

## B.A. in Engineering 2017-2018: Option 1 - CWILT

First Year					
Fall	Credits Interim		Credits Spring		Credits
PHY292 & 292D General Physics I and General Physics I Lab	4	GES125 Introduction to the Creative Arts	4	PHY296 & PHY297 General Physics II and General Physics II Lab	4
MAT124M Calculus 1	4		MAT125 Calculus 2		4
BIB101 Introduction to the Bible	3		GES130 Christianity Western Culture		4
GES140 Introduction to Wellbeing	3		GES160 Inquiry Seminar		3
	<b>14</b>		<b>4</b>		<b>15</b>
Second Year					
Fall	Credits Interim		Credits Spring		Credits
COS205 Scientific Computing	3	THE201 Christian Theology	3	MAT222 Differential Equations	3
MAT223 Multivariable Calculus	3		PHY312 & PHY313 Modern Physics and Modern Physics Lab *3		4
ENR260 Careers in Engineering and Physics Seminar	1		ENR352 & ENR35 (or elective)2Computer Methods in Physics and EngineeringComputer Methods in Physics and Engineering Lab *3		4
PHY302 & PHY303 Electronics and Electronics Lab *3	4		Contemporary Western Life and Thought (L) course		3
Second Language (S) course <sup>1</sup>	4				
	<b>15</b>		<b>3</b>		<b>14</b>
Third Year					
Fall	Credits Interim		Credits Spring		Credits
CHE113 & 113D General Chemistry I and General Chemistry I Lab	4	Comparative Systems (G) course	3	Science, Technology, and Society (K) course	3
ENR3203 Mathematical Methods in Physics and Engineering	4		Contemporary Christian Issues (P) course		3
World Cultures (U) course	3		Interpreting Biblical Themes (J) course		3
MAT344 (or elective)Numerical Methods *2	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				
	<b>15-18</b>		<b>3</b>		<b>14-17</b>
Fourth Year					
Fall, Interim, Spring		Credits			
Credits from an accredited university engineering program		25			
		<b>25</b>			

\*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 ENR352/ENR353 or MAT344.

\*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.

\*4. This program assumes a student will use PHY292/PHY292D andMAT124M 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 2017-2018: Option 2 - Humanities

First Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY292 & 292D General Physics I and General Physics I Lab	4	<u>GES147 Humanities II: Renaissance and Reformation</u>	4	PHY296 & PHY297 General Physics II and General Physics II Lab	4
<u>MAT124M Calculus 1</u>	4			<u>MAT125 Calculus 2</u>	4
<u>GES145 Humanities I: Greco-Roman through Middle Ages</u>	4			<u>GES244 Humanities III: European Enlightenment and American Culture to 1877</u>	4
<u>GES140 Introduction to Wellbeing</u>	3			Second Language (S) course <sup>1</sup>	4
	<b>15</b>			<b>4</b>	<b>16</b>
Second Year					
Fall	Credits	Interim	Credits	Spring	Credits
<u>COS205 Scientific Computing</u>	3	World Cultures (U) course	3	<u>MAT222 Differential Equations</u>	3
<u>MAT223 Multivariable Calculus</u>	3			PHY312 & PHY313 Modern Physics and Modern Physics Lab *3	4
<u>PHY302 &amp; PHY303 Electronics and Electronics Lab *3</u>	4			<u>ENR352 &amp; ENR353 (or elective)Computer Methods in Physics and En</u>	4
<u>GES246 Humanities IV: Modern and Contemporary Western Culture</u>	4			<u>BIB101 Introduction to the Bible</u>	3
<u>ENR260 Careers in Engineering and Physics Seminar</u>	1				
	<b>15</b>			<b>3</b>	<b>14</b>
Third Year					
Fall	Credits	Interim	Credits	Spring	Credits
<u>CHE113 &amp; 113D General Chemistry I</u>	4	Comparative Systems (G) course	3	Science, Technology, and Society (K) course	3
<u>ENR3203 Mathematical Methods in Physics and Engineering</u>	4			Contemporary Christian Issues (P) course	3
Lifetime and Leisure Sports (Q) course	1			Interpreting Biblical Themes (J) course	3
<u>MAT344 (or elective)2Numerical Methods</u>	3			Electives (Physics or Engineering course recommended)	3
Cross-Cultural Experience (Z) course	0-3			Artistic Experience (A) course	0-3
Electives	3				
	<b>15-18</b>			<b>3</b>	<b>12-15</b>
Fourth Year					
Fall	Credits				
Credits from an accredited university engineering program	25				
	<b>25</b>				

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 ENR352/ENR353 or MAT344.

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 PHY292/PHY292D and MAT124M 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.)