

Four-Year Degree Plan for Major in Chemistry, B.S., ACS-Certified

Note that this is a sample four-year plan. There are other course sequences that will allow a student to graduate within four years as long as prerequisite courses are taken in the proper sequence. This sample plan does not guarantee course availability, and adjustments to students' plans may be necessary if they are unable to take specific courses during specific semesters. Students who are placed into lower level AWR, MAT or other prerequisite courses will need to adjust their four-year plans accordingly. Similarly, students who bring in Advanced Placement, Dual Enrollment or transfer credit for courses will need to adjust their four-year plans. A minimum of a 2.0 GPA both overall and in the major is required for graduation. In addition to major requirements, all components of the Baccalaureate Experience must be completed in order to graduate. A student must earn a minimum of 124 credit hours to qualify for the Bachelor of Science degree in Chemistry, ACS-Certified.

First (Freshman) Year - Fall Semester

CHE 152	General Chemistry I	3
CHE 153L	General Chemistry I Laboratory	1
MAT 260	Calculus I	4
AWR 101	Writing and Inquiry	4
BAC 101	First-Year Seminar I	1
	or	
HON 101	Pathways to Honors 1	1

Subtotal: 13

CHE 152, CHE 153L, MAT 260: Grade "C" or better

First (Freshman) Year - Spring Semester

CHE 154	General Chemistry II	3
CHE 155L	General Chemistry II Laboratory	1
MAT 261	Calculus II	4
BIO 198	General Biology I	4
BIO 198L	General Biology I Laboratory	
	Social Science (Bacc. Exp)	4
BAC 102	First-Year Seminar II	1
	or	
HON 102	Pathways to Honors 2	1

Subtotal: 17

CHE 154, CHE 155L, MAT 261: Grade "C" or better
Social Science: (IG) (NW)

Second (Sophomore) Year - Fall Semester

CHE 232	Organic Chemistry I	3
CHE 233L	Organic Chemistry I Laboratory	1
CHE 310	Analytical Chemistry	4
CHE 310L	Analytical Chemistry Laboratory	0
PHY 205	General Physics with Calculus I	4
PHY 205L	General Physics with Calculus I Laboratory	0
	Humanities Fine Arts (Bacc Exp)	4

Subtotal: 16

CHE 232, CHE 233L (W), CHE 310: Grade "C" or better
Humanities/Fine Arts: (W)

Second (Sophomore) Year - Spring Semester

CHE 234	Organic Chemistry II	3
CHE 235L	Organic Chemistry II Laboratory	1
CHE 245	Intermediate Inorganic Chemistry	4
CHE 245L	Intermediate Inorganic Chemistry Laboratory	
PHY 206	General Physics with Calculus II	4
PHY 206L	General Physics with Calculus II Laboratory	

AWR 201	Writing and Research	4
	Subtotal: 16	
	CHE 234, CHE 235L (W), CHE 245: Grade "C" or better Social Science: (IG) (NW)	
	Third (Junior) Year - Fall Semester	
CHE 320	Biochemistry	3
CHE 352	Physical Chemistry I	3
CHE 353L	Physical Chemistry I Laboratory	1
MAT 262	Calculus III	4
	Humanities Fine Arts (Bacc Exp)	4

Subtotal: 15

Humanities/Fine Arts: (A)

CHE 320, CHE 352, CHE 353L: Grade "C" or better

Third (Junior) Year - Spring Semester

CHE 354	Physical Chemistry II	3
CHE 355L	Physical Chemistry II Laboratory	1
CHE 451	Introduction to Research	1-4
	General Elective (W)	4
	Humanities/Fine Arts (Bacc. Exp.)	4
	Social Science (Bacc. Exp)	4

Subtotal: 17

1 credit of CHE 451 should be taken

Fourth (Senior) Year - Fall Semester

CHE 451	Introduction to Research	1-4
CHE 425	Advanced Inorganic Chemistry	3
	General Elective (W)	4
	Social Science (Bacc Exp.)	4
	General Elective (IG) (NW)	4

Subtotal: 17

2 credits of CHE 451 should be taken

Fourth (Senior) Year - Spring Semester

CHE 430	Advanced Instrumental Chemistry	4
CHE 430L	Advanced Instrumental Chemistry Laboratory	
CHE 451	Introduction to Research	1-4
	General Elective	4
	General Elective	4

1 credit of CHE 451 should be taken

One of the following:

CHE 420	Advanced Biochemistry	4
CHE 426	Advanced Organic Chemistry	3
CHE 445	Advanced Organic Spectroscopy	3
CHE 499	Special Topics in Chemistry	1-4

Subtotal: 16-17

CHE 430 (W)

3-4 credits of CHE 420, CHE 426, CHE 445, or CHE 499 are required. If CHE 420 is taken, CHE 320L must also be taken as a prerequisite.

Subtotal: 127-128

Note: The math requirement and natural science component of the Baccalaureate Experience are fulfilled by courses in the above sequence (*i.e.*, BIO 198, CHE 152, MAT 260).

MAT 262 is strongly recommended for the B.S., ACS-Certified Chemistry major.