

## Bachelor of Science in Chemistry and Education with Endorsement in Secondary Education

MAJOR REQUIREMENTS/CHEMISTRY: 36 Credits (a)		MAJOR REQUIREMENTS/EDUCATION: 24 Credits (b)	
CE111: General Chemistry I	3.0	ED250: Foundations of Teaching and Learning	3.0
CE111L: General Chemistry I Lab	1.0		
CE112: General Chemistry II	3.0	EDL201: Educational Psychology	3.0
CE112L: General Chemistry II Lab	1.0		
CE221: Quantitative Analysis	3.0	EDL206: Child and Adolescent Development	3.0
CE221L: Quantitative Analysis Lab	2.0		
CE241: Organic Chemistry I	3.0	ED319: Content Literacy	3.0
CE241L: Organic Chemistry I Lab	2.0		
CE242: Organic Chemistry II	3.0	ED320: Teaching Students with Diverse Needs	3.0
CE242L: Organic Chemistry II Lab	2.0		
CE311: Chemical Literature	1.0		
CE322: Instrumental Analysis	3.0	<b>9 Credits as Follows (c):</b>	
CE322L: Instrumental Analysis Lab	1.0	ED416: Student Teaching <b>AND</b>	8.0
CE341: Physical Chemistry I	3.0	ED416S: Seminar in Student Teaching	1.0
CE341L: Physical Chemistry I Lab	1.0		
CE410: Seminar	1.0		
		<b>EDUCATION METHODS REQUIREMENTS: 6 Credits</b>	
<b>3 crs. of CE Electives from 400+ level</b> CE4xx: <u>(Excluding CE499)</u>	3.0	ED369: Teaching Secondary Science, Part I <b>or</b> ED375: Secondary Teaching Methods Part I	3.0
<b>CHEMISTRY OUTSIDE MAJOR REQUIREMENTS: 18 Credits</b>		ED370: Teaching Secondary Science, Part II <b>or</b> ED376: Secondary Teaching Methods Part II	3.0
MA125: Calculus with Analytic Geometry I	4.0		
MA126: Calculus with Analytic Geometry II	4.0		
PH211: General Physics and Calculus I	4.0		
PH211L: General Physics w/Calculus I Lab	1.0		
PH212: General Physics w/Calculus II	4.0		
PH212L: General Physics w/Calculus II Lab	1.0		
<b>FREE ELECTIVES: 8 Credits</b>			<b>Credits</b>
			8.0
(a) Students desiring certification by the ACS should enroll in the BS.CE ACS program			
(b) Minimum grade of "C" required for Education Courses			
(c) Students must complete the appropriate test requirement(s) with a passing score PRIOR to Student Teaching.			

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### GENERAL EDUCATION REQUIREMENTS: 36 Credits Credits

First Year Seminar	FY-101: First Year Seminar *(Select Section "CE")	3.0
Reading and Writing	EN101: College Composition I	3.0
	EN102: College Composition II	3.0
Mathematics	Fulfilled in Outside Major Requirements with MA125, or MA126	0.0
Natural Sciences	Fulfilled in Major Requirements with required CE courses	0.0
Literature	3 Credits from courses designated with Course*Type: LIT	3.0
Aesthetics and Creativity	3 Credits from Art, Music, Theatre, or Dance	3.0
Technological Literacy	IT102: Information Technology for Scientists	3.0
Reasoned Oral Discourse	Fulfilled in the Education Major Requirements with ED320	0.0
Historical Perspective	3 Credits from courses designated with Course*Type: HS.SV	3.0
Social Science	3 Credits from courses designated with Course*Type: SS.SV	3.0
Historical	3 Credits from courses designated with Course*Type: HS.SV or 3 Credits from courses designated with Course*Type: SS.SV	3.0
Interdisciplinary Perspectives	3 Credits from courses designated with Course*Type: ISP	3.0
Cultural Diversity and Global Understanding or Foreign Language	3 Credits from courses designated with Course*Type: CD	6.0
	and 3 Credits from courses designated with Course*Type: GU	
	or 6 Credits from the SAME foreign language	
Experiential Education	One course designated with Course*Type: EX	0.0
Writing Intensive	Two courses from Chemistry (CE) designated with Course*Type: WT	0.0
	Two courses from Education (ED, EDL, EDS) designated with Course*Type: WT	0.0
	Two courses from Education (ED, EDL, EDS) designated with Course*Type: WT	0.0
	Two courses from Education (ED, EDL, EDS) designated with Course*Type: WT	0.0

**Minimum Credits for Bachelor of Science in Chemistry and Education with Endorsement in Secondary Education = 128.0**

#### ADDITIONAL ENDORSEMENTS AVAILABLE:

- TSD - Teacher of Students with Disabilities - Secondary
- ESL - English as a Second Language - Secondary

#### **NOTES:**

\* 58 credits must be completed at the 200 level or higher.

\*\* Education majors are required to have an overall GPA of 2.75 for State Certification.

\*\*\*By state regulation, all Education Majors seeking content area endorsement must complete 12+ credits at the 300+ level in the content major.