

**BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING
SUGGESTED FIVE-YEAR COURSE SEQUENCE 2009-2010**

FIRST YEAR

<i>First Semester</i>			<i>Second Semester</i>		
ENGL	102 College Writing & Rhetoric	3	PHYS	211 Engineering Physics I & Lab	4*
MATH	143 Pre-Calculus Algebra/Analytic	3 +	ECE	101 Foundations of ECE	2*
MATH	144 Analytic Trigonometry	1 +	MATH	170 Analytic Geometry/Calculus I	4*
CS	112 Intro to Prob Solv & Programming (or CS 120 Computer Science I)	3 *	CORE	153-168 Core Discovery	3
CORE	103-118 Core Discovery	4			
		10			13

SECOND YEAR

<i>First Semester</i>			<i>Second Semester</i>		
PHYS	212 Engineering Physics II & Lab	4 *	ECE	210 Circuits I	3*
CHEM	111 Principles of Chemistry	4 *	ECE	211 Circuits I Lab	1*
MATH	175 Analytic Geometry & Calculus II	4 *	ECE	292 Sophomore Seminar (S)	0
MATH	330 Linear Algebra	3	ENGR	210 Engineering Statics	3*
			MATH	310 Differential Equations	3*
			HS/INT		3
		15			13

THIRD YEAR

<i>First Semester</i>			<i>Second Semester</i>		
ECE	212 Circuits II	3 *	STAT	301 Probability & Statistics	3
ECE	213 Circuits II Lab	1 *	ECE	310 Electronics	3
MATH	275 Analytic Geometry & Calculus III	3 *	ECE	311 Electronics Lab	1
ECE	240 Digital Logic	3 *	ENGL	317 Technical Writing	3
ECE	241 Digital Logic Lab	1 *	HS/INT		3
ENGR	220 Engineering Dynamics	3			
		14			13

FOURTH YEAR

<i>First Semester</i>			<i>Second Semester</i>		
ECE	320 Energy Systems	3	ECE	330 Electromagnetic Theory	3
ECE	321 Energy Systems Lab	1	ECE	331 EM Theory Lab	1
ECE	350 Signals & Systems	3	TE		3
ECE	351 Signals & Systems Lab	1	ES		3
ECE	340 Microcontrollers	3	HS/INT		3
ECE	341 Microcontrollers Lab	1			
		12			13

FIFTH YEAR

<i>First Semester</i>			<i>Second Semester</i>		
ECE	480 EE Senior Design	3	ECE	481 EE Senior Design II	3
ECE	491 EE Senior Seminar (F)	0	TE		3
ENGR	360 Engineering Economy	2	TE		3
TE		3	TE		3
TE		3	FE		1
FE		1			
		12			13

TOTAL CREDITS = 128

* - **A C or better is required in the courses marked “ * ” and a passing grade in ECE 292 are required before upper division electrical engineering courses may be taken.**

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

HS - Humanities and Social Sciences. Satisfy two conditions: (1) AmSt 301 or Phil 103 and (2) Econ 201 or 202 or 272.

INT- One approved international course (The list of approved courses is found in the UI catalog).

TE - Technical Electives. Eighteen credits required and satisfy three conditions: (1) Nine credits (minimum) from the following ECE courses: 410, 420 (S), 430 (every third semester), 440 (S), 450 (F) & 460 (F). (2) Three credits (minimum) from upper-division ECE courses, (3) The remaining six credits from upper-division ECE, and approved Engineering, Math, Physics, and Computer Science courses.

ES - Upper division Engineering Science Elective, a minimum of three credits required. Engineering Science Elective credits may be obtained from the following courses: Engr 320, Engr 335, Engr 350, and CE 402.

FE – Free Elective

Students majoring in Electrical 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.

Cooperative educational experiences are available through the university Cooperative Education Office and the department co-op coordinator to give the students industrial experience in their chosen field. Academic credit for co-op participation may be earned but may not be used as part of the program of study.

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