

B.S. in Chemistry and Education with Endorsement in Elementary Education		
CHEMISTRY MAJOR REQUIREMENTS: 34 Credits (a)		Credits
	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
EDUCATION MAJOR REQUIREMENTS: 30 Credits		Credits
	ED250: Foundations of Teaching & Learning	3.0
	EDL326: Literacy Instruction in Educational Settings, P-5	3.0
	EDL327: Literacy Instruction in Educational Setting (5-12)	3.0
	EDL327N: NCATE Assessment	0.0
	ED320: Teaching Children with Diverse Needs	3.0
	ED360: Methods of Teaching Elementary Math	3.0
	ED360N: NCATE Assessment	0.0
	ED361: Methods of Teaching Elementary Science	3.0
	ED361N: NCATE Assessment	0.0
	ED362: Methods of Teaching Elementary Social Studies	3.0
	ED362N: NCATE Assessment	0.0
	ED-PRAXIS: Education Praxis II • PRAXIS - 10014	0.0
9 credits as follows:	ED416: Student Teaching (8 credits) AND ED416S: Seminar in Student Teaching (1 Credit)	9.0
	OR ED417: Supervised Student Teaching (8 credits) AND ED417S: Seminar in Supervised Stud. Teaching (1 credit)	
CHEMISTRY OUTSIDE OF THE MAJOR REQUIREMENTS: 18 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 with Calculus I Lab	1.0
	PH212: General Physics with Calculus II	4.0
	PH212L: General Physics with Calculus II Lab	1.0
EDUCATION OUTSIDE OF THE MAJOR REQUIREMENTS: 9 Credits		
	PY103: Introduction to Psychology	3.0
	PY201: Educational Psychology	3.0
	PY203: Child Psychology	3.0
LIBERAL ARTS, MATH, SCIENCE ELECTIVES: 4 Credits (b)		Credits
		4.0

(a) Students desiring certification by the ACS should enroll in the BS.CE ACS program

(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, BE 201 and BE 202, Micro and Macro Economics, are considered Liberal Arts Electives.

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in Elementary Education**

GENERAL EDUCATION REQUIREMENTS: 33 Credits **Credits**

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 or MU101: Music Appreciation or TH101: Theater Appreciation or DA101: Dance Appreciation	3.0
Cross Cultural	One course chosen from the sent of approved courses or 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 ELEMENTARY EDUCATION: 128 Credits

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

- TSD - Teacher of Students with Disabilities - Elementary (12 credits)
- ESL - English as a Second Language - Elementary (12 credits)
- MID-SCI - Middle School Science (6 credits)

NOTES:

- * 58 credits must be completed at the 200 level or higher.
- ***By state regulation, all Education Majors seeking content area endorsement must complete 12+ credits at the 300+ level in the content major.
- * Education majors are required to have an overall GPA of 2.75 for State Certification.