B.S. in Applied Physics (Computational Emphasis) 2018-2019: Option 1 - CWILT

First Year					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
PHY 292 & PHY 292D 1 General Physics I and General Physics I Lab	4	GES 125 Introduction to the Creative Arts	4	PHY 296 & PHY 297 General Physics II and General Physics II Lab	4
BIB 101 Introduction to the Bible	3			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
	14		**4**		**15**
Second Year					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
PHY 302 & PHY 303 Electronics and Electronics Lab	4	COS 351 High-Performance Computing	3	PHY 312 & PHY 313 Modern Physics and Modern Physics Lab	4
COS 205 Scientific Computing	3			PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	4
MAT 223 Multivariable Calculus	3			MAT 222 Differential Equations	3
PHY 260 Careers in Engineering and Physics Seminar	1			Second Language (S) course*2	4
Contemporary Western Life and Thought (L) course	3				
	14		**3**		**15**
Third Year					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
CHE 208 & CHE 208D Accelerated General Chemistry and Accelerated General Chemistry Lab	4	World Cultures (U) course	3	PHY 340 Mechanics	4
MAT 241 Discrete Mathematics	3			PHY 365 Physics Research Seminar	1
MAT 376 Operations Research	4			Comparative Systems (G) course	3
THE 201 Christian Theology	3			Science, Technology, and Society (K) course	3
				Interpreting Biblical Themes (J) course	3
	14		**3**		**14**
Fourth Year					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
PHY 320 Mathematical Methods in Physics and Engineering	4	Interim Off		PHY 490 Research	3
MAT 330 Probability and Statistics	3			Leisure and Lifetime Sport (Q) course	1
MAT 344 Numerical Methods	3			Contemporary Christian Issues (P) course	3
Cross-Cultural Experience (Z) course	0-3			Artistic Experience (A) course	0-3
Elective	4			Electives	6
	14-17		**0**		**13-16**
Total Credits 123-129					

1. Students may also choose to use this course to meet 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 be split between fall and spring for state grant purposes only.)

B.S. in Applied Physics (Computational Emphasis) 2018-2019: Option 2 - Humanities

First Year					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
PHY 292 & PHY 292D 1 General Physics I and General Physics I Lab	4	GES 147 Humanities II: Renaissance and Reformation	4	PHY 296 & PHY 297 General Physics II and General Physics II Lab	4
GES 145 Humanities I: Greco-Roman through Middle Ages	4			GES 244 Humanities III: European Enlightenment and American Culture to 1877	4
GES 140 Introduction to Wellbeing	3			BIB 101 Introduction to the Bible	3
MAT 124M Calculus 1	4			MAT 125 Calculus 2	4
	15		**4**		**15**
Second Year					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
PHY 302 & PHY 303 Electronics and Electronics Lab	4	World Cultures (U) course	3	PHY 312 & PHY 313 Modern Physics and Modern Physics Lab	4
COS 205 Scientific Computing	3			PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	4
MAT 223 Multivariable Calculus	3			MAT 222 Differential Equations	3
GES 246 Humanities IV: Modern and Contemporary Western Culture	4			Second Language (S) course*2	4
	14		**3**		**15**
Third Year					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
CHE 208 & CHE 208D Accelerated General Chemistry and Accelerated General Chemistry Lab	4	COS 351 High-Performance Computing	3	PHY 365 Physics Research Seminar	1
MAT 241 Discrete Mathematics	3			PHY 340 Mechanics	4
MAT 376 Operations Research	4			Comparative Systems (G) course	3
PHY 260 Careers in Engineering and Physics Seminar	1			Science, Technology, and Society (K) course	3
THE 201 Christian Theology	3			Interpreting Biblical Themes (J) course	3
	15		**3**		**14**
Fourth Year					
Fall	**Credits**	**Interim**	**Credits**	**Spring**	**Credits**
PHY 320 Mathematical Methods in Physics and Engineering	4	Interim Off		PHY 490 Research	3
MAT 330 Probability and Statistics	3			Leisure and Lifetime Sport (Q) course	1
MAT 344 Numerical Methods	3			Contemporary Christian Issues (P) course	3
Cross-Cultural Experience (Z) course	0-3			Artistic Experience (A) course	0-3
Electives	4			Electives	6
	14-17		**0**		**13-16**
Total Credits 125-131					

1. Students may also choose to use this course to meet 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 and spring for state grant purposes only.)