

CHEMISTRY MAJOR – B.S.

Students interested in pursuing an American Chemical Society-approved degree may do so via the completion of additional requirements, in consultation with their adviser.

Summary

Code	Title	Credits
	Chemistry B.S. Major Requirements	55
	Integrative Core Curriculum Requirements ¹	29-41
	Electives	24-36
Total Credits		120

¹ See Integrative Core Curriculum requirements, with information about the H&S CLA requirement. (<https://catalog.ithaca.edu/undergrad/schools/school-humanities-sciences/#integrativecorecurriculumicctext>)

Degree Requirements

Code	Title	Credits
DEPARTMENTAL REQUIREMENTS		
CHEM 12100 & CHEM 12200 or CHEM 12300	Principles of Chemistry and Principles of Chemistry Laboratory Principles of Chemistry - Enriched Section	4
CHEM 22100	Organic Chemistry I	3
CHEM 22200	Organic Chemistry II	3
CHEM 22300	Organic Chemistry I Laboratory	1
CHEM 22400	Organic Chemistry II Laboratory	1
CHEM 23200	Quantitative Chemistry	3
CHEM 23300	Quantitative Chemistry Laboratory	1
CHEM 33100 or CHEM 33200	Physical Chemistry: Thermodynamics and Kinetics Physical Chemistry: Quantum Chemistry and Spectroscopy	3
CHEM 34200	Inorganic Chemistry	3
CHEM 34300	Inorganic Chemistry Laboratory	1
CHEM 35300 or BIOC 35300	Modern Instrumental Methods Biochemistry: Protein Structure & Function	3
CHEM 48600	Chemistry Capstone: Senior Research Experience	3
CHEM 48700	Chemistry Seminar	1
CHEM 48800	Chemistry Capstone: Senior Thesis	3
CHEMISTRY ELECTIVES		
	Students complete 6 credits of upper-level chemistry electives, at the 300- or 400-level.	6
	• Any CHEM course not counting towards departmental requirements may count as a Chemistry elective, excluding CHEM research courses (CHEM 39100 or CHEM 39200)	
	• BIOC 35300 may count towards this requirement, if not counting as a Chemistry requirement.	
NON-DEPARTMENTAL REQUIREMENTS		
MATH 10800 or MATH 11100	Applied Calculus Calculus I	4

MATH 14500 or MATH 11200 or MATH 21600	Statistics for the Health, Life, and Social Sciences Calculus II Statistical Analysis	4
PHYS 10100 or PHYS 11700	Introduction to Physics I Principles of Physics I: Mechanics	4
COMP 17100 or PHYS 11800	Principles of Computing Science I Principles of Physics II: Electricity and Magnetism	4
Total Credits		55