

MINOR IN BIOCHEMISTRY

The minor in Biochemistry is designed to provide students with a coherent introduction to the molecular basis of life while remaining accessible to students outside the traditional life sciences. The curriculum emphasizes core concepts in biochemistry and offers flexibility in advanced coursework, allowing students to tailor the minor to their academic and career interests.

The minor is structured to minimize out-of-minor prerequisites. With general chemistry as the primary required preparation outside the minor, students can complete the program without extensive additional coursework. This design makes the minor particularly well suited for students majoring in computation-focused disciplines, including computer science, artificial intelligence, and applied mathematics, who wish to gain biological and biochemical context for data-driven or interdisciplinary applications. The minor is also accessible to students in psychology and other social science or humanities majors seeking scientific grounding for careers or graduate study related to neuroscience, psychiatry, public health,

health policy, or science communication, as well as to students in the physical sciences interested in interdisciplinary approaches to biological systems.

Students completing the minor gain exposure to fundamental biochemical principles, experimental and quantitative thinking, and selected advanced topics such as physical biochemistry, computational biochemistry, molecular biophysics, or nutrition and metabolism. The biochemistry minor complements majors in computation, psychology, the physical sciences, and the humanities by preparing students to engage with problems in bioinformatics, computational biology, neuroscience-related fields, biotechnology, pharmaceutical research, and artificial intelligence-enabled life sciences, while also serving as a strong secondary field of study for students considering interdisciplinary graduate programs or careers at the interface of biology, data science, medicine, and society.

Required Courses

Code	Title	Credit Hours
CHEM 235 & CHEM 236	Organic Chemistry I and Organic Chemistry I-Lab	4
BIOL 107 or BIOL 115	General Biology Lectures Human Biology	3
BIOL 301	Introductory Biochemistry	3
Select as least two of the following		
BIOL 402	Metabolic Biochemistry	3
BIOL 404	Biochemistry Laboratory	3
BIOL 412	Structural and Mechanistic Biochemistry	3
BIOL 445	Cell Biology	3
CHEM 438	Physical Biochemistry	3
CHEM 456	Computational Biochemistry and Drug Design	3
FDSN 201	Nutrition and Wellness	3
FDSN 300	Nutrition Through the Life Cycle	3
FDSN 401	Nutrition, Metabolism, and Health	3
PHYS 410	Molecular Biophysics	3