

B.S. in Physics 2020-2021: 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 160 Inquiry Seminar	3			GES 140 Introduction to Wellbeing	3
MAT 124M Calculus 1	4			MAT 125 Calculus 2	4
PHY 292 General Physics I & PHY 292D General Physics I Lab	3 1			PHY 296 General Physics II & PHY 297 General Physics II Lab	3 1
	14		4		15
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 Modern Physics & PHY 313 Modern Physics Lab	3 1
PHY 260 Careers in Engineering and Physics Seminar	1			PHY 352 Computer Methods in Physics and Engineering *2 & PHY 353 Computer Methods in Physics and Engineering Lab	3 1
PHY 302 Electronics & PHY 303 Electronics Lab	3 1				
THE 201 Christian Theology	3			Second Language (S) course *1	4
	14		3		15
THIRD YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
PHY 320 Mathematical Methods in Physics and Engineering	4	Science, Technology and Society (K) course	3	PHY 365 Physics Research Seminar	1
PHY 340 Mechanics	4			PHY 410 Thermodynamics	4
PHY 440 Quantum Mechanics	4			PHY 432 Topics in Contemporary Optics & PHY 433 Topics in Contemporary Optics Lab	3 1
Contemporary Western Life and thought (L) course	3			Electives	6
	15		3		15
FOURTH YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
MAT 344 (or elective) Numerical Methods *2	3	Interim Off		PHY 332 Optics & PHY 333 Optics Lab *3	3 1
PHY 400 Electricity and Magnetism	4			Artistic Experience (A) course	0-3
PHY 490 Research	3			Comparative Systems (G) course	3
Interpreting Biblical themes (J) course	3			Contemporary Christian Issues (P) course	3
Cross Cultural Experience (Z) course	0-3			Leisure and Lifetime Sports (Q) course	1
				Elective	3
	13-16		0		14-17
Total Credits 125-131					

*1. Students must complete through the second semester of a first year language course or equivalent.

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

*3. Choose from [PHY 332/PHY 333](#) or [PHY 432/PHY 433](#)

This program assumes a student will use [MAT 124M](#) and [PHY 292/PHY 292D](#) to meet the General Education Mathematics (M) course and Laboratory Science (D) course 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 2020-2021: 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	BIB 101 Introduction to the Bible	3
GES 145 Humanities I: Greco-Roman through Middle Ages	4			GES 244 Humanities III: European Enlightenment and American Culture to 1877	4
MAT 124M Calculus 1	4			MAT 125 Calculus 2	4
PHY 292 General Physics I & PHY 292D General Physics I Lab	3 1			PHY 296 General Physics II & PHY 297 General Physics II Lab	3 1
	15		4		15
SECOND YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
COS 205 Scientific Computing	3	World Cultures (U) course	3	MAT 222 Differential Equations	3
GES 246 Humanities IV: Modern and Contemporary Western Culture	4			PHY 312 Modern Physics	3
MAT 223 Multivariable Calculus	3			PHY 313 Modern Physics Lab	1
PHY 260 Careers in Engineering and Physics Seminar	1			PHY 352 Computer Methods in Physics and Engineering *2	3
PHY 302 Electronics	3			PHY 353 Computer Methods in Physics and Engineering Lab	1
PHY 303 Electronics Lab	1			Second Language (S) course *1	4
	15		3		15
THIRD YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
PHY 320 Mathematical Methods in Physics and Engineering	4	Science, Technology and Society (K) course	3	PHY 365 Physics Research Seminar	1
PHY 440 Quantum Mechanics	4			PHY 410 Thermodynamics	4
Comparative Systems (G) course	3			PHY 432 Topics in Contemporary Optics	3
Leisure and Lifetime Sports (Q) course	1			PHY 433 Topics in Contemporary Optics Lab	1
Elective	3			Interpreting Biblical Themes (J) course	3
				Elective	3
	15		3		15
FOURTH YEAR					
Fall	Credits	Interim	Credits	Spring	Credits
PHY 340 Mechanics	4	Interim Off		PHY 332 Optics	3
PHY 400 Electricity and Magnetism	4			PHY 333 Optics Lab *3	1
PHY 490 Research	3			Artistic Experience (A) course	0-3
Cross Cultural Experience (Z) course	0-3			Contemporary Christian Issues (P) course	3
Elective	3			Electives	6
	14-17		0		13-16
Total Credits 127-133					

*1. Students must complete through the second semester of a first year language course or equivalent.

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

*3. Choose from [PHY 332/PHY 333](#) or [PHY 432/PHY 433](#)

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

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