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

FIRST YEAR Fall	Credits Interim	Credits Spring	Credits
PHY 292	4 GES 125Introduction to the Creative Arts	4 PHY 296	4
& PHY 292D	<u> </u>	& PHY 297	
General Physics I and General Physics I Lab		General Physics II and General Physics II Lab	
MAT 124MCalculus 1	4	MAT 125 Calculus 2	4
GES 130Christianity Western Culture	4	BIB 101Introduction to the Bible	3
GES 160 Inquiry Seminar	3	GES 140Introduction to Wellbeing	3
	15	4	14
SECOND YEAR	**		
Fall	Credits Interim	Credits Spring	
CHE 113	4 Interim Off	CHE 214	Credits 4
& CHE 113D		& CHE 215	
General Chemistry I and General Chemistry I Lab		General Chemistry II and General Chemistry II Lab	
MAT 223Multivariable Calculus	3	EDU 200Introduction to Education	3
PHY 302	4	EDU 201Introduction to Education Field Experience	1
& PHY 303		20 Examination to Education Field Experience	
Electronics and Electronics Lab			
PHY 260 Careers in Engineering and Physics Seminar	1	PHY 312	4
1111 200 careers in Engineering and Physics Schillar	'	& PHY 313	
		Modern Physics and Modern Physics Lab	
Second Language (S) course ¹	4	THE 201 Christian Theology	3
Occord Language (O) course	16	0	15
THIRD YEAR	10	0	13
Fall	Credits Interim	Credits Spring	Credits
PHY 112	4 World Cultures (U) course ²	3 EDU 203 School Health and Drugs	2
& PHY 112D	4 World Cultures (0) course	5 EDO 203 SCHOOL HEARTH AND DINGS	_
Introduction to Astronomy and Introduction to Astronomy Lab			
introduction to retronomy and introduction to retronomy Eds			
Interpreting Biblical Themes (J) course	3	EDU 241Educational Psychology Field Experience	1
Science, Technology & Society (K) course	3	EDU 240Educational Psychology	3
Leisure and Lifetime sports (Q) course	1	PHY 352	4
Editatio and Enotatio oporto (a) oburdo		& PHY 353	
		Computer Methods in Physics and Engineering and Computer	
		Methods in Physics and Engineering Lab	
Elective	2	Contemporary Western Life and Thought (L) course	3
	13	3	13
FOURTH YEAR			
Fall	Credits Interim	Credits Spring	Credits
EDU 317GZEducational Equity	3 Contemporary Christian Issues (P) course	3 EDU 490 Student Teaching Block	14
EDU 320Pedagogy and the Young Adolescent Learner	1		
	1		
EDU 321Integrated Literacy in the Content Areas			
EDU 321Integrated Literacy in the Content Areas FDU 420Methods in Teaching 5-12 Science	3		
EDU 420Methods in Teaching 5-12 Science	3		
EDU 420Methods in Teaching 5-12 Science EDU 429 Science Education Practicum in Grades 5-8 or 5-12	1		
EDU 420Methods in Teaching 5-12 Science EDU 429 Science Education Practicum in Grades 5-8 or 5-12 Artistic Experience (A) course	0-3		
EDU 420Methods in Teaching 5-12 Science EDU 429 Science Education Practicum in Grades 5-8 or 5-12	1	3	14

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

This program assumes a student will use PHY292/292D, EDU317GZ, and MAT124M 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.)

^{2.} The Education Department offers an interim trip that meets the U requirement - EDU236UZ. See Education Abroad Options.

