



College of
Engineering and
Applied Science

Chemistry, BS (CACS)

FALL

SPRING

Course Number	Course Title	USP	CR	Min Grade	Grade	Course Number	Course Title	USP	CR	Min Grade	Grade
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FRESHMAN YEAR

CHEM 1020	General Chemistry I		4	C		CHEM 1030	General Chemistry II		4	C	
Prerequisite:	ACT MATH 23 or concurrent MATH 1400/1405 or 1450					Prerequisite:	C in CHEM 1020				
	USP: Communications I	C1	3	C		MATH 2205	Calculus II	Q	4	C	
						Prerequisite:	C in Math 2200				
MATH 2200	Calculus I	Q	4	C		PHYS 1210	Engineering Physics I	PN	4	C	
Prerequisite:	C in Math 1405 or 1450, MPE 5, Math ACT 27, Math SAT 640					Prerequisite:	Concurrent in Math 2205				
	USP: Human Culture	H	3	D		One of:	COSC 1010 or STAT 2050		3	C	
Prerequisite:	Varies					Prerequisite:	Varies				
Total			14			Total			15		

SOPHOMORE YEAR

CHEM 2420	Organic Chemistry I		4	C		CHEM 2440	Organic Chemistry II		4	C	
Prerequisite:	C in CHEM 1030 or CHEM 1060					Prerequisite:	C in CHEM 1030 or CHEM 1060 and CHEM 2420				
MATH 2210	Calculus III		4	C		CHEM 2230	Quantative Analysis		5	C	
Prerequisite:	C in MATH 2205					Prerequisite:	CHEM 1030, CHEM 1060 or Equivalent				
	USP: Human Culture	H	3	D			USP: US & WY Const.	V	3	D	
Prerequisite:	Varies										
PHYS 1220	Engineering Physics II	PN	4	C			USP: Communications II	C2	3	C	
Prerequisite:	Concurrent in MATH 2210					Prerequisite:	C in C1				
Total			15			Total			15		

JUNIOR YEAR

CHEM 4110	Introductory Inorganic		3	C		CHEM	Upper Div CHEM Elec		3	C	
Prerequisite:	C in CHEM 2420 and Physical					Prerequisite:	Varies				
CHEM 4230	Inst. Methds of Chem Analysis		5	C		CHEM 4100	Inorganic Chemistry Lab		2	C	
Prerequisite:	C in CHEM 2230					Prerequisite:	C in CHEM 2440 and CHEM 4110 or concurrent enrollment				
CHEM 4930	Undergrad Research		3	C		One of:	CHEM 4400/MOLB 3610/MOLB 4600		3	C	
Prerequisite:	Chemistry major and instructor consent					Prerequisite:	Varies				
	General Elective		2	D			General Elective		3	D	
Prerequisite:	Varies					Prerequisite:	Varies				
	Program Supporting Course		3	C			Program Supporting Course		3	C	
Prerequisite:	Varies					Prerequisite:	Varies				
Total			16			Total			14		

SENIOR YEAR

CHEM 4000	Career Skills		3	C		CHEM 4508	Thermodynamics and Kinetics		3	C	
Prerequisite:	6 hours of CHEM classes					Prerequisite:	C in CHEM 1030, PHYS 1220, and MATH 2210				
CHEM 4507	Intro Quantum Mechanics		3	C		CHEM 4530	Physical Chemistry Lab II		1	C	
Prerequisite:	C in CHEM 1030, PHYS 1220, and MATH 2210					Prerequisite:	Chem 4508 or concurrent enrollment				
CHEM 4525	Physical Chemistry Lab I		1	C			General Elective		1	C	
Prerequisite:	CHEM 4507 or concurrent enrollment					Prerequisite:	Varies				
	Program Supporting Course		3	C			Upper Div Program Supporting		3	C	
Prerequisite:	Varies					Prerequisite:	Varies				
	USP: Communications III	C3	3	C			Upper Div Program Supporting		3	D	
Prerequisite:	C in C2					Prerequisite:	Varies				
	Program Supporting Course		3	C			Upper Div Elective		4	D	
Prerequisite:	Varies					Prerequisite:	Varies				
Total			16			Total			15		

Fall only or spring only course

Total Program Credits: 120

- Students must have a minimum cumulative GPA of 2.0 to graduate
- Students must complete 42 hours of upper division coursework, 30 of which must be from the University of Wyoming.
- No more than 60 hours in the major subject may be used toward the 120 credits required (128 for professional programs).
- All hours in the major subject must be completed with a grade of C or better. Courses must be taken for a letter grade unless offered S/U only.
- H and PN courses must be taken outside the major subject, but can be cross-listed with the major.
- Students with specific additional interests (pre-med or pre-professional) may wish to move V/H/C2 courses to take necessary courses
- CHEM 4000 offered in fall semesters of even-numbered years