2011-13 Cal Poly Catalog

Physics Department

BA PHYSICS

- 60 units upper division
- 2.0 GPA
- GWR
- USCP
- * = Required in Major; also satisfies GE

Course sequencing: See flowcharts at www.csmadvising.calpoly.edu/

Note: Major courses with lab component may not be taken credit/no credit.

MAJOR COURSES

PHYS 141 General Physics IA ........................................ 4
PHYS 132 General Physics II (B3 & B4)* ..................... 4
PHYS 133 General Physics III ...................................... 4
PHYS 206 Instrumentation in Experimental Physics .... 3
PHYS 211 Modern Physics I ........................................ 4
PHYS 212 Modern Physics II ...................................... 4
PHYS 256 Electrical Measurements Laboratory ...... 1
PHYS 310 Thermal Physics I ...................................... 4
PHYS 302 Classical Mechanics I ............................... 4
PHYS 322 Vibrations and Waves ............................. 3
PHYS 405 Quantum Mechanics I or
PHYS 412 Solid State Physics ................................. 3-4
PHYS 461 Senior Project I or
PHYS 463 Senior Project - Lab Research I .......... 2
Select one from the following: ................................. 3-4
   HIST 350 The Scientific Revolution, c. 1500-1800 (D5) (5/24/12)
2 PHIL 321 Philosophy of Science (4) (C4*),
3 PHIL 421 Phil. of Space, Time and Matter (4),
   or SCM 451 Ethics in the Sciences (3)
CHEM 127 General Chemistry ................................. 4
CHEM 128 General Chemistry ................................. 4
MATH 141 Calculus I (B1) ........................................ 4
MATH 142 Calculus II (B1)* ................................... 4
MATH 143 Calculus III ........................................... 4
MATH 241 Calculus IV ........................................... 4
MATH 244 Linear Analysis I .................................... 4
MATH/STAT elective (300-400 level; MATH 344 recommended) ........................................ 4
Physics electives (300-400 level) .............................. 16
Select at least one of the following:
PHYS 323, 340, 341, 342, 357, 417, 422, 423, 452, ASTR 444. In addition, choose courses with the prefixes PHYS, ASTR or GEOL (but no more than 6 units from each of ASTR and GEOL)

91-93

GENERAL EDUCATION (GE)

72 units required, 12 of which are specified in Major.
→See page 39 for complete GE course listing.
→Minimum of 12 units required at the 300 level.

Area A Communication (12 units)

A1 Expository Writing .......................................... 4
A2 Oral Communication ......................................... 4
A3 Reasoning, Argumentation, and Writing .......... 4

Area B Science and Mathematics (4 units)

B1 Mathematics/Statistics * 8 in Major ............... 0
B2 Life Science .................................................. 4
B3 Physical Science * 4 in Major ......................... 0
B4 One lab taken with either a B2 or B3 course

Area C Arts and Humanities (20 units)

C1 Literature ..................................................... 4
C2 Philosophy .................................................... 4
C3 Fine/Performing Arts ...................................... 4
C4 Upper-division elective .................................. 4
Area C elective (Choose one course from C1-C4) .. 4

Area D/E Society and the Individual (20 units)

D1 The American Experience (40404) ................. 4
D2 Political Economy .......................................... 4
D3 Comparative Social Institutions ...................... 4
D4 Self Development (CSU Area E) ....................... 4
D5 Upper-division elective ................................. 4

Area F Technology Elective (upper division) (4 units)

60

FREE ELECTIVES .............................................. 27-29 †

180

† The following major courses cannot be taken as CR/NC grading: PHYS 132, 133, 256, 323, 340, 341, 342, 357, 417, 422, 423, 452, ASTR 444.
2 Note (C2) prerequisite for this course.
3 Note PHIL 230 or 231 (C2) prerequisite for this course.
4 Care must be taken when selecting electives to ensure compliance with the “60 unit upper division” requirement.