Recent years have seen dramatic changes in the methods and techniques used in biological research, resulting in dramatic changes in our understanding of biology at all levels, from molecular to global. Students who major in other areas, like engineering and education, who want a deeper understanding of the biological sciences than they would get in the coursework incorporated into their major, pre-professional students who wish to major in a non-science area, business students pursuing careers in biotechnology or pharmaceutical industries, students in journalism or strategic communications, and many more, will benefit from the breadth and depth of education that the biology minor provides.

**Required prerequisite courses**
Biology 1113 and 1114  
Chemistry 1220 or 1620 or 1920H  
Math 1148 and 1149, or 1150, or higher

The biology minor consists of 15 credit hours beyond the prerequisites listed above. The minor includes Biology 3401 (Integrated Biology), and other courses that present fundamental topics in biology, including biochemistry, anatomy, physiology, genetics, microbiology, ecology, and evolution. Students must choose two courses from a list of seven of those fundamental courses, and they will be able to choose at least one additional elective for the minor.

**Required core course**
Biology 3401

**Additional required courses (at least 2 of the following)**
Biochemistry 4511  
Evolution, Ecology, and Organismal Biology 2510, 2520, 3310, 3410  
Microbiology 4000  
Molecular Genetics 4500

The required core course, two additional required courses from the list above, and elective courses must total 15 semester hours.

- **Electives may be chosen from courses in**  
  Biochemistry, Biology, Evolution, Ecology and Organismal Biology (EEOB), Microbiology, and Molecular Genetics
- **Electives must be at the 2000 level or higher (except for Biology 2100 and 2194, which do not count toward the minor)**
- **At least 6 of the 15 hours in the minor must be at the 3000 level or above**
- **Electives and any substitutions to the list of additional required courses above must be approved by a biology advisor before enrolling in those courses (and may require additional prerequisites)**
- **Honors versions of courses substitute freely**

**Biology minor program guidelines**

**Required for graduation**
No

**Credit hours required**
A minimum of 15 credit hrs. 1000 level courses shall not be counted toward the 15 credit hr minimum. At least 6 credit hrs must be at the 3000-level or above.

**Transfer credit hours allowed**
At least half of the credits counting toward the minor must be earned in regular OSU coursework.

**Overlap with the GE**
Permitted, no more than 6 credit hours.

**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 counted on the minor.
- Minimum 2.00 cumulative point-hour ratio required for the minor.
- Course work graded Pass/Non-Pass cannot count on the minor.
- No more than 3 credit hours of course work 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 a biology advisor.

**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 counselor.

**Changing the minor**
Once the minor program is filed in the college office, any changes must be approved by a biology advisor.