The Ohio State University College of Arts and Sciences Department of Chemistry and Biochemistry Biochemistry Minor (BIOCHEM-MN)

Department of Chemistry and Biochemistry 110 Celeste Laboratory, 120 West 18th Avenue 614-292-1204; http://www.chemistry.osu.edu biochemadvisors@osu.edu

The study of biochemistry provides students with a deep understanding of the chemistry principles that govern living systems. Biochemistry is a widely applicable subject area which covers topics such as the structure of enzymes and the transfer of genetic information. Biochemists tackle fundamental questions as they try to uncover the structures of molecules, examine how molecular structure determines biological function, investigate how molecules recognize one another in order to form complex cellular structures, and discover the nature of the dynamic chemical changes that occur in cells. This minor will benefit those with an interest in biochemical sciences and a desire to gain laboratory experience in modern techniques.

The Biochemistry Minor consists of 15 credit hours.

Prerequisite Courses (7-9 courses; 30-40 CH)

- 1. BIOLOGY 1111 *and* 1112 *or* 1113(.xx)(H)(E) (4-7 CH)
- 2. BIOLOGY 1114(.xx)(H)(E) (4-5 CH)
- 3. CHEM 1206 <u>and</u> 1208, <u>or</u> 1210, 1610, or 1910H (5-7 CH)
- 4. CHEM 1220, 1620 or 1920H (5 CH)
- 5. CHEM 2510, 2610, or 2910H (4 CH)
- 6. CHEM 2520, 2620, or 2920H (4 CH)
- 7. MATH 1140 <u>and</u> 1141, <u>or</u> 1151, 1156, 1181H, or 4181H (4-8 CH)

Required Courses (4 courses; 13 CH)

BIOCHEM 5613 - Biochemistry & Molecular Biology I (3 CH) BIOCHEM 5614 - Biochemistry & Molecular Biology II (3 CH) BIOCHEM 5615 - Biochemistry & Molecular Biology III (3 CH) BIOCHEM 5621 - Biochemistry & Molecular Biology Lab (4 CH)

Elective Courses (1-2 courses; min 2 CH)

Students must earn at least 2 additional hours in biochemistry <u>or</u> a related mathematical or physical science at the 2000 level or above <u>or</u> a related biological science at the 3000 level or above. Students should contact a Biochemistry Academic Advisor (<u>biochemadvisors@osu.edu</u>) for guidance about which courses meet this requirement prior to enrolling.

Biochemistry minor program guidelines:

<u>Credit hours required</u>: A minimum of 15 CH. 1000-level courses shall not be counted in the minor. At least 6 CH must be upper-level courses as defined by the College of Arts and Sciences.

<u>Transfer and EM credit hours allowed</u>: 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 courses 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 a Biochemistry Academic Advisor prior to the filing of the graduation application. Please schedule an appointment via OnCourse (or by calling 614-292-1204) with the appropriate Biochemistry Academic Advisor.

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 auditing system. No approval from the Department of Chemistry and Biochemistry is required.

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

Students must obtain the approval of the Department of Chemistry and Biochemistry to apply courses not listed on this form toward the Biochemistry minor. Please schedule an appointment via OnCourse (or by calling 614-292-1204) with the appropriate Biochemistry Academic Advisor to request approval.

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

DH 6-9-21B Updated 07-10-2025 RLS