



Department of Basic and Applied Science
Smart Village Campus

EE231

Electrical Circuits (1)

Fall 2013

Course Outline

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Objective:	<ul style="list-style-type: none">• Introduce students to understand the rules of differentiation of different functions.• Introduce students to understand the basics of complex numbers, curve sketching and conic sections.												
Text:	J. Nilson & S.Riedel, "Electrical circuits", NINTH edition												
Grading:	<p><u>Evaluating system</u></p> <table><tr><td>1- 7th Week Exam</td><td>30 marks</td></tr><tr><td>2- 12th Week Exam</td><td>20 marks</td></tr><tr><td>3- Tutorial Activity</td><td>10 marks</td></tr><tr><td>4- Final Exam</td><td>40 marks</td></tr><tr><td></td><td><hr/></td></tr><tr><td>Total</td><td>100 marks</td></tr></table>	1- 7 th Week Exam	30 marks	2- 12 th Week Exam	20 marks	3- Tutorial Activity	10 marks	4- Final Exam	40 marks		<hr/>	Total	100 marks
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Week of		E V E N T	
1	Sept.24 nd	Lecture	Basic dc circuit elements, series and parallel Networks
		Tutorial	3.3,3.4,3.5,3.6,3.7,3.8,3.14,3.15,3.18
2	Sept.29 th	Lecture	Ohm's law and Kirchoff's laws
		Tutorial	2.18,2.19,2.21,2.24,2.26,(sheet1: 9,10,11,12)
3	Oct.6 th	Lecture	Nodal analysis
		Tutorial	4.6,4.8,4.13,4.24,4.26,4.21,4.22
	Oct.13 th	Holiday	Al-Adha Feast
4	Oct.20 th	Lecture	Mesh analysis
		Tutorial	4.33,4.34,4.42,4.48(sheet2: 15,16)
5	Oct.27 th	Lecture	Electric circuit theorems: source transformation
		Tutorial	4.59,4.60,4.61(sheet3:2,3,4,5,7)
6	Nov.3 rd	Lecture	Electric circuit theorems: Super position
		Tutorial	4.91,4.92,4.93,4.94,4.95
7	Nov.10 th	Lecture	Thevenin's Theorem and Norton Theorem
		Tutorial	4.63,4.64,4.65,4.66,4.67,4.68(sheet4:5,6,7,8,14)
8	Nov.17 th	Lecture	Maximum power transfer
		Tutorial	4.79,4.80,4.81,4.82(sheet4:4,15)
9	Nov.24 th	Lecture	Alternating current Fundamentals and AC generation
		Tutorial	Sheet5
10	Dec.1 st	Lecture	RMS value, average value, form factor and crisp factor
		Tutorial	Sheet5
11	Dec.8 th	Lecture	Phasor concept
		Tutorial	Sheet6
12	Dec.15 th	Lecture	Relation between voltage and current in resistor, capacitor and inductor
		Tutorial	Sheet6
13	Dec.22 nd	Lecture	Response of RL and RC circuits
		Tutorial	Sheet6
14	Dec.29 th	Lecture	sinusoidal response of RLC circuit
		Tutorial	Sheet6
15	Jan.5 th	Lecture	Series Resonance
		Tutorial	Sheet6
16	Jan.12 th	Final Exam	

Good Luck