Graduate Programs in BIOTECHNOLOGY

UMBC
AN HONORS UNIVERSITY IN MARYLAND

Masters in Professional Studies:
Biotechnology

Post-Baccalaureate Certificate:
Biotechnology Management

Post-Baccalaureate Certificate:
Biochemical Regulatory Engineering

Biotechnology - a professional industry-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

The MPS Program offers assistance to students interested in expanding on their industry experiences to include a Professional Experience. Please contact the Program Director for more information.

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umbc.edu/biotech

For Program Information:
Dr. Stephen Miller
Program Director
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For Application Information:
Ms. Nancy Clements
Program Specialist
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Admission Requirements

M.P.S.:

- A bachelor's degree in any life science related field including Biology, Chemistry, Biochemistry, Biochemical Engineering, Biotechnology and Food and Agricultural Sciences.
- 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
- 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

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

Master's Program

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

Core Courses
18 credits (6 Courses)

BTEC 675: Business of Biotech*
BTEC 655: Emerging Topics in Biotechnology Seminar
BTEC 656: Experimental Design
BTEC 665: Management, Leadership and Communication
BTEC 670: Legal and Ethical Issues in the Science Professions
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/ENCH 660: Regulatory Issues in Biotechnology
BTEC/ENCH 662: Good Manufacturing Practices for Bioprocesses
BTEC/ENCH 664: Quality Control and Quality Assurance for Biotechnology Products
BTEC/ENCH 666: Biotechnology GMP Facility Design, Construction and Validation **OR**
BTEC 668: Clinical Trials: Design and Management

Bioprocessing Track

BTEC 653: Principals of Upstream Processing
BTEC 658: Principals of Downstream Processing
BTEC 659: Fundamentals of Bioprocess Development
BTEC/ENCH 664: Quality Control and Quality Assurance for Biotechnology Products

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
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
BTEC/ENCH 664: Quality Control & Quality Assurance for Biotechnology Products
BTEC/ENCH 666: Biotechnology GMP Facility Design, Construction and Validation

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

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