MASTER OF BIOTECHNOLOGY ENTERPRISE AND ENTREPRENEURSHIP

Master of Biotechnology Enterprise and Entrepreneurship (https://advanced.jhu.edu/academics/graduate/master-biotechnology-enterprise-entrepreneurship/)

The Johns Hopkins Master of Biotechnology Enterprise and Entrepreneurship program is designed to equip biotechnology professionals with the business acumen needed to supplement their strong science foundation to succeed in the management of the rapidly changing biotechnology field from start-ups to global multinational corporations.

The program is designed with a student-centered approach to ensure that their educational experience is as enriching and supportive as possible. The 100% online program is structured to fit seamlessly into students' busy schedules and gives them the opportunity to learn from exemplary biotech professionals and advance their education without disrupting their careers.

In the program, students will form project teams to solve real-world business problems and collaborate with colleagues through discussion boards and interactive practicum classes that are led by industry professionals. Students will also explore essential topics such as funding strategies, leadership and management, product development, marketing, intellectual property, and law and ethics.

Experience high-quality, engaging multimedia content that includes interactives, graphics, and video presentations that will elevate the learning experience.

In a field where change is the only constant, the program prepares students to navigate and thrive in the ever-evolving biotechnology landscape.

In this program, students will join an international community of scientists and innovators that is preparing today for what the world needs tomorrow.

Admissions Criteria for All Advanced Academic Programs (https://e-catalogue.jhu.edu/arts-sciences/advanced-academic-programs/Admission/#admissionrequirementstext)

PROGRAM-SPECIFIC REQUIREMENTS

In addition to the materials and credentials required for all programs, the Master of Science in Biotechnology Enterprise and Entrepreneurship requires an undergraduate degree in the life sciences, engineering, or business from a four-year college, with a grade point average of at least a 3.0 on a 4.0 scale. Applicants must provide:

- **Resume**
- **Statement of Purpose:** Please provide a statement, up to one page in length, describing your personal background and/or a part of your life experience that has shaped you or your goals. Feel free to elaborate on personal challenges and opportunities that have influenced your decision to pursue a graduate degree at Johns Hopkins.
- **Program-Specific Prerequisite Courses:**
  - One semester of biochemistry
  - One semester of any of the following: cell biology, molecular biology, physiology, pharmacology, genetics, microbiology, food science, immunology, regulatory science.

Program Requirements

Students in the Master of Biotechnology Enterprise and Entrepreneurship program must complete 10 courses:

- Seven required core courses
- Three electives chosen from the following list

Code	Title	Credits
Core Courses		
AS.410.644	Marketing Aspects of Biotechnology	4
AS.410.680	Finance for Biotechnology	4
AS.410.687	Ethical,Legal & Regulatory Aspects of the Biotechnology Enterprise	4
AS.410.703	Strategic Planning for the Biotechnology Enterprise	4
AS.410.804	Practicum in Biotechnology Enterprise & Entrepreneurship	4
AS.410.684	Technology Transfer & Commercialization	4
AS.410.688	Project Management in Biotechnology	4
Electives		
Select three of the following:		12
AS.410.627	Translational Biotechnology: From Intellectual Property to Licensing	
AS.410.648	Clinical Trial Design and Conduct	
AS.410.651	Clinical Development of Drugs and Biologics	
AS.410.673	Biological Processes in Regulatory Affairs	
AS.410.676	Food And Drug Law	
AS.410.683	Introduction to cGMP Compliance	
AS.410.637	Bioethics	
AS.410.643	Managing and Leading Biotechnology Professionals	
AS.410.649	Introduction to Regulatory Affairs - Medical Products	
AS.410.674	Food Microbiology	
AS.410.689	Leading Change in Biotechnology	
AS.410.694	FDA Premarket Applications	
AS.410.700	Food Labeling and Packaging Regulations	
AS.410.717	Risk Assessment and Management	
AS.410.716	Food Toxicology	
AS.410.686	Regulation of Good Food Production Practices	
AS.410.701	Introduction to Regulatory Affairs-Food, Cosmetics, Drugs, Tobacco	
AS.410.705	Problem Solving and Innovation	

AS.410.715	Medical Device Regulation	
Total Credits		**40**

Learning Outcomes

Graduates of this program should be able to:

- Formulate organizational strategies that guide the business of biotechnology
- Apply project management methods to develop biotechnology project objectives
- Lead at the interface of translational biotechnology to move scientific discoveries to commercialization
- Analyze the ethical, legal, regulatory, and social aspects in the biotechnology business sector to guide decision making
- Apply specialized financial and marketing acumen to create sound business practices in the biotechnology sector
- Demonstrate the ability to communicate scientifically, both orally and in writing
- Demonstrate the ability to collaborate in a diverse group to achieve an objective