



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

EE210 Circuits (1)

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. Sinusoidal forcing function. Phasor concept. Sinusoidal steady-state response.

Text Book

Title	Fundamentals of Electric Circuits
Author(s)	Alexander, C. K. and M. N. Sadiku,
Edition	6th Edition
Short Name	Text Book
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref1	Engineering Circuit Analysis	Hayt, W. H., Kimmerly, J. E., and Durbin, S. M	8th Edition	
Ref2	Introduction to Electric Circuits	Dorf, R.C. and J.A Svoboda,	7th Edition	

Instructor

Name	Dr. SARI KHATALIN
Office Location	E1L3
Office Hours	
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Class Schedule & Room
Section 1: Lecture Time: Sun, Mon, Tue, Wed : 08:30 - 10:00 Room: منصة الكترونية

Prerequisites		
Line Number	Course Name	Prerequisite Type
921020	PHY102 General Physics (2)	Prerequisite / Study
902030	MATH203 Ordinary Differential Equations	Pre./Con.

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

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Ability to apply basic circuit laws and rules. [1ABET1]	20%	
Understand and apply circuit theorems. [1ABET1]	30%	
Ability to analyze first and second order transient circuits. [1ABET1]	20%	
Ability to analyze steady-state sinusoidal circuits. [1ABET1]	30%	

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

Evaluation	
Assessment Tool	Weight
Exam1	30%
Exam2	20%
Final Exam	50%

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