

**Bachelor of Science
Electrical and Computer Engineering
Electrical Engineering Option
2012-2013**

FRESHMAN YEAR

First Semester			Second Semester		
<i>Course</i>	<i>Title</i>	<i>Units</i>	<i>Course</i>	<i>Title</i>	<i>Units</i>
ENGR 102	Introduction to Engineering	3	Tier 1 TRAD	Traditions & Cultures	3
MATH 125	Calculus I	3	MATH 129	Calculus II	3
CHEM 151	Fundamentals of Chemistry	4	PHYS 141	Introductory Mechanics (w/Lab)	4
ENGL 101	First-year Composition	3	ENGL 102	First-year Composition	3
Tier 1 INDV	Individuals and Societies	3	ECE 175	Computer Programming for Eng. Apps.	3
		TOTAL 16			TOTAL 16

SOPHOMORE YEAR

First Semester			Second Semester		
<i>Course</i>	<i>Title</i>	<i>Units</i>	<i>Course</i>	<i>Title</i>	<i>Units</i>
ECE 274a	Digital Logic (w/Lab)	4	ECE 220	Basic Circuits (w/Lab)	5
MATH 223	Vector Calculus	4	MATH 254	Differential Equations	3
PHYS 241	Intro. to Electricity & Magnetism (w/Lab)	4	PHYS 143	Intro. to Optics & Thermodynamics	2
ECE 275	Computer Programming for Eng. Apps. II	3	Tier 2 INDV	Individuals and Societies	3
Tier 1 INDV	Individuals and Societies	3	Math 243	Discrete Mathematics	3
		TOTAL 18			TOTAL 16

JUNIOR YEAR

First Semester			Second Semester		
<i>Course</i>	<i>Title</i>	<i>Units</i>	<i>Course</i>	<i>Title</i>	<i>Units</i>
ECE 310	Appl. of Engineering Mathematics	4	ECE 304a	Design of Electronic Circuits (w/Lab)	4
ECE 320a	Circuit Theory	3	or ECE 330	or Computational Techniques	4
ECE 351c	Electronic Circuits	4	ECE 340	Engineering Systems Analysis	3
ECE 372a	Microprocessor Organization (w/Lab)	4	Tier 1 TRAD	Traditions & Cultures	3
		TOTAL 15	ECE 381a	Intro. to Electromagnetics	4
			ECE 352	Device Electronics	3
					TOTAL 17

SENIOR YEAR

First Semester			Second Semester		
<i>Course</i>	<i>Title</i>	<i>Units</i>	<i>Course</i>	<i>Title</i>	<i>Units</i>
ENGR 498a	Cross-disciplinary Design	3	ENGR 498b	Cross-disciplinary Design	3
Technical Electives		12	Technical Electives		9
			Tier 2	Arts/Humanities	3
		TOTAL 15			TOTAL 15

TOTAL DEGREE UNITS 128