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

FIRST YEAR	se Eddodion o 12 (enemotry E			
Fall	Credits Interim	Credits Spring		Credits
CHE 113	4 BIB 101Introduction to the Bible	3 <u>CHE 214</u>		4
<u>& CHE 113D</u>		<u>& CHE 215</u>		
² General Chemistry I and General Chemistry I Lab			CHE 208/208D was taken in fall) ² General Chemistry	
			emistry II Lab	
OR			duction to Wellbeing	3
CHE 208		MAT 125 Calc	ulus 2	4
& CHE 208D				
Accelerated General Chemistry and Accelerated General Chemistry				
Lab				
MAT 124M Calculus 1	4	Leisure and	Lifetime Sports (Q) course	
GES 130Christianity Western Culture	4		. , ,	
GES 160 Inquiry Seminar	3			
	15	3		12
SECOND YEAR				
Fall	Credits Interim	Credits Spring		Credits
CHE 200Laboratory Safety and Chemical Hygiene	1 Contemporary Western Life and Thought (L) co			4
		<u>& CHE 227</u>		
			mistry II and Organic Chemistry II Lab	
CHE 224	4	<u>PHY 296</u>		4
<u>& CHE 225</u>		<u>& PHY 297</u>		
Organic Chemistry I and Organic Chemistry I Lab			sics II and General Physics II Lab	
PHY 292	4	EDU 200Intro	duction to Education	
& PHY 292D General Physics I and General Physics I Lab				
Second Language (S) course ¹	4	FDI 2011	dustion to Education Field Europianes	1
Second Language (5) course	4		duction to Education Field Experience duction to the Creative Arts	2
	13	3	duction to the creative Arts	16
THIRD YEAR	13	3		10
Fall	Credits Interim	Credits Spring		Credits
CHE 395 Chemistry Seminar: Research and Professional Development	1 Interim Off		istry Seminar: Research	2
THE 201 Christian Theology	3	CHE 312		
		<u>& CHE 313</u>		
			Analysis and Quantitative Analysis Lab	
Elective	2-3		ational Psychology	3
Science, Technology, and Society (K) course				
	3		ational Psychology Field Experience	
World Cultures (U) course ³	3	Artistic Expe	rience (A) course	0-3
World Cultures (U) course³ Cross-cultural Experience (Z) course	3 0-3	Artistic Expe Interpreting B		0-3
Cross-cultural Experience (Z) course	3	Artistic Expe	rience (A) course	0-3
Cross-cultural Experience (Z) course FOURTH YEAR	3 0-3 12-16	Artistic Expe Interpreting E 0	rience (A) course	0-3 3 1 3-1 6
Cross-cultural Experience (Z) course FOURTH YEAR Fall	3 0-3 12-16 Credits Interim	Artistic Expe Interpreting E 0 Credits Spring	rience (A) course Biblical Themes (J) course	0-3 3 13-16 Credits
Cross-cultural Experience (Z) course FOURTH YEAR	3 0-3 12-16	Artistic Expe Interpreting E 0 Credits Spring	rience (A) course	0-3 3 13-16 Credits
Cross-cultural Experience (Z) course FOURTH YEAR Fall CHE 344Thermodynamics, Kinetics, and Statistical Mechanics	3 0-3 12-16 Credits Interim Contemporary Christian Issues (P) course	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Siblical Themes (J) course ent Teaching Block	0-3 3 13-16 Credits
Cross-cultural Experience (Z) course FOURTH YEAR Fall	3 0-3 12-16 Credits Interim	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Biblical Themes (J) course	0-3 3 13-16 Credits
Cross-cultural Experience (Z) course FOURTH YEAR Fall CHE 344Thermodynamics, Kinetics, and Statistical Mechanics CHE 345Thermodynamics, Kinetics, and Statistical Mechanics Lab	3 0-3 12-16 Credits Interim Contemporary Christian Issues (P) course	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Siblical Themes (J) course ent Teaching Block	0-3 3 13-16 Credits
Cross-cultural Experience (Z) course FOURTH YEAR Fall CHE 344Thermodynamics, Kinetics, and Statistical Mechanics CHE 345Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 203 School Health and Drugs	3 0-3 12-16 Credits Interim 3 Contemporary Christian Issues (P) course	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Siblical Themes (J) course ent Teaching Block	0-3 3 13-16 Credits
