B.S. in Electrical Engineering 2019-2020: Option 1 - CWILT

FIRST YEAR		Soming 2010 2020. Option 1 Ovvici
Fall	Credits Interim	Credits Spring Cred
GES 125Introduction to the Creative Arts	4 GES 160 Inquiry Seminar	3 BIB 101Introduction to the Bible
GES 140Introduction to Wellbeing	3	GES 130Christianity Western Culture
MAT 124M Calculus 1	4	MAT 125 Calculus 2
PHY 292	4	PHY 296
& PHY 292D		& PHY 297
General Physics I and General Physics I Lab		General Physics II and General Physics II Lab
, , , , , , , , , , , , , , , , , , , ,		Artistic Experience (A) course
	15	3 15-
SECOND YEAR		
Fall	Credits Interim	Credits Spring Cred
COS 205 Scientific Computing	3 ENR 160Introduction to En	neering 3 ENR 326 Circuit Analysis Simulations
ENR 260 Careers in Engineering and Physics Seminar	1	MAT 224 Differential Equations with Linear Equations
MAT 223Multivariable Calculus	3	PHY 312
		& PHY 313
		Modern Physics and Modern Physics Lab
PHY 302	4	Science, Technology, and Society (K) course
& PHY 303		3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3
Electronics and Electronics Lab		
Contemporary Western Life and Thought (L) course	3	Cross-cultural Experience (Z) Course
contemporary recommendation and recognit (2) course	14	3 15-
THIRD YEAR	14	
Fall	Credits Interim	Credits Spring Cred
ENR 316	4 World Cultures (U) cours	
& ENR 317	Tivona canarco (c) courc	& ENR 307
Analog Circuitry and Design and Analog Circuitry Design Lab		Digital Logic and Design and Digital Logic and Design Lab
Trialog Circuity and Bodigh and Thalog Circuity Bodigh Eab		Digital Logic and Dough and Digital Logic and Dough Lab
ENR 320Mathematical Methods in Physics and Engineering	4	ENR 352
		& ENR 353
		Computer Methods in Physics and Engineering and Computer
		Methods in Physics and Engineering Lab
PHY 400Electricity and Magnetism	4	PHY 332
		& PHY 333
		Optics and Optics Lab
THE 201 Christian Theology	3	Interpreting Biblical Themes (J) Course
	15	3
FOURTH YEAR		
Fall	Credits Interim	Credits Spring Cred
ENR 336 Signals and Systems	4 Interim Off	ENR 446
		& ENR 447
		Control Systems and Control Systems Lab
ENR 424	4	ENR 490Engineering Design Project
& ENR 425		
Materials and Devices and Materials and Devices Lab		
ENR 436	4	Contemporary Christian Issues (P) Course
& ENR 437		, , , , , , , , , , , , , , , , , , , ,
Microprocessors and Microprocessors Lab		
ENR 465Engineering Design Seminar	1	Second Language (S) course ¹
Comparative Systems (G) Course	3	Leisure and Lifetime Sport (Q) Course
	16	0
Total Credits 129-135		
10141 010410 120 100		

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

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 Electrical Engineering 2019-2020: Option 2 - Humanities

