

B.S. in Chemistry and Education with Endorsement in Secondary Education in Physical Sciences		
<b>CHEMISTRY MAJOR REQUIREMENTS: 34 Credits (a)</b>		<b>Credits</b>
	CE111: General Chemistry I	3.0
	CE111L: General Chemistry I Lab	1.0
	CE112: General Chemistry II	3.0
	CE112L: General Chemistry II Lab	1.0
	CE221: Quantitative Analysis	2.0
	CE221L: Quantitative Analysis Lab	2.0
	CE241: Organic Chemistry I	3.0
	CE241L: Organic Chemistry I Lab	2.0
	CE242: Organic Chemistry II	3.0
	CE242L: Organic Chemistry II Lab	2.0
	CE311: Chemical Literature	1.0
	CE322: Instrumental Analysis	3.0
	CE372: Physical Chemistry: Intro. To Spectroscopy and Quantum Chemistry	3.0
	CE372L: Physical Chemistry: Intro. To Spectroscopy and Quantum Chemistry Lab	1.0
	CE410: Seminar	1.0
	CExxx: 3 credit 400-Level Elective (except CE499)	3.0
<b>EDUCATION MAJOR REQUIREMENTS: 24 Credits</b>		<b>Credits</b>
	ED250: Foundations of Teaching & Learning	3.0
	ED201: Educational Psychology	3.0
	ED204: Adolescent Psychology	3.0
	ED319: Literacy Across the Secondary Curriculum	3.0
	ED319N: NCATE Assessment	0.0
	ED320: Teaching Children with Diverse Needs	3.0
	ED-PRAXIS: Education Praxis II	0.0
	• PRAXIS - 20245	
	• PRAXIS - 10265	
	• PRAXIS - 10435	
9 credits as follows:	ED416: Student Teaching (8 credits) <b>AND</b> ED416S: Seminar in Student Teaching (1 Credit)	9.0
	<b>OR</b> ED417: Supervised Student Teaching (8 credits) <b>AND</b> ED417S: Seminar in Supervised Stud. Teaching (1 credit)	
<b>EDUCATION METHODS REQUIREMENTS: 6 Credits</b>		<b>Credits</b>
	ED369: Teaching Secondary Science, Part I	3.0
	<b>or</b> ED375: Secondary Teaching Methods Part I	
	ED370: Teaching Secondary Science, Part II	3.0
	<b>or</b> ED376: Secondary Teaching Methods Part II	
<b>CHEMISTRY-PHYSICAL SCIENCE REQUIREMENTS OUTSIDE OF MAJOR: 24 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 with Calculus I Lab	1.0
	PH212: General Physics with Calculus II	4.0
	PH212L: General Physics with Calculus II Lab	1.0
	PH301: Modern Physics	3.0
	PH302: Applied Physics	3.0
<b>EDUCATION REQUIREMENTS OUTSIDE OF MAJOR: 3 Credits</b>		
	PY103: Introduction to Psychology	3.0
<b>LIBERAL ARTS ELECTIVE: 4 Credit</b>		
	(b) _____	
	(b) _____	
<p>(a) Students desiring certification by the ACS should enroll in the BS.CE ACS program.</p> <p>(b) The following disciplines are not considered Liberal Arts: Business(BA, BE, BF, BK, BL, BM), Criminal Justice (CJ), Education (ED), Nursing (NU), Physical Education (PE), Free Electives (FE) or Social Work (SW). However, BE201 and BE202, Micro and Macro Economics are considered Liberal Arts Electives.</p>		

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in Secondary Education in Physical Sciences**

<b>GENERAL EDUCATION REQUIREMENTS: 33 Credits</b>		<b>Credits</b>
English	EN101: College English I EN102: College English II	3.0 3.0
Literature	EN201: Literature I EN202: Literature II	3.0 3.0
History	HS101: Western Civilization In World Perspective I HS102: Western Civilization In World Perspective II	3.0 3.0
Information Technology	IT102: Information Technology for Scientists	3.0
Critical Discourse	HU201: Critical Discourse (waived)	0.0
Science	Fulfilled in Major Requirements	0.0
Mathematics	Fulfilled in Requirements Outside Major	0.0
Social Science (partially fulfilled in Outside the Major Requirements)	Choose one course from among the following: any 100-level courses in AN, GO, PS, SO; BE201, BE202, GS225.	3.0
Aesthetics	AR101: Art Appreciation <b>or</b> MU101: Music Appreciation <b>or</b> TH101: Theater Appreciation <b>or</b> DA101: Dance Appreciation	3.0
Cross Cultural	One course chosen from the sent of approved courses <b>or</b> 3 credits in a foreign language	3.0
Perspectives	PRxxx	3.0
Experiential Education	EX001	0.0
Demonstration of Writing Proficiency	WP001	0.0
Writing Intensive Requirement	Two Chemistry (CE) courses designated as course type WT  Two Education (ED, EDL, EDS) courses designated as course type WT	0.0 0.0 0.0

**TOTAL CREDITS FOR B.S. IN CHEMISTRY AND EDUCATION  
WITH ENDORSEMENT IN SECONDARY EDUCATION IN PHYSICAL SCIENCES = 128.0**

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

- Teacher of Students with Disabilities - Secondary (15 credits)
- English as a Second Language - Secondary (12 credits)

**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.