CAL POLY
SAN LUIS OBISPO

B.S. in PHYSICS
Suggested 4-Year Academic Flowchart

2015-17 Catalog

Updated 6/22/2015

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
	General Physics IA **PHYS 141 (4)** (MATH 141 w/min C- & MATH 142 or 182†)	*General Physics II* **PHYS 132 (4)** (PHYS 131 or 141 or HNRS 131) [B3/B4]	*General Physics III* **PHYS 133 (4)** (PHYS 131 or 141 or HNRS 131, & MATH 142. Recom: MATH 241)	*Modern Physics I* **PHYS 211 (4)** (PHYS 132, 133, & MATH 241)	*Modern Physics II* **PHYS 212 (4)** (PHYS 211)	*Classical Mechanics I* **PHYS 302 (4)** (PHYS 131 or 141; MATH 241; MATH 242 or 244)	*Thermal Physics* **PHYS 301 (4)** (PHYS 211)	*Quantum Mechanics I* **PHYS 405 (4)** (PHYS 212; 302; 322; MATH 241; 242 or 244; Recom: MATH 344)	*Electromagnetic Fields & Waves I* **PHYS 408 (4)** (PHYS 133, MATH 304)	**Advanced Physics Elective** **(4)[4]** *	**Advanced Physics Elective** **(4)[4]** *
Calculus I **MATH 141 (4)[1]** * [B1]	*Calculus II* **MATH 142 (4)[1]** (MATH 141 w/min C-) [B1]	*Calculus III* **MATH 143 (4)[1]** (MATH 142 w/min C-)	*Calculus IV* **MATH 241 (4)** (MATH 143)	*Linear Analysis I* **MATH 244 (4)** (MATH 143)	*Linear Analysis II* **MATH 344(4)** (MATH 206 & 242, or 241 & 244)	*Vibrations and Waves* **PHYS 322 (3)** (PHYS 132; MATH 242 or 244. Recom: MATH 344)	*Quantum Physics Laboratory II* **PHYS 341 (2)** (PHYS 340)	*Vector Analysis* **MATH 304 (4)** (MATH 206 or 244, & MATH 241)	**Senior Project** **PHYS 461 or 463 (2)** (Instructor Consent)	**Senior Project II** **PHYS 462 or 464 (2)** (Instructor Consent)	**Advanced Physics Elective** **(4)[4]** *
General Chemistry for Physical Science & Engineering I **CHEM 124 (4)[2]** *	*General Chemistry for Physical Science & Engineering II* **CHEM 125 (4)[2]** (CHEM 124)	**GE (4)** **	**GE (4)** **	*Experimental Physics* **PHYS 206 (3)** (PHYS 133, MATH 143. Concurrent: PHYS 256)	*Physics on the Computer* **PHYS 202 (4)** (PHYS 133 and MATH 241 or 244)	*Quantum Physics Laboratory I* **PHYS 340 (2)** (PHYS 212, 256, & one: PHYS 202, CSC 101, 231, or 234)	**Advanced Physics Elective** **(4)[4]** *	**Advanced Physics Elective** **(3)[4]** *	**Advanced Physics Elective** **(2)[4]** *	**GE (4)** **	**GE (4)** **
GE (4) **	**Free Elective (0-2)[3]**	**Free Elective (0-1)[3]**	**GE (4)** **	*Electrical Measurements Laboratory* **PHYS 256 (1)** (PHYS 133, MATH 143, Concurrent: PHYS 206)	**GE (4)** **	**GE (4)** **	**GE (4)** **	**GE (4)** **	**GE (4)** **	**Free Elective (4)[3]**	**Free Elective (0-4)[3]**
Free Elective (0-2)[3]				**GE (4)** **							
Expository Writing **ENGL 133/134 (4)**** [A1] Can be taken anytime during Freshman Year											
Oral Communication **COMS 101/102 (4)**** [A2] Can be taken anytime during Freshman Year											
	Reasoning, Argumentation, & Writing [A3] **COMS 126; COMS/ENGL 145; ENGL 148; PHIL 126 (4)**** (Completion of GE A1 with a C- or better) Can be taken anytime between Winter of Freshman and Winter of Sophomore Years.					**Graduation Writing Requirement GWR*** (Students can attempt to fulfill the requirement after 90 earned units; students should complete the requirement before senior year)					
16-18	16-18	16-17	16	16	16	13	14	15	12	14	12-16
										TOTAL:	180

Notes:

MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET

* Refer to current catalog for prerequisites.

** One course from each of the following GE areas must be completed: A1, A2, A3, B2, C1, C2, C3, C4, C1-C5 elective, D1, D2, D3, D4, D5 and F. C4, D5 and F should be taken only after Junior standing is reached (90 units).

Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement (GWR).

USCP requirement can be satisfied by some (but not all) courses within GE categories: C3, C4, D1, D3, D4, D5 or F.

[1] Calculus workshops (Math 151, 152, 153) are recommended for elective credit. They require concurrent enrollment in the associated section of Calculus.

[2] Supplemental Workshops (SCM 150) recommended in your first year. These courses will count for elective credit.

[3] 8 total units of elective credit required for the major. Electives can be taken at anytime. MATH 151 & SCM 150 workshops recommended.

[4] Complete 21 units of Advanced Physics Electives. Select 9 units of PHYS 300 or 400 level electives. Select an additional 9 units of 300-400 courses from the following prefixes: PHYS/ASTR/GEOL/MATH/STAT/CSC with at least 2 courses from PHYS 323, 342, 357, 417, 422, 423, 452; ASTR 444.

† Course can be taken previously or concurrently.

Legend:

Course Title
Course # (Units)
(Prerequisite)
[GE Area]

Major (112)
General Ed. (60)
Free Electives (8)