

BS CIVIL ENGINEERING

2019-2020

updated
03.13.19

Units Required 190-192

NOTE: This document can be used as a compact display of courses and other curricular requirements at the time of publication of the 2019-2020 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 (72)	<i>Units</i>	<i>Grade</i>	<i>Grd Pts</i>
CE 111 Intro to Civil Engr	1		
CE 112 Design Principles in Civil Engr	2		
CE 113 Computer Aided Drafting	2		
CE 204 Mech of Mater I (3) <i>and</i> CE 207 Mech of Mater II (2) <i>or</i> CE 208 Mech of Mater (5) ⁴	3 <i>and</i> 2 <i>or</i> 5		
CE 222 Intro. Experiments in Transport Engr	1		
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	1		
CE 336 Water Resources Engineering	4		
CE 337 Hydraulics Laboratory	1		
CE 352 Structural Engineering	4		
CE 355 Reinforced Concrete Design	4		
CE/CM 371 Constr Mgmt & Proj. Plan	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> CE 468 & 469	6		
Technical Electives ² (<i>In consultation with faculty advisor. See list and guidelines on reverse.</i>)	24		

STAT 312 Statistical Methods for Engineers (B6) ¹	4
Approved Engineering Science Elective ^{2,3} <i>Select 2-4 units from: CM 280; CSC 231, 234; EE 201; ME 302; 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 Math, Science, & Quant. Reas. (no add'l units req'd)

28 units are listed in Support¹

Area C Arts and Humanities

16

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

Area D Society and the Individual

12

D1 The American Exp (40404)	4
D2 Political Economy	4
D3 Comp Social Institutions	4

Area E Lifelong Learning and Self-Development

4

(formerly Area D4)

FREE ELECTIVES 0

SUPPORT COURSES (78-80)

BIO 213 Life Science for Engineers (B2) ¹	2
BMED/BRAE 213 Bioengineering Fundamentals (B2)1	2
BRAE 239 Engineering Surveying	4
CHEM 124 Gen Chem for Engr I (B3/B4) ¹	4
CHEM 125 Gen Chem for Engr II	4
ENGL 149 Technical Writing for Engineers (A3) ¹	4
ENVE 331 Fundamentals of Environmental Engineering	4
GEO 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 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

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 or support requirements (no double counting of coursework).

⁴ Transfer students take CE 208 in Fall Quarter.

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

TECHNICAL ELECTIVES^{1,2}

In consultation with faculty advisor, select from CE 356, 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;
CRP 420, 435;
CRP/NR 404, 408;
ERSC 442;
ERSC/GEOL 401, 402;
GEOL 415;
IME 314;
MATE 425, 450;
MATH 344;
SS 423

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² 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 or support requirements (no double counting of coursework).