

B.A. in 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 125 Introduction to the Creative Arts	4	PHY 296 & PHY 297 General Physics II and General Physics II Lab	4
MAT 124M Calculus 1	4			MAT 125 Calculus 2	4
BIB 101 Introduction to the Bible	3			GES 130 Christianity Western Culture	4
GES 140 Introduction to Wellbeing	3			GES 160 Inquiry Seminar	3
	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
MAT 223 Multivariable Calculus	3			PHY 312 & PHY 313 *3 Modern Physics and Modern Physics Lab	4
ENR 260 Careers in Engineering and Physics Seminar	1			ENR 352 & ENR 353m (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	Science, Technology, and Society (K) course	3
ENR 320 *3 Mathematical Methods in Physics and Engineering	4			Contemporary Christian Issues (P) course	3
World Cultures (U) course	3			Interpreting Biblical Themes (J) course	3
MAT 344 (or elective)*2 Numerical Methods	3			Electives (Physics or Engineering course recommended)	5
Cross-Cultural Experience (Z) course	0-3			Artistic Experience (A) course	0-3
Leisure and Lifetime Sports (Q) course	1				
	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 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 145 Humanities I: Greco-Roman through Middle Ages	4			GES 244 Humanities III: European Enlightenment and American Culture to 1877	4
GES 140 Introduction to Wellbeing	3			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	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			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			BIB 101 Introduction to the Bible	3
ENR 260 Careers in Engineering and Physics Seminar	1				
	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	Science, Technology, and Society (K) course	3
ENR 320 *3 Mathematical Methods in Physics and Engineering	4			Contemporary Christian Issues (P) course	3
Lifetime and Leisure Sports (Q) course	1			Interpreting Biblical Themes (J) course	3
MAT 344 (or elective)*2 Numerical Methods	3			Electives (Physics or Engineering course recommended)	3
Cross-Cultural Experience (Z) course	0-3			Artistic Experience (A) course	0-3
Electives	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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