

**The Ohio State University**  
**College of Arts and Sciences**  
**Department of Microbiology**  
**Microbiology Minor (MICRBIO-MN)**

Department of Microbiology  
105 Biological Sciences Building  
484 West 12th Avenue,  
[microbiology.osu.edu/](http://microbiology.osu.edu/); 614-292-2301  
Academic Advisor – Matt DeBlicek (deblicek.2@osu.edu)

Microbiology, broadly defined as the study of organisms invisible to the naked eye, is a modern science studied in the lab, in the environment and in silico. Our students study microbiology in all its forms: from understanding how the billions of cells in our microbiomes keep us healthy; the role bacteria and phages play in the global carbon cycle and climate change; how genes and their expression are regulated at the molecular level; where antibiotic resistance comes from and how to fight it; to how pathogenic parasites, fungi, viruses and bacteria cause disease and how they can be treated. Microbiology at Ohio State epitomizes a modern interdisciplinary STEM field in every sense.

**Prerequisites (3 courses; 12 CH)**

Biology 1113(H) and 1114(H)  
Chemistry 2520 or 2620 or 2920H or Biochemistry 4511

*NOTE: The courses above themselves have prerequisites, including:*

- Chemistry 1206 & 1208 & 1220 -OR- 1210 & 1220 -OR- 1610 & 1620 -OR- 1910H & 1920H
- Chemistry 2310, 2510, 2610, -OR- 2910H
- Math Placement Level L or M; or a grade of C- or above in Math 1120, 1130, 1131, 1148, 1150, or above

*Students should work closely with their academic advisor to plan appropriately.*

**Required core course (1 course; 5 CH)**

MICRBIO 4100 General Microbiology (5) ‡

**Additional required courses (2 courses, 6 CH)**

Choose two courses from the following:

- MICRBIO 4110 Pathogenesis and Immunobiology (3)
- MICRBIO 4120 Microbial Physiology and Diversity (3)
- MICRBIO 4130 Microbial Genetics (3)
- MICRBIO 4140 Microbial Genetics Lab (3)

**Elective courses (1-3 courses; min. 3 credit hours)**

Electives may be chosen from the list below and/or from any unused courses above. Students may NOT use the same course to fulfill an “additional required course” AND an elective course.

- MICRBIO 2000 Intro to Microbiology Research (1.5)
- MICRBIO 2100 Wild Yeast: From Isolation to Fermentation (3)
- MICRBIO 3704 HIV: From Microbiology to Macrohistory (4)
- MICRBIO 4145 Intro to Industrial Micro & Bioprocessing Lab (3)
- MICRBIO 4150 Immunobiology Laboratory (3)
- MICRBIO 4193 Individual Studies (1-3)
- MICRBIO 4591S DNA Fingerprinting (1)
- MICRBIO 5122 Immunobiology (3)
- MICRBIO 5129 Cellular and Molecular Biology of Pathogenic Eukaryotes (3)
- MICRBIO 5147 Eukaryotic Pathogens (3)
- MICRBIO 5149 Introductory Virology (3)
- MICRBIO 5155 Environmental Microbiology (3)

- MICRBIO 5161 Bioinformatics & Molecular Microbiology (3)
- MICRBIO 5270 Microbial Natural Products: Discovery, Biosynthesis, and Antibiotic Activity (3)
- MICRBIO 5536 Food Microbiology Lecture (3)
- MICRBIO 5546 Food Microbiology Laboratory (3)
- MICRBIO 4998/4998H Undergraduate Research (1-5)
- MICRBIO 4999/4999H Undergraduate Research-Thesis (1-5)

*Some courses above have prerequisites. Please consult the course bulletin before enrolling in courses.*

‡ Non majors who earn an A or an A- in Microbiology 4000.xx can request to enter the Microbiology Minor without taking Microbiology 4100.

**Microbiology minor program guidelines**

Credit hours required: A minimum of 14 credit hrs. 1000 level courses shall not be counted in the minor. At least 6 credits must be upper-division courses (3000-level or above) as defined by the College of Arts and Sciences.

Transfer and EM credit hours allowed: A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

Overlap with the GE: A student is permitted to overlap up to 6 credit hours between the GE and the minor.

Overlap with the major and additional minor(s):

- The minor must be in a different subject than the major.
- The minor must contain a minimum of 12 hours distinct from the major and/or additional minor(s).

Grades required:

- Minimum C- for a course to be listed on the minor.
- Minimum 2.00 cumulative GPA for all minor course work.
- Course work graded Pass/Non-Pass cannot count on the minor.
- No more than 3 credit hours of coursework graded Satisfactory/Unsatisfactory may count toward the minor.

X193 credits: No more than 3 credit hours.

Declaring the minor: In order to declare the minor, students must meet with Matt DeBlicek.2 (Academic Advisor in the Department of Microbiology) prior to the filing of the graduation application. Please call 614-292-6961 to make an appointment.

Approval of Coursework

*Initial approval of the minor coursework:*

Students who complete the minor following the guidelines on this sheet need only verify with their academic advisor that the minor appears complete on the Degree Audit Report. No approval from the Dept. of Microbiology is required.

*Approval for courses not listed on this form to apply to the minor program:*

Students must obtain the approval of the Dept. of Microbiology to apply courses not listed on this form toward the Microbiology minor. Please call 614-292-6961 to meet with Matt DeBlicek.2 for more information.

College of Arts and Sciences Curriculum and Assessment Services  
306 Dulles Hall, 230 Annie & John Glenn Ave  
<http://artsandsciences.osu.edu>  
Updated 6-9-21B DH  
Updated 08-07-2023 RLS  
Updated CAA 10-16-2024 RLS