Biotechnology - a professionally-focused, relevant and practical graduate degree

» Biotechnology is a growing economic sector creating new opportunities for qualified individuals.
» Courses in life science, management, and business are combined to create an effective curriculum.
» Ideal for professionals pursuing management opportunities in Biotech.
» Students gain experience in researching, analyzing and communicating the primary and current literature in the Biotech field.

When you choose UMBC Professional Programs, you can count on:

» Courses taught by industry experts and a range of academic departments.
» Flexible evening class schedule that accommodates working professionals.
» Wide-ranging resources offered at a top-notch public research university.

Why UMBC?

» The excellent academic and research expertise in the biosciences provides the foundation for the M.P.S. Biotechnology programs and certificate programs.
» For six years running, UMBC was ranked #1 in the U.S. New and World Report’s list of ‘national up-and-coming’ universities, and in 2015 ranked #4 as ‘most innovative schools.’
» UMBC provides a comprehensive and quality education at a manageable cost.

Professional Experience Program (PEP) Option

Students interested in acquiring professional experience by working as an apprentice with a company operating in a specific area of biotechnology may apply to the PEP. The option to earn academic credit is available.

For Program Information:
Dr. Stephen Miller
Program Director
stmiller@umbc.edu | 410-455-3381

For Application Information:
Ms. Nancy Clements
Program Specialist
nancyc@umbc.edu | 410-455-5536
Admission Requirements

M.P.S.:
- A bachelor's degree in Biology, Chemistry, or Chemical/Biochemical Engineering. A bachelor's degree that includes sufficient credits in relevant life science courses also may be considered.
- Minimum undergraduate GPA of 3.0 on a 4.0 scale.
- GRE scores are not required for applicants with a degree from an accredited U.S. institution.
- Two semesters of general chemistry and two semesters of organic chemistry.
- Applications for the Master's program are accepted for the Fall semester only.

Graduate Certificates:

Biotechnology Management:
- A bachelor's degree in any discipline.
- Applications for the Biotechnology Management Certificate are accepted in the fall and spring.

Biochemical Regulatory Engineering:
- A bachelor's degree in science or relevant discipline.
- Minimum undergraduate GPA of 3.0 on a 4.0 scale.
- GRE scores are not required for applicants with a degree from an accredited U.S. institution.
- Applications for the Biochemical Regulatory Engineering Certificate are accepted in the fall and spring.

International Applicants:
Please visit umbc.edu/biotech/international for detailed admissions requirements for international applicants.
- Please pay special attention to English proficiency and testing requirements.

Admission Deadlines
Fall: August 1
Spring: December 1

For detailed application process please visit: umbc.edu/biotech

Master's Program
Master in Professional Studies (M.P.S.): Biotechnology
30 Credits (10 courses)

Core Courses
18 credits

- BTEC 675: Business of Biotech*
- BTEC 655: Emerging Topics in Biotechnology Seminar
- BTEC 656: Experimental Design
- BTEC 665: Leadership, Project Management, Communication and Management
- BTEC 670: Legal and Ethical Issues in Biotechnology
- BTEC 654 Capstone

* BTEC 675 should be taken in the first semester of enrollment

Biotechnology Tracks (Select one track)
12 Credits (4 Courses)

Regulatory Track
- BTEC 660: Regulatory Issues in Biotechnology
- BTEC 662: Good Manufacturing Practices for Bioprocesses
- BTEC 664: Quality Control and Quality Assurance for Biotechnology Products
- BTEC 668: Clinical Trials: Design and Management

Bioprocessing Track
- BTEC 657: Biochemical Engineering
- BTEC 653: Principals of Upstream Processing
- BTEC 658: Quality and Finishing of Biotechnology Products
- BTEC 659: Bioseparations

Certificate Programs

Post-Baccalaureate Certificate: Biotechnology Management
12 Credits (4 courses)

- BTEC 665: Management, Leadership and Communication
- BTEC 670: Legal and Ethical Issues in the Science Professions
- BTEC 680: Financial Management for Science Professionals
- BTEC 685: Project Management Fundamentals

Post-Baccalaureate Certificate: Biochemical Regulatory Engineering
12 Credits (4 courses)

- BTEC/ENCH 660: Regulatory Issues in Biotechnology
- BTEC/ENCH 662: Good Manufacturing Practices for Bioprocesses
- ENCH 664: Quality Control & Quality Assurance for Biotechnology Products
- ENCH 666: Design, Construction and Validation of GMP Biotechnology Facilities

Please consult umbc.edu/biotech/schedule for current schedule.

Office of Professional Programs

UMBC's Office of Professional Programs offers a broad array of professionally focused master's degree and certificate programs that address industry needs while anticipating future opportunities.

umbc.edu/professionalprograms