EE213-2: Electrical Circuits (2)

Course code and name	EE213-2: Electrical Circuits (2)
Credits units	2 Credit units
Contact hours	4 Contact hours: 1 lecture, 1 tutorial and 2 practical
Instructor name	Dr. Ferchichi Noureddine
Textbook	James W. Nilsson, Susan Riedel; "Electric Circuits", 10th Edition, Prentice Hall; 10 edition, 2014, ISBN-13 978-0133760033
Other supplemental materials	Charles Alexander and Matthew N.O. Sadiko, Fundamentals of Electric Circuits, 3rd Edition, ISBN: 0072977183, McGraw-Hill's, 2007.
	Specific course information
a. Course description	The course aims to teach the students the basic concepts of Laplace transform, Fourier analysis for electrical circuits, characterization and specification of two-port networks, analysis of passive filters, resonance circuit, mutual coupling, and ideal transformer.
b. Prerequisite	EE112-2
c. Required / Elective	Required
	Course Learning Outcomes

CLO of the Lecture Activities:

CLO1: Identify passive filters and resonance circuits.

CLO2: Apply Laplace transform to electrical circuits.

CLO3: Compute Fourier analysis for electrical circuits.

CLO4: Differentiate characterization and specification of two-port networks.

CLO of the Laboratory Activities:

CLO1: Verify theory and to improve knowledge learned in class.

CLO2: Formulate and solve problems related to theory.

CLO3: Design and safety conducts an experimental procedure.

CLO4: Independently perform accurate quantitative measurements, interpret

experimental results, perform calculations on these results and draw a reasonable, accurate conclusion.

CLO5: Communicate critical analysis of scientific information through written reports.

CLO6: Be integrated inside a group of work and respect the team working.

Brief list of topics to be covered

- Frequency response
- The Laplace transform
- The Fourier series
- Two-port networks

Mapping Course Learning Outcomes to Student Outcomes

	Lecture Activities						
	SO1	SO2	SO3	SO4	SO5	SO6	SO7
CLO1							
CLO2							
CLO3							
CLO4							
	Laboratory Activities						
	SO1	SO2	SO3	SO4	SO5	SO6	SO7
CLO1							
CLO2							
CLO3							
CLO4							
CLO5							
CLO6							