

Graduate Programs in BIOTECHNOLOGY

UMBC
AN HONORS UNIVERSITY IN MARYLAND



Master's of Professional Studies:
Biotechnology

Post-Baccalaureate Certificate:
Biotechnology Management

Post-Baccalaureate Certificate:
Biochemical Regulatory
Engineering

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.

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.



umbc.edu/biotechsg

For Program Information:

Dr. Annica Wayman
Associate Dean for Shady Grove Affairs
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For Application Information:

Ms. Rickeysha Jones
Assistant Director
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Admission Requirements

M.P.S.:

Graduate Certificates:

Biotechnology Management:

Biochemical Regulatory Engineering:

- » 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

International Applicants:

Please visit umbc.edu/biotechsg 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 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 Program

Master's of Professional Studies (M.P.S.): Biotechnology

30 Credits (10 courses)

Core Courses

18 credits (6 Courses)

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|---|
| 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 Electives (Select one pathway)

12 Credits (4 Courses)

Regulatory Electives

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| 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 Electives

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| 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)

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| 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)

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| 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/biotechsg/schedule for schedule.