

## **ELECTRICAL ENGINEERING 2013-2014**

### **FRESHMAN YEAR**

<b>First Semester</b>	<b>Credits</b>	<b>Second Semester</b>	<b>Credits</b>
MATH 1131Q <sup>1</sup> – Calculus I	4	MATH 1132Q – Calculus II	4
CHEM 1127Q – Gen. Chem. I	4	PHYS 1501Q – Engineering Physics I	4
CSE 1010 – Intro. to Computing for Engr.	3	ECE 1110 – Microcontroller Appl. Engr. or CSE 1102 – Object Oriented Design or ENGR 1166 – Foundations of Engineering	3
ENGL 1010 or 1011 – Writing	4	Arts and Humanities course <sup>2</sup>	3
ENGR 1000 – Orientation to Engr.	<u>1</u>	Elective	<u>3</u>
	16		17

### **SOPHOMORE YEAR**

<b>First Semester</b>	<b>Credits</b>	<b>Second Semester</b>	<b>Credits</b>
ECE 2001W – Electric Circuits	4	CSE 2300W – Logic Design	4
MATH 2110Q – Multivariable Calculus	4	ECE 3101 – Signals and Systems	3
MATH 2410Q – Differential Equations	3	ECE 3201 – Electronic Devices & Circuits	4
PHYS 1502Q – Engineering Physics II	<u>4</u>	STAT 3345Q – Probability Models Engineers	3
	15	PHIL 1104 – Philosophy and Social Ethics	<u>3</u>
			17

### **JUNIOR YEAR**

<b>First Semester</b>	<b>Credits</b>	<b>Second Semester</b>	<b>Credits</b>
ECE 3001 – EM Fields and Waves	3	ECE 3111 – Systems Analysis	3
Restricted Elective <sup>3</sup>	3	Restricted Elective <sup>3</sup>	3
Restricted Elective <sup>3</sup>	3	Restricted Elective <sup>3</sup>	3
MATH 2210Q – Linear Algebra	3	Social Sciences course <sup>2</sup>	3
Diversity and Multiculturalism course <sup>2</sup>	<u>3</u>	Elective	<u>3</u>
	15		15

### **SENIOR YEAR**

<b>First Semester</b>	<b>Credits</b>	<b>Second Semester</b>	<b>Credits</b>
ECE 4901 – E&CE Design I	2	ECE 4902 – E&CE Design II	3
Professional Requirement <sup>4</sup>	3	Professional Requirement <sup>4</sup>	3
Professional Requirement <sup>4</sup>	3	Professional Requirement <sup>4</sup>	3
Design Laboratory <sup>5</sup>	3	Design Laboratory <sup>5</sup>	3
Diversity and Multiculturalism course <sup>2</sup>	3	Social Sciences course <sup>2</sup>	<u>3</u>
Elective	<u>2</u>		15
	16		

<sup>1</sup> The three-semester sequence of MATH 1125Q-1126Q followed by Math 1132Q may be taken instead to satisfy this requirement. Only one credit of MATH 1125Q can be used toward the required 126 credits for the Engineering degree

<sup>2</sup> The courses from content areas one (Arts and Humanities) and two (Social Sciences) must be from four different departments. One course from either content area one (Arts and Humanities) or content area two (Social Sciences) may also be used to fulfill one of the requirements from content area four (Diversity and Multiculturalism). One course from content area four must be an international course.

<sup>3</sup> The four restricted electives must be selected as follows: ECE 3211, ECE 3231, or ECE 4095 “Electric Machines and Drives”; ECE 3221 or ECE 4201; ECE 4211 or ECE 4225; and ECE 4111 or ECE 4112.

<sup>4</sup> Four professional requirements are chosen from 3000 or 4000-level Math, Science, and Engineering courses. Two must be ECE courses.

<sup>5</sup> Choose two from ECE 3225, ECE 3411, ECE 3421, ECE 4079, ECE 4113, ECE 4122, ECE 4132, ECE 4225, ECE 4242, ECE 4244, ECE 4401, and ECE 4402.