LSA CHEMISTRY
UNIVERSITY OF MICHIGAN

Biochemistry Minor

University of Michigan - Department of Chemistry

updated Fall 2025

The Biochemistry minor provides a broad and general exposure to the traditional areas of the biochemical sciences.

Exclusions:

The Biochemistry Academic Minor is not open to students majoring in Biochemistry; Biomolecular Science; Interdisciplinary Chemical Sciences; Molecular, Cellular, and Developmental Biology (formerly known as Cell and Molecular Biology, or CMB); Biology; General Biology; Biology, Health, and Society (BHS); Neuroscience; Ecology, Evolution, and Biodiversity; Plant Biology; and Microbiology.

Department of Chemistry course sharing policy:
No more than one course counted toward the 18-credit Chemistry minor may also be used to meet a requirement for a major. (Requirements for a major, in this instance, include both the major requirements and major prerequisites.) If students have completed more than one Chemistry minor course (core or elective) that is also part of their majors, then they should share only one of these courses and must complete unique Chemistry minor electives to reach the 18 credit minimum for the minor.

Prerequisites: - AP credit for Physics (125 or 139) will fulfill the Physics requirement.
- AP credit for Math (120) will fulfill the Math requirement.
- AP credit for Biology (174, 192, or 195) will fulfill the Biology requirement.

Course #	Course Description	Typically Offered	Credits
PHYS 150 OR 140	Fundamental Physics for the Life Sciences I OR General Physics I	*F, W, Sp*	4
MATH 115	Calculus I	*F, W, Sp, Su*	4
BIO 172	Introductory Biology: Molecular, Cellular, and Developmental	*F, W, Sp*	4
CHEM 210	Structure and Reactivity I	*F, W, Sp*	3

Minor Program requirements (at least 18 credit hours):

Core courses:

Course #	Course Description	*Typically Offered*	Credits
CHEM 351	Fundamentals of Biochemistry	*F, W*	4
OR			
**BIOLCHEM 415	Introductory Biochemistry	*F, W*	4
OR			
**MCDB 310	Introductory Biochemistry	*F, W, Sp, Su*	4

Elective Courses: Electives should be selected in consultation with an advisor.

Course #	Course Description	*Typically Offered*	Credits
CHEM 211	Investigations in Chemistry: Laboratory	*F, W, Sp*	2
CHEM 215	Structure and Reactivity II	*F, W, Sp*	3
CHEM 241 &	Introduction to Chemical Analysis	*F, W*	2
CHEM 242	Introduction to Chemical Analysis Laboratory	*F, W*	2
OR			
CHEM 245 &	Biomedical Analytical Chemistry	*F, W*	2
CHEM 246/247	Biomedical Analytical Chemistry Laboratory I and II	*F, W*	2
CHEM 230	Physical Chemical Principles and Applications	*F, W, Sp*	3
OR			
CHEM 260	Chemical Principles	*F, W*	3
OR			
CHEM 370	Physical & Chemical Principles Behind Biology and Medicine	*F, W*	3
OR			
*CHE 330	Chemical & Engineering Thermodynamics		3
OR			
BIOMEDE 221	Biophysical Chemistry and Thermodynamics		3
CHEM 303	Intro Bioinorganic Chemistry: the Role of Metals in Life	*F*	3
CHEM 352 or 353	Intro to Biochemical Research Techniques: Laboratory	*F, W*	2-3
CHEM 398	Undergraduate Research in Biochemistry- 3 credits total	*F, W*	3
CHEM 421	Organic Chemistry of Drug Design		3
CHEM 451	Adv Biochemistry I Macromolecular Structure & Function	*F, W*	4
CHEM 452	Advanced Biochemistry II Cellular Processes	*W*	4
CHEM 453	Biophysical Chemistry	*F*	3
BIOLOGY 305	Genetics	*F, W, Sp, Su*	4