

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING
SUGGESTED FIVE-YEAR COURSE SEQUENCE 2012-2013

FIRST YEAR

<i>First Semester</i>				<i>Second Semester</i>			
CS	120	Computer Science I	4 *+	CS	121	Computer Science II	4*+
ENGL	101	Intro to College Writing	3	ECE	101	Foundations of Electrical and Computer Engineering (ECE)	2*
MATH	143 & 144	Pre-Calc Algebra/Analytic Geometry	4 #	MATH	170	Analytic Geometry/Calculus I	4*
ISEM	101	Integrated Seminar	3	MATH	176	Discrete Mathematics	3*
				ENGL	102	College Writing and Rhetoric	3
14				16			

SECOND YEAR

<i>First Semester</i>				<i>Second Semester</i>			
CS	150	Computer Org/Architecture	3 *+	ECE	210	Circuits I	3*
COMM	101	Public Speaking	2	ECE	211	Circuits I Lab	1*
MATH	175	Analytic Geometry & Calculus II	4 *	ECE	292 (S)	Sophomore Seminar	0**
PHYS	211	Engineering Physics I & Lab	4 *	MATH	310	Ordinary Differential Equations	3
				PHYS	212	Engineering Physics II & Lab	4*
				HS		(H/S Elective)	3
13				14			

THIRD YEAR

<i>First Semester</i>				<i>Second Semester</i>			
ECE	212	Circuits II	3 *	ECE	310	Fundamentals of Electronics	3
ECE	213	Circuits II Lab	1 *	ECE	311	Fund of Electronics Lab	1
ECE	240	Digital Logic	3 *	CS	210	Programming Languages	3+
ECE	241	Digital Logic Lab	1 *	SE		(Science Elective)	4
MATH	330	Linear Algebra	3	HS/INT		(Economics Elective)	3
STAT	301	Probability & Statistics	3				
14				14			

FOURTH YEAR

<i>First Semester</i>				<i>Second Semester</i>			
CS	270	System Software	3 +	ECE	350	Signals & Systems	3
ECE	340	Microcontrollers	3	ECE	351	Signals & Sys Lab	1
ECE	341	Microcontrollers Lab	1	ECE	440 (S)	Digital Systems Engineering	3
ENGL	317	Technical Writing	3	CS	240	Computer Operating Systems	3+
HS		(AMST 301 or PHIL 103)	3	HS/INT		(International Elective)	3
13				13			

FIFTH YEAR

<i>First Semester</i>				<i>Second Semester</i>			
ECE	482	Comp Engr Senior Design I	3	ECE	483	Comp Engr Senior Design II	3
ECE	491 (F)	Senior Seminar	0	TE		(Technical Elective)	3
HS		(Cluster Elective)	3	TE		(Technical Elective)	3
TE		(Technical Elective)	3	TE		(Technical Elective)	3
TE		(Technical Elective)	3				
12				12			

TOTAL CREDITS = 135 (128 counted toward degree)

Specific grades required for continuation; see catalog.

* A grade of C or better is required in these courses before upper division electrical and computer engineering (ECE) courses may be taken.

** A passing grade in ECE 292 is required before upper division electrical and computer engineering (ECE) courses may be taken.

+ A grade of C or better is required in these courses before upper division computer science (CS) courses may be taken.

Math 143 & 144 (taken concurrently) may be required prior to taking 170 depending on standardized test or math placement test scores. However, Math 143 and 144 are not part of the computer engineering curriculum. The entire math sequence may be moved up one semester if Math 143 or 144 is not taken.

HS - Humanities/Social Science Electives: must include AMST 301 or PHIL 103 and ECON 201, 202, or 272.

INT - One approved international course: the list is found in the UI catalog.

TE - Technical Elective: fifteen credits of upper division ECE or CS courses

SE - Science Elective: one of the following CHEM 111, GEOL 111, MMBB 154 and 155, or PHYS 213.

The total credits of ISEM, humanities, social science, international, American diversity, and senior experience must be at least 18 credits and must satisfy the requirement J-3-d found in the UI catalog.

Students majoring in computer engineering who accumulate grades of D's and F's in mathematics, science, or engineering courses that are used to satisfy graduation requirements, including repeats and transfer courses will be required to undergo special advising as per department bylaws. Before registration is permitted in 200-level CS courses, students majoring in computer engineering must earn a grade of C or better in CS 120, 121 and 150 and Math 176. **See catalog for complete degree requirements and additional information.**

Cooperative educational experiences are available through the Cooperative Education Office to give the student industrial experience in their chosen field. Academic credit may be earned but may not be used as part of the program of study.

Courses offered only during one semester are identified above with a letter in parentheses by the course number: "S" refers to spring & "F" to fall.