

B.S. in Applied Physics (Biomedical Emphasis) 2017-2018: Option 1 - CWILT

First Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY292 & 292D General Physics I and General Physics I Lab *1	4	GES125 Introduction to the Creative Arts	4	PHY296 & PHY297 General Physics II and General Physics II Lab	4
GES160 Inquiry Seminar	3			GES130 Christianity Western Culture	4
MAT124M Calculus 1	4			MAT125 Calculus 2	4
BIB101 Introduction to the Bible	3			GES140 Introduction to Wellbeing	3
	14			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
COS205 Scientific Computing	3			PHY352 & PHY353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	4
MAT223 Multivariable Calculus	3			THE201 Christian Theology	3
PHY260 Careers in Engineering and Physics Seminar	1			Second Language (S) course ¹	4
Contemporary Western Life and Thought (L) course	3				
	14			3	15
Third Year					
Fall	Credits	Interim	Credits	Spring	Credits
CHE208 & 208D Accelerated General Chemistry and Accelerated General Chemistry Lab	4	Science, Technology, and Society (K) course	3	PHY365 Physics Research Seminar	1
PHY422 & PHY423 Fluid Mechanics and Fluid Mechanics Lab	4			PHY332 & PHY333 Optics and Optics Lab	4
BIO120 & BIO121 (fall, odd years) Introduction to Molecular and Cellular Biology, Introduction to Molecular and Cellular Biology Lab	4			PHY340 Mechanics	4
Cross-Cultural Experience (Z) course	0-3			Comparative Systems (G) course	3
				Interpreting Biblical Themes (J) course	3
	12-15			3	15
Fourth Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY320 Mathematical Methods in Physics and Engineering	4	Interim Off		BIO216 Human Physiology	3
BIO214 & BIO215 Human Anatomy and Human Anatomy Lab	4			Contemporary Christian Issues (P) course	3
PHY424 & PHY425 Materials and Devices and Materials and Devices Lab	4			Leisure and Lifetime Sport (Q) course	1
PHY490 Research	3			Artistic Experience (A) course	0-3
				Elective	4
	15			0	12
Total Credits: 122-125					

*1. Students may also use this course to complete a General Education requirement.

*2. Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)

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

B.S. in Applied Physics (Biomedical Emphasis) 2017-2018: Option 2 - Humanities

First Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY292 & 292D General Physics I and General Physics I Lab *1	4	GES147 Humanities II: Renaissance and Reformation	4	PHY296 & PHY297 General Physics II and General Physics II Lab	4
GES145 Humanities I: Greco-Roman through Middle Ages	4			GES244 Humanities III: European Enlightenment and American Culture to 1877	4
MAT124M Calculus 1	4			GES140 Introduction to Wellbeing	3
BIB101 Introduction to the Bible	3			MAT125 Calculus 2	4
	15				15
Second Year					
Fall	Credits	Interim	Credits	Spring	Credits
COS205 Scientific Computing	3	World Cultures (U) course	3	PHY312 & PHY313 Modern Physics and Modern Physics Lab	4
GES246 Humanities IV: Modern and Contemporary Western Culture	4			PHY352 & PHY353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	4
MAT223 Multivariable Calculus	3			Second Language (S) course ¹	4
PHY302 & PHY303 Electronics and Electronics Lab	4			THE201 Christian Theology	3
	14				15
Third Year					
Fall	Credits	Interim	Credits	Spring	Credits
CHE208 & 208D Accelerated General Chemistry and Accelerated General Chemistry Lab	4	Science, Technology, and Society (K) course	3	PHY365 Physics Research Seminar	1
BIO120 & BIO121 Introduction to Molecular and Cellular Biology and Introduction to Molecular and Cellular Biology Lab	4			PHY332 & PHY333 Optics and Optics Lab	4
PHY422 & PHY423 Fluid Mechanics and Fluid Mechanics Lab	4			PHY340 Mechanics	4
PHY260 Careers in Engineering and Physics Seminar	1			Comparative Systems (G) course	3
Cross-Cultural Experience (Z) course	0-3			Interpreting Biblical Themes (J) course	3
	13-16				15
Fourth Year					
Fall	Credits	Interim	Credits	Spring	Credits
PHY320 Mathematical Methods in Physics and Engineering	4	Interim Off		BIO216 & BIO217 Human Physiology and Human Physiology Lab	4
BIO214 & BIO215 Human Anatomy and Human Anatomy Lab	4			Leisure and Lifetime Sports (Q) course	1
PHY424 & PHY425 Materials and Devices and Materials and Devices Lab	4			Elective	4
PHY490 Research	3			Contemporary Christian Issues (P) course	3
				Artistic Experience (A) course	0-3
	15				12-15
Total Credits: 124-130			0		

*1. Students may also use this course to complete a General Education requirement.

*2. Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)

Because of possible double counting between General Education and the major, the actual credit total can be reduced to 122.

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit load falls below 15 credits/semester. (Interim credits may