CAL POLY
SAN LUIS OBISPO

B.S. in CIVIL ENGINEERING
Suggested 4-Year Academic Flowchart

2015-17 Catalog

Updated 9/22/2015

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
Design Principles in Civil Engineering **CE 112 (2)** (MATH 141)				*Mechanics of Materials I* **CE 204 (3)** (ME 211)	*Programming Applications in Engineering* **CE 251 (2)** (CE 113, CE 204, MATH 244)				*Civil Engineering Professional Practice* **CE 465 (1)** (Sr Standing and Instr. Consent)	*Senior Design Project I and II* **CE 466 (3)[1]** (CE 321, 322, 336, 337, 355, 381, 382, 465)	**CE 467 (3)[1]** (CE 466)
Computer Aided Drafting in Civil Engineering **CE 113 (2)** (ENVE 111 or CE 112†)						*Structural Engineering* **CE 352 (4)** (CE 207. Coreq: CE 251)					
Introduction to Civil Engineering **CE 111 (1)**	*General Chemistry for Physical Science & Engineering I* **CHEM 124 (4)** * [B3/B4]	*General Chemistry for Physical Science & Engineering II* **CHEM 125 (4)** (CHEM 124)	*Engineering Statics* **ME 211 (3)** (MATH 241†, PHYS 131 or 141)	*Engineering Dynamics* **ME 212 (3)** (MATH 241; ME 211 or ARCE 211)	*Civil Engineering Materials* **CE 259 (2)** (CE 204)		*Reinforced Concrete Design* **CE 355 (4)** (CE 259, CE 351 or CE 352)				
Calculus I **MATH 141** * [B1]	*Calculus II* **MATH 142 (4)** (MATH 141 w/min C-) [B1]	*Calculus III* **MATH 143 (4)** (MATH 142 w/min C-) [Add'l Area B]	*Calculus IV* **MATH 241 (4)** (MATH 143)	*Linear Analysis I* **MATH 244 (4)** (MATH 143)	*Mechanics of Materials II* **CE 207 (2)** (CE 204)	*Fundamentals of Transportation Engineering and Lab* **CE 321 (3)** *and* **CE 322 (2)** (PHYS 141, CE 259)			Approved Technical Elective **(4)** ***	Approved Technical Elective **(4)** ***	Approved Technical Elective **(4)** ***
						Water Resources Engineering and Hydraulics Lab **CE 336 (4)** *and* **CE 337 (1)** (ME 341 or ENVE 264)					
						Geotechnical Engineering and Lab **CE 381 (4)** *and* **CE 382 (1)** (CE 207; ME 341 or ENVE 264)					
Engineering Surveying **BRAE 239 (4)** (MATH 119 or equiv.)	*General Physics IA* **PHYS 141 (4)** * [Add'l Area B]	*General Physics II* **PHYS 132 (4)** (PHYS 131, HNRS 131, or PHYS 141)	*General Physics III* **PHYS 133 (4)** (PHYS 131, 141, or HNRS 131; MATH 142. Recom: MATH 241)	*Materials Engineering* **MATE 210 (3)** (CHEM 111, 124, or 127. Recom: MATE 215 concur.)	*Fluid Mechanics I* **ME 341 (3)** (ME 212 or ARCE 225)	*Thermodynamics I* **ME 302 (3)** (PHYS 132; ME 212 or CHEM 128)	*Introduction to Environmental Engineering* **ENVE 331 (4)** (CHEM 125 or 128, MATH 242 or 244†)	*Statistical Methods for Engineers* **STAT 312 (4)** (MATH 142) [B6]	Approved Technical Elective **(4)** ***	Approved Technical Elective **(4)** ***	Approved Technical Elective **(4)** ***
Expository Writing **ENGL 133 or 134 (4)**** [A1] Can be taken anytime during Freshman Year				*Materials Laboratory I* **MATE 215 (1)** (MATE 210†)	**GE (4)** **	**Take concurrently: BIO 213 (2), BMED/BRAE 213 (2)** (MATH 142, Recom: CHEM 124) [B2]	*Physical Geology* **GEOL 201 (3)** (MATH 119)	Approved Engineering Science Elective **(2-4)** ***	**GE (4)** **	**GE (4)** **	**GE (4)** **
Oral Communication **COMS 101 or 102 (4)**** [A2] Can be taken anytime during Freshman Year									**GE (4)** **		
GE (4) **				**GE (4)** **				**GE (4)** **			
	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*** (Students can attempt to fulfill the requirement after 90 earned units; students should complete the requirement before senior year)					
17	18	14	15	18	13	16	16	15-17	17	15	15
										TOTAL:	189-191

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 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.

*** Refer to current catalog for course selection and guidelines for technical electives.

† Course can be taken previously or concurrently.

[1] Alternatives to CE 466/467 include, but are not limited to, *Community Engineering Senior Project I and II* CE 468 (3) and CE 469 (3). Students interested in alternatives to CE 466/467 should contact the CEENVE Department Office.

Legend:

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

Major (68)
Support (81-83)
General Ed. (40)