



**California State Polytechnic University, Pomona
Degree Curriculum Sheet**

Plan (Major) **COMPUTER ENGINEERING**

Catalog Year **2014 - 2015**

Name _____

Subplan/Option _____

Minimum Units Required **194**

Student ID _____

Required Core Courses		
Course		Units
Required of all students. A 2.0 cumulative GPA is required in core courses in order to receive a degree in the major.		
Intro to Electrical Engineering & Lab C for Engineers and Programming Lab for Engineers	ECE 109/109L ECE 114 ECE 114L	3/1 3 1
Discrete Structures	ECE 130	4
Intro to Combinational Logic & Lab	ECE 204/204L	3/1
Intro to Sequential Logic & Lab	ECE 205/205L	3/1
Network Analysis I & Lab	ECE 207/207L	3/1
Network Analysis II & Lab	ECE 209/209L	3/1
Electronic Devices and Circuits & Lab	ECE 220/220L	4/1
Object Oriented Programming	ECE 256	4
Electromagnetic Fields	ECE 302	4
Data Structures for Engineers	ECE 304	4
Discrete Time Signals and Systems & Lab	ECE 306/306L	4/1
Control Systems Engineering & Lab	ECE 309/309L	4/1
Prob, Stats, and Random Processes for ECE	ECE 315	4
Electronic Design of Digital Circuits & Lab	ECE 325/325L	3/1
Intro to Microcontrollers & Lab	ECE 341/341L	3/1
Computer Architecture & Lab	ECE 425/425L	3/1
Operating Systems for Embedded Applications & Lab	ECE 426/426L	3/1
Computer Networks & Lab or TCP/IP Internetworking & Lab	ECE 431/431L ECE 433/433L	3/1 (3/1)
Professional Topics for Engineers and Team Project III	ECE 464 ECE 467	1 1
Software Engineering	ECE 480	4
Total Units		85

Elective Core Courses		
Course		Units
The electives must be satisfied by selecting courses from the following list. If a course with an associated lab is selected, both must be taken.		
Computer Engineering & Lab	ECE 342/342L	(4/1)
Microprocessor I & Lab	ECE 343/343L	(4/1)
Robotics & Lab	ECE 404/404L	(3/1)
Digital Signal Processing & Lab	ECE 408/408L	(3/1)
Digital Control Systems & Lab	ECE 414/414L	(3/1)
Digital Design using Verilog HDL & Lab	ECE 415/415L	(3/1)
Very Large Scale Integrated (VLSI) Circuit Design & Lab	ECE 423/423L	(4/1)
Digital System Design using VHDL & Lab	ECE 424/424L	(3/1)
Digital Signal Processing II	ECE 428	(4)
Application Development Using JAVA	ECE 429	(4)
Microprocessor II & Lab	ECE 432/432L	(3/1)
Embedded System Design and Applications	ECE 439	(4)
Special Topics for Upper Division Students (with advisor approval)	ECE 499	(1-4)
Total Units		12

Required Support Courses		
Course		Units
The following required support courses should be taken to satisfy the indicated GE Requirements to achieve the minimum units to degree listed at the top of this sheet.		
General Chemistry for Engineers or General Chemistry & Lab (B3)	CHM 115 CHM 121/121L	4 (3/1)
Project Design Principles and Applications (B5) and Project Design Principles and Applications (B5)	EGR 481 EGR 482	2 2
Analytic Geometry and Calculus I (B4)	MAT 114	4
Analytic Geometry and Calculus II (B4)	MAT 115	4
Analytic Geometry and Calculus III (B4)	MAT 116	4
Calculus of Several Variables I	MAT 214	3
Calculus of Several Variables II	MAT 215	3
Elem Linear Algebra and Diff Equations	MAT 224	4
General Physics & Lab (B1, B3)	PHY 131/131L	3/1
General Physics & Lab	PHY 132/132L	3/1
General Physics & Lab	PHY 133/133L	3/1
Total Units		42

General Education Requirements		
Area		Units
Area A Communication & Critical Thinking		12
1. Oral Communication		
2. Written Communication		
3. Critical Thinking		
Area B Mathematics & Natural Sciences		16
<i>Select at least one lab course from subarea 1 or 2.</i>		
1. Physical Science		
2. Biological Science		
3. Laboratory Activity		
4. Math/Quantitative Reasoning		
5. Science & Technology Synthesis		
Area C Humanities		16
1. Visual and Performing Arts		
2. Philosophy and Civilization		
3. Literature and Foreign Language		
4. Humanities Synthesis		
Area D Social Sciences		20
1. U.S. History, Constitution, American Ideals		
a. United States History		
b. Introduction to American Government		
2. History, Economics and Political Science		
3. Sociology, Anthropology, Ethnic & Gender Studies		
4. Social Science Synthesis		
Area E Lifelong Understanding & Self Development		4
Total Units		68

American Institutions		
Courses that satisfy this requirement may also satisfy GE Area D1		8

American Cultural Perspectives Requirement		
Refer to catalog for list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.		4

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the quarter following completion of 120 units for undergraduates.