Jordan University of Science and Technology
Faculty of Engineering
Electrical Engineering Department

EE212 Electric Circuit Analysis
Summer Semester 2019-2020

Course Catalog
3 Credit Hours. Units and definitions; experimental laws and simple circuits; useful techniques of circuit analysis; inductance and capacitance; source-free RL and RC circuits; application of the unit step forcing function; RLC circuits; the sinusoidal forcing function; the phasor concept; the sinusoidal steady-state response. Average power and RNS values.

Text Book	
Title	Engineering Circuit Analysis
Author(s)	W. H. Hayt, Jr., J. E. Kemmerly, and S.M. Durbin
Edition	8th Edition
Short Name	Ref#1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref#2	Fundamentals of Electric Circuits	C. K. Alexander and M. N. O. Sadiku	3rd Edition	

Instructor	
Name	**Dr. SARI KHATALIN**
Office Location	E1L3
Office Hours	
Email	smkhatalin@just.edu.jo

Class Schedule & Room

Section 1:
 Lecture Time: Sun, Mon, Tue, Wed : 10:00 - 11:30
 Room: منصة الكترونية

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Week 1	Introduction to Circuit Analysis and Design	From **Ref#1**
Week 2	Basic Components and Electric Circuits	From **Ref#1**
Week 3	Voltage and Current Laws	From **Ref#1**
Weeks 4, 5	Basic Nodal and Mesh Analysis	From **Ref#1**
Weeks 6, 7	Circuit Analysis Techniques	From **Ref#1**
Week 8	Capacitors and Inductors.	From **Ref#1**
Weeks 9, 10	Basic RL and RC Circuits.	From **Ref#1**
Weeks 11, 12	The RLC Circuit.	From **Ref#1**
Weeks 13, 14	Sinusoidal Steady State Analysis.	From **Ref#1**
Week 15	AC Power Circuit analysis.	From **Ref#1**

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
1. Ability to apply basic circuit laws and rules on DC circuits. [15ABET1, 5ABET6]	20%	
. Understand and apply circuit theorems [15ABET1, 5ABET6]	20%	
Ability to analyze first and second order transient circuits [15ABET1, 5ABET6]	20%	
Ability to analyze steady state sinusoidal circuits [15ABET1, 10ABET6]	25%	
Ability to compute various types of power. [10ABET1, 5ABET6]	15%	

Relationship to Program Student Outcomes (Out of 100%)						
ABET1	ABET2	ABET3	ABET4	ABET5	ABET6	ABET7
70					30	

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