Sample Brief Course Description	
Course title	Electric Circuits
Course code	ECE 212
College	Engineering
Department / Program	Biomedical Engineering
Year/ Level	2/5
Course Type	**A.** ☐ University ☐ College ■ Department ☐ Others b. ■ Required ☐ Elective
Credited Hours	6
Contact Hours	(LT: 4, LB: 4, TR: 0)
Pre-requisites (if any)	PHYS 103
Co-requisites (if any)	---
Course description	This course introduces concepts of Electric circuits by studying the following main topics; electric circuit elements, techniques of circuit analysis, transient conditions, and the steady state analysis, Basic concepts of AC Circuits, network transformations, 3-phase circuits and transformers.
Course Main Objectives	• Understand the principles of electric circuits design and different applications. • Comprehend the techniques of DC and AC analysis.

	• Understand the techniques to analyze different circuit configuration
Learning Outcomes	**Knowledge and Understanding:** 1. Identify the different elements of electric circuits. 2. Identify periodic waves and sinusoidal current and voltage. 3. Understand power calculations. 4. Illustrate Electric Machines.
	Skills:--- **1.** Apply different techniques to analyze electric circuits. **2.** Solve problems of different electric circuits. **3.** Formulate equations related to the circuit's analysis. 4. Analyze AC-Circuits. **5.** Recognize 3-phase circuits calculations
	Values:--- 1. Communicate effectively on a team.