B.S. in Applied Physics (Computational Emphasis) 2016-2017: Option 1 - CWILT

Credits	Interim	Credits	Spring	Credit
4 GES125 Introduction	on to the Creative Arts	4 PHY296 & PHY297 General Physics II and General Physics Lab II		
4		MAT125 Calculus 2		
1		GES130 Christianity Western Culture		
3		GES110 College Writing		
3				
15		4		1
Credits	Interim	Credits	Spring	Credit
4 COS351 High-Perf	ormance Computing	3 PHY312 & PHY313 Modern Physics and Modern Physics Lab		
3		PHY352 & PHY353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab		
3				
1				
3		PEA100 Physical Wellness for Life		
14		3		1
Credits	Interim	Credits	Spring	Credit
4 Contemporary Wes	stern Life and Thought (L) course	3 PHY365 Physics Research Seminar		
3		Comparative Systems (G) course		
3		Science, Technology, and Society (K) course		
3		Interpreting Biblical Themes (J) course		
		Second Language (S) course		
13		3		1
Credits	Interim	Credits	Spring	Credit
4 Interim Off		PHY340 Mechanics		
3		Leisure and Lifetime Spe	ort (Q) course	
	3 Electives			
3		Electives		
3 3		Electives Contemporary Christian	Issues (P) course	
3 3 0-3				0-3
	4 <u>GES125 Introduction</u> 4 1 3 3 15 Credits 4 <u>COS351 High-Perf</u> 3 1 3 1 3 1 4 Credits 4 Contemporary West 3 3 1 1 3 1 4 Credits 4 Contemporary West 3 3 1 1 2 Credits 4 Contemporary West 3 3 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	4 GES125 Introduction to the Creative Arts 4 1 3 3 1 Credits Interim 4 COS351 High-Performance Computing 3 4 Credits Interim 4 Contemporary Western Life and Thought (L) course 3 1 Credits Interim 4 Contemporary Western Life and Thought (L) course 3 3 1 Credits Interim 4 Interim Off	4 GES125 Introduction to the Creative Arts. 4 PHY296 & PHY297 Gen 4 MAT125 Calculus 2 GES130 Christianity We 3 GES110 College Writing 3 4 Credits Interim Credits 4 COS351 High-Performance Computing. 3 PHY312 & PHY313 Moc 3 PHY352 & PHY353 Con Physics and Engineering. 3 AT222 Differential Equ THE201 Christian Theol 1 AT222 Differential Equ THE201 Christian Theol 3 PEA100 Physics and Engineering. AT222 Differential Equ 1 3 PEA100 Physics Resear Credits Credits Interim Credits Comparative Systems (C 3 Attract and Thought (L) course 3 PHY365 Physics Resear 3 Attract and Thought (L) course 3 PHY365 Physics Resear 3 Attract and Thought (L) course 3 PHY365 Physics Resear 3 Attract and Thought (L) course 3 PHY365 Physics Resear 3 Attract and Thought (L) course 3 Attract and Theol 13 3 Attr	4 GES125 Introduction to the Creative Arts 4 PHY296 & PHY297 General Physics II and General Physics Lab II 4 MAT125 Calculus 2 1 GES130 Christianity Western Culture 3 GES110 College Writing 3 4 Credits Interim Computing 4 CCS351 High-Performance Computing 3 A 3 PHY312 & PHY313 Modern Physics and Modern Physics Lab 4 CCS351 High-Performance Computing 3 A PHY326 PHY313 Modern Physics and Engineering and Comput Physics and Engineering and Comput Physics and Engineering Lab 3 MAT222 Differential Equations 1 THE201 Christian Theology 9 PEA100 Physical Wellness for Life 1 3 Credits Interim 4 Contemporary Western Life and Thought (L) course 3 PHY365 Physics Research Seminar 3 Comparative Systems (G) course 3 Science, Technology, and Society (K) course 3 Scien

Total Credits: 122-128

*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.)

B.S. in Applied Physics (Computational Emphasis) 2016-2017: Option 2 - Humanities

First Year						
Fall	Credits	Interim	Credits	Spring	Credit	
PHY292 & 292D General Physics I and General Physics Lab *1	4 GES147 Humanities II: Renaissance and Reformation 4 PHY296 & PHY297 General Physics II and General Physics Lab II		eneral Physics II and General Physics Lab II			
CHE208 & 208D Accelerated General Chemistry and Accelerated General Chemistry Lab	4		MAT125 Calculus 2			
GES106 Introduction to Liberal Arts	1		GES244 Humanities III: European Enlightment and American Culture to 1877			
GES145 Humanities I: Greco-Roman through Middle Ages	4		BIB101 Introduction to the Bible			
Mathematics (M) course	3		PEA100 Physical Wellness for Life			
	16		4	4		
Second Year						
Fall	Credits	Interim	Credits	Spring	Credit	
PHY302 & PHY303 Electronics and Electronics Lab	4 Nature of Persons (ersons (N) course 3 PHY312 & PHY313 Modern Physics and Modern Physics Lab		odern Physics and Modern Physics Lab		
IAT223 Multivariable Calculus	3			PHY352 & PHY353 Computer Methods in Physics and Engineering and Computer Methods in		
			Physics and Engineerin			
COS205 Scientific Computing PHY260 Careers in Engineering and Physics Seminar	3		MAT222 Differential Equations			
	1		Second Language (S)	course "2		
GES246 Humanities IV: Modern and Contemporary Western Culture	4		3			
'hird Year	15		3			
Fall	Credits	Interim	Credits	Spring	Credit	
CHE113 & 113D General Chemistry I and General Chemistry I Lab					Credit	
IAT241 Discrete Mathematics	4 COS351 High-Performance Computing		3 PHY365 Physics Research Seminar BIO120 & BIO121 Introduction to Molecular and Cellular Biology and Introduction to Molecular			
IA1241 Discrete Mathematics	3		and Cellular Biology La			
IAT376 Operations Research	3		Comparative Systems (G) course			
Vorld Cultures (U) course	3		Science, Technology, and Society (K) course			
	Leisure and Lifetime Sport (Q) course		port (Q) course			
	13		3		1	
Fourth Year						
Fall	Credits	Interim	Credits	Spring	Credi	
PHY320 Mathematical Methods in Physics and Engineering	4 Interim Off		PHY340 Mechanics			
/AT330 Probability and Statistics	3		Interpreting Biblical Themes (J) course			
IAT344 Numerical Methods	3		Contemporary Christian Issues (P) course			
Cross-Cultural Experience (Z) course	0-3		Artistic Experience (A) course		C	
Electives	5					
	15-18		0		10-1	
Fotal Credits: 122-128						

*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.)