FIRST YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
GES 140Introduction to Wellbeing	3	GES 147Humanities II: Renaissance and Reformation	4	BIB 101Introduction to the Bible	3
GES 145Humanities I: Greco-Roman through Middle Ages	4			GES 244Humanities III: European Enlightenment and American	4
				Culture to 1877	
MAT 124M Calculus 1	4			MAT 125 Calculus 2	4
PHY 292	4			PHY 296	
<u>& PHY 292D</u>				<u>& PHY 297</u>	
General Physics I and General Physics I Lab				General Physics II and General Physics II Lab	
Leisure and Lifetime Sport (Q) course	1				
	16		4		15
SECOND YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
GES 246Humanities IV: Modern and Contemporary Western Culture	4	ENR 160Introduction to Engineering		COS 205 Scientific Computing	3
MAT 223Multivariable Calculus	3			ENR 326 Circuit Analysis Simulations	
PHY 302	4			MAT 224 Differential Equations and Linear Algebra	
& PHY 303				THE PROPERTY OF THE PROPERTY O	
Electronics and Electronics Lab					
World Cultures (U) course	3			PHY 312	4
Trona danaros (d) source				& PHY 313	
				Modern Physics and Modern Physics Lab	
				Cross-cultural Experience (Z) course	0-3
	14		3		15-18
THIRD YEAR	14		3		13-10
Fall	Cradite	Interim	Credits	Spring	Credits
ENR 260 Careers in Engineering and Physics Seminar		Comparative Systems (G) course		ENR 306	Oreans
ENR 260 Careers in Engineering and Physics Seminar	ı	Comparative Systems (G) course	3	& ENR 307	4
				Digital Logic and Design and Digital Logic and Design Lab	
ENR 316	4			ENR 352	
& ENR 317	7			& ENR 353	
Analog Circuitry and Design and Analog Circuitry Design Lab				Computer Methods in Physics and Engineering and Computer	
Arialog Circuity and Design and Arialog Circuity Design Lab				Methods in Physics and Engineering Lab	
ENR 320Mathematical Methods in Physics and Engineering	4			PHY 332	
envision and Engineering	7			& PHY 333	
				Optics and Optics Lab	
PHY 400Electricity and Magnetism	4			Interpreting Biblical Themes (J) course	
Science, Technology, and Society (K) course	3			interpreting biblical memes (a) course	`
Science, reciniology, and Society (it) course					
	16				41
	16		3		15
FOURTH YEAR					
FOURTH YEAR Fall	Credits	Interim	Credits	Spring	
FOURTH YEAR	Credits		Credits	Spring ENR 446	
FOURTH YEAR Fall	Credits	Interim	Credits	Spring ENR 446 & ENR 447	Credits
FOURTH YEAR Fall ENR 336 Signals and Systems	Credits 4	Interim Interim Off	Credits	Spring ENR 446 & ENR 447 Control Systems and Control Systems Lab	Credits
FOURTH YEAR Fall ENR 336 Signals and Systems ENR 424	Credits	Interim Interim Off	Credits	Spring ENR 446 & ENR 447	Credits
FOURTH YEAR Fall ENR 336 Signals and Systems ENR 424 & ENR 425	Credits 4	Interim Interim Off	Credits	Spring ENR 446 & ENR 447 Control Systems and Control Systems Lab	Credits
FOURTH YEAR Fall ENR 336 Signals and Systems ENR 424 & ENR 425 Materials and Devices and Materials and Devices Lab	Credits 4	Interim Interim Off	Credits	Spring ENR 446 & ENR 447 Control Systems and Control Systems Lab ENR 490Engineering Design Project	Credits
FOURTH YEAR Fall ENR 336 Signals and Systems ENR 424 & ENR 425 Materials and Devices and Materials and Devices Lab ENR 436	Credits 4	Interim Interim Off	Credits	Spring ENR 446 & ENR 447 Control Systems and Control Systems Lab	Credits
FOURTH YEAR Fall ENR 336 Signals and Systems ENR 424 & ENR 425 Materials and Devices and Materials and Devices Lab ENR 436 & ENR 437	Credits 4	Interim Interim Off	Credits	Spring ENR 446 & ENR 447 Control Systems and Control Systems Lab ENR 490Engineering Design Project	Credits
FOURTH YEAR Fall ENR 336 Signals and Systems ENR 424 8 ENR 425 Materials and Devices and Materials and Devices Lab ENR 436 8 ENR 437 Microprocessors and Microprocessors Lab	Credits 4 4	Interim Interim Off	Credits	Spring ENR 446 & ENR 447 Control Systems and Control Systems Lab ENR 490Engineering Design Project Artistic Experience (A) course	Credits
FOURTH YEAR Fall ENR 336 Signals and Systems ENR 424 & ENR 425 Materials and Devices and Materials and Devices Lab ENR 436 & ENR 437	Credits 4	Interim Interim Off	Credits	Spring ENR 446 & ENR 447 Control Systems and Control Systems Lab ENR 490Engineering Design Project	Credits
FOURTH YEAR Fall ENR 336 Signals and Systems ENR 424 8 ENR 425 Materials and Devices and Materials and Devices Lab ENR 436 8 ENR 437 Microprocessors and Microprocessors Lab	Credits 4 4	Interim Interim Off	Credits	Spring ENR 446 & ENR 447 Control Systems and Control Systems Lab ENR 490Engineering Design Project Artistic Experience (A) course	Credits
FOURTH YEAR Fall ENR 336 Signals and Systems ENR 424 & ENR 425 Materials and Devices and Materials and Devices Lab ENR 436 & ENR 437 Microprocessors and Microprocessors Lab	Credits 4 4	Interim Interim Off	Credits	Spring ENR 446 & ENR 447 Control Systems and Control Systems Lab ENR 490Engineering Design Project Artistic Experience (A) course Contemporary Christian Issues (P) course Second Language (S) course¹	

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

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.