 (semester four) should consider taking math courses early in the program.
- Students looking to transfer to a four-year program should consider CHE 131 – College Chemistry I in place of CHE 121.
- BIO 131, CHE 121 (or 131) and ENG 101 are prerequisite for BIT 150, BIT 155 and BIO 240.
- Students can register for BIT 200 – Internship following semester 2.
- If BIT 200 is taken during semester 3, BIT 250 should be taken during the summer following semester 2.

### Career and Transfer Outlook

Graduates of this program work in various departments and roles within the biotechnology industry. Some of the positions that MCC graduates have held include lab technician, cell culture technician, research technician, microbiology technician, chemistry associate, process operator, quality assurance manager and supervisors.

To learn more, call us at **1-800-818-3434**  
or visit [www.middlesex.mass.edu](http://www.middlesex.mass.edu)



## 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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