

2009-11 Cal Poly Catalog**Civil & Environmental Engineering Department****Flowchart****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
CE 201 Mechanics of Materials (6) or CE 204, CE 207 Mechanics of Materials I, II (3)(3)	6
CE 321, 322 Fund Transportation Engr and Lab	3,2
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	4
CE 355 Reinforced Concrete Design	4
CE 356 Structural Steel Design.....	4
CE 381, 382 Geotechnical Engineering and Lab	4,1
CE 461, 462 or CE 466, 467 or CE 468, 469	3,3
² Advisor approved emphasis area to be selected from: general civil, geotechnical, structural, transportation, or water resources engineering	14
^{2,3,4} Advisor approved technical electives	10
	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
⁵ Advisor approved engineering science elective	3
	82

GENERAL EDUCATION (GE)

72 units required, 32 of which are specified in Support.

→See page 50 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 (requirement for Liberal Arts students only)	
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
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

ELECTIVES	0
	196

¹ CE 114 substitutes for CE 112 and CE 113. (7/24/09)² To be selected after consultation with academic advisor.³ More than 4 units of advisor-approved coursework outside CE/ENVE is only permitted in special/unusual cases, requires written justification by the student, and approval by the Department Chair.⁴ No more than 4 total units of advisor-approved technical elective credit from CE 400, 500 and ENVE 400, 500 combined.⁵ Please see www.eadvice.calpoly.edu/ for the current list of approved courses.