

Bachelor of Science in Chemistry and Education with Endorsement in Secondary Education and Physical Sciences			
MAJOR REQUIREMENTS/CHEMISTRY: 35 Credits (a)		MAJOR REQUIREMENTS/EDUCATION: 24 Credits (b)	
CE111: General Chemistry I	3.0	ED250: Foundations of Teaching & Learning	3.0
CE111L: General Chemistry I Lab	1.0		
CE112: General Chemistry II	3.0	ED201: Education Psychology	3.0
CE112L: General Chemistry II Lab	1.0	EDL206: Child & Adolescent Development	3.0
CE221: Quantitative Analysis	2.0	ED319: Literacy Across the Secondary Curriculum	3.0
CE221L: Quantitative Analysis Lab	2.0	ED319N: NCATE Assessment	0.0
CE241: Organic Chemistry I	3.0	ED320: Teaching Students with Diverse Needs	3.0
CE241L: Organic Chemistry I Lab	2.0		
CE242: Organic Chemistry II	3.0	<b>9 Credits as Follows:</b>	
CE242L: Organic Chemistry II Lab	2.0	ED416: Student Teaching <b>AND</b>	8.0
CE311: Chemical Literature	1.0	ED416S: Seminar in Student Teaching	1.0
CE322: Instrumental Analysis	4.0	<b>OR</b>	
CE372: Ph Chm: Intro to Spectroscopy & Quantum Chem.	3.0	ED417: Supervised Student Teaching <b>AND</b>	8.0
CE372L: Ph Chm: Spectroscopy & Quantum Chem. Lab	1.0	ED417S: Seminar - Supervised Student Teaching	1.0
CE410: Seminar	1.0		
<b>3 crs. of Chemistry (CE) electives from level 400+:</b> <i>*(Excluding CE499)</i> CE4xx: _____	3.0		
		<b>EDUCATION METHODS REQUIREMENTS: 6 Credits</b>	
		ED369: Teaching Secondary Science, Part I	
		<b>or</b> ED375: Secondary Teaching Methods Part I	3.0
		ED370: Teaching Secondary Science, Part II	
		<b>or</b> ED376: Secondary Teaching Methods Part II	3.0
		ED-PRAXIS: PRAXIS-10265	0.0
		PRAXIS-10435	0.0
		PRAXIS-20245	0.0
<b>CHEMISTRY OUTSIDE MAJOR REQUIREMENTS: 24 Credits</b>		<b>EDUCATION OUTSIDE MAJOR REQUIREMENTS: 3 Credits</b>	
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	PY103: Introduction to Psychology	3.0
PH301: Modern Physics	3.0		
PH302: Applied Physics	3.0		
<b>FREE ELECTIVES: 3 Credits</b>			<b>Credits</b>
			3.0
<i>(a) Students desiring certification by the ACS should enroll in the BS.CE ACS program</i>			
<i>(b) Minimum grade of "C" required for Education Courses</i>			

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GENERAL EDUCATION REQUIREMENTS: 33 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 Major Requirements with ED320	0.0
Historical Perspective	3 Credits from courses designated with Course*Type: HS.SV	3.0
Social Science	Fulfilled in Outside Major Requirements with PY103	0.0
Historical Perspective/Social Sciences	3 Credits from courses designated with Course*Type: HS.SV	3.0
	or 3 Credits from courses designated with Course*Type: SS.SV	
Interdisciplinary Perspectives	3 Credits from courses designated with Course*Type: ISP	3.0
Cultural Diversity/Global Understanding	3 Credits from courses designated with Course*Type: CD	3.0
	3 Credits from courses designated with Course*Type: GU	3.0
	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
		0.0
	Two courses from Education (ED, EDL, EDS) designated with Course*Type: WT	0.0

**MINIMUM CREDITS for a Bachelor of Science in Chemistry and Education with Endorsement in Secondary Education and Physical Sciences = 128.0**

**ADDITIONAL ENDORSEMENTS AVAILABLE:**  
 (Please review Endorsement Charts for Requirements)

- TSD - Teacher of Students with Disabilities - Secondary (EDS.TSD.10)
- ESL - English as a Second Language - Secondary (EDS.ESL.10)

**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.