

## B.S. in Applied Physics (Electronics Emphasis) 2023-2024: Option 1 - CWILT

FIRST YEAR					
Fall (odd)	Credits	January Session	Credits	Spring (even)	Credits
PHY 292 & PHY 292D	4	GES 125 Introduction to the Creative Arts	4	PHY 296 & PHY 297	4
General Physics I and General Physics I Lab				General Physics II and General Physics II Lab	
MAT 124M1 Calculus 1	4			GES 130 Christianity Western Culture	4
BIB 101 Introduction to the Bible	3			GES 140 Introduction to Wellbeing	2
GES 160 Inquiry Seminar	3			MAT 125 Calculus 2	4
	<b>14</b>		<b>4</b>		<b>14</b>
SECOND YEAR					
Fall (even)	Credits	January Session	Credits	Spring (odd)	Credits
PHY 302 & PHY 303	4	World Cultures (U) course	3	PHY 312 & PHY 313	4
Electronics and Electronics Lab				Modern Physics and Modern Physics Lab	
COS 205 Scientific Computing	3			PHY 352	4
MAT 223 Multivariable Calculus	3			& PHY 353	
PHY 260 Careers in Engineering and Physics Seminar	1			Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	
Second Language (S) course *1	4			MAT 222 Differential Equations	3
				Contemporary Western Life and Thought (L) course	3
	<b>15</b>		<b>3</b>		<b>14</b>
THIRD YEAR					
Fall (odd)	Credits	January Session	Credits	Spring (even)	Credits
PHY 320 Mathematical Methods in Physics and Engineering CHE 113 & CHE 113D	4			PHY 365 Physics Research Seminar	1
General Chemistry I and General Chemistry I Lab				CHE 214	4
PHY 400 Electricity and Magnetism	4			CHE 215	
THE 201 Christian Theology	3			General Chemistry II and General Chemistry II Lab	4
				PHY 332 & PHY 333	
				Optics and Optics Lab	4
				ENR 306 & ENR 307	
	<b>15</b>		<b>0</b>	Digital Logic & Design and Digital Logic & Design Lab	<b>13</b>
FOURTH YEAR					
Fall (even)	Credits	January Session	Credits	Spring (odd)	Credits
ENR 424 & ENR 425	4	Science, Technology, and Society (K) course	3	ENR 326 Circuit Analysis & Simulations	4
Electronic Materials & Devices and Electronic Materials & Devices Laboratory				PHY 490 Research	3
PHY 340 Mechanics	4			Interpreting Biblical themes (J) course	3
Comparative Systems (G) course	3			Artistic Experience (A) course	0-3
Elective	3			Contemporary Christian Issues (P) course	3
Cross-Cultural Experience (Z) course	0-3				
	<b>14-17</b>		<b>3</b>		<b>13-16</b>
<b>Total Credits 122-128</b>					<b>27</b> <b>122</b>

\*1. Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)

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/term; Minnesota state grants are reduced when credit load falls below 15 credits/semester. January Session credits are counted as part of Spring Term.

## B.S. in Applied Physics (Electronics Emphasis) 2023-2024: Option 2 - Humanities

FIRST YEAR					
Fall (odd)	Credits	January Session	Credits	Spring (even)	Credits
<a href="#">PHY 292</a> & <a href="#">PHY 292D</a>	4	<a href="#">GES 147 Humanities II: Renaissance and Reformation</a>	4	<a href="#">PHY 296</a> & <a href="#">PHY 297</a>	4
General Physics I and General Physics I Lab				General Physics II and General Physics II Lab	
<a href="#">MAT 124M1 Calculus 1</a>	4			<a href="#">GES 244 Humanities III: European Enlightenment and</a>	4
<a href="#">BJB 101 Introduction to the Bible</a>	3			<a href="#">GES 140 Introduction to Wellbeing</a>	2
<a href="#">GES 145 Humanities I: Greco-Roman through Middle</a>	4			<a href="#">MAT 125 Calculus 2</a>	4
	15		4		14
SECOND YEAR					
Fall (even)	Credits	January Session	Credits	Spring (odd)	Credits
<a href="#">PHY 302</a> & <a href="#">PHY 303</a>	4	World Cultures (U) course	3	<a href="#">PHY 312</a> & <a href="#">PHY 313</a>	4
Electronics and Electronics Lab				Modern Physics and Modern Physics Lab	
<a href="#">GES 246 Humanities IV: Modern and Contemporary Western Culture</a>	4			<a href="#">PHY 352</a>	4
<a href="#">COS 205 Scientific Computing</a>	3			<a href="#">PHY 353</a>	
<a href="#">MAT 223 Multivariable Calculus</a>	3			Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	
<a href="#">PHY 260 Careers in Engineering and Physics Seminar</a>	1			<a href="#">MAT 222 Differential Equations</a>	3
				Second Language (S) course *1	4
	15		3		15
THIRD YEAR					
Fall (odd)	Credits	January Session	Credits	Spring (even)	Credits
<a href="#">PHY 320 Mathematical Methods in Physics and</a> <a href="#">CHE 113</a> & <a href="#">CHE 113D</a>	4			<a href="#">PHY 365 Physics Research Seminar</a>	1
General Chemistry I and General Chemistry I Lab				CHE 214	4
<a href="#">PHY 400 Electricity and Magnetism</a>	4			CHE 215	
Interpreting Biblical themes (J) course	3			General Chemistry II and General Chemistry II Lab	4
				<a href="#">PHY 332</a> & <a href="#">PHY 333</a>	4
				Optics and Optics Lab	
				<a href="#">ENR 306</a> & <a href="#">ENR 307</a>	4
				Digital Logic & Design and Digital Logic & Design Lab	
	15		0		13
FOURTH YEAR					
Fall (even)	Credits	January Session	Credits	Spring (odd)	Credits
<a href="#">ENR 424</a> & <a href="#">ENR 425</a>	4	Science, Technology, and Society (K) course	3	<a href="#">ENR 326 Circuit Analysis &amp; Simulations</a>	4
Electronic Materials & Devices and Electronic Materials & Devices Laboratory				<a href="#">PHY 490 Research</a>	3
<a href="#">PHY 340 Mechanics</a>	4			Elective	4
Comparative Systems (G) course	3			Artistic Experience (A) course	0-3
Elective	3			Contemporary Christian Issues (P) course	3
Cross-Cultural Experience (Z) course	0-3				
	14-17		3		14-17
<b>Total Credits 125-131</b>					28
					125

\*1. Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)

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/term; Minnesota state grants are reduced when credit load falls below 15 credits/semester. January Session credits are counted as part of Spring Term.