



Computer Engineering Schedule of Senior CE Electives 2011-2012 & Later

Computer Engineering Program · UC, Santa Barbara

LAST NAME, FIRST NAME

Perm #

UMAIL

PHONE #

STUDENTS ARE RESPONSIBLE FOR DETERMINING AND TAKING THE NECESSARY PREREQUISITES FOR THE CLASSES LISTED BELOW AS THEY DO CHANGE. FOR THE MOST UP-TO-DATE INFORMATION, CHECK WITH THE COMPUTER SCIENCE STUDENT OFFICE FOR CS COURSES AND THE ECE STUDENT OFFICE FOR ECE COURSES.

COURSE	UNITS
“Capstone” Project (ECE or CS 189AB)	
Sequence 1 (2 courses min.)	
Sequence 2 (2 courses min.)	
Other Electives	
MIN. REQUIRED	40
TOTAL UNITS:	

A total of at least ten courses (40 units minimum) including two sequences plus the Capstone Project.

Student's Signature

Date

Faculty Advisor's Signature

Date

ECE Student Office

Date

**** PLEASE RETURN TO: ECE STUDENT OFFICE – TRAILER 380, ROOM 101**

Updated: 9/27/15

Check Here	Sequence Topics	Senior Elective Sequences, choose two (2):
	Computer Networks	Network Computing – Choose EITHER THE ECE OR CS SEQUENCE: <ul style="list-style-type: none"> ECE 155A & ECE 155B OR <ul style="list-style-type: none"> CMPSC 176A & CMPSC 176B
	Computer Systems Design	<ul style="list-style-type: none"> ECE 153A OR CMPSC 153A (Hardware/Software Interface) AND <ul style="list-style-type: none"> ECE 153B (Sensor and Peripheral Interface Design) ECE 151 OR CMPSC 171: Distributed Systems
	Distributed Systems	AND ONE OR BOTH OF THE FOLLOWING COURSES: <ul style="list-style-type: none"> ECE 155A OR CMPSC 176A: Intro. to Computer Networks ECE 155B OR CMPSC 176B: Network Computing
	Multimedia	Choose TWO OR MORE of the following courses: <ul style="list-style-type: none"> ECE 178 (Fundamentals of Computer Image Processing) ECE 181B OR CMPSC 181B (Introduction to Computer Vision) ECE 160 OR CMPSC 182 (Multimedia Computing)
	Programming Languages	<ul style="list-style-type: none"> *CMPSC 160 (Translation of Programming Languages) *CMPSC 162 (Programming Languages) (*Note: CMPSC 138, a Junior year course, is the prerequisite for both CMPSC 160 & 162)
	Real-Time Computing & Control	<ul style="list-style-type: none"> *ECE 147A (Feedback Control Systems - Theory and Design, 5 units) (*Note: ECE 147A prerequisite is ECE 130ABC – Junior year) <ul style="list-style-type: none"> ECE 147B (Digital Control Systems - Theory and Design, 5 units)
	Very Large Scale Integration (VLSI)	<ul style="list-style-type: none"> ECE 122A/124A (VLSI Principles) OR ECE 123 (High-Performance Digital Circuit Design) AND <ul style="list-style-type: none"> ECE 122B/124D (VLSI Architecture and Design)
	Robotics	<ul style="list-style-type: none"> ECE 179D (Introduction to Robotics: Dynamics and Control) ECE 179P (Introduction to Robotics: Planning and Kinematics)
	Signals & Systems	<ul style="list-style-type: none"> ECE 130A (Signal Analysis & Processing) ECE 130B (Signal Analysis & Processing)

Check Here	Acceptable Additional Courses	Units
Capstone Project	*Required Senior "Capstone" Computer Systems Project: <ul style="list-style-type: none"> *ECE 189A/B (Two quarters of instruction, 4 units each quarter for a total of 8 units); (*Note: ECE 153B, Sensor & Peripheral Interface Design, is a prerequisite for ECE 189A/B); OR <ul style="list-style-type: none"> *CMPSC 189A/B (Two quarters of instruction, 4 units each quarter for a total of 8 units) (*Note: CMPSC 56, Advanced Applications Programming, is a highly recommended course for the CMPSC189A/B Capstone.)	8
	CMPSC 130B (Data Structures and Algorithms II)	4
	CMPSC 138 (Automata and Formal Languages)	4
	CMPSC 153A/ECE 153A (Hardware/Software Interface)	4
	CMPSC 160 (Translation of Programming Languages)	4
	CMPSC 162 (Programming Languages)	4
	CMPSC 165A (Artificial Intelligence)	4
	CMPSC 165B (Machine Learning)	4
	CMPSC 176A/ECE 155A (Introduction to Computer Communication Networks)	4
	CMPSC 176B/ECE 155B (Network Computing)	4
	CMPSC 176C (Advanced Topics in Internet Computing)	4
	CMPSC 177 (Computer Security)	4
	CMPSC 178 (Introduction to Cryptography)	4
	CMPSC 181B/ECE 181B (Introduction to Computer Vision)	4
	ECE 122A/124A (VLSI Principles)	4
	ECE 122B/ECE124D (VLSI Architecture and Design)	4
	ECE 123 (High-Performance Digital Circuit Design)	4
	ECE 130A (Signal Analysis and Processing)	4
	ECE 130B (Signal Analysis and Processing)	4
	ECE 130C (Signal Analysis and Processing)	4
	ECE 147A (Feedback Control Systems – Theory and Design)	5
	ECE 147B (Digital Control Systems – Theory and Design)	5
	ECE 150 (Mobile Embedded Systems)	4
	ECE 151 (Distributed Systems)	4
	ECE 153B (Sensor and Peripheral Interface Design)	4
	ECE 154B (Advanced Computer Architecture)	4
	ECE 156B (Computer-Aided Design of VLSI Circuits)	4
	ECE 160 (Multimedia Systems)	4
	ECE 178 (Fundamentals of Computer Image Processing)	4
	ECE 179D (Instruction to Robotics: Dynamics and Control)	4
	ECE 179P (Introduction to Robotics: Planning and Kinematics)	4