

B.S. Chemistry Major with Education Emphasis 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	
_____	3	F	CHM 351	Introduction to Physical Chemistry	CHM 356 and 358
_____	1	F,W	CHM 352	Physical Chemistry Laboratory	
_____	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	BIO 120	General Biology	CMB 155 and 156
_____	4	F,W,S	BIO 121	General Biology II	
_____	4	F,W,S	GEO 111	Exploring the Earth	
_____	4	F,W,S	MTH 201	Calculus I	
_____	5	F,W,S	PHY 220	General Physics I	PHY 230
_____	5	F,W,S	PHY 221	General Physics II	PHY 231

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

Psychology and Education Courses:

_____	3	F	SCI 440	Physics and Chemistry in Secondary Education
_____	3	F,W,S	EDF 315	Diverse Perspectives in Education
_____	3	F,W,S	EDI 338	Teachers as Decision Makers: Inst. and Assess. in Elem. School
_____	3	F,W,S	EDS 379	Universal Design for Learning: Secondary
_____	3	F,W,S	PSY 101	Introductory Psychology
_____	3	F,W,S	PSY 301	Child Development

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