

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 and Learning	3.0
CE111L: General Chemistry I Lab	1.0	EDL201: Educational Psychology	3.0
CE112: General Chemistry II	3.0	EDL206: Child and Adolescent Development	3.0
CE112L: General Chemistry II Lab	1.0	ED319: Literacy Across the Secondary Curriculum	3.0 0.0
CE221: Quantitative Analysis	2.0	ED319N: NCATE Assessment	0.0
CE221L: Quantitative Analysis Lab	2.0	ED320: Teaching Students with Diverse Needs	3.0
CE241: Organic Chemistry I	3.0	9 Credits as Follows (c):	
CE241L: Organic Chemistry I Lab	2.0	ED416: Student Teaching AND	8.0
CE242: Organic Chemistry II	3.0	ED416S: Seminar in Student Teaching	1.0
CE242L: Organic Chemistry II Lab	2.0	*OR*	
CE311: Chemical Literature	1.0	ED417: Supervised Student Teaching AND	8.0
CE322: Instrumental Analysis	3.0	ED417S: Seminar - Supervised Student Teaching	1.0
CE322L: Instrumental Analysis Lab	1.0	EDUCATION METHODS REQUIREMENTS: 6 Credits	
CE372: Ph Chm: Intro to Spectroscopy and Quantum Chem.	3.0	ED369: Teaching Secondary Science, Part I or ED375: Secondary Teaching Methods Part I	3.0
CE372L: Ph Chm: Intro to Spectroscopy and Quantum Chem. Lab	1.0	ED370: Teaching Secondary Science, Part II or ED376: Secondary Teaching Methods Part II	3.0
CE410: Seminar	1.0	EDUCATION OUTSIDE MAJOR REQUIREMENTS: 3 Credits	
3 crs. of CE Electives from 400+ level CE4xx: <u>(Excluding CE499)</u>	3.0	PY103: Introduction to Psychology	3.0
CHEMISTRY OUTSIDE MAJOR REQUIREMENTS: 24 Credits			
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		
PH301: Modern Physics	3.0		
PH302: Applied Physics	3.0		
FREE ELECTIVES: 3 Credits		Credits	
		3.0	
<p>(a) Students desiring certification by the ACS should enroll in the BS.CE ACS program</p> <p>(b) Minimum grade of "C" required for Education Courses</p> <p>(c) Students must complete the appropriate test requirement(s) with a passing score PRIOR to Student Teaching.</p>			

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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	0.0
	Course*Type: WT	0.0
	Two courses from Education (ED, EDL, EDS) designated with	0.0
	Course*Type: WT	0.0

Total Credits for a Bachelor of Science in Chemistry and Education with Endorsement in Secondary Education and Physical Sciences = 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.