

# BIOTECHNOLOGY

## Integrated Undergrad-Grad Programs Integrated B.S. in Biotechnology and M.BIOT. in Biotechnology

This Integrated Undergraduate/Graduate (IUG) degree program combines the B.S. in Biotechnology with the M.Biot. in Biotechnology offered at the following campuses:

### Undergraduate Degree

- University Park

### Graduate Degree

- University Park

Requirements listed here are in addition to requirements listed in GCAC-210 Integrated Undergraduate-Graduate (IUG) Degree Programs (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-210-integrated-undergraduate-graduate-degree-programs/>).

The integrated B.S. in Biotechnology-Master of Biotechnology degree program is designed to enable qualified undergraduate students in the B.S. Biotechnology program to graduate in five years with the Master of Biotechnology degree.

### Admission Requirements

Students must apply to the program via the Graduate School application for admission (<http://www.gradschool.psu.edu/prospective-students/how-to-apply/>), and must meet all the admission requirements of the Graduate Council, listed under GCAC-300 Admissions Policies (<https://gradschool.psu.edu/graduate-education-policies/>), and the Biotechnology graduate program for the Master of Biotechnology degree, listed on the Admission Requirements tab.

Before applying to the Graduate School, students must have completed entrance to their undergraduate major and have completed no less than 60 credits. Students must be admitted no later than the end of the second week of the semester preceding the semester of expected conferral of the undergraduate degree. Transfer students must have completed at least 15 credits at Penn State to enroll in an IUG. Students must have a GPA of 3.5 at the time of application to the integrated degree program when they have completed at least 75 credits of their B.S. curriculum at the time of their admission to the integrated degree program.

In consultation with an adviser, students must prepare a plan of study appropriate to this integrated program, and must present their plan of study to the head of the graduate program or the appropriate committee overseeing the integrated program prior to being admitted to the program. The plan should cover the entire time period of the integrated program, and it should be reviewed periodically with an adviser as the student advances through the program.

### Degree Requirements

Student must fulfill all degree requirements for each degree in order to be awarded that degree, subject to the double-counting of credits as outlined below. Degree requirements for the Bachelor of Science in Biotechnology are listed in the Undergraduate Bulletin (<http://bulletins.psu.edu/>

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Students must sequence their courses so all undergraduate degree requirements are fulfilled before taking courses to count solely towards the graduate degree. Students are expected to complete the undergraduate degree requirements within the typical time to degree for the undergraduate major. In the semester in which the undergraduate degree requirements will be completed, IUG students must apply to graduate, and the undergraduate degree should be conferred at the next appropriate Commencement. If students accepted into the IUG program are unable to complete the M.BIOT. degree, they are still eligible to receive their undergraduate degree if all the undergraduate degree requirements have been satisfied.

Up to 12 credits may be double-counted towards the degree requirements for both the graduate and undergraduate degrees; a minimum of 50% of the double-counted courses must be at the 500 or 800 level. Independent study courses and credits associated with the culminating experience for the graduate degree cannot be double-counted.

Code	Title	Credits
<b>Courses Eligible to Double Count for Both Degrees</b>		
BMB 400	Molecular Biology of the Gene	2-3
BIOTC 479	Methods in Biofermentations	3
or BE 468	Microbiological Engineering	
MCIBS 571	Current Issues in Biotechnology	2
MCIBS 590	Colloquium	1-3
MCIBS 591	Ethics, Rigor, Reproducibility and Conduct of Research in the Life Sciences	2
MCIBS 593	Molecular Biology Laboratory	3