

B.S. in Physics 2016-2017: Option 1 - CWILT

First Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY292 & 292D General Physics I and General Physics Lab	4	GES125 Introduction to the Creative Arts	4	PHY296 & PHY297 General Physics II and General Physics Lab II	4
MAT124M Calculus 1	4			MAT125 Calculus 2	4
GES106 Introduction to Liberal Arts	1			GES130 Christianity Western Culture	4
GES110 College Writing	3			Nature of Persons (N) course	3
BIB101 Introduction to the Bible	3				
	15		4		15
Second Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY302 & PHY303 Electronics and Electronics Lab	4	World cultures (U) course	3	PHY312 & PHY313 Modern Physics and Modern Physics Lab	4
MAT223 Multivariable Calculus	3			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
THE201 Christian Theology	3			Second Language (S) course *1	4
PEA100 Physical Wellness for Life	1				
PHY260 Careers in Engineering and Physics Seminar	1				
	15		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 and 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
	15		3		12
Fourth Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY490 Research	3	Interim Off		PHY410 Thermodynamics	4
MAT344 (or elective) *2	3			PHY432 & PHY433 Topics in Contemporary Optics and 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
Total Credits: 122-128					

*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 2016-2017: Option 2 - Humanities

First Year						
	Fall	Credits	Interim	Credit	Spring	Credits
PHY292 & 292D General Physics I and General Physics Lab		4	<u>GES147 Humanities II: Renaissance and Reformation</u>	4	PHY296 & PHY297 General Physics II and General Physics Lab II	4
<u>MAT124M Calculus 1</u>		4			<u>GES244 Humanities III: European Enlightenment and American Culture to 1877</u>	4
<u>GES106 Introduction to Liberal Arts</u>		1			<u>MAT125 Calculus 2</u>	4
<u>GES145 Humanities I: Greco-Roman through Middle Ages</u>		4			<u>BIB101 Introduction to the Bible</u>	3
		13		4		15
Second Year						
	Fall	Credits	Interim	Credit	Spring	Credits
PHY302 & PHY303 Electronics and Electronics Lab		4	World Cultures (U) course	3	PHY312 & PHY313 Modern Physics and Modern Physics Lab	4
<u>PHY260 Careers in Engineering and Physics Seminar</u>		1			PHY352 & PHY353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab *2	4
<u>MAT223 Multivariable Calculus</u>		3			<u>MAT222 Differential Equations</u>	3
<u>COS205 Scientific Computing</u>		3			<u>PEA100 Physical Wellness for Life</u>	1
<u>GES246 Humanities IV: Modern and Contemporary Western Culture</u>		4			Second Language (S) course *1	4
		15		3		16
Third Year						
	Fall	Credits	Interim	Credit	Spring	Credits
<u>PHY320 Mathematical Methods in Physics and Engineering</u>		4	Science, Technology and Society (K) course	3	PHY332 & PHY333 (or elective) Optics and Optics Lab *3	4
<u>PHY340 Mechanics</u>		4			<u>PHY365 Physics Research Seminar</u>	1
<u>PHY400 Electricity and Magnetism</u>		4			<u>PHY440 Quantum Mechanics</u>	4
Nature of Persons (N) course		3			Leisure and Lifetime Sports (Q) course	1
		15		3	Elective	2
						12
Fourth Year						
	Fall	Credits	Interim	Credit	Spring	Credits
PHY490 Research		3	<u>MAT344 (or elective)2</u>	3	PHY410 Thermodynamics	4
MAT344 (or elective) *2		3			PHY432 & PHY433 Topics in Contemporary Optics and Topics in Contemporary Optics Lab *3	4
Interpreting Biblical Themes (J) course		3			Contemporary Christian Issues (P) course	3
Comparative Systems (G) course		3			Elective	1
Cross Cultural Experience (Z) course		0-3			Artistic Experience (A) course	0-3
		12-15		3		12-15
Total Credits: 123-129						

*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.)