California State Polytechnic University, Pomona
Degree Curriculum Sheet

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

Catalog Year _____**2010–2011**_____
Minimum Units Required _____**198**_____

Name_____
Student ID _____

Evaluator _____
GWT Satisfied _____Yes _____No

Required Core Courses

Course		Units
Students in this major are expected to **maintain** *a GPA of at least 2.00 in all core courses.*		
Introduction to Electrical Engineering/Lab	ECE 109/109L	3/1
C for Engineers/Lab	ECE 114/114L	3/1
Discrete Structures	ECE 130	4
Introduction to Combinational Logic/Lab	ECE 204/204L	3/1
Introduction 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
Elecromagnetic Fields	ECE 302	4
Data Structures for Engineers	ECE 304	4
Introduction to Disctrete Time Signals & System	ECE 306	4
Comp Simulation of Dynamic Systems/Lab	ECE 306L	1
Control Systems Engineering/Lab	ECE 309/309L	4/1
Prob, Stats, & Random Processes for ECE	ECE 315	4
Electronic Design for Digital Circuits/Lab	ECE 325/325L	3/1
Introduction to Microcontrollers/Lab	ECE 341/341L	3/1
Computer Organization/Lab	ECE 342/342L	4/1
or Microprocessor I/Lab	ECE 343/343L	(4/1)
Digital Design using Verilog HDL/Lab	ECE 415/415L	3/1
or Digital System Design Using VHDL/Lab	ECE 424/424L	(3/1)
Computer Architecture/Lab	ECE 425/425L	3/1
Operating Systems/Lab	ECE 426/426L	3/1
Applications Development using Java	ECE 429	4
Computer Networks/Lab	ECE 431/431L	4/1
or TCP/IP Internetworking/Lab	ECE 433/433L	(3/1)
Professional Topics for Engineers	ECE 464, 467	1,1
and Senior Design Team Project		
Software Engineering	ECE 480	4
Total Units		**98– 99**

Elective Core Courses

Course	Units
ECE Upper Division Electives*	2-3
*Varies depending on choice of ECE 431 or 433 in Required Coure Courses.	
Total Units	**2-3**

Required Support Courses

Course		Units
General Chemistry	CHM 121	3
General Chemistry Lab (B3)	CHM 121L	1
Analytic Geometry/Calculus I (B4)	MAT 114	4
Analytic Geometry/Calculus II	MAT 115	4
Analytic Geometry/Calculus III	MAT 116	4
Calculus of Several Variables I	MAT 214	3
Calculus of Several Variables II	MAT 215	3
Linear Algebra & Differential 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
Project Design & Application (B5)	EGR 481, 482	4
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**
Select at least one lab course from sub-area 1 or 2.	
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	
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**

IGE (G.E. Alternative)

IGE 120	4
IGE 121	4
IGE 122	4
IGE 220	4
IGE 221	4
IGE 222	4
IGE 223	4
IGE 224	4
Area A1	4
Area A3	4
Area B	16
Area C1, C2, or C3	4
Area C4	4
Area D4	4

See University Catalog for information on how IGE meets G.E. requirements.

American Institutions	
Courses that satisfy this requirement may also satisfy G.E. 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

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.

Course		GE Area
General Physics/Lab	PHY 131/131L	B1, B3
and General Chemistry Lab	CHM 121L	B3
Analytic Geometry/Calculus I	MAT 114	B4
Project Design and Application	EGR 481/482	B5

The remaining GE requirements may be satisfied by any course approved for that area.

No more than 105 community college quarter units or 36 extension credit quarter units may be applied toward a Bachelor's degree.
A minimum 2.0 cumulative GPA is required in core (including option) courses, Cal Poly Pomona courses, and overall work completed in order to receive a degree in this major.

Computer Engineering Curriculum Flow Chart

Year 2010/2011

Name:_____

Freshman			Sophomore			Junior			Senior		
Fall (15)	Winter (16)	Spring (16)	Fall(20)	Winter (18)	Spring(15)	Fall (18)	Winter (17)	Spring (18)	Fall (15/16)	Winter (14)	Spring(15)

ECE130 (4)

ECE431/ L 4/1) or ECE433/ L (3/1)

ECE304

ECE114/ L (3/1)

ECE256 (4)

ECE429 (4)

ECE304 (4)

ECE342/ L or ECE343/ L (4/1)

ECE205/L

OR

ECE426/ L (3/1)

ECE480 (4)

ECE204/ L (3/1)

ECE205/ L (3/1)

ECE341/ L (3/1)

ECE424/ L or ECE415/ L (3/1)

ECE425/ L (3/1)

OR

MDPT

Area B4 MAT114 (4)

MAT115 (4)

MAT116 (4)

MAT224 (4)

MAT214 (3)

MAT215 (3)

ECE315 (4)

ECE204 ECE220

AND

ECE302 (4)

EPT

Area A2 ENG104 or ENG103 (4)

ECE205

ECE220 (4)

ECE220L (1)

ECE325/ L (3/1)

≥C-

≥C-

AND

ECE ELCT (2)

≥C

ECE109/ 109L (3/1)

≥C-

AND

ECE207 (3)

≥C-

ECE209 (3)

ECE306 (4)

ECE309 (4)

ECE309L (1)

GWT

ECE207L (1)

ECE209L (1)

ECE306L (1)

ECE464 (1)

Area D3 (4)

Area B3 CHM121/L (3/1)

Area B1,B3 PHY131/L (3/1)

PHY132/ L (3/1)

PHY133/ L (3/1)

ECE 325

ECE 320

OR

Area B5 EGR481 (2)

Area B5 EGR482 (2)

ECE467 (1)

Senior Project

ECE 341

Area B2 (3)	Area E (4)	Area A1 (4)	Area C1 (4)	Area C2 (4)	Area D2 (4)	Area D1a PLS201 (4)	Area D1b HST202 (4)	Area A3 (4)	Area C3 (4)	Area C4 (4)	Area D4 (4)