## B.S. in Computer Science 2020-2021: Option 1 - CWILT

FIRST YEAR					
Fall	Credits	Interim	Credits	Spring	Credit
COS 100 or 205 Introduction to Programming or Scientific	3	GES 160 Inquiry Seminar	3	COS 105 Object-oriented Design and Programming	4
Computing MAT 124M Calculus 1	1			MAT 125 Calculus 2	
GES 130 Christianity Western Culture	1			BIB 101 Introduction to the Bible	3
•	4				
GES 140 Introduction to Wellbeing		3		Second Language (S) course *1	4
	14		3		15
SECOND YEAR					
Fall		Interim		Spring	Credits
COS 212 Data Structures	4	THE 201 Christian Theology	3	COS 235 Computer Systems	4
MAT 241 Discrete Mathematics	3			COS 216 Algorithms and Advanced Data Structures	3
GES 125 Introduction to the Creative Arts	4			MAT 211 Linear Algebra	3
Laboratory Science (D) course	4			Contemporary Western Life and Thought (L) course	3
				Elective	3
	15		3		16
THIRD YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
MAT 330 Probability and Statistics	3	Interim off		COS 386 Data Communications and Computer Networks	3
COS 313 Database Systems	3			COS 389 Artificial Intelligence	3
COS 318 Web Programming	3			Interpreting Biblical Themes (J) course	3
World Cultures (U) course	3			Cross-Cultural Experience (Z) course	0-3
Elective		3-4		Comparative Systems (G) course	3
	15-16		0		12-15
FOURTH YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
Elective	3	COS 450 Humans and Computers		COS 371 (spring, even # years) Organization of Programming	3
				Languages	
COS 320 Computer Graphics Programming	3			Science, Technology, and Society (K) course	3
COS 477 Software Engineering	3			Contemporary Christian Issues (P) course	3
Leisure and Lifetime Sports (Q) course	1			Artistic Experience (A) course	0-3
Computer Algorithms and Support for Numerical	3-4			COS 335 Computer Security	3
					12-15
	13-14		3		12-15

<sup>\*1.</sup> 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 a student will use MAT 124M to meet the General Education course requirement.

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> Choose one of: COS 351, MAT 376, or PHY 352/PHY 353 (Note: PHY 352/PHY 353 will require consent of instructor unless prerequisites are satisfied. Please see catalog for details.)

## B.S. in Computer Science 2020-2021: Option 2 - Humanities

FIRST YEAR Fall	Cradita	Intorim	Crodita	Coring	Cundita
		Interim	Credits	• •	Credits
COS 100 or 205 Introduction to Programming or Scientific		GES 147 Humanities II: Renaissance and Reformation		COS 105 Object-oriented Design and Programming	- 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	4
GES 145 Humanities I: Greco-Roman through Middle Ages				Second Language (S) course *1	4
	14		4		16
SECOND YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
COS 212 Data Structures	4	World Cultures (U) course	3	COS 235 Computer Systems	4
MAT 241 Discrete Mathematics	3			COS 216 Algorithms and Advanced Data Structures	3
BIB 101 Introduction to the Bible	3			MAT 211 Linear Algebra	3
GES 246 Humanities IV: Modern and Contemporary Western	4			Laboratory Science (D) course	4
				Leisure and Lifetime Sports (Q) course	
	14		3		15
THIRD YEAR					
Fall	Credits	Interim	Credits		Credits
MAT 330 Probability and Statistics	3	Interim off		COS 386 (Spring, odd # years)	3
COS 313 (fall, even # years) Database Systems	3			COS 389 (Spring, odd # years)	3
COS 318 Web Programming	3			Interpreting Biblical Themes (J) course	3
World Cultures (U) course	3			Cross-Cultural Experience (Z) course	3
Elective	3			Comparative Systems (G) course	3
	15		0		15
FOURTH YEAR					
Fall	Credits Interim		Credits	Spring	Credits
Elective	3	COS 450 Humans and Computers	3	COS 371 (Spring, even # years)	3
COS 320 (Fall, odd # years)	3			Artistic Experience (A) course	0-3
COS 477 (Fall, odd # years)	3			Science, Technology, and Society (K) course	3
Computer Algorithyms and Support for Numerical Applications	3-4			Contemporary Christian Issues (P) course	3
course *2					
				COS 335 Computer Security	3
	12-13		3		12-15

<sup>\*1.</sup> 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 a student will use MAT 124M to meet the General Education course requirement.

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> Choose one of: COS 351, MAT 376, or PHY 352/PHY 353 (Note: PHY 352/PHY 353 will require consent of instructor unless prerequisites are satisfied. Please see catalog for details.)