

Four-Year Degree Plan: BS in Chemistry with ACS concentration



**COLLEGE OF LETTERS,
ARTS AND SCIENCES**

Catalog Year:

2022-2023

This is a degree plan for completing a BS in Chemistry with ACS concentration in eight semesters. This document is meant to be used as a guide for planning purposes only and is intended for use in consultation with a Professional Academic or Faculty advisor.

Year One			Year Two		
Semester 1			Semester 3		
Fall		Credits	Fall		Credits
CHE 1800	General Chemistry I*	4	CHE 3000	Analytical Chemistry	3
CHE 1801	General Chemistry I Lab	1	CHE 3010	Analytical Chemistry Lab	2
	General Studies and electives	4	MTH 2410	Calculus II	4
ENG 1010	Composing Arguments	3	--	General Studies	3
	Oral Communication	3			
Semester 1 Total		15	Semester 3 Total		12
Semester 2			Semester 4		
Spring		Credits	Spring		Credits
CHE 1810	General Chemistry II	4	CHE 3100	Organic Chemistry I	4
CHE 1811	General Chemistry II Lab	1	CHE 3120	Organic Chemistry I Lab	1
MTH 1410	Calculus I	4	MTH 2420	Calculus III	4
ENG 1020	Research and Argument Writing	3	--	General Studies	6
	General Studies and Electives	3			
Semester 2 Total		15	Semester 4 Total		15
Year Three			Year Four		
Semester 5			Semester 7		
Fall		Credits	Fall		Credits
CHE 3110	Organic Chemistry II	3	CHE 4450	Physical Chemistry : Quantum	4
CHE 3130	Organic Chemistry II Lab	2	CHE 4480	Physical Chemistry: Quantum Lab	2
PHY 2311	General Physics I and	4	--	CHE Electives	4
PHY 2321	General Physics I Lab	1	--	General Studies	3
OR			CHE 4310	Biochemistry I	4
PHY 2010	College Physics 1 and	4			
PHY 2030	College Physics 1 Lab	1			
	CHE Electives	3			
CHE 3300	Inorganic Chemistry	3			
Semester 5 Total		16	Semester 7 Total		17
Semester 6			Semester 8		
Spring		Credits	Spring		Credits
--	CHE Electives	2	CHE 4460	Physical Chemistry: Thermo	4
--	General Studies	3	CHE 4490	Physical Chemistry: Thermo Lab	2
PHY 2331	General Physics II	4	--	CHE Senior Experience	3
PHY 2341	General Physics II Lab	1	--	General Studies and Electives	6
OR					
PHY 2020	College Physics II and	4			
PHY 2040	College Physics II Lab	1			
CHE 4100	Instrumental Analysis	3			
CHE 4110	Instrumental Analysis Laboratory	2			
Semester 6 Total		15	Semester 8 Total		15
* This program assumes math prerequisites have been met. Students must complete all courses with a grade of C- or better. This degree is an extended major and does not require a minor.					PROGRAM TOTAL
					120

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Advisor Contact Information	
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Office Hours/How to Schedule an Appointment	

Catalog Information
This four-year degree plan for completing a BS in Chemistry with ACS concentration in eight semesters is for the Catalog Year 2022-2023. Students are responsible for consulting advisors and the MSU Denver catalog for degree requirements.
View the MSU Denver Catalog

Course Listing

Core Requirements

CHE 1800	General Chemistry I	4
CHE 1801	General Chemistry I Laboratory	1
CHE 1810	General Chemistry II	4
CHE 1811	General Chemistry II Laboratory	1
CHE 3000	Analytical Chemistry	3
CHE 3010	Analytical Chemistry Laboratory	2
CHE 3100	Organic Chemistry I	4
CHE 3110	Organic Chemistry II	3
CHE 3120	Organic Chemistry I Laboratory	1
CHE 3130	Organic Chemistry II Laboratory	2
CHE 3300	Inorganic Chemistry	3
CHE 4100	Instrumental Analysis	3
CHE 4110	Instrumental Analysis Laboratory	2
CHE 4310	Biochemistry I	4
CHE 4450	Phys Che: Quant Mech & Spectro	4
CHE 4460	Phys Che: Thermo & Kinetics	4
CHE 4480	Phys Che Lab: Quant & Spectro	2
CHE 4490	Phys Che Lab: Thermo & Kinetics	2
	Core Requirements Total	49

Electives, Ancillary, & Additional Courses**

MTH 1410	Calculus I	4
MTH 2410	Calculus II	4
MTH 2420	Calculus III	4
--	CHE senior experience course	3
Select 1 of the following Physics Lecture/Lab Sequences		
PHY 2010	College Physics I	4
PHY 2020	College Physics II	4
PHY 2030	College Physics I Laboratory	1
PHY 2040	College Physics II Laboratory	1
OR		
PHY 2311	General Physics I	4
PHY 2321	General Physics I Laboratory	1
PHY 2331	General Physics II	4
PHY 2341	General Physics II Laboratory	1
--	Chem upper-division electives	6
	Electives and Ancillary Total	36

Program Totals

General Studies Requirements**	33
Core Requirements	49
Electives and Ancillary**	26
General Electives as Needed	12
Total to Graduate	120

Other Information

**MTH 1410 counts as a Quantitative Literacy General Studies course

**Physics courses count as Natural and Physical Sciences.

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