

B.S. in Physics Enhanced Academic Plan

B.S. in Physics - CWILT				
Recommended Courses		Career Planning and Preparation		R.E.A.L. Experience
Fall Semester 1	Interim Semester 1	Spring Semester 1		
PHY 292 & PHY 292D General Physics I and General Physics I Lab	GES 125 Introduction to the Creative Arts	PHY 296 & PHY 297 General Physics II and General Physics II Lab	<u>PHASE 1: EXPLORE</u>	Create your R.E.A.L. Portfolio.
MAT 124M Calculus 1		MAT 125 Calculus 2	<i>Explore self, careers, & God's call</i>	Consider joining Chemistry Club, Sigma Zeta, or another club or ministry of interest.
BIB 101 Introduction to the Bible		GES 130 Christianity Western Culture	Take a Career Assessment	Consider finding a mentor.
GES 160 Inquiry Seminar		GES 140 Introduction to Wellbeing	Research Careers: O*Net, Candid Careers, & informational interviews w/ Alums	
14	4	15	Gain Experience: Part-time job; Campus Involvement (e.g. student club); Volunteering	
MILESTONES: Consider study abroad options				
Recommended Courses		Career Planning and Preparation		R.E.A.L. Experience
Fall Semester 2	Interim Semester 2	Spring Semester 2		
PHY 302 & PHY 303 Electronics and Electronics Lab	World cultures (U) course	PHY 312 & PHY 313 Modern Physics and Modern Physics Lab	<u>PHASE 1&2: EXPLORE/EXPERIENCE</u>	Continue adding artifacts and reflections to your R.E.A.L. Portfolio.
MAT 223 Multivariable Calculus		PHY 352 & PHY 353 (or elective)*2 Computer Methods in Physics and Engineering Computer Methods in Physics and Engineering Lab	<i>Finalize major if necessary & begin gaining experience</i>	Consider taking a leadership position with a student club.
COS 205 Scientific Computing		MAT 222 Differential Equations	Create/update Resume & LinkedIn	Consider going on a spring break mission trip.
THE 201 Christian Theology		Second Language (S) course*1	Build professional network (e.g. informational interviews)	
PHY 260 Careers in Engineering and Physics Seminar			Attend Spring Career Fair	
14	3	1-14	Obtain Internship or relevant job by summer	
MILESTONES: Consider doing an online course over the summer				
Recommended Courses		Career Planning and Preparation		R.E.A.L. Experience
Fall Semester 3	Interim Semester 3	Spring Semester 3		
PHY 320 Mathematical Methods in Physics and Engineering	Science, Technology and Society (K) course	PHY 332 & PHY 333 (or elective)*3 Optics Optics Lab	<u>PHASE 2: EXPERIENCE</u>	Review your R.E.A.L. Portfolio and prepare to make it public.
PHY 340 Mechanics		PHY 365 Physics Research Seminar	<i>Use experiences to narrow down career choice & develop relevant skills</i>	Consider studying abroad.
PHY 400 Electricity and Magnetism		PHY 440 Quantum Mechanics	Participate in Fall & Spring Recruiting to obtain an internship	Consider applying for a Student Leadership Position in Student Life.
Contemporary Western Life and thought (L) course		Comparative Systems (G) course	Schedule a Mock Interview	Consider being a TA for a favorite class.
		Electives	Explore Grad Schools & Take Entrance Exams (e.g. GRE) if necessary	
15	3	14	Expand Professional Network	
MILESTONE: A minimum 3.2 GPA in your major is a good goal to strive for				
Recommended Courses		Career Planning and Preparation		R.E.A.L. Experience
Fall Semester 4	Interim Semester 4	Spring Semester 4		
PHY 490 Research	Interim Off	PHY 410 Thermodynamics	<u>PHASE 3: EXECUTE</u>	Continue updating your public R.E.A.L. Portfolio with relevant experiences and reflection.
MAT 344 (or elective)*2 Numerical Methods		PHY 432 & PHY 433 (or elective)*3 Topics in Contemporary Optics/Topics in Contemporary Optics Lab	<i>Execute an effective job or grad school search</i>	Consider mentoring an underclassman.
Interpreting Biblical themes (J) course		Contemporary Christian Issues (P) course	Participate in Fall and Spring Recruiting	
Electives		Leisure and Lifetime Sports (Q) course	Apply for Graduate School if necessary	
Cross Cultural Experience (Z) course		Artistic Experience (A) course	Expand Professional Network	
13-16	0	12-15		
Total Credits: 122-128				
1. Students must complete through the second semester of a first year language course or equivalent.				
2. Choose from MAT344 or PHY352/353				
3. Choose from PHY332/333 or PHY432/433				
This program assumes a student will use MAT124M and PHY292/292D to meet the general education Mathematics and Laboratory Science requirements.				
Most financial aid packages stipulate 12 credits/semester; Minnesota state grants 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 Physics Enhanced Academic Plan

