

# BIOCHEMISTRY AND MOLECULAR BIOLOGY, MINOR

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

## Program Description

The Biochemistry and Molecular Biology minor provides a foundation in traditional biochemistry and an exploration of the current understanding of molecular biology. The fields of biochemistry and molecular biology are extensively interconnected and are taught in the context of the biology of the cell. Stated another way, the B M B minor is a substantial treatment of life processes at the molecular and cellular levels. The minor requires coursework in general biochemistry, cell biology, and molecular biology. A required laboratory course exposes students to the basic techniques and instrumentation used in modern biochemistry and molecular biology laboratories. Students considering this minor should be comfortable with the study of chemistry.

## What is Biochemistry and Molecular Biology?

Biochemistry and Molecular Biology is the study of the molecular basis of life. Biochemistry uses the principles of chemistry and physics to understand biological molecules, structures, and reactions. Molecular biology focuses on how biological molecules interact to form cells, organisms, and behaviors.

## You Might Like This Program If...

You are interested in increasing your knowledge in biochemistry and molecular biology, but do not want to complete a BMB major.

## Program Requirements

Requirement	Credits
Requirements for the Minor	33-35

## Requirements for the Minor

A grade of C or better is required for all courses in the minor, as specified by Senate Policy 59-10 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/59-00-minors-and-certificates/#59-10>). In addition, at least six credits of the minor must be unique from the prescribed courses required by a student's major(s).

Code	Title	Credits
<b>Prescribed Courses</b>		
<i>Prescribed Courses: Require a grade of C or better</i>		
BMB 251	Molecular and Cell Biology I	3
BMB 252	Molecular and Cell Biology II	3
BMB 400	Molecular Biology of the Gene	2-3
BMB 401	General Biochemistry	3
BMB 402	General Biochemistry	3
BMB 442	Laboratory in Proteins, Nucleic Acids, and Molecular Cloning	3
CHEM 110	Chemical Principles I	3
CHEM 112	Chemical Principles II	3

CHEM 210	Organic Chemistry I	3
CHEM 212	Organic Chemistry II	3

### Additional Courses

*Additional Courses: Require a grade of C or better*

BIOL 222	Genetics	3
or BIOL 322	Genetic Analysis	

### Supporting Courses and Related Areas

*Supporting Courses and Related Areas: Require a grade of C or better*

Select 0-3 credits of B M B courses at the 400-level	0-3
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*Note: BMB 408 and BMB 496 may not be used to fulfill requirements for the minor.*

## Academic Advising

The objectives of the university's academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee's unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy/>)

## University Park

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## Contact

### University Park

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