

Biochemistry

Major

Biochemists investigate the chemical reactions and mechanisms that govern and regulate life. Biochemistry, therefore, combines the broad perspectives of biology and chemistry and uses diverse approaches to examine the chemistry of living things. The curriculum includes courses in chemistry and biology and provides students with expertise at the interface of these disciplines. The mastery of fundamentals in biology and chemistry permits students to seamlessly integrate ideas from both areas of science and approach problems from an interdisciplinary perspective.

The biochemistry curriculum incorporates class instruction with significant laboratory work, including experimental approaches in protein and nucleic acid chemistry, cell biology, biophysics, and molecular biology. Independent research is encouraged, and research opportunities are provided. The Biochemistry major is administered jointly by the Biology and Chemistry Departments (see the Biology and Chemistry Departments mission statements). Students majoring in Biochemistry are considered to be a part of both departments.

The Biochemistry major consists of eleven courses (40 credit hours), three electives (12 credit hours), and two corequisites (8 credit hours). The major is designed to allow students the flexibility to pursue individual interests as they prepare for their post-college careers.

*Students majoring in Biology and Biochemistry may only count BI 110, 207, and 307 towards both majors. Students majoring in Chemistry and Biochemistry may only count CH 110, 203, 304, and 211 towards both majors. Students majoring in Biology, Chemistry, and Biochemistry may only count BI 110, 207, 307, CH 110, 203, 304, and 211 towards the three majors. Due to significant course overlap, students majoring in Biochemistry are ineligible for a minor in either Biology or Chemistry.

Core Courses

Item #	Title	Credits
BI 110	Biological Investigation	4.0
BI 207	Molecular Genetics	4.0
BI 307	Cell and Molecular Biology	4.0
CH 110	General Chemistry	4.0
CH 203	Organic Chemistry I	4.0
CH 211	Quantitative Analysis	4.0
CH 304	Organic Chemistry II	4.0
CH 309	Biochemistry I	4.0
CH 410	Biochemistry II	4.0
CH 441	Senior Seminar I	2.0
CH 442	Senior Seminar II	2.0

Electives

At least three selected from:

Item #	Title	Credits
BI 306	Developmental Biology	4.0
BI 310	Immunology	4.0
BI 311	Virology	4.0
BI 345	Principles of Microbiology	4.0
CH 231	Inorganic Chemistry	4.0
CH 327	Medicinal Chemistry	4.0
CH 332	Advanced Inorganic Chemistry	4.0

Required Corequisites

Item #	Title	Credits
PY 201	College Physics I	4.0
PY 202	College Physics II	4.0
Total Credits		60