UMBC AT The Universities AT SHADY GROVE

Graduate Programs in Biotechnology

Master of Professional Studies:
Biotechnology

Post-Baccalaureate Certificate:
Biotechnology Management

Post-Baccalaureate Certificate:
Biochemical Regulatory Engineering

umbc.edu/biotechsg

MPS 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 working professionals pursuing management opportunities in Biotech.
- Students learn critical skills needed in the biotech industry including literature research and analysis, written and oral communication, experimental design, regulatory, legal, and business management techniques.

WHEN YOU CHOOSE UMBC PROFESSIONAL PROGRAMS, YOU CAN COUNT ON:

- Courses taught by instructors who are subject-matter experts with extensive industry experience.
- 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.
- The 2017 U.S. News & World Report Best Colleges guide ranks UMBC in the top five on its closely-watched Most Innovative Schools list and has recognized UMBC as a global leader in higher education
- UMBC provides a comprehensive and quality education at a manageable cost.

For program information:
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For application information:
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ADMISSIONS REQUIREMENTS

- A bachelor's degree in science, engineering, or any subject with sufficient coursework in relevant life science topics such as foundations of biology and organic chemistry OR a bachelor's degree in any subject combined with work experience in the life sciences
- Minimum undergraduate GPA of 3.0 on a 4.0 scale
- GRE scores are not required

INTERNATIONAL APPLICANTS

Please visit umbc.edu/biotechsg for detailed admissions requirements for international applicants.

- Please pay special attention to English proficiency and testing

ADMISSIONS DEADLINES

Fall: August 1

Spring: December 1

For detailed application process please visit **umbc.edu/biotechsg**

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.

professionalprograms.umbc.edu

Master's of 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 is recommended for the first semester of enrollment

BIOTECHNOLOGY ELECTIVES
12 CREDITS (ANY 4 COURSES)

REGULATORY ELECTIVES

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

BIOPROCESSING ELECTIVES

- BTEC 653: Principles of Upstream Bioprocessing
- BTEC 658: Principles of Downstream Bioprocessing
- BTEC 659: Fundamentals of Industrial Bioprocessin

GENERAL ELECTIVES

- BTEC 657: Devices and Combination

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 675: Business of Biotechnology
- BTEC 685: Project Management Fundamentals

POST-BACCALAUREATE CERTIFICATE: BIOCHEMICAL REGULATORYENGINEERING

12 CREDITS (4 COURSES)

- BTEC 660: Regulatory Issues in Biotechnology
- BTEC 662: Good Manufacturing Practices for Bioprocesses
- BTEC 664: Quality Control and Quality Assurance for Biotechnology Products
- BTEC 666: Biotechnology GMP Facility