

## B.S. in Physics 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
GES160 Inquiry Seminar	3			GES140 Introduction to Wellbeing	3
	14		4		15
Second Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY302 & PHY303 Electronics and Electronics Lab & PHY303 Electronics and Electronics Lab	4	World cultures (U) course	3	PHY312 & PHY313 Modern Physics and Modern Physics Lab & PHY313 Modern Physics and Modern Physics Lab	4
MAT223 Multivariable Calculus	3			PHY352 & PHY353 (or elective) Computer Methods in Physics and Engineering Computer Methods in Physics and Engineering Lab *2	4
COS205 Scientific Computing	3			MAT222 Differential Equations	3
THE201 Christian Theology	3			Second Language (S) course <sup>1</sup>	4
PHY260 Careers in Engineering and Physics Seminar	1				
	14		3		15
Third Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY320 Mathematical Methods in Physics and Engineering	4	Science, Technology and Society (K) course	3	PHY332 & PHY333 (or elective) Optics & Optics Lab *3	4
PHY340 Mechanics	4			PHY365 Physics Research Seminar	1
PHY400 Electricity and Magnetism	4			PHY440 Quantum Mechanics	4
Contemporary Western Life and thought (L) course	3			Comparative Systems (G) course	3
				Electives	2
	15		3		14
Fourth Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY490 Research	3	Interim Off		PHY410 Thermodynamics	4
MAT344 (or elective) Numerical Methods *2	3			PHY432 & PHY433 (or elective) Topics in Contemporary Optics & Topics in Contemporary Optics Lab *3	4
Interpreting Biblical themes (J) course	3			Contemporary Christian Issues (P) course	3
Electives	4			Leisure and Lifetime Sports (Q) course	1
Cross Cultural Experience (Z) course	0-3			Artistic Experience (A) course	0-3
	13-16		0		12-15
<b>Total Credits: 122-128</b>					

1. Students must complete through the second semester of a first year language course or equivalent.
2. Choose from MAT344 or PHY352/353
3. Choose from PHY332/333 or PHY432/433

This program assumes a student will use MAT124M and PHY292/292D to meet the general education Mathematics and Laboratory Science requirements.

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit falls below 15 credits/semester. (Interim may be split between fall and spring for the state grant purposes only.)

## B.S. in Physics 2017-2018: Option 2 - Humanities

First Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY292 & 292D General Physics I and General Physics I Lab	4	GES147 Humanities II: Renaissance and Reformation	4	PHY296 & PHY297 General Physics II and General Physics II Lab	4
MAT124M Calculus 1	4			GES244 Humanities III: European Enlightenment and American Culture to 1877	4
GES145 Humanities I: Greco-Roman through Middle Ages	4			MAT125 Calculus 2	4
GES140 Introduction to Wellbeing	3			BIB101 Introduction to the Bible	3
	<b>15</b>				<b>4</b>
					<b>15</b>
Second Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY302 & PHY303 Electronics and Electronics Lab	4	World Cultures (U) course		PHY312 & PHY313 Modern Physics and Modern Physics Lab	4
MAT223 Multivariable Calculus				PHY352 & PHY353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab *2	4
COS205 Scientific Computing	3			MAT222 Differential Equations	3
GES246 Humanities IV: Modern and Contemporary Western Culture	4			Second Language (S) course	4
	<b>14</b>				<b>15</b>
					<b>15</b>
Third Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY260 Careers in Engineering and Physics Seminar	1	Science, Technology and Society (K) course		PHY332 & PHY333 (or elective) OpticsO & Optics Lab *3	4
PHY320 Mathematical Methods in Physics and Engineering	4			PHY340 Mechanics	4
PHY400 Electricity and Magnetism	4			PHY365 Physics Research Seminar	1
Comparative Systems (G) course	3			Interpreting Biblical Themes (J) course	3
				Elective	3
	<b>12</b>				<b>3</b>
					<b>15</b>
Fourth Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY440 Quantum Mechanics	4	Interim Off		PHY410 Thermodynamics	4
PHY490 Research	3			PHY432 & PHY433 (or elective) Topics in Contemporary Optics & Topics in Contemporary Optics Lab *3	4
Cross Cultural Experience (Z) course	0-3			Contemporary Christian Issues (P) course	3
Leisure and Lifetime Sports (Q) course	1			Artistic Experience (A) course	0-3
Elective	4			Elective	3
	<b>43084</b>				<b>0</b>
					<b>14-17</b>
<b>Total Credits: 122-128</b>					

1. Students must complete through the second semester of a first year language course or equivalent.
2. Choose from MAT344 or PHY352/353
3. Choose from PHY332/333 or PHY432/433

This program assumes a student will use MAT124M and PHY292/292D to meet the general education Mathematics and Laboratory Science requirements.

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit falls below 15 credits/semester. (Interim may be split between fall and spring for the state grant purposes only.)

This program assumes a student will use MAT124M and PHY292/292D to meet the general education Mathematics and Laboratory Science requirements.

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit falls below 15 credits/semester. (Interim may be split between fall and spring for the state grant purposes only.)