

B.S. Chemistry

A suggested sequence for taking the required science courses is given below. Students who opt for a variation from the suggested sequence should check to ensure that course prerequisites have been satisfied. Because many courses have structured prerequisites, major deviations from this schedule could increase the time required to obtain the degree. Students pursuing this degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits - see the General Education Requirements (<https://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/>) described in the Academic Information section of this catalog).

Students working on a Bachelor of Science degree in Chemistry should complete ENGL 1101 or ENGL 1101P, and COMM 1101 during the freshman year, and ENGL 1102 should be passed by, or during, the sophomore year. (General Education Objective 1 is satisfied by taking ENGL 1101 or ENGL 1101P, AND ENGL 1102. General Education Objective 2 is satisfied by COMM 1101.) The mathematics requirement (Objective 3) should be fulfilled by MATH 1170 and MATH 1175 as early as feasible.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1 - ENGL 1101 and ENGL 1102 ¹		6
Objective 2 - COMM 1101		3
Objective 3 - MATH 1170		4
Objective 4		6
Objective 5 - BIOL 1101/BIOL 1101L and CHEM 1111/ chem 1101L		9
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7		
Objective 8		
Objective 9		3
Total Credits		40

¹ "P" courses are equivalent to the original course.

Major Requirements

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
PHYS 2211 & PHYS 2213	Engineering Physics I and Engineering Physics I Laboratory	5
PHYS 2212 & PHYS 2214	Engineering Physics II and Engineering Physics II Laboratory	5
CHEM 2211	Inorganic Chemistry I	3

CHEM 2213	Inorganic Chemistry I Laboratory	1
CHEM 2232 & CHEM 2234	Quantitative Analysis and Quantitative Analysis Laboratory	4
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II	4
CHEM 3331 & CHEM 3334	Instrumental Analysis and Instrumental Analysis Laboratory	4
CHEM 3351 & CHEM 3352	Physical Chemistry I and Physical Chemistry II	6
BIOL 4432	Biochemistry	3
OR		
BIOL 4445	Biochemistry I	3
OR		
CHEM 4445	Biochemistry I	3
CHEM 4451 & CHEM 4452	Physical Chemistry Laboratory I and Physical Chemistry Laboratory II	2
CHEM 4481 & CHEM 4482	Independent Problems in Chemistry and Independent Problems in Chemistry	3
CHEM 4491	Seminar	1
CHEM 4407	Inorganic Chemistry II	2
OR		
CHEM 4447	Biochemistry II	3
OR		
CHEM 3365 & CHEM 3366	Synthetic Methods and Synthetic Methods Laboratory	4

Degree Totals

Code	Title	Credits
	Program Admissions Requirements	0
	General Education	40
	Major Requirements (w/o General Education)	55-77
	Upper Division Free Electives	5-7
	Free Electives	18
	Total Credits	120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements/>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/>)

Major Academic Plan (MAP) (<https://www.isu.edu/advising/maps/>)