

## B.A. in Electrical Engineering 2018-2019: Option 1 - CWILT

First Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY 292 & PHY 292D General Physics I and General Physics I Lab	4	GES 160 Inquiry Seminar	3	PHY 296 & PHY 297 General Physics II and General Physics II Lab	4
MAT 124M Calculus 1	4			MAT 125 Calculus 2	4
GES 140 Introduction to Wellbeing	3			GES 130 Christianity Western Culture	4
GES 125 Introduction to the Creative Arts	4			BIB 101 Introduction to the Bible	3
				Artistic Experience (A) course	0-3
	15		3		16
Second Year					
Fall	Credits	Interim	Credits	Spring	Credits
ENR 260 Careers in Engineering and Physics Seminar	1	ENR 160 Introduction to Engineering	3	MAT 222 Differential Equations	3
	3			PHY 312 & PHY 313 Modern Physics and Modern Physics Lab	4
MAT 223 Multivariable Calculus				Science, Technology, and Society (K) course	3
COS 205 Scientific Computing	3			Second Language (S) course *1	4
PHY 302 & PHY 303 Electronics and Electronics Lab	4				
Contemporary Western Life and Thought (L) course	3			Cross-cultural Experience (Z) Course	0-3
	14		3		15
Third Year					
Fall	Credits	Interim	Credits	Spring	Credits
	4	World Cultures (U) course	3	PHY 332 & PHY 333 Optics and Optics Lab	4
ENR 320 Mathematical Methods in Physics and Engineering	4			ENR 352 & ENR 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	4
ENR 316 & ENR 317 Analog Circuitry and Design and Analog Circuitry Design Lab	4			ENR 306 & ENR 307 Digital Logic and Design and Digital Logic and Design Lab	4
PHY 400 Electricity and Magnetism				Interpreting Biblical Themes (J) Course	3
THE 201 Christian Theology	3				
	15		3		15
Fourth Year					
Fall	Credits	Interim	Credits	Spring	Credits
	4	Interim Off		ENR 446 & ENR 447 Control Systems and Control Systems Lab	4
ENR 326 Circuit Analysis Simulations	4			ENR 436 & ENR 437 Microprocessors and Microprocessors Lab	4
ENR 336 Signals and Systems					
ENR 424 & ENR 425 Materials and Devices and Materials and Devices Lab	4				3
ENR 465 Engineering Design Seminar	1			ENR 490 Engineering Design Project	
Comparative Systems (G) Course	3			Contemporary Christian Issues (P) Course	3
				Leisure and Lifetime Sport (Q) Course	1
	16		0		15
<b>Total Credits 130</b>					

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

## B.A. in Electrical Engineering 2018-2019: Option 2 - Humanities

First Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY 292 & PHY 292D General Physics I and General Physics I Lab	4	GES 147 Humanities II: Renaissance and Reformation	4	PHY 296 & PHY 297 General Physics II and General Physics II Lab	4
MAT 124M Calculus 1	4			MAT 125 Calculus 2	4
GES 140 Introduction to Wellbeing	3			BIB 101 Introduction to the Bible	3
	4				4
GES 145 Humanities I: Greco-Roman through Middle Age Leisure and Lifetime Sport (Q) course	1			GES 244 Humanities III: European Enlightenment and A	4
	16		4		15
Second Year					
Fall	Credits	Interim	Credits	Spring	Credits
MAT 223 Multivariable Calculus	3	ENR 160 Introduction to Engineering	3	MAT 222 Differential Equations	3
	4			PHY 312 & PHY 313 Modern Physics and Modern Physics Lab	4
GES 246 Humanities IV: Modern and Contemporary West	4				3
PHY 302 & PHY 303 Electronics and Electronics Lab	4			COS 205 Scientific Computing	3
World Cultures (U) course	3			Second Language (S) course *1	4
	14		3	Cross-cultural Experience (Z) course	0-3
					15
Third Year					
Fall	Credits	Interim	Credits	Spring	Credits
	4	Comparative Systems (G) course	3	PHY 332 & PHY 333 Optics and Optics Lab	4
ENR 320 Mathematical Methods in Physics and Engineering	4			ENR 352 & ENR 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	4
ENR 316 & ENR 317 Analog Circuitry and Design and Analog Circuitry Design Lab	4			ENR 306 & ENR 307 Digital Logic and Design and Digital Logic and Design Lab	4
PHY 400 Electricity and Magnetism	4			Interpreting Biblical Themes (J) course	3
ENR 260 Careers in Engineering and Physics Seminar Science, Technology, and Society (K) course	1 3				
	16		3		15
Fourth Year					
Fall	Credits	Interim	Credits	Spring	Credits
	4	Interim Off	0	ENR 446 & ENR 447 Control Systems and Control Systems Lab	4
ENR 326 Circuit Analysis Simulations	4			ENR 436 & ENR 437 Microprocessors and Microprocessors Lab	4
ENR 336 Signals and Systems	4				3
ENR 424 & ENR 425 Materials and Devices and Materials and Devices Lab	4			ENR 490 Engineering Design Project	3
ENR 465 Engineering Design Seminar	1			Contemporary Christian Issues (P) course	3
	13		0	Artistic Experience (A) course	0-3
					15
<b>Total Credits 129</b>					

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