

BIOCHEMISTRY MAJOR – B.S.

This B.S. degree requires 60 liberal arts credits out of the 120 credits required for graduation.

Summary

Code	Title	Credits
	Biochemistry B.S. Major Requirements	62
	Integrative Core Curriculum Requirements and Electives ¹	58
Total Credits		120

¹ This major is approved to fulfill the Integrative Core Curriculum (<https://catalog.ithaca.edu/undergrad/programsaz/integrative-core-curriculum/>) requirement for the Natural Sciences perspective.

Degree Requirements

Code	Title	Credits
BIOLOGY		
BIOL 12100	Principles of Biology, Cell and Molecular	4
BIOL 12200	Principles of Biology, Ecology and Evolution	4
BIOL 22700	Genetics	4
CHEMISTRY		
CHEM 12100 & CHEM 12200 or CHEM 12300	Principles of Chemistry and Principles of Chemistry Laboratory or Principles of Chemistry - Enriched Section	4
CHEM 22100 & CHEM 22300	Organic Chemistry I and Organic Chemistry I Laboratory	4
CHEM 22200 & CHEM 22400	Organic Chemistry II and Organic Chemistry II Laboratory	4
CHEM 23200 & CHEM 23300	Quantitative Chemistry and Quantitative Chemistry Laboratory	4
BIOCHEMISTRY		
BIOC 24000	Experimental Biochemistry	2
BIOC 35300	Biochemistry: Protein Structure & Function	3
BIOC 35400	Biochemistry: Molecular Biology of the Gene	4
BIOC 39000	Independent Research in Biochemistry	3
BIOC 48100	Current Topics in Biochemistry	3
BIOLOGY ELECTIVE		
	Select one BIOL course at the 300- or 400- level ¹	4
CHEMISTRY ELECTIVE		
	Select at least 3 additional credits of CHEM at the 300- or 400-level ¹	3
PHYSICS, MATHEMATICS, AND COMPUTER SCIENCE		
PHYS 10100 or PHYS 12200	Introduction to Physics I or Momentum, Energy, and Heat	4
MATH 10800 or MATH 11100	Applied Calculus or Calculus I	4
	Select one of the following:	4
COMP 17100 or MATH 11200	Principles of Computing Science I or Calculus II	

MATH 14500	Statistics for the Health, Life, and Social Sciences	
PHYS 10200	Introduction to Physics II	
PHYS 12300	Classical Fields: Gravity, Electricity, & Magnetism	
Total Credits		62

¹ The following seminar and research courses cannot be used to count toward the Biology or Chemistry elective requirement: BIOL 30000, BIOL 30200, BIOL 40000, BIOL 40200, BIOL 41100, BIOL 41200, BIOC 39000, BIOC 39100, BIOC 39200, BIOC 49100, BIOC 49200, BIOC 49700, BIOC 49800, CHEM 39100, CHEM 39200, CHEM 48600, CHEM 48700, and CHEM 48800.