

CpE Program Curriculum Pattern

Effective Fall 2013

Freshman First Semester

CSc 15	Prog. Concepts & Methodology I (CSc 10A or Experience)	3
Math 30	Calculus I (Pre-Calculus, Math 29)	4
ENVS 10	Environmental Science	3
Engr 1 or 96A	Intro. to Engineering (Algebra & Trigonometry)	1
GE	General Education Courses	6
Total Units		17

Freshman Second Semester

CSc 20	Prog. Concepts & Methodology II (CSc 15)	3
Math 31	Calculus II (Math 30 or AP Credit)	4
Phys 11A	Mechanics (Math 30, Math 31*)	4
CSc 35	Microcomputers and Assembly Language (CSc 15)	3
GE	General Education Course	3
Total Units		17

Sophomore First Semester

CpE 64	Introduction to Logic Design (CSc 15 or CSc 25)	4
Math 45	Differential Equations (Math 31)	3
Phys 11C	Electricity & Magnetism (Math 31, Phys 11A)	4
CSc 60	Intro. to Systems Programming (CSc 20, CSc 35)	3
GE	General Education Course	3
Total Units		17

Sophomore Second Semester

CSc 28	Discrete Structures (Math 29, CSc 20*)	3
Econ 1B	Intro to Microeconomic Analysis	3
Engl 20	Expository Writing (Engl 1A or Engl 2)	3
Engr 17	Intro. Circuit Analysis (Phys 11C**, Math 45**)	3
GE	General Education Course	3
Total Units		15

Junior First Semester

CpE 166	Advanced Logic Design (CpE 64, ENGR 17)	4
CpE 185	Computer Interfacing (CpE 64, CSc 35, CSc 60)	4
CSc 130	Data Struct. & Algorithm Develop. (CSc 20, CSc 28*)	3
EEE 117	Network Analy. (CpE 64*, Engr 17, Co-Req EEE 117L)	3
EEE 117L	Network Analysis Lab (Co-Req EEE 117)	1
Total Units		15

Junior Second Semester

CpE 142	Adv. Computer Org. (CpE 166 & CpE 185)	3
EEE 108	Electronics 1 (EEE 117, Co-Req EEE 108L)	3
EEE 108L	Electronics I Lab (EEE 117, EEE 117L, Co-Req EEE 108)	1
EEE 180	Signals and Systems (EEE 117*)	3
CpE 186	Computer Hardware Design (CpE 185)	3
GE	General Education Course	3
Total Units		16

Senior First Semester

CpE 151	CMOS & VLSI (CpE 64, EEE 108)	3
CSc 139	Operating System Principals (CSc 60, CSc 185 or equivalents)	3
CpE 190	Senior Project Design (CpE 142, CpE 166, CpE 186, CpE 187, EEE 108)	2
Engr 120	Probability and Random Signals (EEE 180*)	3
GE	General Education Course	3
Total Units		14

Senior Second Semester

CpE 159	Operating Sys Pragmatics (CSc 139)	3
CpE 138	Computer Networks and Internets (CSc 35, CSc 60, CSc 130)	3
CpE 191	Senior Design Project II (CpE 190)	2
Elective	CpE Technical Elective	3
GE	General Education Course	3
Total Units		14

Degree Unit Requirements

125

Courses in parentheses are prerequisites

* = May be taken concurrently ** = One course may be taken concurrently, but not both

CpE Technical Elective Courses: CpE 144, CpE 153, CSc 131, CSc 133, CSc 134, CSc 151, CSc 152, CSc 153, CSc 154, CSc 155, EEE 120, EEE 122, EEE 181, EEE 187

Courses offered are subject to change. For the most accurate course planning guides, refer to the website at:

<http://www.ecs.csus.edu/wcm/cpe/undergraduate%20program/4%20year%20curriculum%20pattern.html>