

2011-13 Cal Poly Catalog
Civil & Environmental Engineering Department

BS CIVIL ENGINEERING

- ☐ 60 units upper division ☐ GWR
- ☐ 2.0 GPA ☐ USCP

* = Required in Support; also satisfies GE
 Note: No major or support courses may be taken as credit/no credit.

MAJOR COURSES

CE 111 Introduction to Civil Engineering.....	1
¹ CE 112 Design Principles in Civil Engineering	2
¹ CE 113 Computer-Aided Drafting in Civ Engr.....	2
⁶ CE 201 Mechanics of Materials (6) or CE 204, CE 207 Mechanics of Materials I, II (3)(3-2)(12/1/15) ..	5-6
CE 321, 322 Fund Transportation Engr and Lab.....	3,2
⁵ CE 251 Numerical Methods in Civil Engineering.....	4
CE 259 Civil Engineering Materials.....	2
CE 336 Water Resources Engineering	4
CE 337 Hydraulics Laboratory.....	1
CE 351 Structural Analysis or CE 352 (2/10/16).....	4
CE 355 Reinforced Concrete Design.....	4
CE 356 Structural Steel Design	4
CE 381, 382 Geotechnical Engineering and Lab.....	4,1
CE 466, 467 or CE 468, 469	3,3
^{2,3} Technical electives	24

In consultation with faculty advisor, select 24 units from CE 371 or CM 371, any 400-500 level CE and ENVE courses not required in the major, ENVE 325, and a maximum of 4 units from the following list: (5/21/13)

ARCE 305, 372, 403;
 BRAE 345, 447, 532;
 CE/ME/BMED 404; CE 465 (4/11/15)
 CHEM 318, 341;
 CM 333, 364, 432, 454;
 CRP 420, 435; CRP/NR 404, 408,
 ERSC/GEOL 401, 402; GEOL 415;
 IME 314;
 MATE 425, 450;
 MATH 344;
 LA/NR 318;
 SS 423, 442; SS/BIO/NR 421

(12/1/15) **73-74**

SUPPORT COURSES

BIO 213 and ENGR/BRAE 213 (B2)*	2,2
BRAE 239 Engineering Surveying	4
CHEM 124 Gen Chem for Engineering (B3/B4)*	4
CHEM 125 Gen Chem for Engineering	4
ENGL 149 Technical Writing for Engineers (A3)*	4
ENVE 331 Intro to Environmental Engineering.....	4
GEOL 201 Physical Geology	3
MATE 210 Materials Engineering	3
MATE 215 Materials Laboratory I.....	1
MATH 141, 142 Calculus I, II (B1)*	4,4
MATH 143 Calculus III (Add'l Area B)*	4

MATH 241 Calculus IV.....	4
MATH 244 Linear Analysis I	4
ME 211 Engineering Statics.....	3
ME 212 Engineering Dynamics	3
ME 302 Thermodynamics I.....	3
ME 341 Fluid Mechanics I.....	3
PHYS 141 General Physics IA (Add'l Area B)*	4
PHYS 132, 133 General Physics II, III	4,4
STAT 312 Statistical Methods for Engineers (B6)* ..	4
^{2,4} Approved engineering science elective.....	3

Select 3 units from:
 CSC 231, 234, 270, 341, 342;
 EE 201; IME 314; MATH 206, 211, 304, 344

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GENERAL EDUCATION (GE)

72 units required, 32 of which are specified in Support.
 →See page 39 for complete GE course listing.
 →Minimum of 8 units required at the 300 level.

Area A Communication (8 units)

A1 Expository Writing	4
A2 Oral Communication	4
A3 Reasoning, Argumentation, and Writing * 4 units in Support	0

Area B Science and Mathematics (no addl units req'd)

B1 Mathematics/Statistics * 8 units in Support..	0
B2 Life Science * 4 units in Support.....	0
B3 Physical Science * 4 units in Support.....	0
B4 One lab taken with either a B2 or B3 course	
B5 (not required for Engineering students)	
B6 Upper-division Area B * 4 units in Support ..	0
Additional Area B units * 8 units in Support	0
Area C Arts and Humanities (16 units)	
C1 Literature	4
C2 Philosophy	4

- ¹ CE 114 substitutes for CE 112 and CE 113.
- ² Consultation with advisor is recommended prior to selecting technical electives or approved electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.
- ³ Additional guidelines for technical electives:
 - a) More than 4 units of coursework outside CE/ENVE is only permitted in special/unusual cases and requires written justification by the student, and approval by the Department Chair.
 - b) No more than 4 combined units of CE 400, 500 and ENVE 400, 500 can count towards the degree **require a course substitution form and no more than 4 total units are allowed. (10/15/15)**
 - c) No more than 8 combined units of CE/ENVE 470, 471, 570, 571 can be credited.
 - d) Co-op, graduate seminar, senior project/design, and thesis courses are not permitted.
 - e) Only one course can be credited for CE 458/558; 459/556.
- ⁴ The courses selected to satisfy this requirement may not be used to satisfy other major, support, or general education requirements (no double counting of coursework).
- ⁵ If CE 251 is taken for 2 units then an additional 2 units of Technical Electives is required. (6/7/13)
- ⁶ If CE 207 is taken for 2 units than one additional unit of Technical Electives is required the department waives the third unit. (7/30/15)(12/1/15)

C3 Fine/Performing Arts	4
C4 Upper-division elective	4
Area D/E Society and the Individual (16 units)	
D1 The American Experience (40404)	4
D2 Political Economy	4
D3 Comparative Social Institutions	4
D4 Self Development (CSU Area E)	4
	40
FREE ELECTIVES	0
<i>(12/1/15)</i>	195 - 196