

B.S. Chemistry Major using Fall 2016 catalog or newer:**Required Courses**

	Cred.	Offered	Course	Possible Substitutions
_____	4	F,W,S	CHM 115 Principles of Chemistry I	
_____	5	F,W,S	CHM 116 Principles of Chemistry II	
_____	4	F,W,S	CHM 221 Survey of Analytical Chemistry	
_____	4	F	CHM 245 Principles of Organic Chemistry I	} CHM 241*
_____	1	F	CHM 246 Principles of Organic Chemistry I Lab	
_____	3	W	CHM 247 Principles of Organic Chemistry II	} CHM 242*
_____	1	W	CHM 248 Principles of Organic Chemistry II Lab	
_____	3	F	CHM 273 Principles of Inorganic Chemistry	
_____	4	F	CHM 325 Instrumental Analysis	
_____	1	F,W	CHM 352 Physical Chemistry Laboratory	
_____	3	F	CHM 356 Physical Chemistry I	
_____	3	W	CHM 358 Physical Chemistry II	CHM 351*
_____	4	F,W,S	CHM 461 Biochemistry I	
_____	1	F,W	CHM 391 Chemistry Seminar I	
_____	1	F,W	CHM 491 Chemistry Seminar II	

Cognates

_____	4	F,W,S	MTH 201 Calculus I	
_____	4	F,W,S	MTH 202 Calculus II	
_____	5	F,W,S	PHY 230 Principles of Physics I	PHY 220 [§]
_____	5	F,W,S	PHY 231 Principles of Physics II	PHY 221 [§]

*Students who transfer or change majors may use these substitutions (with advisor approval)

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Take any 3 courses from the following list

			Lab hours
_____	3	CHM 421 Green Chemistry for Sustainable Environment	
_____	3	CHM 427 Green and Environmental Chemistry Laboratory	56
_____	3	CHM 441 Advanced Topics in Organic Chemistry	
_____	3	CHM 442 Synthetic Polymers: Life Cycle and Emerging Sustainable Tech.	
_____	3	CHM 447 Organic Synthesis and Characterization	70
_____	3	CHM 457 Advanced Physical and Instrumental Chemistry Laboratory	56
_____	3	CHM 462 Techniques in Biochemistry	84
_____	3	CHM 463 Biochemistry II	
_____	3	CHM 471 Advanced Inorganic Chemistry	
_____	3	CHM 475 Electrochemistry	
_____	3	CHM 477 Synthetic Inorganic Chemistry	70

Students seeking a degree certified by the American Chemical Society (ACS) must also complete:

- Either CHM 462 or CHM 477 as one of their upper-level electives.
- At least 400 total lab hours in CHM courses above the 100 level.
 - 148 beyond required courses if CHM 245-248
 - 176 beyond required courses if CHM 241/242
 - CHM 499 lab hours may be used to satisfy the ACS lab hour requirement (42 hrs. per credit)
 - CHM 490 may also be used to count towards lab hrs. with unit head approval