

BS CIVIL ENGINEERING

2017-2019

updated
04.06.17

Units Required 189-191

NOTE: This document can be used as a compact display of courses and other curricular requirements at the time of publication of the 2017-2019 catalog. The Degree Progress Report must be used to track students' progress in all degree requirements, throughout their Cal Poly career.

Note: No major or support courses may be selected as credit/no credit.

MAJOR COURSES (68)	Units
CE 111 Intro to Civil Engr	1
CE 112 Design Principles in Civil Engr	2
CE 113 Computer Aided Drafting	2
CE 204 Mechanics of Materials I	3
CE 207 Mechanics of Materials II	2
CE 251 Programming App in Engr	2
CE 259 Civil Engineering Materials	2
CE 321 Fund Trans Engr	3
CE 322 Fund Trans Engr Lab	2
CE 336 Water Resources Engineering	4
CE 337 Hydraulics Laboratory	1
CE 352 Structural Engineering	4
CE 355 Reinforced Concrete Design	4
CE 381 Geotech Engineering	4
CE 382 Geotech Engineering Lab	1
CE 465 Civil Engr Prof Practice	1
CE 466 & 467 <i>or</i>	3
CE 468 & 469	3
Technical Electives ² (In consultation with faculty advisor. See list and guidelines on reverse.)	24

STAT 312 Statistical Methods for Engineers (B6) ¹	4
Approved Engineering Science Elective ^{2,3} <i>Select 2-4 units from: CSC 231, 234; EE 201; IME 314; MATH 304, 344</i>	2-4

GENERAL EDUCATION (GE)

40

72 units required, 32 of which are specified in Major/Support

Refer to current schedule or <http://www.ge.calpoly.edu> to choose GE courses.
You will not receive credit for courses not on the approved lists.

Minimum of 8 units required at the 300 level.

Area A Communication

8

A1 Expository Writing	4
A2 Oral Communication	4
A3 Reasoning, Argu & Writing (4 units in Support) ¹	

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

28 units are listed in Support

Area C Arts and Humanities

16

C1 Literature	4
C2 Philosophy	4
C3 Fine/Performing Arts	4
C4 Upper-division elective.....	4

Area D/E Society and the Individual

16

D1 The American Exp (40404)	4
D2 Political Economy	4
D3 Comp Social Institutions	4
D4 Self Dev (CSU Area E)	4

FREE ELECTIVES **0**

SUPPORT COURSES (81-83)

BIO 213 <i>and</i>	2
BMED/BRAE 213 (B2) ¹	2
BRAE 239 Engineering Surveying	4
CHEM 124 Gen Chem for the Engr I (B3/B4) ¹	4
CHEM 125 Gen Chem for the Engr II	4
ENGL 149 Technical Writing for Engineers (A3) ¹	4
ENVE 331 Introduction to Environmental Engineering	4
GEOL 201 Physical Geology	3
MATE 210 Materials Engineering	3
MATE 215 Materials Laboratory I	1
MATH 141 Calculus I (B1) ¹	4
MATH 142 Calculus II (B1) ¹	4
MATH 143 Calculus III (Add'l Area B) ¹	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) ¹	4
PHYS 132 General Physics II	4
PHYS 133 General Physics III	4

OTHER DEGREE REQUIREMENTS:

- Cal Poly, Higher Ed, and Major GPA must all be at least 2.00
- For students admitted Fall 2016 and after, a grade of C- or higher is required in GE A1, A2, A3, and one GE B1 course

All students must complete:

- United States Cultural Pluralism Requirement
- Graduation Writing Requirement
- 60 units Upper Division (any 300-400 level classes)
- Upper Division units in the Major: 27
- Residency Requirements: See Degree Progress Report for details

¹ Required in Support; also satisfies GE

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 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).

TECHNICAL ELECTIVES^{2,3}

In consultation with faculty advisor, select from CE 356, CE 371 or CM 371, ENVE 325, any 400-500 level CE and ENVE courses not required in the major (maximum of 4 units from the following list):

ARCE 305, 372, 403;
BIO/NR/SS 421;
BMED/CE/ME 404;
BRAE 345, 447, 532;
CHEM 341;
CM 334, 432;
CRP 420, 435;
CRP/NR 404, 408;
ERSC/GEOL 401, 402;
GEOL 415;
IME 314;
MATE 425, 450;
MATH 344;
SS 423, 442

⁴ Consultation with advisor is recommended prior to selecting technical electives or approved electives; bear in mind your selection.

⁵ 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, CE 500, ENVE 400 and ENVE 500 can count towards the degree.
- c) No more than 8 combined units of CE 470 / ENVE 470, CE 471 / ENVE 471, CE 570 / ENVE 570, CE 571 / ENVE 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 / CE 558; CE 459 / CE 556.
- f) 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).