

MASTER OF BIOTECHNOLOGY ENTERPRISE AND ENTREPRENEURSHIP

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

A successful biotechnology enterprise requires professionals with rigorous training in science and the ability to navigate the complexities of biotechnology commercialization. This program combines both to help build the biotechnology workforce of tomorrow. It is intended for biotechnology professionals who seek a career beyond the lab bench in an existing private enterprise or government organization or for those who seek to start a new biotechnology enterprise.

Designed for working adults, this program is primarily delivered in an online format and taught by faculty that work in the industry (both private enterprise and government). The curriculum is designed to prepare the next generation of interdisciplinary professionals to address current and future challenges in the biotechnology industry.

Admissions Criteria for all Advanced Academic Programs (<https://e-catalogue.jhu.edu/arts-sciences/advanced-academic-programs/enrollment-services/admission/>)

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 or engineering from a four-year college, with a grade point average of at least a 3.0 on a 4.0 scale.

- **Resume**
- **Statement of Purpose:** In 500 words, discuss why you wish to pursue the Master of Biotechnology Enterprise and Entrepreneurship. Focus on your long-term goals and how this academic program will complement these goals. Discuss the strengths of your academic and professional background, as well as any additional comments that will assist in evaluating your application materials.
- **Program-Specific Prerequisite Courses:**
 - One semester of biochemistry
 - One semester of cell biology

Program Requirements

Students take ten courses to complete the degree—six core required courses, one customizable core course, and three electives. The three electives will be chosen from the Center for Biotechnology Education courses (https://e-catalogue.jhu.edu/course-descriptions/_biotechnology/).

Code	Title	Credits
Core Courses - Required:		
AS.410.607	The Biotechnology Enterprise	4
AS.410.627	Translational Biotechnology: From Intellectual Property to Licensing	4
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.410.804	Practicum in Biotechnology Enterprise & Entrepreneurship	4
Core Course - Customizable		4
Select one of the following:		
AS.410.643	Managing and Leading Biotechnology Professionals	
AS.410.689	Leading Change in Biotechnology	
Electives (three required)		12
Total Credits		40

Concentration (optional)

Students wishing to focus on a specialized discipline within the Master of Biotechnology Enterprise and Entrepreneurship may enroll in the legal/regulatory concentration after being accepted into the program.

Legal/Regulatory Concentration

In addition to the seven core courses, degree candidates must complete any three of these courses:

Code	Title	Credits
Electives		
Select three of the following:		12
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.410.684	Technology Transfer & Commercialization	
Total Credits		12

Learning Outcomes

Graduates of this program should be able to:

- Apply leadership strategies that leverage the interdisciplinary nature of the biotechnology industry in the areas of business, science, and regulation
- Construct business plans incorporating business, science, and regulatory components to assess innovative life science technologies
- Apply specialized financial acumen to create sound financial funding strategies for the life science industry
- Defend a business strategy for a company in the life science industry
- Demonstrate the ability to communicate scientifically, both orally and in writing
- Demonstrate the ability to collaborate in a diverse group to achieve an objective