

CHEMISTRY B.A.

The courses required for the B.A. degree provide a less extensive training in chemistry than do the courses required for the American Chemical Society certified B.S. degree. This is to allow the student to supplement his or her program with courses that meet his or her specific needs. Thus, this degree provides the core of traditional preparation in chemistry together with latitude for combination with an interdisciplinary field or the Teacher Education Program. It is strongly advised that students using this degree obtain faculty advice in planning their program.

Bachelor of Arts - Chemistry

General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umn.edu/academics/general-education-requirements/>) of the catalog.

Summary

Code	Title	Hours
Lower-Division Core Courses		45
	General Chemistry	
	Organic Chemistry	
	Physics	
	Mathematics	
	Computer Science	
Upper-Division Core Courses		16
	Analytical Chemistry	
	Physical Chemistry	
Advanced Electives		15
Total Hours		76

Degree Specific Credits: 76

Required Cumulative GPA: 2.0

Lower-Division Core Courses

General Chemistry

Code	Title	Hours
Complete all of the following courses:		
CHMY 141N & CHMY 142N	College Chemistry I and College Chemistry I Lab	5
CHMY 143N & CHMY 144N	College Chemistry II and College Chemistry II Lab	5
Total Hours		10

Minimum Required Grade: C-

Organic Chemistry

Code	Title	Hours
Complete all of the following courses:		
CHMY 221 & CHMY 222	Organic Chemistry I and Organic Chemistry I Lab	5

CHMY 223 & CHMY 224	Organic Chemistry II and Organic Chemistry II Lab	5
Total Hours		10

Minimum Required Grade: C-

Physics

Code	Title	Hours
Complete all of the following courses:		
PHSX 215N & PHSX 216N	Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus	5
PHSX 217N & PHSX 218N	Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus	5
Total Hours		10

Minimum Required Grade: C-

Mathematics

Code	Title	Hours
Complete all of the following courses:		
M 171	Calculus I	4
M 172	Calculus II	4
M 273	Multivariable Calculus	4
Total Hours		12

Minimum Required Grade: C-

Computer Science

Code	Title	Hours
Complete the following course:		
CSCI 125	Computation in the Sciences	3

Minimum Required Grade: C-

Upper-Division Core Courses

Analytical Chemistry

Code	Title	Hours
Complete all of the following courses:		
CHMY 311	Analytical Chemistry-Quantitative Analysis	4
CHMY 421	Advanced Instrument Analysis	4
Total Hours		8

Minimum Required Grade: C-

Physical Chemistry

Code	Title	Hours
Complete all of the following courses:		
CHMY 371	Physical Chemistry-Quantum Chemistry & Spectroscopy	4
CHMY 373	Physical Chemistry-Kinetics & Thermodynamics	4
Total Hours		8

Minimum Required Grade: C-

Advanced College Writing Requirement

Rule: To complete the Advanced College Writing Requirement, Biochemistry students may take the following courses or any other stand-alone advanced writing course.

Code	Title	Hours
BCH 482	Advanced Biochemistry II	3
BCH 486	Biochemistry Research Lab	3

Minimum Required Grade: C-

Advanced Electives

Code	Title	Hours
Complete 9 credits of advanced electives in Chemistry or Biochemistry approved by the Chemistry adviser and 6 credits of advanced electives at the discretion of the student. 15 total credits required.		15

Minimum Required Grade: C-