BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING
SUGGESTED FOUR-YEAR COURSE SEQUENCE 2012-2013

FIRST YEAR

First Semester				***Second Semester***			
ENGL	102	College Writing & Rhetoric	3	PHYS	211	Engineering Physics I & Lab	4*
MATH	170	Analytic Geometry & Calculus I	4 *	CHEM	111	Principles of Chemistry	4*
CS	120	Computer Science I	4 *	MATH	175	Analytic Geometry/Calculus II	4*
ISEM	101	Integrated Seminar	3	ECE	101 **(S)**	Foundations of ECE	2*
FE			1	HS/INT			3
			15				17

SECOND YEAR

Third Semester				***Fourth Semester***			
ECE	210	Circuits I	3 *	ENGR	220	Engineering Dynamics	3*
ECE	211	Circuits I Lab	1 *	MATH	275	Analytic Geom/Calc III	3*
MATH	310	Ordinary Differential Equations	3 *	ECE	212	Electrical Circuits II	3*
PHYS	212	Engineering Physics II & Lab	4 *	ECE	213	Elect Circuits II Lab	1*
ENGR	210	Engineering Statics	3 *	ECE	240	Digital Logic	3*
HS/INT			3	ECE	241	Digital Logic Lab	1*
				ECE	292 **(S)**	Sophomore Seminar	0
				HS/INT			3
			17				17

THIRD YEAR

Fifth Semester				***Sixth Semester***			
ECE	310	Fundamentals of Electronics	3	ECE	330	Electromagnetic Theory	3
ECE	311	Fundamentals of Electronics Lab	1	ECE	331	EM Theory Lab	1
ECE	320	Energy Systems	3	ECE	340	Microcontrollers	3
ECE	321	Energy Systems Lab	1	ECE	341	Microcontrollers Lab	1
ECE	350	Signals & Systems	3	ENGR	360	Engineering Economy	2
ECE	351	Signals & Systems Lab	1	STAT	301	Probability & Statistics	3
MATH	330	Linear Algebra	3	ISEM	301	American Diversity course	3
				ES			3
			15				19

FOURTH YEAR

Seventh Semester				***Eighth Semester***			
ECE	480	EE Senior Design	3	ECE	481	EE Senior Design II	3
ECE	491 **(F)**	Senior Seminar	0	TE			3
ENGL	317	Technical Writing	3	TE			3
TE			3	TE			3
TE			3	TE			3
HS/INT			3	FE			1
			15				16

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 may be required prior to taking 170 depending on standardized test or math placement test scores. However, MATH 143 is not part of the electrical engineering curriculum. The entire math sequence may be moved up one semester if MATH 143 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 (S) or 416 (F), 420 (S), 430 (every third semester), 440 (S) or 443 (F), 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, MATH 428, physics or other engineering course.

FE – Free Elective

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

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.