

MICROBIOLOGY, 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 minor in Microbiology is a collection of required and elective courses that:

1. provides a limited but sound foundation in the discipline,
2. requires students to develop reasonable expertise in handling and characterizing microorganisms, and
3. permits students to emphasize some subdiscipline of microbiology in which they may have a particular interest.

The minor specifies the introductory lecture and laboratory courses in microbiology and one course each in immunology and cell biology. A minimum of two laboratory courses exposes students to basic and experimental/applied techniques. Sufficient room exists within the minor for selection of two or three elective courses at the advanced level that may emphasize a specialty area of the discipline such as virology or microbial genetics. Students who complete the minor have a sufficient background to pursue positions in industry that require an appreciable expertise in microbiology.

What is Microbiology?

Microbiology is the study of microscopic organisms and how they interact with other organisms and the environment. Topics in microbiology include how microbes benefit and harm human health, the role of microbes in the environment, and how microbes can be used in medicine, agriculture, and engineering.

You Might Like This Program If...

You don't have time for a Microbiology degree but are interested in increasing your knowledge of the subject.

Program Requirements

Requirement	Credits
Requirements for the Minor	24

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
Prescribed Courses		
<i>Prescribed Courses: Require a grade of C or better</i>		
CHEM 110	Chemical Principles I	3
CHEM 112	Chemical Principles II	3
MICRB 201	Introductory Microbiology	3
MICRB 202	Introductory Microbiology Laboratory	2
MICRB 251	Molecular and Cell Biology I	3
MICRB 410	Principles of Immunology	3

Additional Courses

Additional Courses: Require a grade of C or better

MICRB 421W Laboratory of General and Applied Microbiology 2-3
or MICRB 422 Medical Microbiology Laboratory

Supporting Courses and Related Areas

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

Select 4-5 credits of 400-level MICRB courses¹ 4-5

¹ BMB 442, MICRB 408, MICRB 496 and MICRB 497 may not be used to fulfill the 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/>)

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