

B.S. in Chemistry 2019-2020: Option 1 - CWILT

FIRST YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 113 & CHE 113D * General Chemistry I and General Chemistry I Lab	4	GES 125 Introduction to the Creative Arts	4	CHE 214 & CHE 215 (or elective if CHE208/208D was taken in fall)* General Chemistry II General Chemistry II Lab	4
OR				MAT 125 Calculus 2	4
CHE 208 & CHE 208D * Accelerated General Chemistry and Accelerated General Chemistry Lab				CHE 200 Laboratory Safety and Chemical Hygiene	1
MAT 124M Calculus 1	4			BIB 101 Introduction to the Bible	3
GES 130 Christianity Western Culture	4			GES 140 Introduction to Wellbeing	3
GES 160 Inquiry Seminar	3				
	15		4		15
SECOND YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 224 & CHE 225 Organic Chemistry I and Organic Chemistry I Lab	4	Elective	3	CHE 226 & CHE 227 Organic Chemistry II and Organic Chemistry II Lab	4
MAT 222 or 223 Differential Equations	3			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			THE 201 Christian Theology	3
Second Language (S) course ²	4			Contemporary Western Life and Thought (L) course	3
	15		3		14
THIRD YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 395 Chemistry Seminar: Research and Professional Development	1	Science, Technology, and Society (K) course	3	CHE 312 & CHE 313 Quantitative Analysis and Quantitative Analysis Lab	4
CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical Mechanics Lab	4			CHE 348 & CHE 349 Quantum Chemistry and Spectroscopy and Quantum Chemistry and Spectroscopy Lab	4
Chemistry Elective	4			CHE 490 Chemistry Seminar: Research	2
Interpreting Biblical Themes (J) course	3			Comparative Systems (G) course	3
World Cultures (U) course	3			Leisure and Lifetime Sports (Q) course	1
	15		3		14
FOURTH YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 320 & CHE 321 Instrumental Analysis and Instrumental Analysis Lab	4	Interim Off	0	CHE 364 & CHE 365 Advanced Inorganic Chemistry and Advanced Inorganic Chemistry Lab	4
CHE 388 & CHE 389 Biochemistry I and Biochemistry I Lab	4			CHE 494 Chemistry Seminar: Research Presentation	1
Cross-cultural Experience (Z) course	0-3			Chemistry Elective	4
Electives	4			Artistic Experience (A) course	0-3
				Contemporary Christian Issues (P) course	3
	12-15		0		12-15
Total Credits 122-128					

1. [CHE 208](#) Accelerated General Chemistry/[CHE 208D](#) Accelerated General Chemistry Lab 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 of their freshman year.

2. Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)

This program assumes that a student will use [CHE 113/CHE 113D](#) and [MAT 124M](#) to meet the general education Laboratory Science and Mathematics 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.S. in Chemistry 2019-2020: Option 2 - Humanities

FIRST YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 113 & CHE 113D General Chemistry I and General Chemistry I Lab	4	GES 147 Humanities II: Renaissance and Reformation	4	CHE 214 & CHE 215 (or elective if CHE208/208D was taken in fall) General Chemistry II General Chemistry II Lab	4
OR				MAT 125 Calculus 2	4
CHE 208 & CHE 208D Accelerated General Chemistry and Accelerated General Chemistry Lab				GES 244 Humanities III: European Enlightenment and American Culture to 1877	4
MAT 124M Calculus 1	4			Second Language (S) course ²	4
GES 140 Introduction to Wellbeing	3				
GES 145 Humanities I: Greco-Roman through Middle Ages	4				
	15		4		16
SECOND YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 224 & CHE 225 Organic Chemistry I and Organic Chemistry I Lab	4	World Cultures (U) course	3	BIB 101 Introduction to the Bible	3
MAT 222 or 223 Differential Equations	3			CHE 200 Laboratory Safety and Chemical Hygiene	1
PHY 292 & PHY 292D General Physics I and General Physics I Lab	4			CHE 226 & CHE 227 Organic Chemistry II and Organic Chemistry II Lab	4
GES 246 Humanities IV: Modern and Contemporary Western Culture	4			PHY 296 & PHY 297 General Physics II and General Physics II Lab	4
				Second Language (S) course ²	4
	15		3		16
THIRD YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical Mechanics Lab	4	Science, Technology, and Society (K) course	3	CHE 312 & CHE 313 Quantitative Analysis and Quantitative Analysis Lab	4
CHE 395 Chemistry Seminar: Research and Professional Development	1			CHE 348 & CHE 349 Quantum Chemistry and Spectroscopy and Quantum Chemistry and Spectroscopy Lab	4
Interpreting Biblical Themes (J) course	3			CHE 490 Chemistry Seminar: Research	2
Electives	8			Comparative Systems (G) course	3
				Leisure and Lifetime Sports (Q) course	1
	16		3		14
FOURTH YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 320 & CHE 321 Instrumental Analysis and Instrumental Analysis Lab	4	Interim Off		CHE 364 & CHE 365 Advanced Inorganic Chemistry and Advanced Inorganic Chemistry Lab	4
CHE 388 & CHE 389 Biochemistry I and Biochemistry I Lab	4			CHE 494 Chemistry Seminar: Research Presentation	1
Chemistry Elective	4			Chemistry Elective	4
Cross Cultural Experience (Z) course	0-3			Artistic Experience (A) course	0-3
				Contemporary Christian Issues (P) course	3
	12-15		0		12-15
Total Credits 126-132					

1. [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 of their freshman year.

2. Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)

This program assumes that a student will use [CHE 113/CHE 113D](#) and [MAT 124M](#) to meet the general education Laboratory Science and Mathematics 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.)