

## **ENGINEERING PHYSICS (EE) 2015-2016**

### **FRESHMAN YEAR**

<b>First Semester</b>	<b>Credits</b>	<b>Second Semester</b>	<b>Credits</b>
MATH 1131Q – Calculus I	4	MATH 1132Q – Calculus II	4
CHEM 1127Q – General Chemistry I	4	CHEM 1128Q – General Chemistry II	4
PHYS 1501Q – Physics for Engineers I	4	PHYS 1502Q – Physics for Engineers II	4
ENGL 1010 or ENGL 1011 – Acad. Writing	4	Arts and Humanities Course <sup>2</sup>	3
ENGR 1000 – Orientation to Engineering	1	CSE 1010 – Intro. To Computing for Engr.	3
	<u>17</u>		<u>18</u>

### **SOPHOMORE YEAR**

<b>First Semester</b>	<b>Credits</b>	<b>Second Semester</b>	<b>Credits</b>
MATH 2110Q – Multivariable Calculus	4	MATH 2410Q – Differential Equations	3
PHYS 3101 – Mechanics I	3	ECE 2001W – Electric Circuits	4
PHYS 2501W – Lab. in Electricity, Magnetism, & Mechanics	3	PHYS 2300 – Quantum Physics	3
CSE 2300W – Logic Design	4	STAT 3345Q – Probability Models Engineers	3
	<u>14</u>	PHIL 1104 – Philosophy and Social Ethics	<u>3</u>
			<u>16</u>

### **JUNIOR YEAR**

<b>First Semester</b>	<b>Credits</b>	<b>Second Semester</b>	<b>Credits</b>
ECE 3201 – Electronic Circuit Design and Analysis	4	ECE 3111 – Systems Analysis	3
ECE 3101 – Signals and Systems	3	PHYS 3202 – Electricity and Magnetism II	3
PHYS 3201 – Electricity & Magnetism I	3	ECE 4111 – Communication Systems	3
MATH 2210Q – Linear Algebra	3	Social Sciences course <sup>2</sup>	3
MATH 3410 – Diff. Eqns. for Appl.	<u>3</u>	Diversity and Multiculturalism course <sup>2</sup>	<u>3</u>
	<u>16</u>		<u>15</u>

### **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
PHYS 3300 – Statistical/Thermal Physics	3	ECE 4211 – Micro/Optoelectronic Device	3
PHYS 3401 – Intro. Quantum Mechanics <sup>3</sup>	3	Diversity and Multiculturalism course <sup>2</sup>	3
Social Sciences course <sup>2</sup>	3	Elective	6
Elective	<u>6</u>		<u>15</u>
	<u>17</u>		

<sup>1</sup> The three-semester sequence of PHYS 1201Q-1202Q followed by PHYS 1230 or 1530 may be taken instead to satisfy this requirement. However, only eight credits of PHYS 1201-1202-1230/1503 can be used toward the required 128 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> Quantum mechanics for Engineers offered by the ECE department can be substituted.