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

FIRST YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
PHY 292	4	GES 147Humanities II: Renaissance and Reformation	4	PHY 296	4
<u>& PHY 292D</u>				<u>& PHY 297</u>	
General Physics I and General Physics I Lab				General Physics II and General Physics II Lab	
MAT 124MCalculus 1	4			MAT 125 Calculus 2	4
GES 145Humanities I: Greco-Roman through Middle Ages	4			GES 244Humanities III: European Enlightenment and American	4
				Culture to 1877	
BIB 101Introduction to the Bible	3			GES 140Introduction to Wellbeing	3
	15		4		15
SECOND YEAR					
Fall		Interim	Credits	. •	Credits
<u>CHE 113</u>	4	EDU 200Introduction to Education	3	CHE 214	4
<u>& CHE 113D</u>				<u>& CHE 215</u>	
General Chemistry I and General Chemistry I Lab				General Chemistry II and General Chemistry II Lab	
MAT 223Multivariable Calculus		EDU 201Introduction to Education Field Experience	1	EDU 200Introduction to Education	3
PHY 302	4			EDU 201Introduction to Education Field Experience	1
<u>& PHY 303</u>					
Electronics and Electronics Lab					
GES 246Humanities IV: Modern and Contemporary Western Culture	4			PHY 312	4
				<u>& PHY 313</u>	
				Modern Physics and Modern Physics Lab	
PHY 260 Careers in Engineering and Physics Seminar	1			Secondary Language (S) Course ¹	4
	16		4		16
THIRD YEAR					
Fall		Interim	Credits		Credits
PHY 112	4	World Cultures (U) course ²	3	EDU 203 School Health and Drugs	2
& PHY 112D					
Introduction to Astronomy and Introduction to Astronomy Lab					
Introduction to Astronomy and Introduction to Astronomy Lab	2			EDIT 220 control of the Lord Edit of the	2
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course	3			EDU 220Introduction to Middle Level Education	3
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course	3			EDU 240Educational Psychology	3
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course	3			EDU 240Educational Psychology EDU 241Educational Psychology Field Experience	3
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course	3			EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352	3
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course	3			EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353	3
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course	3			EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer	3
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course	3 1 3			EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	3 1 4
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective	3		3	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	3
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective	3 1 3		3	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	3 1 4
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective FOURTH YEAR Fall	3 1 3 3 3 4 4 4 Credits	Interim	3 Credits	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab Spring	3 1 4 13 Credits
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective FOURTH YEAR Fall EDU 317GZEducational Equity	3 1 3 3 3 4 4 4 Credits 3	Interim Contemporary Christian Issues (P) course	3 Credits	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	3 1 4
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective FOURTH YEAR Fall EDU 317GZEducational Equity EDU 320Pedagogy and the Young Adolescent Learner	3 1 1 3 3 4 4 Credits 3 1 1	Interim Contemporary Christian Issues (P) course	3 Credits	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab Spring	3 1 4 13 Credits
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective FOURTH YEAR Fall EDU 317GZEducational Equity EDU 320Pedagogy and the Young Adolescent Learner EDU 321Integrated Literacy in the Content Areas	3 11 3 14 Credits 3 11 1	Interim Contemporary Christian Issues (P) course	3 Credits	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab Spring	3 1 4 13 Credits
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective FOURTH YEAR Fall EDU 317GZEducational Equity EDU 320Pedagogy and the Young Adolescent Learner EDU 321Integrated Literacy in the Content Areas EDU 420 Methods in Teaching 5-12 Science	3 14 Credits 3 1 1 3	Interim Contemporary Christian Issues (P) course	3 Credits	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab Spring	3 1 4 13 Credits
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective FOURTH YEAR Fall EDU 317GZEducational Equity EDU 320Pedagogy and the Young Adolescent Learner EDU 321Integrated 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 14 Credits 3 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Interim Contemporary Christian Issues (P) course	3 Credits	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab Spring	3 1 4 13 Credits
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective FOURTH YEAR Fall EDU 317GZEducational Equity EDU 320Pedagogy and the Young Adolescent Learner EDU 321Integrated 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 Artistic Experience (A) course	3 14 Credits 3 1 1 3 1 0-3	Interim Contemporary Christian Issues (P) course	3 Credits	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab Spring	3 1 4 13 Credits
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective FOURTH YEAR Fall EDU 317GZEducational Equity EDU 320Pedagogy and the Young Adolescent Learner EDU 321Integrated 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 14 Credits 3 1 1 3 1 0-3 3-6	Interim Contemporary Christian Issues (P) course	Credits 3	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab Spring EDU 490 Student Teaching Block	3 1 4 13 Credits 14
Introduction to Astronomy and Introduction to Astronomy Lab Interpreting Biblical themes (J) course Science, Technology and Society (K) course Leisure and Lifetime Sports (Q) course Elective FOURTH YEAR Fall EDU 317GZEducational Equity EDU 320Pedagogy and the Young Adolescent Learner EDU 321Integrated 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 Artistic Experience (A) course	3 14 Credits 3 1 1 3 1 0-3	Interim Contemporary Christian Issues (P) course	3 Credits	EDU 240Educational Psychology EDU 241Educational Psychology Field Experience PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab Spring EDU 490 Student Teaching Block	3 1 4 13 Credits

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