Computer Engineering Undergraduate Curriculum   (Prior to Fall 2013)

Freshman First Semester

Math 30	Calculus I (Pre-Calculus, Math 29)	4
CSc 15	Prog. Concepts & Methodology I (CSc 10)	3
Chem 1A	General Chemistry (Entrance Exam)	5
GE	(English Recommended)	3
	Total units	15

Freshman Second Semester

Math 31	Calculus II (Math 30)	4
Phys 11A	Mechanics (Math 30, Math 31)	4
CSc 20	Prog. Concepts & Methodology II (CSc 15)	3
CSc 35	Microcomputer Assembly Lang. Prog. (CSc 15)	3
CpE 64	Introduction to Logic Design (CSc 15 or CSc 25)	4
	Total units	18

Sophomore First Semester

Math 45	Differential Equations (Math 31)	3
CSc 28	Discrete Structures (Math 29, CSc 20)	3
CSc 60	Intro. to Systems Programming (CSc 20, CSc 35)	3
Engl 20	Expository Writing (Engl 1A)	3
Econ 1B	Introduction to Microeconomic Analysis	3
GE		3
	Total units	18

Sophomore Second Semester

Engr 17	Introductory Circuit Analysis (Phys 11C, Math 45 – one or the other may be a co-requisite, but not both)	3
Stat 50	Introduction to Probability & Statistics (Math 26A, Math 30)	4
Phys 11C	Electricity & Magnetism (Math 31, Phys 11A)	4
GE		3
GE		3
	Total units	17

Junior First Semester

CpE 166	Advanced Logic Design (CpE 64, Engr 17)	4
CpE 185	Computer Interfacing (CpE 64, CSc 35)	4
EEE 117	Network Analysis * (CpE 64, Engr 17)	3
EEE 117L	Network Analysis Lab * (CpE 64, Engr 17)	1
CSc 130	Data Struct. & Algorithm Develop. (CSc 20, CSc 28)	3
GE		3
	Total units	18

Junior Second Semester

CpE 142	Advanced Computer Org. (CpE 166, CpE 185)	3
CpE 186	Computer Hardware Design (CpE 185)	3
CSc 139	Operating System Prin. (CSc 60, CSc 130, CpE 185)	3
CpE	Elective *	3
GE		3
GE		3
	Total units	18

Senior First Semester

CpE 151	CMOS & VLSI (CpE 64, EEE 108)	3
CpE 159	Operating System Pragmatics (CSc 139)	3
CpE 190	Senior Project Design (CpE 142, CpE 166, CpE 186, CpE 187, EEE 117, WPJ)	2
CpE	Technical Elective	3
Engr 181	Electronic Materials (Chem 1A, Phys 11A, Math 45)	3
GE		3
	Total units	17

Senior Second Semester

CpE 138	Computer Networks and Internets (CSc 35, CSc 60, CSc 130)	3
CpE 191	Senior Design Project II (CpE 190)	2
CpE	Technical Elective	3
Math 100/150 Linear Algebra or Numerical Analysis		3
GE		3
GE		3
	Total units	17

List of CpE Technical Electives (choose two):

Hardware related – CpE 144, CpE 153, EEE 108, EEE 109, EEE 166, EEE 180, EEE 181, EEE 187

Software related -   CSc 131, CSc 133, CSc 134, CSc 151, CSc 155

*Substitutions if needed: EEE 102, 102L = EEE 117, 117L   and   CpE 187 = CpE Elective

General advice for Computer Engineering Majors:

1. The above program guide shows only one way to meet graduation requirements in four years of study. Being careful to satisfy prerequisites will allow you to come up with your own schedule of courses.

2. Very few students routinely take 17 units per semester. Most full-time students find that 14 to 15 units is a reasonable load. Many CSUS students work part-time to support themselves. Someone working 15 hours per week should consider 10 to 12 units of course work per semester.

3. CSUS offers an excellent Cooperative Education program. Doing a "CO-OP" will extend your graduation date by one semester - a small matter when compared to the tangible benefits of the co-op experience!

4. If you plan to study during the summers, save your general education courses for that purpose. CpE does not offer summer courses. Sometimes Stat 50, and other Math courses are offered in the summer.