B.S. in Mechanical Engineering 2020-2021: Option 1 - CWILT

FIRST YEAR					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
GES 130 Christianity Western Culture	4	ENR 160 Introduction to Engineering	3	GES 140 Introduction to Wellbeing	3
GES 160 Inquiry Seminar	3			COS 205 Scientific Computing	3
MAT 124M Calculus 1	4			MAT 125 Calculus 2	4
PHY 292 General Physics I	3			PHY 296 General Physics II	3
PHY 292D General Physics I Lab	1			& PHY 297 General Physics II Lab	1
				Artistic Experience (A) course	0-3
	15		**3**		**14-17**

SECOND YEAR					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
BIB 101 Introduction to the Bible	3	GES 125 Introduction to the Creative Arts	4	ENR 318 Engineering Thermal Science	3
CHE 208 & CHE 208D Accelerated General Chemistry and Accelerated General Chemistry Lab	4			PHY 312 & PHY 313 Modern Physics and Modern Physics Lab	4
MAT 223 Multivariable Calculus	3			World Cultures (U) course	3
PHY 302 & PHY 303 Electronics and Electronics Lab	4			Leisure and Lifetime Sports (Q) course	1
Second Language (S) course[1]	4			Cross-cultural Experience (Z) course	0-3
	18		**4**		**11-14**

THIRD YEAR					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
ENR 260 Careers in Engineering and Physics Seminar	1	ENR 265 Computer Aided Design and Engineering	3	ENR 304 & ENR 305 Engineering Materials and Engineering Materials Lab	4
MAT 224 Differential Equations with Linear Algebra	4			ENR 308 Statics and Mechanics of Materials	4
PHY 340 Mechanics	4			ENR 348 Heat Transfer	3
THE 201 Christian Theology	3			ENR 446 & ENR 447 Control Systems and Control Systems Lab	4
Contemporary Western Life and Thought (L) course	3				
	15		**3**		**15**

FOURTH YEAR					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
ENR 320 Mathematical Methods in Physics and Engineering	4	Comparative Systems (G) course	3	ENR 352 & ENR 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	4
ENR 356 Fundamentals of Design and Manufacturing	3			ENR 358 Design of Mechanical Components and Systems	3
ENR 402 Mechanical Systems and Measurements Lab	3			ENR 359 Design of Mechanical Components and Systems Lab	1
ENR 422 & ENR 423 Fluid Mechanics and Fluid Mechanics Lab	4			ENR 490 Engineering Design Project	3
ENR 465 Engineering Design Seminar	1			Science, Technology, and Society (K) course	3
Interpreting Biblical Themes (J) course	3			Contemporary Christian Issues (P) course	3
	18		**3**		**17**
Total Credits 136-142					

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

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 Mechanical Engineering 2020-2021: Option 2 - Humanities

FIRST YEAR					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
BIB 101 Introduction to the Bible	3	GES 147 Humanities II: Renaissance and Reformation	4	COS 205 Scientific Computing	3
GES 145 Humanities I: Greco-Roman through Middle Ages	4			GES 140 Introduction to Wellbeing	3
MAT 124M Calculus 1	4			GES 244 Humanities III: European Enlightenment and American Culture to 1877	4
PHY 292 General Physics I	3			MAT 125 Calculus 2	4
PHY 292D General Physics I Lab	1			PHY 296 General Physics II	3
				& PHY 297 General Physics II Lab	1
	15		**4**		**18**

SECOND YEAR					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
CHE 208 & CHE 208D Accelerated General Chemistry and Accelerated General Chemistry Lab	4	ENR 160 Introduction to Engineering	3	ENR 318 Engineering Thermal Science	3
MAT 223 Multivariable Calculus	3			PHY 312 & PHY 313 Modern Physics and Modern Physics Lab	4
PHY 302 & PHY 303 Electronics and Electronics Lab	4			Artistic Experience (A) course	0-3
GES 246 Humanities IV: Modern and Contemporary Western Culture	4			World Cultures (U) course	3
				Leisure and Lifetime Sports (Q) course	1
				Cross-cultural Experience (Z) course	0-3
	15		**3**		**11-17**

THIRD YEAR					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
MAT 224 Differential Equations with Linear Algebra	4	ENR 265 Computer Aided Design and Engineering	3	ENR 304 & ENR 305 Engineering Materials and Engineering Materials Lab	4
ENR 260 Careers in Engineering and Physics Seminar	1			ENR 308 Statics and Mechanics of Materials	4
PHY 340 Mechanics	4			ENR 348 Heat Transfer	3
Contemporary Western Life and Thought (L) course	3			ENR 446 & ENR 447 Control Systems and Control Systems Lab	4
Second Language (S) course	4				
	16		**3**		**15**

FOURTH YEAR					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
ENR 320 Mathematical Methods in Physics and Engineering	4	Comparative Systems (G) course	3	ENR 352 & ENR 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	4
ENR 356 Fundamentals of Design and Manufacturing	3			ENR 358 Design of Mechanical Components and Systems	3
ENR 402 Mechanical Systems and Measurements Lab	3			ENR 359 Design of Mechanical Components and Systems Lab	1
ENR 422 & ENR 423 Fluid Mechanices and Fluid Mechanics Lab	4			ENR 490 Engineering Design Project	3
ENR 465 Engineering Design Seminar	1			Science, Technology, and Society (K) course	3
Interpreting Biblical Themes (J) course	3			Contemporary Christian Issues (P) course	3
	18		**3**		**17**
Total Credits 138-144					

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

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.)