Master of Science in Applied Biotechnology

Overview

The University of Wisconsin-Green Bay, University of Wisconsin-Madison, University of Wisconsin-Oshkosh, University of Wisconsin-Parkside, University of Wisconsin-Platteville, University of Wisconsin-Stevens Point, and University of Wisconsin-Whitewater have collaborated to offer a fully online master's degree program in Applied Biotechnology. 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 growing 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. Students will develop advanced knowledge and skills that will enable them to serve an important function and role within the biotechnology workforce.

Learning Outcomes

- 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 behavior that fosters positive and productive interactions in diverse biotechnology settings

Admission Requirements

Each student's prior academic background is evaluated by the University of Wisconsin – Green Bay program Chair. Students who show exceptional promise but lack the minimal prerequisites may be admitted provisionally. Applicants are not required to take the GRE for admission.

A completed application consists of a UW-Green Bay Graduate Application form (https://apply.wisconsin.edu/), resume, personal statement describing the applicant's interest in the degree (see below), two letters of evaluation or recommendation letters, official transcripts (undergraduate and graduate), and a $56.00 application fee.

Minimum Admission to the Master of Science in Applied Biotechnology program requires:

- A baccalaureate degree from an accredited institution
- A minimum of a 3.0 grade point average (GPA) based on a 4.0 scale.
- Prerequisite coursework in:
  - 2 semesters of college level Biology and/or Chemistry with lab
- Two letters of evaluation (https://www.uwgb.edu/UWGBCMS/media/graduate/files/pdf/Letter-of-Evaluation-(M-S-in-Applied-Biotechnology).pdf) or recommendation letters (can be professional or academic)
- Resume: your resume may be uploaded as part of your application or can be emailed to gradstu@uwgb.edu
- Up to 1,000 word statement of personal intent describing decision to pursue this degree and what you believe you will bring to the biotechnology field.

International students will also need to provide the following documentation:

- A test of English proficiency (TOEFL or IELTS)
- Course-by-course transcript evaluation from a professional evaluation service currently recognized by NACES (www.naces.org (http://www.naces.org/)). UW-Green Bay recommends one of the following evaluation services:
  - Educational Credential Evaluators (ECE) http://www.ece.org/
  - World Education Services (WES) http://www.wes.org/
- Please note that this program is entirely online. International students are welcome to apply for and enroll in an online program. However, they are unable to apply for an F-1 or J-1 visa based on enrollment in this program.

Degree Requirements

The M.S. in Applied Biotechnology represents a fully online, asynchronous curriculum comprised of 31 credits to include 18 credits from six core courses, 9 credits from completion of one Area of Emphasis (Business Management, Quality Assurance and Compliance, OR Research and Development), 1 credit from a Capstone preparation course and 3 credits from a project-based Capstone course. Students may complete more than one Area of Emphasis.

Area of Emphasis (http://catalog.uwgb.edu/archive/2024-2025/graduate/graduate-programs/abt-ms/emphasis/)

Students must complete requirements in one of the following areas of emphasis. Please select an emphasis option below for a full list of required courses:

- Business Management (http://catalog.uwgb.edu/archive/2024-2025/graduate/graduate-programs/abt-ms/emphasis/#businessmanagementtext)
- Quality Assurance and Compliance (http://catalog.uwgb.edu/archive/2024-2025/graduate/graduate-programs/abt-ms/emphasis/#qualityassuranceandcompliancetext)
- Research and Development (http://catalog.uwgb.edu/archive/2024-2025/graduate/graduate-programs/abt-ms/emphasis/#researchanddevelopmenttext)

Progress to Degree

1. The candidate applies to the Master of Applied Biotechnology program by submitting an application, official transcripts, resume, a statement of intent, and two letters of recommendation to the University of Wisconsin-Green Bay Graduate School.
2. The candidate is admitted to the Master of Applied Biotechnology program by the University of Wisconsin-Green Bay program Chair.
3. The student completes an Official Declaration of Master's Degree (GR-1 Form) indicating the program emphasis of study.
4. The student fulfills the degree requirements for the program.
5. The student is awarded a Master of Applied Biotechnology degree from the University of Wisconsin-Green Bay.

Faculty Advisors

Grubisha, Lisa, Assistant Professor, Natural & Applied Sciences. Biology Program. Academic Director, Master of Science in Applied Biotechnology (ABT). B.S. (1988) University of Wisconsin-Milwaukee; M.S. (1998) Oregon State University; Ph.D. (2005) University of California-Berkeley

Fields of Interest: Microbiology, metagenomics, conservation genetics, population genomics, phylogenetics, fungal ecology and evolution, microbial diversity and function.

Nikolakakis, Kiel, Lecturer, Natural & Applied Sciences. Chemistry Program. BS. (2007) University of California - Santa Barbara; Ph.D. (2013) University of California - Santa Barbara.

Fields of Interest: Microbial symbiosis, protein biochemistry, chemical sensors, microbiology, proteomics, metabolic modeling, microbial cell-cell interactions