Cross-cultural Experience (Z) course FOURTH YEAR Fall CHE 344Thermodynamics, Kinetics, and Statistical Mechanics CHE 345Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 203 School Health and Drugs EDU 317GZEducational Equity	3 0-3 12-16 Credits Interim 3 Contemporary Christian Issues (P) course 1 2 3	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Siblical Themes (J) course ent Teaching Block	0-3 13-16 Credits
Cross-cultural Experience (Z) course FOURTH YEAR Fall CHE 344Thermodynamics, Kinetics, and Statistical Mechanics CHE 345Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 203 School Health and Drugs EDU 3176ZEducational Equity EDU 320 Pedagogy and the Young Adolescent Learner	3 0-3 12-16 Credits Interim 3 Contemporary Christian Issues (P) course 1 2 3 1 1	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Siblical Themes (J) course ent Teaching Block	0-3 13-16 Credits
Cross-cultural Experience (Z) course FOURTH YEAR Fall CHE 344Thermodynamics, Kinetics, and Statistical Mechanics CHE 345Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 203 School Health and Drugs EDU 317GZEducational Equity EDU 320 Pedagogy and the Young Adolescent Learner EDU 321 Integrated Literacy in the Content Areas	3 0-3 12-16 Credits Interim Contemporary Christian Issues (P) course 1 2 3 1 1 1	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Siblical Themes (J) course ent Teaching Block	0 13-1 Credit:
Cross-cultural Experience (Z) course FOURTH YEAR Fall CHE 344Thermodynamics, Kinetics, and Statistical Mechanics CHE 345Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 203 School Health and Drugs EDU 317GZEducational Equity EDU 320 Pedagogy and the Young Adolescent Learner EDU 321 Integrated Literacy in the Content Areas EDU 420 Methods in Teaching 5-12 Science	3 0-3 12-16 Credits Interim 3 Contemporary Christian Issues (P) course 1 2 3 1 1	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Siblical Themes (J) course ent Teaching Block	0-3 13-10 Credits
Cross-cultural Experience (Z) course FOURTH YEAR Fall CHE 344Thermodynamics, Kinetics, and Statistical Mechanics CHE 345Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 203 School Health and Drugs EDU 317GZEducational Equity EDU 320 Pedagogy and the Young Adolescent Learner EDU 321 Integrated Literacy in the Content Areas	3 0-3 12-16 Credits Interim Contemporary Christian Issues (P) course 1 2 3 1 1 1 1 3	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Siblical Themes (J) course ent Teaching Block	0-3 13-10 Credits
Cross-cultural Experience (Z) course FOURTH YEAR Fall CHE 344Thermodynamics, Kinetics, and Statistical Mechanics CHE 345Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 203 School Health and Drugs EDU 317GZEducational Equity EDU 320 Pedagogy and the Young Adolescent Learner EDU 321 Integrated Literacy in the Content Areas EDU 420 Methods in Teaching 5-12 Science	3 0-3 12-16 Credits Interim Contemporary Christian Issues (P) course 1 2 3 1 1 1 1 3	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Siblical Themes (J) course ent Teaching Block	0-3 13-16 Credits
Cross-cultural Experience (Z) course FOURTH YEAR Fall CHE 344Thermodynamics, Kinetics, and Statistical Mechanics CHE 345Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 203 School Health and Drugs EDU 317GZEducational Equity EDU 320 Pedagogy and the Young Adolescent Learner EDU 321 Integrated Literacy in the Content Areas EDU 420 Methods in Teaching 5-12 Science EDU 429 Science Education Practicum in Grades 5-8 or 5-12	3 0-3 12-16 Credits Interim 3 Contemporary Christian Issues (P) course 1 2 3 1 1 1 1 3 1	Artistic Expe Interpreting E Credits Spring 3 EDU 490Stude	rience (A) course Siblical Themes (J) course ent Teaching Block	1 1 0 - 3 13 - 16 Credits 14 1 1

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.

