



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

Plan (Major) **COMPUTER ENGINEERING**
Subplan/Option _____

Catalog Year **2015 - 2016**
Minimum Units Required **194**

Name _____
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	ECE 109/109L	3/1
and Programming Lab for Engineers	ECE 114	3
Discrete Structures	ECE 114L	1
	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	ECE 431/431L	3/1
or TCP/IP Internetworking & Lab	ECE 433/433L	(3/1)
Professional Topics for Engineers	ECE 464	1
and Team Project III	ECE 467	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 II & 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	CHM 115	4
or General Chemistry & Lab (B3)	CHM 121/121L	(3/1)
Project Design Principles and Applications (B5)	EGR 481	2
and Project Design Principles and Applications (B5)	EGR 482	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			IGE (G.E. Alternative)
Area	Units		
Area A Communication & Critical Thinking	12		
1. Oral Communication		IGE 120	4
2. Written Communication		IGE 121	4
3. Critical Thinking		IGE 122	4
		IGE 220	4
Area B Mathematics & Natural Sciences	16		
<i>Select at least one lab course from subarea 1 or 2.</i>			
1. Physical Science		IGE 221	4
2. Biological Science		IGE 222	4
3. Laboratory Activity		IGE 223	4
4. Math/Quantitative Reasoning		IGE 224	4
5. Science & Technology Synthesis		AREA A1	4
		AREA A3	4
		AREA B	16
		AREA C1, C2 or C3	4
Area C Humanities	16		
1. Visual and Performing Arts		AREA C4	4
2. Philosophy and Civilization		AREA D4	4
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	68		

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

American Cultural Perspectives Requirement	Units
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.