

The Ohio State University
College of Arts and Sciences

Microbiology Minor (MICRBIO-MN)

Department of Microbiology
105 Biological Sciences Building
484 West 12th Avenue, Columbus, OH 43210-1292 614-292-2301; <http://microbiology.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.

1. Required prerequisite courses

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

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

2. Required core course (5 credit hours)

Microbiology 4100 General Microbiology (5) ‡

3. Additional required courses (at least 2 of the following) (6 credit hours)

Microbiology 4110 Pathogenesis and Immunobiology (3)
Microbiology 4120 Microbial Physiology and Diversity (3)
Microbiology 4130 Microbial Genetics (3)
Microbiology 4140 Microbial Genetics Lab. (3)

4. Elective courses (4 credit hours)

Electives must be chosen from the list of additional required courses above* and/or the courses below:

Microbiology 2000 Intro to Microbiology Research (1.5)
Microbiology 2100 Wild Yeast: From Isolation to Fermentation (3)
Microbiology 3704 HIV: From Microbiology to Macrohistory (3)
Microbiology 4193 Individual Studies (1-3)
Microbiology 4591S DNA Fingerprinting (1)
Microbiology 5122 Immunobiology (3)
Microbiology 5129 Cellular and Molecular Biology of Pathogenic Eukaryotes (3)
Microbiology 5147 Eukaryotic Pathogens (3)
Microbiology 5149 Introductory Virology (3)
Microbiology 5155 Environmental Microbiology (3)
Microbiology 5160 Geomicrobiology (3)
Microbiology 5161 Bioinformatics & Molecular Microbiology (3)
Microbiology 5270 Microbial Natural Products: Discovery, Biosynthesis, and Antibiotic Activity (3)
Microbiology 5536 Food Microbiology Lecture (3)
Microbiology 5546 Food Microbiology Laboratory (3)

Microbiology 4998/4998H Undergraduate Research (1-5)
Microbiology 4999/4999H Undergraduate Research-Thesis (1-5)

*Students may NOT use the same course to fulfill one of the "additional required courses" [Section 3] AND one of the elective courses [Section 4].

‡ Non majors who earn an A or an A- in Microbiology 4000(.01 or .02) 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 at the 3000 level or above.

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.

Minor approval: The minor program must be approved by the academic unit offering the minor.

Filing the minor program form: The minor program form must be filed at least by the time the graduation application is submitted to a college/school advisor.

Changing the minor: Once the minor program is filed in the college office, any changes must be approved by the academic unit offering the minor.

College of Arts and Sciences
Curriculum and Assessment Services
306 Dulles Hall, 230 Annie & John Glenn Ave
<http://artsandsciences.osu.edu>

Received 3/6/12 DH
Updated 6/26/13 DH
BV 7-8-15
DH 3-4-19
DH 6-9-21B
Updated 08-07-2023 RLS

