

CENTRAL CONNECTICUT STATE UNIVERSITY

School of Education and Professional Studies

B.S.ED. (Grades 7 - 12) 120 Credits

CHEMISTRY

Name: _____ ID#: _____ Matriculation Semester: _____ Date: _____

GENERAL EDUCATION (44-46 credits) Crs. Grd.

Some General Education courses can also fulfill Related Requirements

STUDY AREAS

Study Area I Arts & Humanities (9 credits)

ENG literature	3	
	3	
	3	

Study Area II Social Sciences (9 credits)

HIST	3	
	3	
	3	

Study Area III Behavioral Sciences (6 credits)

	3	
	3	

Study Area IV Natural Sciences (6 or 7 credits)

Course can be double-counted in major	X	X
Course can be double-counted in major	X	X

SKILL AREAS

Skill Area I Communication Skills (6 credits)

WRT 105 & 105P or WRT 110 Freshman Composition	3	
	3	

Skill Area II Mathematics Requirement (6 credits)

	3	
	3	

Skill Area III Foreign Language Proficiency Requirement (check one)

- completion of a level-three high school foreign language	
- passed a standardized foreign language exam	
- successful completion of an upper level foreign language course	
- demonstration of native proficiency in a language other than English	

Skill Area IV University Requirement (2 or 3 credits)

PE 144 required for students matriculating with fewer than 15 credits	2 or 3	
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ELECTIVES (if necessary to reach 120 credits)

International Requirement	
International Requirement	
First Year Experience Requirement	
Equity, Justice, & Inclusion (EJI)	

*Please note all professional education courses require admission to the Professional Program and a grade of C or better

CHEMISTRY MAJOR (31-32 credits) Crs. Grd.

Grade of C- or better required

CHEM 161 General Chemistry	3	
CHEM 162 General Chemistry Lab	1	
CHEM 200 Foundations of Analytical Chemistry	3	
CHEM 201 Foundations of Analytical Chemistry Lab	1	
CHEM 210 Organic Chemistry I - Foundations	3	
CHEM 211 Organic Chemistry I Lab - Foundations	1	
CHEM 212 Organic Chemistry II - Synthesis	3	
CHEM 213 Organic Chemistry II Lab - Synthesis	1	
CHEM 238 Introduction to Research	1	
CHEM 260 Foundations of Inorganic Chemistry	3	
CHEM 316 Spectroscopic Identification of Organic Compounds	3	
CHEM 332 Chemical Literature	1	
CHEM 432 Chemistry Seminar	1	
One of the following:	3	
CHEM 320 Biophysical Chemistry		
CHEM 321 Physical Chem. of Thermodynamics & Kinetics		
CHEM 322 Physical Chem. of Quantum & Statistical Mechanics		
One of the following:	3 or 4	
CHEM 354 Biochemistry (3)		
CHEM 402 Instrumental Analysis (4)		
CHEM 406 Environmental Chemistry (3)		
CHEM 485 Topics in Chemistry (3)		

RELATED REQUIREMENTS (27 or 28 credits)

Grade of C- or better required

SCIENCE RELATED REQUIREMENTS (14-15 credits)

BIO 121 OR BMS 102 and 103 OR GSCI 121	3 or 4	
PHYS 121 or PHYS 125 Physics I	4	
PHYS 122 or PHYS 126 Physics II	4	
SCI 420 The Nature of Science and Technology	3	

ADDITIONAL REQUIREMENTS (13 credits)

<i>Required for the Program & can also fulfill General Education</i>		
HIST 161 or HIST 162 (ST II)	3	
PSY 136 Lifespan Development (ST III)	3	
EDF 215 Education in a Multicultural Society (ST III)	3	
MATH 152 Calculus I (SK II)	4	

PROFESSIONAL EDUCATION (30 credits)

SPED 315 Intro. to Educating Learners with Exceptionalities	3	
EDTE 316 Principles of Learning in Diverse Settings (7-12)	4	
SCI 414 Interdisciplinary Science, Practices, & Pedagogy	3	
LLA 440 Literacy in the Secondary School	3	
EDSC 425 Multicultural, Interdisciplinary Teaching (7-12)	3	
SCI 417 Teaching of Science in the Secondary School	3	
SCI 418 Field Work in Secondary Science Education	1	
SCI 419 Student Teaching Seminar	1	
EDSC 435 Secondary Education Student Teaching	9	