

Bachelor of Science in Secondary Education: Chemistry

Program Overview

"Shaping tomorrow's teachers today" is the cornerstone of our All Grade Education program. Graduates successfully complete licensure programs to work with students in preschool through 12th grade. Classroom teaching experiences each semester ensure that our students have the best skills possible to work with young people of all ages. Our state-of-the-art curriculum aligns courses together so that you'll take less, learn more, and leave our program with licenses to teach in all school settings: For Secondary, you will be licensed to teach fifth grade through twelfth grade.

Degree Requirements

To earn this degree, students must have a GPA of 2.75 or higher in the Major as well as an overall GPA of 2.5, complete a minimum of 120 credit hours, and fulfill the course requirements of the program listed below.

*This is a sample plan; specific courses may vary from year to year. Academic advisors will work with each student to develop their individual schedule.

MAJOR	*Options
CORE	^CORE equivalent
ELECTIVE/MINOR	
EXPERIENTIAL	

Total Program Credits: 120+

CORE		CREDITS
✓	Foundation	
	LA-FWS First-Year Writing Seminar	3
	LA-FCS First-Year Communication Seminar	3
	LA-FQR Quantitative Reasoning	3-4
	LA-FSS First Year Success Seminar	1
	LA-FCG Cultural and Global Understanding	3-5
	Exploration	
	LA-EAH Arts and Humanities	3
	LA-ENS Natural Sciences	3-6
	LA-ESS Social Sciences	3-4
	Transformation	
	LA-TFR Faith, Reason, and Ethics	3
	LA-TBI Big Issues - 2 courses	6-7
	LA-TCE Creative Expression	1-3
	Additional credits to bring total to 120+ credits	CREDITS
✓	Electives	
	Experiential Learning	

Secondary and All-Grade Education		CREDITS
✓		
	EDUC 111^ Exploring Educational Systems	3
	EDUC 112 The Exceptional Learner	3
	EDUC 202 Professional Learning Communities I	0.5
	EDUC 204 Professional Learning Communities II	0.5
	EDUC 207 Integrating Technology into Classroom	3
	EDUC 223 Child & Adolescent Development	3
	EDUC 230^ Educational Psychology	3
	EDUC 246 Educational Assessment	3
	EDUC 302 Professional Learning Communities III	0.5
	EDUC 304 Professional Learning Communities IV	0.5
	EDUC 343 Disciplinary Literacy	3
	EDUC 402 Professional Learning Communities V	0.5
	EDUC 430 Culturally Responsive Classrooms	3
	EDUC 440 General Methods for Adolescent Learners	3
	INTD 355^ Critical Issues in Education	3
	ENG/MODL 350 Teaching English to Speakers of Other Languages	3
	EDUC 475 High School Student Teaching	7
	EDUC 477 Jr High/Middle School Student Teaching	6
	Chemistry Required Courses	CREDITS
	CHEM 111/R/L^ General Chemistry I/Recitation/Lab	5
	CHEM 113/R/L General Chemistry II/Recitation/Lab	5
	CHEM 235/L Analytical Chemistry/Lab	4
	CHEM 311/R/L Organic Chemistry I/Recitation/Lab	5
	CHEM 312/R/L Organic Chemistry II/Recitation/Lab	5
	CHEM 341/L Physical Chemistry I/Lab	4
	PHYS 210^ General Physics I	4
	PHYS 220 General Physics II	4
	Three hours selected from:	CREDITS
	CHEM 342 Physical Chemistry II	3
	CHEM 405 Biochemistry I	3
	CHEM 406 Biochemistry II	3
	CHEM 412 Medicinal Chemistry	3
	CHEM 425 Advanced Organic Chemistry	3
	CHEM 435 Advanced Inorganic Chemistry	3
	One hour selected from:	CREDITS
	CHEM 342L Physical Chemistry II Lab	1
	CHEM 405L Biochemistry I Lab	1
	CHEM 441L Advanced Analytical Lab I	1
	CHEM 443L Advanced Analytical Lab II	1

Example Course Sequence:

The following is a sample of a semester-by-semester approach to completing this program in 4 years.

YEAR 1						
FIRST SEMESTER						
COURSE		CREDITS	PREREQUISITES			
EDUC 111^	Exploring Educational Systems	3				
EDUC 223	Child & Adolescent Development	3				
CHEM 111/R/L^	General Chemistry I/Recitation/Lab	5				
LA-FCS	First-Year Communication Seminar	3				
LA-FSS	First Year Success Seminar	1				
JAN TERM						
COURSE		CREDITS				
ELECTIVE/MINOR		3				
SECOND SEMESTER						
COURSE		CREDITS				
EDUC 112	The Exceptional Learner	3				
CHEM 113/R/L	General Chemistry II/Recitation/Lab	5	CHEM 111			
LA-FQR	Quantitative Reasoning	3				
LA-FWS	First-Year Writing Seminar	3				
		32				

YEAR 2						
THIRD SEMESTER						
COURSE		CREDITS	PREREQUISITES			
EDUC 230^	Educational Psychology	3				
EDUC 202	Professional Learning Communities I	0.5				
CHEM 235/L	Analytical Chemistry/Lab	4	CHEM 113			
PHYS 210^	General Physics I	4				
LA-EAH	Arts and Humanities	3				
JAN TERM						
COURSE		CREDITS				
ELECTIVE/MINOR		3				
FOURTH SEMESTER						
COURSE		CREDITS				
EDUC 204	Professional Learning Communities II	0.5				
EDUC 207	Integrating Technology into Classroom	3				
EDUC 246	Educational Assessment	3				
PHYS 220	General Physics II	4				
LA-TFR	Faith, Reason, and Ethics	3				
		31				

4-Year Sample Schedule Cont.

YEAR 3							
FIFTH SEMESTER							
COURSE		CREDITS	PREREQUISITES				
EDUC 302	Professional Learning Communities III	0.5					
ENG/MODL 350	Teaching English to Speakers of Other Lang	3					
CHEM 311/R/L	Organic Chemistry I/Recitation/Lab	5	A grade of C- or higher in CHEM 113				
LA-TCE	Creative Expression	3					
ELECTIVE/MINOR		3					
JAN TERM							
COURSE		CREDITS					
ELECTIVE/MINOR		3					
SIXTH SEMESTER							
COURSE		CREDITS					
EDUC 304	Professional Learning Communities IV	0.5					
EDUC 343	Disciplinary Literacy	3	EDUC 230				
INTD 355^	Critical Issues in Education	3	soph, junior, or senior standing				
CHEM 312/R/L	Organic Chemistry II/Recitation/Lab	5	A grade C- or higher in CHEM 311				
LA-TBI	Big Issues	3					
		32					

YEAR 4							
SEVENTH SEMESTER							
COURSE		CREDITS	PREREQUISITES				
EDUC 402	Professional Learning Communities V	0.5					
EDUC 430	Culturally Responsive Classrooms	3	Admission to program, junior or senior standing				
EDUC 440	General Methods for Adolescent Learners	3	EDUC 343				
CHEM 341/L	Physical Chemistry I/Lab	4	CHEM 113 ; MATH 122; PHYS 220				
CHEM 405	Biochemistry I	3	CHEM 312; FWS or ENG 111				
CHEM 405L	Biochemistry I Lab	1					
JAN TERM							
COURSE		CREDITS					
EIGHTH SEMESTER							
COURSE		CREDITS					
EDUC 475	High School Student Teaching	7	Completion of the program; professor approval required				
EDUC 477	Jr High/Middle School Student Teaching	6	Completion of the program; professor approval required				
		27.5					
TOTAL CREDITS		122.5					