^{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 - <u>EDU 236UZ</u> or <u>EDU 204UZ</u>. See Education Abroad Options.

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

FIRST YEAR Fall	Credits Interim	Crodite	Spring	Credit
CHE 113	4 GES 147Humanities II: Renaissance and Reformation		BIB 101Introduction to the Bible	Credit
& CHE 113D	4 GES 147 Humanities II. Renaissance and Reformation		BB 101IIItroduction to the Biole	
² General Chemistry I and General Chemistry I Lab				
OR			Leisure and Lifetime Sports (Q) course	
CHE 208			CHE 214	
& CHE 208D			& CHE 215	
			(or elective if CHE208/208D was taken in fall) ² General Chemistry	
2			IIGeneral Chemistry II Lab	
Accelerated General Chemistry and Accelerated General Chemistry				
Lab				
MAT 124M Calculus 1	4		MAT 125 Calculus 2	
GES 140Introduction to Wellbeing	3		GES 244Humanities III: European Enlightenment and American Culture to	
			1877	
GES 145Humanities I: Greco-Roman through Middle Ages	4			
	15	4		1
SECOND YEAR	in the second control of the second control		in the second	
Fall	Credits Interim	Credits	Spring	Credit
CHE 200Laboratory Safety and Chemical Hygiene	1 EDU 200Introduction to Education		CHE 226	
			& CHE 227	
			Organic Chemistry II and Organic Chemistry II Lab	
CHE 224	4 EDU 201Introduction to Education Field Experience	1	PHY 296	
& CHE 225			& PHY 297	
Organic Chemistry I and Organic Chemistry I Lab			General Physics II and General Physics II Lab	
PHY 292	4		EDU 203 School Health and Drugs	
& PHY 292D				
General Physics I and General Physics I Lab				
GES 246Humanities IV: Modern and Contemporary Western Culture	4		Second Language (S) course ¹	
	13	4		1-
THIRD YEAR				
Fall	Credits Interim	Credits	Spring	Credit
CHE 395 Chemistry Seminar: Research and Professional Development	1 Interim Off		CHE 490Chemistry Seminar: Research	
World cultures (U) course ³	3		CHE 312	
			<u>& CHE 313</u>	
			Quantitative Analysis and Quantitative Analysis Lab	
Science, technology and Society (K) course	3		EDU 240Educational Psychology	
Leisure and Lifetime Sports (Q) course	1		EDU 241Educational Psychology Field Experience	
Electives	6		Interpreting Biblical Themes (J) course	
			Artistic Experience (A) course	0-
	14	(13-1
FOURTH YEAR				
F-11	Credits Interim	Credits	Spring	Credit
Fall			EDU 490 Student Teaching Block	1-
Fall CHE 344	4 Contemporary Christian Issues (P) course			
	4 Contemporary Christian Issues (P) course	`		
CHE 344	4 Contemporary Christian Issues (P) course			
CHE 344 & CHE 345	4 Contemporary Christian Issues (P) course			
CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and	4 Contemporary Christian Issues (P) course		CHE 494Chemistry Seminar: Research Presentation	
CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical Mechanics Lab	1 1		CHE 494Chemistry Seminar: Research Presentation	
CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 320 Pedagogy and the Young Adolescent Learner	1		CHE 494Chemistry Seminar: Research Presentation	
CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 320 Pedagogy and the Young Adolescent Learner EDU 321 Integrated Literacy in the Content Areas	1 1		CHE 494Chemistry Seminar: Research Presentation	
CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 320 Pedagogy and the Young Adolescent Learner EDU 321 Integrated Literacy in the Content Areas EDU 420 Methods in Teaching 5-12 Science	1 1 3		CHE 494Chemistry Seminar: Research Presentation	
CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical Mechanics Lab EDU 320 Pedagogy and the Young Adolescent Learner EDU 321 Integrated Literacy in the Content Areas EDU 420 Methods in Teaching 5-12 Science EDU 429 Science Education Practicum in Grades 5-8 or 5-12	1 1 3 1 1			1:

- 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 <u>EDU 236UZ</u> or <u>EDU 204UZ</u>. 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.)