MONMOUTH UNIVERSITY CURRICULUM CHART

Bachelor of Science in Chemistry and Education with Endorsement in Elementary Education

MAJOR REQUIREMENTS/CHEMISTRY: 36 Credits (a)		MAJOR REQUIREMENTS/EDUCATION: 36 Credits (b)	
CE111: General Chemistry I	3.0	EDL201: Educational Psychology	3.0
CE111L: General Chemistry I Lab	1.0	EDL206: Child and Adolescent Development	3.0
CE112: General Chemistry II	3.0		
CE112L: General Chemistry II Lab	1.0	ED250: Foundations of Teaching and Learning	3.0
CE221: Quantitative Analysis	3.0	EDL326: Literacy Instructions in K-5 Educational Settings I	3.0
CE221L: Quantitative Analysis Lab	2.0		
CE241: Organic Chemistry I	3.0	ED320: Teaching Students with Diverse Needs	3.0
CE241L: Organic Chemistry I Lab	2.0	EDL327: Literacy Instruction in K-5 Educational Settings II	3.0
CE242: Organic Chemistry II	3.0		
CE242L: Organic Chemistry II Lab	2.0	ED360: Methods of Teaching Elementary Mathematics	3.0
CE311: Chemical Literature	1.0		
CE322: Instrumental Analysis	3.0		
CE322L: Instrumental Analysis Lab	1.0	ED361: Methods of Teaching Science for Elementary School	3.0
CE372: Ph Chm: Intro to Spectroscopy and Quantum Chem.	3.0	ED362: Teaching Elementary Social Studies	3.0
CE372L: Ph Chm: Intro to Spectroscopy and Quantum Chem. Lab	1.0	**9 Credits as Follows (c):**	
CE410: Seminar	1.0	ED416: Student Teaching **AND**	8.0
		ED416S: Seminar in Student Teaching	1.0
3 crs. of CE Electives from 400+ level			
CE4xx: *(Excluding CE499)*	3.0		
CHEMISTRY OUTSIDE MAJOR REQUIREMENTS: 18 Credits		**EDUCATION OUTSIDE MAJOR REQUIREMENTS: 3 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	PY103: Introduction to Psychology	3.0
PH212: General Physics w/Calculus II	4.0		
PH212L: General Physics w/Calculus II Lab	1.0		

FREE ELECTIVES: 2 Credits	Credits
_____	2.0

(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: 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	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/Global Understanding	3 Credits from courses designated with Course*Type: CD	
	3 Credits from courses designated with Course*Type: GU	3.0
or	6 Credits from the SAME foreign language	3.0
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 Bachelor of Science in Chemistry and Education with Endorsement in Elementary Education = 133

ADDITIONAL ENDORSEMENTS AVAILABLE:

- **TSD - Teacher of Students with Disabilities - Elementary**
- **ESL - English as a Second Language - Elementary**
- **MID-SCI - Middles School Sciences**
- **P-3 Early Childhood Endorsement**
- **Teacher of Supplemental Instruction in Reading/Mathematics K-8**

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.**