



### Sample Brief Course Description

<b>Course title</b>	Power Electronics
<b>Course code</b>	ECE 346
<b>College</b>	Engineering
<b>Department / Program</b>	Electrical Engineering/Renewable Energy
<b>Year/ Level</b>	4/7
<b>Course Type</b>	<b>A.</b> <input type="checkbox"/> University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Others <b>b.</b> <input checked="" type="checkbox"/> Required <input type="checkbox"/> Elective
<b>Credited Hours</b>	3
<b>Contact Hours</b>	(LT:2, LB:2 ,TR:0)
<b>Pre-requisites (if any)</b>	ECE 241/ECE 211
<b>Co-requisites (if any)</b>	---
<b>Course description</b>	Power diodes, Power transistors – BJT,MOSFET, GTO and IGBT; Thyristors, TRIAC, switched mode regulators, buck regulators, boost regulators, buck – boost regulators, AC regulators , cycloconverters, choppers, step up and step down choppers, speed control of dc motors, Isolated converters, SMPS, UPS, three phase inverters
<b>Course Main Objectives</b>	<ol style="list-style-type: none"><li>1. To introduce the basic devices in power electronics</li><li>2. To understand the applications of power electronics such as switched mode regulators and inverters</li></ol>



Learning Outcomes	<b>Knowledge and Understanding</b> 1. Explain basic operation and compare the performance of various power semiconductor devices. 2.
	<b>Skills:---</b>
	<b>Values:---</b>