

**Program Description:**

The Biotechnology Technician Associate in Science degree program provides the education and training in the skills required for entry-level employment for technicians in biotechnology manufacturing, research, media preparation, validation, quality control, documentation and process operations. Some students who complete this program continue their studies toward a bachelor's degree and advanced degrees in biotechnology.

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 in various departments.

Helpful Hints:

Students must complete the courses in the certificate program before taking courses that are specific to the associate degree program. All students should take the required English and mathematics courses early in the program. Writing and mathematics are fundamental to every subsequent course in the associate degree program.

Program Outcomes:

Graduates of the Biotechnology Technician program are prepared to:

- Follow standard operating procedure (SOP) protocol;
- Use laboratory equipment properly;
- Use computers to gather and process data and use computerized instrumentation;
- Interpret results of experiments;
- Work collaboratively as a member of a team, and collaborate with other teams and individuals to achieve common outcomes
- Think critically and act appropriately;
- Manage time efficiently;
- Communicate results, decisions and ideas verbally, in writing and numerically, as appropriate;
- Accept accountability for themselves and the materials they handle;
- Show integrity in their work while completing documentation, and with their interaction with others.

BIOTECHNOLOGY TECHNICIAN • Associate in Science

BEDFORD CAMPUS - EVENING AND LOWELL CAMPUS - DAY AND EVENING

✓	COURSE #	COURSE TITLE	CREDITS	PREREQUISITES
_____	BIT 150	Methods of Biotechnology	4	BIO 131, CHE 121, ENG 101, TMA 090
_____	BIT 155	Quality Control and GMP	3	BIO 131, CHE 121, ENG 101, TMA 090
_____	BIT 200	Internship in Biotechnology	3	BIT 150, BIT 155
_____	BIT 225	Special Topics in Biotechnology	3	BIT 150, BIT 155, BIO 240 or *
_____	BIT 250	Advanced Techniques in Biotechnology	4	Certificate in Biotechnology, BIO 255, or *
_____	BIO 131	General Biology I	4	ENG 060 or higher placement and eligible for MAT 080, and ENG 101. A college-level lab science or high school biology or chemistry within the last 5 years.
_____	BIO 240	Microbiology for Industrial Applications	4	ENG 101, TMA 090, BIO 131, CHE 121
_____	BIO 250	Immunology	4	Certificate in Biotechnology or *
_____	BIO 255	Molecular Biology	4	Certificate in Biotechnology or*
_____	CAP 103	Computers for Technology	3	MAT 070 or placement into MAT 080
_____	CHE 121	Introduction to Chemistry	4	MAT 070 and ENG 071 or ENG 060 or higher placement
_____	CHE 160	Principles of Biochemistry	4	Certificate in Biotechnology or *
_____	ENG 101	English Composition I	3	C- in ENG 071 or eligible for ENG 101 and placement above or successful completion of ENG 060
_____	ENG 102	English Composition II: An Introduction to Literature	3	ENG 101
_____	ECO 120	Economics & Management in High Tech Industry	3	ENG 060 or higher placement, eligible for ENG 101 and MAT 070 or placement into MAT 080
_____	ETH 105	Introduction to Bioethics	3	ENG 060 or higher placement and eligible for ENG101
_____	MAT 177	Statistics	3	MAT 100 or MAT 120 with a grade of C or better or placement above; ENG 060 or higher placement
_____	TMA 090	Mathematics for Technology	4	BIO 131 and eligible for MAT 080
_____	_____	Behavioral Science Elective	3	
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*Permission of instructor

Note: Some courses available only in Lowell. Additional coursework may be required based on college placement testing. Students are urged to meet with their academic advisor for proper course sequencing.

Admission Information:

Required Testing/ Prerequisites: Readiness for College Algebra II (MAT 080) and English Composition I (ENG 101) Readiness may be demonstrated through the college placement test or previous college coursework.

Admission Notes: No previous science background is required. The college offers accelerated math and writing classes during the summer to help students meet admission requirements for the fall.

Deadline: There is no deadline for applications.

Recommendation: Students planning to transfer to the Boston University Metropolitan College Biomedical Laboratory and Clinical Sciences program should take college Chemistry I and II (CHE 131 and CHE 132). Students planning to major in biology at any other baccalaureate degree-granting institution should check the requirements at the transfer institution.