

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS  
ELECTRICAL ENGINEERING DEPARTMENT

EE-204 Fundamentals of Electrical Circuits  
Fall Semester (971)

*Textbook:* ELEMENTARY LINEAR CIRCUIT ANALYSIS, Bobrow, 2nd Edition, 1987.

Week	Date	Topics	Text	Lab. Session
1	6 - 10 September	Introduction, Ideal Sources, Resistors & Ohm' Law	1.1, 1.2	No meeting
2	13 - 17 September	KCL, KVL, Instantaneous Power	1.3, 1.4, 1.6	Exp. # 1 Resistors & Ohm's Law
3	20 - 24 September	Nodal Analysis	2.1, 2.2	Exp. # 2 Kirchhoff's Law
4	27 Sep. - 1 October	Mesh Analysis	2.3, 2.4	Exp. # 3 Comp. Simulation On DC ckt.
5	4 - 8 October	Nonideal Sources Thevenin's Theorem	3.2, 3.3	Exp. # 3 (cont.) Experimental Part of Exp#3
6	11 - 15 October	Norton's Theorem Maximum Power Transfer	3.4	Prob. Session # 1
7	18 - 22 October	<b>Major Exam I (In Class Time)</b> The Principle of Superposition	3.5	No Labs
8	25 - 29 October	Inductors, Capacitors Series & Parallel Conn. / Node & Mesh Eq.	4.1, 4.2, 4.6	Exp. # 4 Current and Voltage Divider
9	1 - 5 November	Complex Number Frequency-Domain Analysis	8.2, 8.3	Exp. # 5 Superp. Theven / Nort Theorem
10	8 - 12 November	Frequency-Domain Circuit Concepts	8.4	No Labs
11	15 - 19 November	Average Power Effective Values	9.1, 9.2	Exp. # 6 Freq.-Domain Analysis
12	22 - 26 November	Important Power Concepts: power factor, complex power, Single-phase three-wire ckt.	9.3	Prob. Session # 2
13	29 Nov. - 3 December	<b>Major Exam II (In Class Time)</b> Three-Phase Circuits	9.4	Exp. # 7 Maximum Power Transfer
14	6 - 10 December	Star - Delta Connections	9.5	Exp. # 8 Average / RMS Values
15	13 - 17 December	Power Measurements Review	9.6	Final Lab Exam

**Final Examinations**

**Grade distribution**

20% [3% Pre-lab + 9% Lab-report + 8% Final-lab Exam] Laboratory

Major Exams 30%

15% [Quiz, Home-works, Attendance] Class work  
35% Final Exam

## Important Items to Remember

**Problem sessions:** All problem sessions will be held during the lab periods. ( )

**Home-works:** Each Set will be distributed by the course instructor on Saturdays and has to be submitted ( )  
back on Saturday of the next week. Solutions will be posted after word at the following locations:

Building 26, in the Bulletin board between rooms 248 & 249. -a

Building 21, 2<sup>nd</sup> floor. -b

EE Club. -c

**Pre-labs:** Each student must submit the pre-lab assignment at the beginning of each lab. No pre-lab will be ( )  
accepted if the lab instructor started the experiment.

**Lab-reports:** Each student must submit his own lab-report before he leaves the lab-room. ( )

**Lab-makeup:** No lab-makeup will be allowed without an official excuse. ( )

**Attendance:** According to the university regulations, if the number of absents exceed 20% of the scheduled ( )  
class meetings without an official excuse, the student will receive WF in the course.

**Academic dishonesty:** According to the university regulations, if any student is discovered by his instructor ( )  
for any instance of academic dishonesty, he may give a failing (F) grade to the student and report it to the  
dean of engineering collage.

**Dr. Ibrahim O. Habiballah**

**EE-204 Coordinator**