



**California State Polytechnic University, Pomona
Degree Curriculum Sheet**

Plan (Major) **PHYSICS**

Catalog Year **2014 - 2015**

Name _____

Subplan/Option _____

Minimum Units Required **180**

Student ID _____

Required Core Courses		
Course		Units
Required of all students. A minimum 2.0 cumulative GPA is required in core courses, including subplan courses, in order to receive a degree in the major.		
General Physics & Lab	PHY 131/131L	3/1
General Physics & Lab	PHY 132/132L	3/1
General Physics & Lab	PHY 133/133L	3/1
Intro to Electromagnetic Radiation and Special Relativity & Lab	PHY 234/234L	3/1
Intro to Quantum Physics & Lab	PHY 235/235L	3/1
Fundamentals of Math Physics	PHY 308	4
Fundamentals of Math Physics	PHY 309	4
Physics of Electric and Magnetic Phenomena	PHY 314	4
Physics of Electric and Magnetic Phenomena	PHY 315	4
Mechanics	PHY 321	4
Mechanics	PHY 322	4
Thermal Physics	PHY 333	4
Quantum Mechanics	PHY 401	4
Quantum Mechanics	PHY 402	4
Advanced Physics Lab	PHY 430L	1
Solid State Physics Lab	PHY 431L	1
Nuclear Physics Lab	PHY 432L	1
Undergraduate Seminar	PHY 463	2
Total Units		61

Elective Core Courses		
Course		Units
<i>Students must selected 8 units of courses from the list below.</i>		
A minimum 2.0 cumulative GPA is required in core courses, including subplan courses, in order to receive a degree in the major.		8
Electronics for Scientists & Lab	PHY 304/304L	(3/1)
Special Study for Upper Division Students (up to 4 units total)	PHY 400	(1-2)
Computational Physics	PHY 409	(4)
Optics & Lab	PHY 417/417L	(3/1)
Internship in Physics (up to 4 units total)	PHY 441	(2)
Senior Project <i>and</i>	PHY 461	(2)
Senior Project	PHY 462	(2)
Total Units		8

Required Support Courses		
Course		Units
The following required support courses should be taken to satisfy the indicated GE Requirements to achieve the minimum units to degree listed at the top of this sheet.		
Life Science & Lab (B2, B3)	BIO 110/111L	3/1
or Foundations of Biology & Lab (B2, B3)	BIO 121/121L	(3/2)
General Chemistry & Lab (B1, B3)	CHM 121/121L	3/1
General Chemistry & Lab	CHM 122/122L	3/1
General Chemistry & Lab	CHM 123/123L	3/1
Intro to C++	CS 128	4
Analytic Geometry & Calculus I (B4)	MAT 114	4
Analytic Geometry & Calculus II	MAT 115	4
Analytic Geometry & Calculus III	MAT 116	4
Calculus of Several Variables I	MAT 214	3
Calculus of Several Variables II	MAT 215	3
Differential Equations	MAT 216	4
Total Units		42-43

Elective Support Courses	
Course	Units
<i>Advanced Electives</i> (To be chosen from upper division courses in Physics or related fields in consultation with advisor; at least 4 of these units must be in Physics).	12
Total Units	12

Unrestricted Electives	
Course	Units
Select a sufficient number of courses so that the total from "Required Support", "GE", and "Unrestricted Electives" is at least 99 units.	0-1
Total Units	0-1

General Education Requirements	
Area	Units
Area A Communication & Critical Thinking	12
1. Oral Communication	
2. Written Communication	
3. Critical Thinking	
Area B Mathematics & Natural Sciences	16
<i>Select at least one lab course from subarea 1 or 2.</i>	
1. Physical Science	
2. Biological Science	
3. Laboratory Activity	
4. Math/Quantitative Reasoning	
5. Science & Technology Synthesis	
Area C Humanities	16
1. Visual and Performing Arts	
2. Philosophy and Civilization	
3. Literature and Foreign Language	
4. Humanities Synthesis	
Area D Social Sciences	20
1. U.S. History, Constitution, American Ideals	
a. United States History	
b. Introduction to American Government	
2. History, Economics and Political Science	
3. Sociology, Anthropology, Ethnic & Gender Studies	
4. Social Science Synthesis	
Area E Lifelong Understanding & Self Development	4
Total Units	68

American Institutions	
Courses that satisfy this requirement may also satisfy GE Area D1	8

American Cultural Perspectives Requirement	
Refer to catalog for list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.	4

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the quarter following completion of 120 units for undergraduates.