CAL POLY
SAN LUIS OBISPO

# B.S. in ELECTRICAL ENGINEERING
Suggested 4-Year Academic Flowchart

**2013-15 Catalog**

Updated 8/11/2014

| FRESHMAN | | | SOPHOMORE | | | JUNIOR | | | SENIOR | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fall | Winter | Spring | Fall | Winter | Spring | Fall | Winter | Spring | Fall | Winter | Spring |
| *Introduction to Electrical Engineering* **EE 111 (1) & EE 151 (1)** | *Calculus II* **MATH 142 (4)** (MATH 141 w/min C-) [B1] | *Electric Circuit Analysis I* **EE 112 (2)** (MATH 142; Recom: EE 111 & 151) | *Electric Circuit Analysis & Lab II* **EE 211 (3) & EE 241 (1)** (EE 112, PHYS 133†, MATH 244†) | *Electric Circuit Analysis & Lab III* **EE 212 (3) & EE 242 (1)** (MATH 244, EE 211/241) | *Energy Conversion Electro-magnetics* **EE 255 (3) & EE 295 (1)** (EE 212 & 242) | *Semiconductor Device Electronics* **EE 306 (3)* & EE 346 (1)*** | *Digital Electronics and Integrated Circuits* **EE 307 (3)* & EE 347 (1)*** | *Analog Electronics and Integrated Circuits* **EE 308 (3)* & EE 348 (1)*** | *Electronic Design* **EE 409 (3)* & EE 449 (1)*** | | **GE (4)** ** |
| | *General Physics IA* **PHYS 141 (4)** (MATH 141 w/min C-, MATH 142† or 182†) [Add'l Area B] | *Fundamentals of Computer Science I* **CSC 101 (4)** (MATH 118 w/min C-, or Instr. consent) | *Digital Design and Lab* **EE 129 (3)* & EE 169 (1)* OR CPE/EE 133 (4)*** | *Computer Design and Assembly* **EE 229 (3)* & EE 269 (1)* OR CPE/EE 233 (4)*** | *Continuous-Time Signals & Systems* **EE 228 (4)** (EE 212 & 242; Recom: MATH 241) | *Discrete Time Signals and Systems* **EE 328 (3) & EE 368 (1)** (EE 228) | *Classical Control Systems* **EE 302 (3) & EE 342 (1)** (EE 228; Recom: EE 368) | *Programmable Logic and Microprocessor System Design* **EE 329 (4)*** OR **EE 336 (4)*** | Technical Elective (4) *** | Technical Elective (4) *** | Technical Elective (4) *** |
| *Basic Electronics Manufacturing* **IME 156 (2) or IME 157 (4)** | | | *Linear Analysis I* **MATH 244 (4)** (MATH 143) | *Calculus IV* **MATH 241 (4)** (MATH 143) | | *Probability and Random Processes for Engineers* **STAT 350 (4)** (MATH 241, EE 228) [B6] | *Introduction to Communication Systems* **EE 314 (3)** (STAT 350) | | *Senior Project Preparation* **EE 460 (2)** (EE 314, 335, EE 409† & 449†) | *Senior Project I* **EE 461 (3) or EE 463 (3)** (EE 409, 449, 460) | *Senior Project II* **EE 462 (2)* or EE 464 (2)*** |
| *Calculus I* **MATH 141 (4)*** [B1] | | *Calculus III* **MATH 143 (4)** (MATH 142 w/min C-) [Add'l Area B] | | | | | | | | | |
| *General Chemistry for the Engineering Disciplines I* **CHEM 124 (4)*** [B3/B4] | **GE (4)** ** | *General Physics III* **PHYS 133 (4)** (PHYS 131, HNRS 131, or PHYS 141; MATH 142; Recom: MATH 241) | *General Physics II* **PHYS 132 (4)** (PHYS 131, HNRS 131, or PHYS 141) | **Take concurrently: BIO 213 (2), ENGR/BRAE 213 (2)** (MATH 142, Recom: CHEM 124) [B2] | *Modern Physics I* **PHYS 211 (4)** (PHYS 132, 133, MATH 241) | | | *Electromagnetic Fields and Transmission & Lab* **EE 335 (4)* & EE 375 (1)*** | *Electromagnetic Waves* **EE 402 (4)** (EE 335) | **GE (4)** ** | **GE (4)** ** |
| *Expository Writing* **ENGL 133/134 (4)**** [A1] Can be taken anytime during Freshman Year | | | | | **GE (4)** ** | **GE (4)** ** | **GE (4)** ** | **GE (4)** ** | Approved Engineering Support Electives **(3)** *** | Approved Engineering Support Electives **(3)** *** | Approved Engineering Support Electives **(3)** *** |
| *Oral Communication* **COMS 101/102 (4)**** [A2] Can be taken anytime during Freshman Year | | | | | | | | | | | |
| *Technical Writing for Engineers* **ENGL 149 (4)** [A3] (Completion of GE A1 with a C- or better, Recommended: Completion of GE A2) Can be taken anytime between Winter of Freshman and Winter of Sophomore Years | | | | | | | | | | | |
| | | | | | | *Graduation Writing Requirement* **GWR*** (Can be taken any time after 90 earned units) | | | | | |
| 16 | 16 | 18 | 16 | 16 | 16 | 16 | 15 | 17 | 17 | 14 | 17 |
| | | | | | | | | | | TOTAL: | 194 |

## 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, C1, C2, C3, C4, D1, D2, D3, D4. C4 should be taken only after Junior standing is reached (90 units).

*** Refer to current catalog for course selection.

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, or D4.

**MAJOR COURSES SHOULD BE TAKEN IN QUARTERS DESIGNATED ON THIS EE FLOWCHART**

† Course can be taken previously or concurrently.

## Legend:

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

**Major (87)**

**Support (67)**

**General Ed. (40)**