



This is an example semester-by semester plan of study for Applied Physics, BS (270B), designed to prepare students for graduate work. It should be modified during consultation with a department advisor.

Shaded areas of plan require special attention.

Course Subject and Title	Credit Hours	Min. Grade Required	Included in Major GPA	Important Notes POS = Program of Study
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Semester One: [15 Credit Hours]

ENG 1000	3			May take in fall or spring semester of first year
UCO 1200	3			May take in fall or spring semester of first year
PHY 1150	5		X	Also counts in Gen Ed Science Inquiry requirement
MAT 1110	4	C-	X	Also meets Gen Ed Quantitative Literacy requirement

Semester Two: [15 Credit Hours]

PHY 1151	5		X	Also counts in Gen Ed Science Inquiry requirement
MAT 1120	4	C-	X	
Gen Ed Perspective	3			Fine Arts Designation
Gen Ed Perspective	3			

Semester Three : [15 Credit Hours]

ENG 2001	3			May take in fall or spring of sophomore year
Gen Ed Wellness Literacy	1			
PHY 2010	4	C	X	Min. grade C required for some upper level PHY courses
MAT 2130	4		X	
PHY 3210	3	C	X	Min. grade C required for some upper level PHY courses

Semester Four: [16 Credit Hours]

PHY 2020	4	C	X	Min. grade C required for some upper level PHY courses
PHY 2210	3		X	[WID]
PHY Concentration Course 1	3		X	See Area II. C. on POS for information on contract area; courses must be approved by the advisor (Total of 6 courses - 18 hours) A list of recommended courses is in the Additional Notes at the end of this guide.
Gen Ed Perspective	3			
Free Elective	3			

Semester Five: [16 Credit Hours]

PHY Concentration Course 2	3		X	
PHY Electives	3		X	A total of 5-7 hours of electives required to total 32 hours in Area II. A. physics courses on POS; A list of recommended courses is in the Additional Notes at the end of this guide
Gen Ed Perspective	3			Historical Studies Designation
Gen Ed Wellness Literacy	1			
Free Elective	3			
Free Elective	3			

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Semester Six: [15 Credit Hours]				
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PHY Concentration Course 3	3		X	
PHY Concentration Course 4	3		X	
PHY Electives	3		X	A total of 5-7 hours of electives required to total 32 hours in Area II. A. physics courses on POS; A list of recommended courses is in the Additional Notes at the end of this guide
Free Elective	3			
Gen Ed Perspective	3			Literary Studies Designation

Semester Seven: [15 Credit Hours]				
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PHY Elective	3		X	If needed to reach a total of 5-7 hours of electives required to total 32 hours in Area II. A. physics courses on POS; A list of recommended courses is in the Additional Notes at the end of this guide. Otherwise take Free Elective
PHY Concentration Course 5	3		X	
Gen Ed Perspective	3			
Elective	3			
Elective	3			

Semester Eight: [15 Credit Hours]				
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PHY Concentration Course 6	3		X	
PHY 4210	3		X	CAPSTONE
Gen Ed Perspective	3			
Elective	3			
Elective	3			At least 2 hours of electives must not be PHY; Take enough Free Electives to reach the minimum 122 required for the degree.

General Requirements Summary				
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Minimum Total Hours	Gen Ed. Hours	Writing	Minimum	
			Major GPA	Overall GPA
122	44	ENG 1000 and ENG 2001	2.0	2.0

All PHY & AST courses and all courses in Area II on Program of Study count in the major GPA.



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General Education Program Model - 44 Semester Hours Total		
Program Categories	Hours	Important Notes – <i>Be sure to check for Gen Ed courses required in your major</i>
First Year Seminar	3	Can be taken first or second semester of freshman year
Wellness Literacy	2	
Quantitative Literacy	4	
First Year Writing	3	Can be taken first or second semester of freshman year
Sophomore Writing	3	
Perspectives:	29	
Aesthetic	6 or 9	
Historical & Social	6 or 9	
Local to Global	6 or 9	
Science Inquiry	8	

Additional Notes:

- This curriculum is designed for students planning on continuing to graduate school in physics and includes a minor in Math. The concentration courses shown exceed the 18 credits required for the degree.
- Recommended Courses to take in the concentration, as physics electives, and as free electives:
 - CS 1440 Computer Science I (4) OR CS 1445 Intro Programming w/Intedisc App (4)
 - MAT 2240 Linear Algebra (3) (*Pre: MAT 1120*)
 - MAT 3130 Differential Equations (3) (*Pre: MAT 1120; recommended pre: MAT 2240*)
 - PHY 3001 Analytical Methods in Physics (3) (*Pre: MAT 2130 w/grade of C; Co: PHY 2020*) Spring semester only
 - PHY 3010 Classical Physics (3) (*Pre: MAT 3130*) Fall semester only
 - PHY 3020 Electromagnetic Fields & Waves (3) (*Pre: PHY 2020 & 3001 w/grade of C; MAT 3130*) Spring semester only
 - PHY 3211 Modern Physics II (3) (*Pre: PHY 1151; Co: PHY 2010*) Spring semester only
 - PHY 3230 Thermal Physics (3) (*Pre: PHY 1104 or 1151; MAT 2130*) Spring semester only
 - PHY 4020 Computational Meth in Phy & Eng (3) (*Pre: PHY 2020 w/grade of C; MAT 2130; Sr standing*) Fall semester only
 - PHY 4620 Optics (4) (*Pre: MAT 3130; Co: PHY 3020; Sr standing*) Spring semester only
 - PHY 4640 Quantum Mechanics (3) (*Pre: PHY 3010 & PHY 3210 w/grade of C; MAT 3130; Sr standing*) Spring semester only
- A contract with a list of the approved courses MUST be filed with the College of Arts & Sciences Dean’s Office no later than the end of the first semester of junior year.
- Residency Requirements:
 - 31 hours must be from ASU
 - 18 hours in the major must be from ASU
 - 9 hours in the minor must be from ASU