First Year	•	•	
Fall	Credits Interim	Credits Spring	Credits
CHE113 & 113D (or CHE 208/208D Accelerated General Chemistry/Lab)		CHE214 & CHE215 (or elective if CHE 208/208D was taken in fall ) Genera	l Chemistry II
General Chemistry IGeneral Chemistry I Lab *2	4 BIB101 Introduction to the Bible	3 General Chemistry II Lab *2	<u> </u>
MAT124M Calculus 1	4	GES125 Introduction to the Creative Arts	
GES130 Christianity Western Culture	4	GES140 Introduction to Wellbeing	
GES160 Inquiry Seminar	3	MAT125 Calculus 2	
	15	3	1
Second Year			
Fall	Credits Interim	Credits Spring	Credits
CHE200 Laboratory Safety and Chemical Hygiene	1 Contemporary Western Life and Thou		
CHE224 & CHE225 Organic Chemistry I and Organic Chemistry I Lab	4	PHY296 & PHY297 General Physics II and General Physics II Lab	
PHY292 & 292D General Physics I and General Physics I Lab	4	EDU200 Introduction to Education	
World Cultures (U) course	3	EDU201 Introduction to Education Field Experience	
		Second Language (S) Course <sup>1</sup>	
	12	3	1
Third Year			
Fall	Credits Interim	Credits Spring	Credits
CHE395 Chemistry Seminar: Research and Professional Development	1 Science, Technology, and Society (K) c	urse 3 CHE490 Chemistry Seminar: Research	
EDU203 School Health and Drugs	2	CHE312 & CHE313 Quantitative Analysis and Quantitative Analysis Lab	
THE201 Christian Theology	3	EDU240 Educational Psychology	
Artistic Experience (A) course	0-3	EDU241 Educational Psychology Field Experience	
Leisure and Lifetime Sports (Q) course	1	Interpreting Biblical Themes (J) course	
Electives	6		
	13-16	3	1
Fourth Year			
Fall	Credits Interim	Credits Spring	Credits
CHE344 Thermodynamics, Kinetics, and Statistical Mechanics	3 Interim Off	0 EDU490 Student Teaching Block	1
CHE345 Thermodynamics, Kinetics, and Statistical Mechanics Lab	1	CHE494 Chemistry Seminar: Research Presentation	
EDU320 Pedagogy and the Young Adolescent Learner	1		
EDU321 Integrated Literacy in the Content Areas	1		
EDU420 Methods in Teaching 5-12 Science	3		
EDU429 Science Education Practicum in Grades 5-8 or 5-12	1		
EDU317GZ Educational Equity	3		
Contemporary Christian Issues (P) course	3		
, , , , , , , , , , , , , , , , ,	16	0	1

<sup>\*1.</sup> Students must complete through the second semester of a first year language course or equivalent.

See Education section of catalog for testing requirements.

This program assumes student will use BIO118/BIO118D, EDU317GZ, and math course to meet the general education Laboratory Science, Comparative Systems, and Math requirements. Because of possible double counting between General Education and the major, the actual total can be reduced to 122.

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.)



<sup>\*2.</sup> CHE208/CHE208D is a one-semester course that meets the requirements of CHE113/CHE113D and CHE214/CHE215. Students taking CHE208/CHE208D may choose an elective in the spring semester of their freshman year.

<sup>\*3.</sup> The Education Department offers an interim trip that meets the U requirement - EDU236UZ or EDU204UZ. See Education Abroad Options.

## B.A. in Science Education 9-12 (Chemistry Emphasis) 2017-2018: Option 2 - Humanities **First Year** Fall Credits Interim Credits Spring Credits CHE113 & 113D (or CHE208/CHE208D Accelerated General CHE214 & CHE215 (or elective if CHE208/208D was taken in fall ) General Chemistry II & Chemistry/Lab) General Chemistry I & General Chemistry I Lab \*2 4 GES147 Humanities II: Renaissance and Reformation 4 General Chemistry II Lab \*2 4 MAT124M Calculus 1 MAT125 Calculus 2 4 4 GES145 Humanities I: Greco-Roman through Middle Ages GES244 Humanities III: European Enlightenment and American Culture to 1877 3 **GES140 Introduction to Wellbeing** 3 BIB101 Introduction to the Bible 15 15 Second Year Credits Interim Credits Spring Credits CHE200 Laboratory Safety and Chemical Hygiene 1 EDU200 Introduction to Education 3 CHE226 & CHE227 Organic Chemistry II and Organic Chemistry II Lab CHE224 & CHE225 Organic Chemistry I and Organic Chemistry I Lab 4 EDU201 Introduction to Education Field Experience 1 PHY296 & PHY297 General Physics II and General Physics II Lab PHY292 & 292D General Physics I and General Physics I Lab 4 EDU203 School Health and Drugs 2 GES246 Humanities IV: Modern and Contemporary Western Culture 4 Second Language (S) course<sup>1</sup> 4 13 14 Third Year Fall Credits Interim Credits Spring Credits CHE395 Chemistry Seminar: Research and Professional Development 1 Interim Off CHE490 Chemistry Seminar: Research World cultures (U) course<sup>3</sup> & CHE313 Quantitative Analysis and Quantitative Analysis Lab 3 Science, technology and Society (K) course 3 **EDU240 Educational Psychology** 3 Leisure and Lifetime Sports (Q) course 1 EDU241 Educational Psychology Field Experience Electives 6 Interpreting Biblical Themes (J) course 3 Artistic Experience (A) course 0-3 14 12-15 **Fourth Year** Credits Interim Credits Credits CHE344 & CHE345Thermodynamics, Kinetics, and Statistical Mechanics and 4 Contemporary Christian Issues (P) course 3 EDU490 Student Teaching Block Thermodynamics, Kinetics, and Statistical Mechanics Lab 14 CHE494 Chemistry Seminar: Research Presentation EDU320 Pedagogy and the Young Adolescent Learner EDU321 Integrated Literacy in the Content Areas 1 EDU420 Methods in Teaching 5-12 Science 3 EDU429 Science Education Practicum in Grades 5-8 or 5-12 1 EDU317GZ Educational Equity 3 13 15 3 Total Credits: 122-125

See Education section of catalog for testing requirements.

This program assumes student will use BIO118/BIO118D, EDU317GZ, and math course to meet the general education Laboratory Science, Comparative Systems, and Math requirements.

Because of possible double counting between General Education and the major, the actual total can be reduced to 122.

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.)



<sup>\*1.</sup> Students must complete through the second semester of a first year language course or equivalent.

<sup>\*2.</sup> CHE208/CHE208D is a one-semester course that meets the requirements of CHE113/CHE113D and CHE214/CHE215. Students taking CHE208/CHE208D may choose an elective in the spring semester of their freshman year.

<sup>\*3.</sup> The Education Department offers an interim trip that meets the U requirement - EDU236UZ or EDU204UZ. See Education Abroad Options.