

B.A. in Science Education 9-12 (Chemistry Emphasis) 2019-2020: Option 1 - CWILT

FIRST YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 113 & CHE 113D ² General Chemistry I and General Chemistry I Lab	4	BIB 101 Introduction to the Bible	3	CHE 214 & CHE 215 (or elective if CHE 208/208D was taken in fall) ² General Chemistry II General Chemistry II Lab	4
OR				GES 140 Introduction to Wellbeing	3
CHE 208 & CHE 208D ²				MAT 125 Calculus 2	4
Accelerated General Chemistry and Accelerated General Chemistry Lab					
MAT 124M Calculus 1	4			Leisure and Lifetime Sports (Q) course	1
GES 130 Christianity Western Culture	4				
GES 160 Inquiry Seminar	3				
	15		3		12
SECOND YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 200 Laboratory Safety and Chemical Hygiene	1	Contemporary Western Life and Thought (L) course	3	CHE 226 & CHE 227 Organic Chemistry II and Organic Chemistry II Lab	4
CHE 224 & CHE 225 Organic Chemistry I and Organic Chemistry I Lab	4			PHY 296 & PHY 297 General Physics II and General Physics II Lab	4
PHY 292 & PHY 292D General Physics I and General Physics I Lab	4			EDU 200 Introduction to Education	3
Second Language (S) course ¹	4			EDU 201 Introduction to Education Field Experience	1
				GES 125 Introduction to the Creative Arts	4
	13		3		16
THIRD YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 395 Chemistry Seminar: Research and Professional Development	1	Interim Off		CHE 490 Chemistry Seminar: Research	2
THE 201 Christian Theology	3			CHE 312 & CHE 313 Quantitative Analysis and Quantitative Analysis Lab	4
Elective	2-3			EDU 240 Educational Psychology	3
Science, Technology, and Society (K) course	3			EDU 241 Educational Psychology Field Experience	1
World Cultures (U) course ³	3			Artistic Experience (A) course	0-3
Cross-cultural Experience (Z) course	0-3			Interpreting Biblical Themes (J) course	3
	12-16		0		13-16
FOURTH YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 344 Thermodynamics, Kinetics, and Statistical Mechanics	3	Contemporary Christian Issues (P) course	3	EDU 490 Student Teaching Block	14
CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics Lab	1			CHE 494 Chemistry Seminar: Research Presentation	1
EDU 203 School Health and Drugs	2				
EDU 317GZ Educational Equity	3				
EDU 320 Pedagogy and the Young Adolescent Learner	1				
EDU 321 Integrated Literacy in the Content Areas	1				
EDU 420 Methods in Teaching 5-12 Science	3				
EDU 429 Science Education Practicum in Grades 5-8 or 5-12	1				
Contemporary Christian Issues (P) course	3				
	18		3		15
Total Credits 123-130					

1. Students must complete through the second semester of a first year language course or equivalent.

2. [CHE 208/CHE 208D](#) is a one-semester course that meets the requirements of [CHE 113/CHE 113D](#) and [CHE 214/CHE 215](#). Students taking [CHE 208/CHE 208D](#) may choose an elective in the spring semester of their freshman year.

3. The Education Department offers an interim trip that meets the U requirement - [EDU 236UZ](#) or [EDU 204UZ](#). See Education Abroad Options.

[This program assumes student will use BIO 120/BIO 120D, EDU 317GZ, and math course to meet the general education Laboratory Science, Comparative Systems, and Math requirements.](#)

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit load falls below 15 credits/semester. (Interim credits may be split between fall and spring for state grant purposes only.)

B.A. in Science Education 9-12 (Chemistry Emphasis) 2019-2020: Option 2 - Humanities

FIRST YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 113 & CHE 113D ² General Chemistry I and General Chemistry I Lab	4	GES 147 Humanities II: Renaissance and Reformation	4	BIB 101 Introduction to the Bible	3
OR				Leisure and Lifetime Sports (Q) course	1
CHE 208 & CHE 208D ² Accelerated General Chemistry and Accelerated General Chemistry Lab				CHE 214 & CHE 215 (or elective if CHE208/208D was taken in fall)*General Chemistry II General Chemistry II Lab	4
MAT 124M Calculus 1	4			MAT 125 Calculus 2	4
GES 140 Introduction to Wellbeing	3			GES 244 Humanities III: European Enlightenment and American Culture to 1877	4
GES 145 Humanities I: Greco-Roman through Middle Ages	4				
	15		4		16
SECOND YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 200 Laboratory Safety and Chemical Hygiene	1	EDU 200 Introduction to Education	3	CHE 226 & CHE 227 Organic Chemistry II and Organic Chemistry II Lab	4
CHE 224 & CHE 225 Organic Chemistry I and Organic Chemistry I Lab	4	EDU 201 Introduction to Education Field Experience	1	PHY 296 & PHY 297 General Physics II and General Physics II Lab	4
PHY 292 & PHY 292D General Physics I and General Physics I Lab	4			EDU 203 School Health and Drugs	2
GES 246 Humanities IV: Modern and Contemporary Western Culture	4			Second Language (S) course¹	4
	13		4		14
THIRD YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 395 Chemistry Seminar: Research and Professional Development	1	Interim Off		CHE 490 Chemistry Seminar: Research	2
World cultures (U) course³	3			CHE 312 & CHE 313 Quantitative Analysis and Quantitative Analysis Lab	4
Science, technology and Society (K) course	3			EDU 240 Educational Psychology	3
Leisure and Lifetime Sports (Q) course	1			EDU 241 Educational Psychology Field Experience	1
Electives	6			Interpreting Biblical Themes (J) course	3
				Artistic Experience (A) course	0-3
	14		0		13-16
FOURTH YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical Mechanics Lab	4	Contemporary Christian Issues (P) course	3	EDU 490 Student Teaching Block	14
EDU 320 Pedagogy and the Young Adolescent Learner	1			CHE 494 Chemistry Seminar: Research Presentation	1
EDU 321 Integrated Literacy in the Content Areas	1				
EDU 420 Methods in Teaching 5-12 Science	3				
EDU 429 Science Education Practicum in Grades 5-8 or 5-12	1				
EDU 317GZ Educational Equity	3				
	13		3		15
Total Credits 124-127					

1. Students must complete through the second semester of a first year language course or equivalent.

2. [CHE 208/CHE 208D](#) is a one-semester course that meets the requirements of [CHE 113/CHE 113D](#) and [CHE 214/CHE 215](#). Students taking [CHE 208/CHE 208D](#) may choose an elective in the spring semester of their freshman year.

3. The Education Department offers interim trips that meet the U requirement - [EDU 236UZ](#) or [EDU 204UZ](#). See Education Abroad Options.

MN basic skills tests (MTLE) required for full admission to the Education Department.

This program assumes student will use [BIO 120/BIO 120D](#), [EDU 317GZ](#), and math course to meet the general education Laboratory Science, Comparative Systems, and Math requirements.

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit load falls below 15 credits/semester. (Interim credits may be split between fall and spring for state grant purposes only.)