

CHEMISTRY SCIENCE EDUCATION REQUIREMENTS (BSE)

Code	Title	Units
Major Requirements - 32 units ^{1, 2, 3}		
CHEM 102	GENERAL CHEMISTRY I	5
CHEM 104	GENERAL CHEMISTRY II	5
CHEM 184	NEW CHEMIST SEMINAR	1
CHEM 251	ORGANIC CHEMISTRY - I	3
CHEM 261	ORGANIC CHEMISTRY LABORATORY	2
CHEM 260	INORGANIC CHEMISTRY	4
CHEM 270	INTRODUCTION TO GREEN CHEMISTRY	3
CHEM 352	QUANTITATIVE ANALYSIS	5
CHEM 492	SUPERVISED TEACHING AIDE	1-2
Select additional units from CHEM numbered 200 or above to total 32 units in the major		2-3
Total Units		32

¹ An approved minor is not required for this major.

² Minimum 2.00 GPA in the chemistry major courses is required for graduation.

³ GPA requirements:

- to graduate from the College of Education and Professional Studies, students in a BSE licensure major must have at least a combined GPA of 2.75; and
- students must achieve a grade of "C" (2.00) or better in all required courses with the prefixes EDFOUND, EDFNDPRC, ELEMID, SECNDED, or SPECED before they can enroll in CIFLD 452 or CIFLD 454. Must pass the appropriate Praxis II content knowledge test by March 1 for a following fall semester student teaching placement, or October 1 for a following spring semester student teaching placement.

Code	Title	Units
Licensure Requirements:		
SPECED 205	INTRODUCTION TO SPECIAL EDUCATION	3
EDFOUND 212	EDUCATIONAL PSYCHOLOGY	3
EDFOUND 243	FOUNDATIONS OF EDUCATION IN A PLURALISTIC SOCIETY	3
EDFNDPRC 210	INTRODUCTION TO EDUCATION AND TEACHING	3
ELEMID 324	TEACHING OF SCIENCE IN THE ELEMENTARY/MIDDLE SCHOOL	3
EDFOUND 425	MEASUREMENT AND EVALUATION IN THE SECONDARY SCHOOL	3
SECNDED 429	METHODS OF TEACHING SCIENCE	3
SECNDED 466	LITERACY IN THE DISCIPLINES	3
Select one from:		3
BIOLOGY 214	ECOLOGY AND SOCIETY	
BIOLOGY 257	INTRODUCTION TO ECOLOGY	

GEOGRPY 252	GLOBAL ENVIRONMENTAL CHALLENGES	
Select one of the following Directed Teaching groups:		14
Group A:		
CIFLD 352	SCIENCE PRE-STUDENT TEACHING, MIDDLE LEVEL	
CIFLD 454	SCIENCE STUDENT TEACHING, SECONDARY LEVEL	
Group B:		
CIFLD 354	SCIENCE PRE-STUDENT TEACHING, SECONDARY LEVEL	
CIFLD 452	SCIENCE STUDENT TEACHING, MIDDLE LEVEL	
Total Units		41
Code	Title	Units
General Science and Other Unique Requirements:		
BIOLOGY 141	INTRODUCTORY BIOLOGY I	5
BIOLOGY 142	INTRODUCTORY BIOLOGY II	5
Select one from:		5-7
MATH 142 & MATH 151	COLLEGE ALGEBRA and TRIGONOMETRY	
MATH 152	PRECALCULUS	
Select one of the following sequences:		10
PHYSICS 180 & PHYSICS 181	PHYSICS FOR SCIENTISTS AND ENGINEERS I and PHYSICS FOR SCIENTISTS AND ENGINEERS II	
PHYSICS 140 & PHYSICS 141	PRINCIPLES OF PHYSICS I and PRINCIPLES OF PHYSICS II	
Select one from:		4-5
GEOLOGY 100	PRINCIPLES OF GEOLOGY	
GEOLOGY 214	EARTH'S ENVIRONMENTAL HISTORY	
GEOGRPY 210	PHYSICAL GEOGRAPHY	
Select one from:		3
ASTRONOMY 101	EXPLORING THE UNIVERSE	
ASTRONOMY 112	INTRODUCTION TO ASTRONOMY	
Total Units		32-35