

MASTER OF SCIENCE IN APPLIED BIOTECHNOLOGY

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Master of Science in Applied Biotechnology

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STATEMENT OF PURPOSE

The program provides an understanding of the principles and techniques of biotechnology, including ethical, safety, and privacy concerns; funding; intellectual property and patents; professional and technical communication; experimental design and analysis; and organizational leadership—all within the scope of the global biotechnology industry.

STUDENT LEARNING OUTCOMES

Graduates will:

- Demonstrate professional and scientific communication appropriate for biotechnology settings
- Demonstrate comprehensive understanding of organizational processes and product development pipelines
- Distinguish among diverse methods and technologies and their applications in biotechnology
- Demonstrate strategic leadership and decision-making skills necessary in biotechnology.
- Appraise the current regulatory, quality control, and legal frameworks that impact biotechnology
- Demonstrate professional and ethical behaviors that foster positive and productive interactions in diverse biotechnology settings

INTRODUCTION

The program represents a comprehensive, multidisciplinary curriculum that prepares students to advance their careers and pursue their academic ambitions through leadership and management positions within the biotechnology field. Defined core courses provide students with a solid foundation in biotechnology, leadership, ethics, research, communications, product development, quality control, and regulatory and compliance practices. In addition, the program offers three unique tracks to assist students in tailoring their coursework to meet their career goals: quality assurance and compliance; business management; and research and development. The M.S. in Applied Biotechnology represents a fully online, asynchronous curriculum comprised of 31 credits to include a culminating, project-based Capstone experience. Graduates of the program will gain the core competencies required to manage functions across a wide range of biotechnology industries.

ADMISSION REQUIREMENTS FOR MASTER OF SCIENCE IN APPLIED BIOTECHNOLOGY

Admission to the Master of Science in Applied Biotechnology requires:

- Prerequisite coursework in General Biology and General Chemistry
- A bachelor's degree from an accredited university
- Employment résumé
- Two letters of recommendation
- A personal statement of not more than 1000 words
- Admission exams, such as the GRE or the GMAT, are not required.

To be eligible for admission in full standing, a student must have an overall undergraduate grade point average of 3.00. Students who do not qualify for admission in full standing may be admitted on a trial enrollment justified by the admitting department and approved by the dean of the School of Graduate Studies. Students are allowed seven years from the date of admission into the program to complete degree requirements; extensions may be granted for extenuating circumstances.

Program entrance requirements and degree completion requirements are consistent with those of the other collaborative degree-granting institutions offering this program. Applicants should follow the instructions found in the Online Admission Policies and Procedures section of this catalog.

SPECIAL STUDENTS

Students who have earned a bachelor's degree from a nationally or regionally accredited institution recognized by the Council for Higher Education Accreditation may register as a Special Student. Students will receive academic credit for courses taken while on this status. Students can be considered for admission into a degree program if they maintain a 3.00 grade point average in all graduate-level work and all other admission

requirements are met. With the program area advisor's approval, students may transfer up to 12 credits earned at UW-Platteville into a degree program. All graduate-level work will be included in computing a student's GPA.

CURRICULUM

The Master of Science in Applied Biotechnology is earned upon the successful completion of 31 credit hours (18 core credits, 9 emphasis credits, 1 pre-capstone credit, and 3 capstone credits). All courses are three credits unless otherwise noted. Graduate credits in which a grade lower than a "C" has been earned will not be counted toward a degree in Applied Biotechnology; however, these lower grades will be reflected in the student's grade point average.

Course	Title	Credits
Core Courses		18
ABT 7000	Principles of Biotechnology	
ABT 7050	Ethics, Safety and Regulatory Environments in Biotechnology	
ABT 7100	Professional and Technical Communication in Biotechnology	
ABT 7150	Techniques in Biotechnology	
ABT 7200	Experimental Design and Analysis in Biotechnology	
ABT 7250	Leadership in Organizations	
Emphasis - Choose one		9
Emphasis 1 - Quality Assurance and Compliance		
ABT 7350	Quality Control and Validation	
ABT 7400	Regulatory Practice and Compliance	
ABT 7450	Industrial Applications in Regulatory Affairs	
Emphasis 2 - Business and Management		
ABT 7500	Biotechnology Marketing and Entrepreneurship	
ABT 7550	Global Operations and Supply Chain Management	
ABT 7600	Quality and Project Management	
Emphasis 3 - Research and Assessment		
ABT 7650	Assessing Innovation in Biotechnology	
ABT 7700	Product Development	
ABT 7750	Tools for Data Analysis	
Capstone Courses		4
ABT 7890	Pre-capstone	
ABT 7900	Capstone	
Total Credits		31