Computer Engineering
Schedule of Senior CE Electives
2009-2010 Year & Earlier

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	**32**
TOTAL	

A total of at least eight courses (32 units minimum) including two sequences plus the Capstone Project.

Student's Signature _____ Date _____

Faculty Advisor's Signature _____ Date _____

ECE Student Office _____ Date _____

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**** Choose two sequence topics:***

Check Here	Sequence Topics	Senior Elective Sequences
	Computer Networks	Network Computing – **Choose EITHER**: ECE 155A & ECE 155B **OR** CMPSC 176A & CMPSC 176B
	Computer Systems Design	ECE 153A **OR** CMPSC 153A: Hardware/Software Interface ECE 153B: Sensor and Peripheral Interface Design
	Computer-Aided Design (CAD)	ECE 156A: Digital Design With VHDL and Synthesis ECE 156B: Computer-Aided Design of VLSI Circuits
	Distributed Systems	ECE 151 **OR** CMPSC 171: Distributed Systems ***and one or both of the following courses:*** 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:*** 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	CMPSC 160: Translation of Programming Languages (Note Prereq. CMPSC 138 (Jr. Yr.)) CMPSC 162: Programming Languages
	Real-Time Computing & Control	ECE 147A: Feedback Control Systems - Theory and Design (Note Prereq. ECE 130ABC (Jr. Yr)) ECE 147B: Digital Control Systems - Theory and Design
	Very Large Scale Integration (VLSI)	ECE 124A: VLSI Principles OR 123: Hi-Per Digital Circuit Des. (Note Pre-req. ECE 132 (may be taken concurrently)) ECE 124D: VLSI Architecture and Design
	Robotics	ECE 179D: Introduction to Robotics: Dynamics and Control ECE 179P: Introduction to Robotics: Planning and Kinematics

Check Here	Acceptable Additional Courses	Units
(Select a Senior Project from the Project List presented in class)	*Required Senior "Capstone" Computer Systems Project: CMPSC 189A/B or ECE 189A/B (Two Qtrs of instruction – 4 Units & 4 Units)	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 : Intro. 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 124A: VLSI Principles	4
	ECE 124D: VLSI Architecture and Design	4
	ECE 130A: Signal Analysis and Processing	4
	ECE 130B: Signal analysis and Processing	4
	ECE 147A: Feedback Control Systems – Theory and Design	4
	ECE 147B: Digital Control Systems – Theory and Design	5
	ECE 151: Distributed Systems	5
	ECE 150: Mobile Embedded 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

Minimum CE Elective Units Required: 32*

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Updated: 9/13