

BS COMPUTER ENGINEERING**2013-2015**updated
04.15.13**Units Required 193-196**

NOTE: This document can be used as a compact display of courses and other curricular requirements. 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 (96)	<i>Units</i>
CPE 100 Computer Engineering Orientation	1
CPE 123 Intro to Computing ¹	4
CPE 101 Fund Computer Sci I	4
CPE 102 <i>or</i> CPE 108	4
CPE 103 Fund Computer Sci III	4
CPE 129 & CPE 169 Digital Design and Lab (3)(1)	3,1
<i>or</i>	<i>or</i>
CPE/EE 133 Digital Design (4)	4
CPE 229 & CPE 269 Comp Des/Assem Lang and Lab (3)(1) <i>or</i>	3,1
<i>or</i>	<i>or</i>
CPE/EE 233 Comp Des/Assem Lang Prog (4)	4
CPE 315 Computer Architecture	4
CPE 329 Prog Logic/Micro-Based Sys Des	4
CPE 350 Capstone I	4
CPE 357 Systems Programming	4
CPE 450 Capstone II	4
CPE 453 Intro to Operating Systems	4
CPE 461 Senior Project I	3
CPE 462 Senior Project II	2
CPE 464 Intro to Computer Networks	4
CSC 141 Discrete Structures I	4
EE 112 Electric Circuit Analysis I	2
EE 211 Electric Circuit Analysis II	3
EE 241 Electric Circuit Analysis Lab II	1
EE 212 Electric Circuit Analysis III	3
EE 242 Electric Circuit Analysis Lab III	1
EE 228 Cont-Time Signals & Systems	4
EE 306 Semiconductor Device Electronics	3
EE 346 Semiconductor Device Electronics Lab	1
EE 307 Digital Integrated Electr	3
EE 347 Digital Integrated Electr Lab	1
Technical Elective ^{2,3,4} (<i>see list on reverse</i>)	12

SUPPORT COURSES (57-60)

BIO 213 <i>and</i>	2
ENGR/BRAE 213 (B2) ⁶	2
CHEM 124 General Chem for the Engineering I (B3/B4) ⁶	4
Approved CSC, EE, Math or Science Elective. ² <i>Select from:</i> CHEM 125, CSC 349, EE 328, MATE 210/215 (both needed), or ME 211	3-4
ENGL 149 Technical Writing for Engineers (A3) ⁶	4
IME 156/ IME 157/ IME 458	2/4
MATH 141 Calculus I (B1) ⁶	4
MATH 142 Calculus II (B1) ⁶	4
MATH 143 Calculus III (Add'l Area B) ⁶	4
MATH 241 Calculus IV	4
MATH 244 Linear Analysis I	4

PHYS 141 General Physics IA (Add'l Area B) ⁶	4
PHYS 132 General Physics II	4
PHYS 133 General Physics III	4
PHYS 211 Modern Physics I	4
STAT 350 Prob & Random Processes for Engrs (B6) ⁶	4

GENERAL EDUCATION (GE)**40**

72 units required, 32 of which are 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) ⁶	

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

¹ An additional 4 units of approved technical electives may be substituted, although new students are strongly encouraged to take CSC 123/CPE 123.

² Consultation with advisor is recommended prior to selecting approved elective; 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).

⁴ The following courses may not be used to satisfy this requirement: COOP units; BUS 499; CSC 302, CSC 303, CSC 310, CSC 400, CSC 500; EE 321, EE 361, EE 400, EE 460, EE 500, EE 563.

⁵ Not for students with credit in CSC 341 or CSC 342.

⁶ Required in Major/Support; also satisfies GE

⁷ CPE 400 requires an approved course substitution form and no more than 4 total units required.

OTHER DEGREE REQUIREMENTS:

- **Cal Poly, Higher Ed, and Major GPA must all be at least 2.00**

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^{2,3,4}

Select 12 units from the following:

Any 300-500 level CPE Course

Any 300-500 level CSC or EE Course⁴

CPE 400 (up to 4 units)⁷

Up to four units from the following:

BMED 440, 450 (Topic: Tissue Engineering);

CHEM 312;

CSC 300;

ENGR 551;

IME 301, 303, 314, 319, 351, 401, 457;

IME/MATE 458/CPE 488

MATE 430, 435, 550;

MATH 304, 408, 409, 412, 413, 414, 451, 453;

ME 318, 341, 343, 405, 415

PHYS 322, 323, 402, 408, 412, 424, 452;

UNIV/HNRS 424

² Consultation with advisor is recommended prior to selecting approved elective; 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).

⁴ The following courses may not be used to satisfy this requirement: COOP units; BUS 499; CSC 302, CSC 303, CSC 310, CSC 400, CSC 500; EE 321, EE 361, EE 400, EE 460, EE 500, EE 563.

⁷ CPE 400 requires an approved course substitution form and no more than 4 total units required.