

B.A. in Engineering 2019-2020: Option 1 - CWILT

FIRST YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
BIB 101 Introduction to the Bible	3	GES 125 Introduction to the Creative Arts	4	GES 130 Christianity Western Culture	4
GES 140 Introduction to Wellbeing	3			GES 160 Inquiry Seminar	3
MAT 124M Calculus 1	4			MAT 125 Calculus 2	4
PHY 292 & PHY 292D General Physics I and General Physics I Lab	4			PHY 296 & PHY 297 General Physics II and General Physics II Lab	4
	14		4		15
SECOND YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
COS 205 Scientific Computing	3	THE 201 Christian Theology	3	MAT 222 Differential Equations	3
ENR 260 Careers in Engineering and Physics Seminar	1			PHY 312 & PHY 313 ³ Modern Physics and Modern Physics Lab	4
MAT 223 Multivariable Calculus	3			ENR 352 & ENR 353 (or elective) ² Computer Methods in Physics and Engineering Computer Methods in Physics and Engineering Lab	4
PHY 302 & PHY 303 ³ Electronics and Electronics Lab	4			Contemporary Western Life and Thought (L) course	3
Second Language (S) course ¹	4				
	15		3		14
THIRD YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 113 & CHE 113D General Chemistry I and General Chemistry I Lab	4	Comparative Systems (G) course	3	Electives (Physics or Engineering course recommended, MAT211 strongly recommended) or Linear Algebra	5
ENR 3203 Mathematical Methods in Physics and Engineering	4			Artistic Experience (A) course	0-3
MAT 344 (or elective) ² Numerical Methods	3			Science, Technology, and Society (K) course	3
Leisure and Lifetime Sports (Q) course	1			Interpreting Biblical Themes (J) course	3
World Cultures (U) course	3			Contemporary Christian Issues (P) course	3
Cross-Cultural Experience (Z) course	0-3				
	15-18		3		14-17
FOURTH YEAR					
Fall	Credits				
Credits from an accredited university engineering program	25				
	25				
Total Credits 122-128					

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

2. Choose from [ENR 352/ENR 353](#) or [MAT 344](#).

3. Electives choices depend on area of engineering interest. At least 12 credits must be chosen from Electronics, Modern Physics, Mathematical Methods in Physics & Engineering, Mechanics, Fluid Mechanics, Topics in Applied Physics, Statistics, and Mechanics of Materials, Probability and Statistics. Chemical Engineers must choose General Chemistry II, Organic Chemistry I & II.

This program assumes a student will use [PHY 292/PHY 292D](#) and [MAT 124M](#) to meet the general education Laboratory Science and Mathematics requirements.

This is a dual-degree Engineering program. It must be completed at a university which offers engineering degrees.

Students receive their Bethel degree with an Engineering major only upon completion of the engineering degree at the other school.

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.A. in Engineering 2019-2020: Option 2 - Humanities

FIRST YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
GES 140 Introduction to Wellbeing	3	GES 147 Humanities II: Renaissance and Reformation	4	GES 244 Humanities III: European Enlightenment and American Culture to 1877	4
GES 145 Humanities I: Greco-Roman through Middle Ages	4			MAT 125 Calculus 2	4
MAT 124M Calculus 1	4			PHY 296 & PHY 297	4
PHY 292 & PHY 292D General Physics I and General Physics I Lab	4			General Physics II and General Physics II Lab Second Language (S) course ¹	4
	15		4		16
SECOND YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
COS 205 Scientific Computing	3	World Cultures (U) course	3	BIB 101 Introduction to the Bible	3
ENR 260 Careers in Engineering and Physics Seminar	1			ENR 352 & ENR 353 (or elective) ² Computer Methods in Physics and Engineering Computer Methods in Physics and Engineering Lab	4
GES 246 Humanities IV: Modern and Contemporary Western Culture	4			MAT 222 Differential Equations	3
MAT 223 Multivariable Calculus	3			PHY 312 & PHY 313 ³ Modern Physics and Modern Physics Lab	4
PHY 302 & PHY 303 ³ Electronics and Electronics Lab	4				
	15		3		14
THIRD YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
CHE 113 & CHE 113D General Chemistry I and General Chemistry I Lab	4	Comparative Systems (G) course	3	Electives (Physics or Engineering course recommended, MAT211 strongly recommended) or Linear Algebra	3
ENR 3203 Mathematical Methods in Physics and Engineering	4			Artistic Experience (A) course	0-3
MAT 344 (or elective) ² Numerical Methods	3			Science, Technology, and Society (K) course	3
Lifetime and Leisure Sports (Q) course	1			Interpreting Biblical Themes (J) course	3
Cross-Cultural Experience (Z) course	0-3			Contemporary Christian Issues (P) course	3
Elective	3				
	15-18		3		12-15
FOURTH YEAR					
Fall	Credits				
Credits from an accredited university engineering program	25				
	25				
Total Credits 122-128					

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

2. Choose from [ENR 352/ENR 353](#) or [MAT 344](#).

3. Electives choices depend on area of engineering interest. At least 12 credits must be chosen from Electronics, Modern Physics, Mathematical Methods in Physics & Engineering, Mechanics, Fluid Mechanics, Topics in Applied Physics, Statistics, and Mechanics of Materials, Probability and Statistics. Chemical Engineers must choose General Chemistry II, Organic Chemistry I & II.

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