

Chemistry, BA



University of Wyoming, 2016-17

The Department of Chemistry offers both BA and BS degree programs. The BA program has a more liberal content with additional electives. It would support careers in business, law, and advanced study in areas needing a strong chemistry background such as toxicology or forensic science. It is also suitable for students in the College of Education who wish to obtain an A&S degree and may be appropriate for some premed tracks. Discussions with a departmental advisor will allow students to choose the most appropriate major for career objectives.

Freshman Fall Semester			Hrs	Min	Grade	Notes
		USP First-Year Seminar	3		C	FY
CHEM	1020	General Chemistry I *	4		C	Can substitute CHEM 1050 ** (Adv General Chemistry I).
ENGL	1010	College Composition and Rhetoric	3		C	C1
MATH	2200	Calculus I ***	4		C	Q
Credit hours subtotal:			14			

Freshman Spring Semester			Hrs	Min	Grade	Notes
		USP Human Culture	3			H
CHEM	1030	General Chemistry II	4		C	Can substitute CHEM 1060 (Adv General Chemistry II).
MATH	2205	Calculus II	4		C	
POLS	1000	American and Wyoming Government	3			V
Credit hours subtotal:			14			

Sophomore Fall Semester			Hrs	Min	Grade	Notes
		USP Communication 2	3		C	C2
		USP Human Culture	3			H
CHEM	2420	Organic Chemistry I	4		C	
PHYS	1110	General Physics I	4		C	PN; can substitute PHYS 1210 (Engineering Physics I).
		Elective	3			
Credit hours subtotal:			17			

Sophomore Spring Semester			Hrs	Min	Grade	Notes
		A&S Core Global Awareness	3			ASG
CHEM	2440	Organic Chemistry II	4		C	
PHYS	1120	General Physics II	4		C	PN; can substitute PHYS 1220 (Engineering Physics II).
		Elective	3			
Credit hours subtotal:			14			

This is a guide for course work in the major; actual course sequence may vary by student. Please refer to the online student degree evaluation, and consult with an academic advisor. • Not all courses are offered every semester and some electives may have prerequisites. Students should review the course descriptions in the *University Catalog* and consult with their academic advisor to plan accordingly.

University of Wyoming requirements:

Students must have a minimum cumulative GPA of 2.0 to graduate. • Students must complete 42 hours of upper division (3000-level or above) coursework, 30 of which must be from the University of Wyoming. • Courses must be taken for a letter grade unless offered only for S/U. • University Studies Program (USP) Human Culture (H) and Physical & Natural World (PN) courses must be taken outside of the major subject, but can be cross listed with the major.

College of Arts and Sciences requirements:

Students must take two "core" courses in addition to the USP requirements: Diversity in the United States (ASD) and Global Awareness (ASG). • No more than 60 hours in the major subject may be used toward the 120 credit hours required for graduation. • At least 30 hours in the major subject must be completed with a grade of C or better (the major may require more).

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Junior Fall Semester			Hrs	Min Grade	Notes
		A&S Core Diversity in the US	3		ASD
CHEM	4110	Introductory Inorganic Chemistry	3	C	
		Upper Division Chemistry Elective *****	3	C	
		Electives	6		
		Credit hours subtotal:	15		

Junior Spring Semester			Hrs	Min Grade	Notes
CHEM	2230	Quantitative Analysis	4	C	
		Upper Division Electives	6		
		Electives	6		
		Credit hours subtotal:	16		

Senior Fall Semester			Hrs	Min Grade	Notes
		USP Communication 3	3	C	C3; recommend CHEM 4010 (Communication in Chemistry).
CHEM	3550	Physical Chemistry for the Life Sciences ****	3	C	
		Upper Division Electives	9		
		Credit hours subtotal:	15		

Senior Spring Semester			Hrs	Min Grade	Notes
CHEM	4100	Inorganic Chemistry Laboratory *****	2	C	
		Upper Division Chemistry Elective *****	1	C	
		Upper Division Electives	12		
		Credit hours subtotal:	15		

TOTAL CREDIT HOURS: 120

Chemistry BA Program Notes:

• The BA in chemistry requires a minimum of 32 hours of chemistry.

* Requires MATH ACT ≥ 23 , MATH SAT ≥ 600 , Math Placement Exam ≥ 3 , or concurrent enrollment in MATH 1400, 1405, or 1450. (University standard)

** Requires MATH ACT ≥ 27 , MATH SAT ≥ 600 , one year of high school chemistry, and concurrent enrollment in MATH 2200. (University standard)

*** Requires MATH ACT ≥ 27 , MATH SAT ≥ 600 , Math Placement Exam ≥ 5 , or $\geq C$ in MATH 1405 or 1450.

**** CHEM 4507 (Physical Chemistry I) is an acceptable substitute for CHEM 3550, but it does have the additional prerequisite of MATH 2210.

***** CHEM 4100 satisfies the upper division lab credit, but it may be replaced by one (1) of the other acceptable courses; for example, CHEM 4230 (Instrumental Methods of Chemical Analysis) or CHEM 4525 (Physical Chemistry Lab I - offered fall only) if taken in conjunction with CHEM 4507 (see previous note).

***** A total of six (6) credits of upper division chemistry electives are required; these must include an upper division lab (see previous note). The one (1) credit indicated in the senior fall semester reflects the choice of CHEM 4100 to satisfy the lab requirement.