B.S. in Physics - Humanities				
Recommended Courses				
Fall Semester 1	Interim Semester 1	Spring Semester 1	Career Planning and Preparation	R.E.A.L. Experience
PHY 292 & PHY 292D General Physics I and General Physics I Lab	GES 147 Humanities II: Renaissance and Reformation	PHY 296 & PHY 297 General Physics II and General Physics II Lab	PHASE 1: EXPLORE	Create your R.E.A.L. Portfolio
MAT 124M Calculus 1		GES 244 Humanities III: European Enlightenment and American Culture to 1877	<i>Explore self, careers, & God's call</i>	Consider joining Chemistry Club, Sigma Zeta, or another club or ministry of interest.
GES 145 Humanities I: Greco-Roman through Middle Ages		MAT 125 Calculus 2	Take a Career Assessment	Consider finding a mentor
GES 140 Introduction to Wellbeing		BIB 101 Introduction to the Bible	Research Careers: O*Net, Candid Careers, & informational interviews w/ Alums	
15	4	15	Gain Experience: Part-time job; Campus Involvement (e.g. student club); Volunteering	
MILESTONES: Consider study abroad options				
Recommended Courses				
Fall Semester 2	Interim Semester 2	Spring Semester 2	Career Planning and Preparation	R.E.A.L. Experience
PHY 302 & PHY 303 Electronics and Electronics Lab	World Cultures (U) course	PHY 312 & PHY 313 Modern Physics and Modern Physics Lab	PHASE 1&2: EXPLORE/EXPERIENCE	Continue adding artifacts and reflections to your R.E.A.L. Portfolio.
MAT 223 Multivariable Calculus		PHY 352 & PHY 353 *2 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab	<i>Finalize major if necessary & begin gaining experience</i>	Consider taking a leadership position with a student club.
COS 205 Scientific Computing		MAT 222 Differential Equations	Create/update Resume & LinkedIn	Consider going on a spring break mission trip.
GES 246 Humanities IV: Modern and Contemporary Western Culture		Second Language (S) course	Build professional network (e.g. informational interviews)	
			Attend Spring Career Fair	
14	3	15	Obtain Internship or relevant job by summer	
MILESTONES: Consider doing an online course over the summer				
Recommended Courses				
Fall Semester 3	Interim Semester 3	Spring Semester 3	Career Planning and Preparation	R.E.A.L. Experience
PHY 260 Careers in Engineering and Physics Seminar	Science, Technology and Society (K) course	PHY 332 & PHY 333 (or elective)*3 Optics/Optics Lab	PHASE 2: EXPERIENCE	Review your R.E.A.L. Portfolio and prepare to make it public.
PHY 320 Mathematical Methods in Physics and Engineering		PHY 340 Mechanics	<i>Use experiences to narrow down career choice & develop relevant skills</i>	Consider studying abroad.
PHY 400 Electricity and Magnetism		PHY 365 Physics Research Seminar	Participate in Fall & Spring Recruiting to obtain an internship	Consider applying for a Student Leadership Position in Student Life.
Comparative Systems (G) course		Interpreting Biblical Themes (J) course	Schedule a Mock Interview	Consider being a TA for a favorite class.
		Elective	Explore Grad Schools & Take Entrance Exams (e.g. GRE) if necessary	
12	3	15	Expand Professional Network	
MILESTONE: A minimum 3.2 GPA in your major is a good goal to strive for				
Recommended Courses				
Fall Semester 4	Interim Semester 4	Spring Semester 4	Career Planning and Preparation	R.E.A.L. Experience
PHY 440 Quantum Mechanics	Interim Off	PHY 410 Thermodynamics	PHASE 3: EXECUTE	Continue updating your public R.E.A.L. Portfolio with relevant experiences and reflection.
PHY 490 Research		PHY 432 & PHY 433 (or elective)*3 Topics in Contemporary Optics/Topics in Contemporary Optics Lab	<i>Execute an effective job or grad school search</i>	Consider mentoring an underclassman.
Cross Cultural Experience (Z) course		Contemporary Christian Issues (P) course	Participate in Fall and Spring Recruiting	
Leisure and Lifetime Sports (Q) course		Artistic Experience (A) course	Apply for Graduate School if necessary	
Elective		Elective	Expand Professional Network	
12-15	0	14-17		
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