

Chemistry Plans of Study

Bachelor of Arts in Chemistry

A suggested sequence for the science requirements is listed below. Variations from the suggested sequence should be checked to ensure that all course prerequisites are met. Students pursuing this degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits - see the General Education Requirements (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation>) described in the Academic Information section of this catalog).

First Year	Credits
BIOL 1101 & 1101L	4
CHEM 1111 & 1111L	5
CHEM 1112 & 1112L	4
MATH 1170 or 1160	3-4
	16-17
Second Year	Credits
CHEM 2232	2
CHEM 2234	2
CHEM 3301	3
CHEM 3302	3
CHEM 3303	1
CHEM 3304	1
Take one of the following physics sequences:	8-10
PHYS 1111 & PHYS 1112 & PHYS 1113 & PHYS 1114	
OR	
PHYS 2211 & PHYS 2212 & PHYS 2213 & PHYS 2214	
	20-22
Third Year	Credits
BIOL 4432 or CHEM 4445	3

CHEM 2211	3
CHEM 2213	1
CHEM 3341 & CHEM 3342	6

OR

CHEM 3351 & CHEM 3352	13
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Fourth Year	Credits
CHEM 3391	1
	1

Total Credits: 50-53

¹ Plus 8 additional upper-division (3000-4000 level) credits in chemistry, approved by the department and not to include CHEM 4491. No more than 2 credits of CHEM 3311 and 2 credits in CHEM 4481-CHEM 4482 may be used to satisfy these electives. If the CHEM 4445 and CHEM 4447 sequence is taken, 3 credits may be used to satisfy elective credits. No more than 40 credits in chemistry will count toward graduation in this program.

² Students pursuing a Bachelor of Arts 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.) Objective 3 should be fulfilled by MATH 1160 or MATH 1170 as early as possible. The other General Education Requirements should be taken as credit load allows.

Bachelor of Science in 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 (<http://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.

First Year	Credits
BIOL 1101 & 1101L	4
CHEM 1111 & 1111L	5
CHEM 1112 & 1112L	4
MATH 1170	4
MATH 1175	4
	21
Second Year	Credits
CHEM 2232	2
CHEM 2234	2
CHEM 3301	3
CHEM 3302	3
CHEM 3303	1
CHEM 3304	1
PHYS 2211 & PHYS 2212	8
PHYS 2213 & PHYS 2214	2
	22
Third Year	Credits
CHEM 2211	3
CHEM 2213	1
CHEM 3331	2
CHEM 3334	2
CHEM 3351 & CHEM 3352	6
CHEM 4451 & CHEM 4452	2
	16
Fourth Year	Credits
Choose one:	3-6
BIOL 4432	
OR	

BIOL 4445 & BIOL 4447	
OR	
CHEM 4445 & CHEM 4447	
CHEM 3365	2
CHEM 3366	2
CHEM 4481 & CHEM 4482	4
CHEM 4491	1
	12-15

Total Credits: 71-74

Overview of B.S./M.S. Program

Year 1 in the B.S./M.S. Program (Junior Year): During the first semester each student is expected to select three faculty members to serve as an advisory committee subject to the approval of the department chair. In the second semester, each student will form a planned program of study with a research advisor, write a research overview of a chosen project, and apply and be admitted to the Graduate School. The student must score at or above the 35th percentile in two areas of aptitude (Verbal, Quantitative, and Analytical) of the Graduate Record Exam. The student is expected to begin his/her research no later than the beginning of the summer semester. Thereafter, individual sections of the research paper will be required as the student progresses through the program.

Year 2 in the B.S./M.S. Program (Senior Year) and year 3 (Graduate standing): To remain in the program, a student must maintain a minimum GPA of 3.0 from date of admission and must earn a grade of C- or better in all 6000-level courses. The students' committees will assess student standing annually and will recommend that students who are not making adequate progress discontinue the program. Students are required to have completed all General Education requirements by the end of their second year in the combined B.S./M.S. program.

Suggested Schedule in B.S./M.S. Program

First Year			
Fall/Spring	Credits	Summer	Credits
CHEM 2211	3	Take 6 credits of CHEM 4485:	6
CHEM 2213	1		
CHEM 3331 ¹	2		
CHEM 3334 ¹	2		
CHEM 3351 ¹	3		
CHEM 3352 ¹	3		
CHEM 4451	1		
CHEM 4452	1		

MATH 3360	3	
Electives	11	
	30	6

Second Year

Fall/Spring	Credits	Summer	Credits
Choose one:	3-6	CHEM 6635 ²	6
BIOL 4432			
OR			
BIOL 4445 & BIOL 4447			
OR			
CHEM 4445 & CHEM 4447			
CHEM 3365	2		
CHEM 3366	2		
CHEM 4407	2		
CHEM 4485	2		
CHEM 4491	1		
CHEM 6609 ²	3		
CHEM 6655 ²	3		
Electives	8		
	26-29		6

Third Year

Fall/Spring	Credits
CHEM 6601 ²	1
CHEM 6630 ²	3
CHEM 6635 ²	4
CHEM 6671 ²	3
Electives	13
	24

Total Credits: 92-95

¹ Must be completed by the end of junior year.

² For more information on 6000 level courses, please see the Graduate Catalog (<http://coursecat.isu.edu/graduate>).