



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]**

RC 1000	3			May take in fall or spring semester of first year
Liberal Studies Experience Course 1	3			HS or LS or FA or SS Designation
PHY 1150	5	C-	X	Also counts in <b>Gen Ed Science Inquiry</b> requirement
MAT 1110	4	C-	X	Also meets <b>Gen Ed Quantitative Literacy</b> requirement ( <i>PRE: MAT 1025 or equivalent test score</i> )

**Semester Two: [15 Credit Hours]**

UCO 1200	3			May take in fall or spring semester of first year
PHY 1151	5	C-	X	Also counts in <b>Gen Ed Science Inquiry</b> requirement
MAT 1120	4	C-	X	
Integrative Learning Experience Course 1	3			

**Semester Three : [15 Credit Hours]**

RC 2001	3			May take in fall or spring of sophomore year
Gen Ed Wellness Literacy	1			
PHY 2010	4	C-	X	
MAT 2130	4		X	
PHY 2110	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 Emphasis Area Course 1	3		X	See <b>Emphasis Area</b> section on POS for information on contracted courses; Courses must be approved by the advisor (Total of 8 courses - 24 hours); A list of recommended courses is in the Additional Notes at the end of this guide.
PHY Emphasis Area Course 2	3		X	
Liberal Studies Experience Course 2	3			HS or LS or FA or SS Designation
Free Elective	3			

**Semester Five: [16-17 Credit Hours]**

PHY Emphasis Area Course 3	3		X	
PHY Electives Course 1	3-4		X	<b>Physics</b> area on POS; A total of 10 hours required for students who took PHY 1150/1151 sequence; ( <i>A total of 12 hours required for students who took PHY 1103/1104 sequence</i> ); See notes at the end of this guide for recommendations.
Integrative Learning Experience Course 2	3			HS or LS or FA or SS Designation
Gen Ed Wellness Literacy	1			
Free Elective	3			
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**Semester Six: [15 Credit Hours]**

PHY 3310	3		X	[WID] (CO: PHY 2020) (Spring Only)
PHY Emphasis Area Course 4	3		X	
PHY Electives Course 2	3		X	<b>Physics</b> area on POS; A total of 10 hours required for students who took PHY 1150/1151 sequence; (A total of 12 hours required for students who took PHY 1103/1104 sequence.) See notes at the end of this guide for recommendations.
Liberal Studies Experience Course 3	3			
Free Elective	3			

**Semester Seven: [15-16 Credit Hours]**

PHY Electives Course 3	3-4		X	<b>Physics</b> area on POS; A total of 10 hours required for students who took PHY 1150/1151 sequence; (A total of 12 hours required for students who took PHY 1103/1104 sequence.) See notes at the end of this guide for recommendations.
PHY Emphasis Area Course 5	3		X	
PHY Emphasis Area Course 6	3		X	
Integrative Learning Experience Course 3	3			
Liberal Studies Experience Course 4	3			HS or LS or FA or SS Designation

**Semester Eight: [11-13 Credit Hours]**

PHY 4210	4		X	<b>CAPSTONE</b>
PHY Emphasis Area Course 7	3		X	
PHY Emphasis Area Course 8	3		X	
Free Elective	1-3*			Take enough hours to meet the minimum 120 required to graduate

**General Requirements Summary**

Minimum Total Hours	Gen Ed. Hours	Writing	Minimum	
			Major GPA	Overall GPA
120	44	RC 1000 and RC 2001	2.0	2.0

**All PHY & AST courses and all courses in Major Requirements area on Program of Study count in the major GPA.**

**General Education Program Model - 44 Semester Hours Total**



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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	
Integrative Learning Experience	9	Must choose a minimum of two disciplines
Liberal Studies Experience	12	Must choose a minimum of three disciplines
Science Inquiry	8	

You must also meet the Fine Arts, Literary Studies, Historical Studies, and the Social Science Designations. Those may be met within the Integrative Learning Experience and the Liberal Studies Experience.

**Additional Notes:**

- This curriculum is designed for students planning on continuing to graduate school in physics and can include a minor in Math.
- 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/Interdisciplinary Applications (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:
  - 30 hours must be from ASU
  - 18 hours in the major must be from ASU
  - 9 hours in the minor must be from ASU