

# King Fahd University of Petroleum and Minerals

## Electrical Engineering Department

### EE205: ELECTRIC CIRCUITS II

Course Coordinator: Dr. Abdelmalek Zidouri

Second Semester 2005-2006 (052)

#### A. Course Information

<b>Text Book:</b>	<i>ELECTRIC CIRCUITS</i> , Nilsson & Riedel, 6 <sup>th</sup> Edition, 1999				
<b>Course</b>	Name, Email address	Office	Phone	Office Hours	Sections
<b>Instructors:</b>	Dr. Abdelmalek Zidouri , <b>Coordinator</b> <a href="mailto:malek@kfupm.edu.sa">malek@kfupm.edu.sa</a>	14/209-1	3677	SMW 10-11 U 11-12	1, 2
	Dr. Chokri Belhadj Ahmed <a href="mailto:bachokri@kfupm.edu.sa">bachokri@kfupm.edu.sa</a>	14/279-1	4238		3
	Dr. Ali Muqaibel <a href="mailto:muqaibel@kfupm.edu.sa">muqaibel@kfupm.edu.sa</a>	14/217	1595	SM 11:00-11:45 M 5-6PM	4
	Dr. Azzedine Zerguine <a href="mailto:azzedine@kfupm.edu.sa">azzedine@kfupm.edu.sa</a>	14/271	4430		5
<b>Grading:</b>	Attendance, Assignments and Quizzes	Projects	Two Majors		Final
	15%	10%	40%		35%
	First Major	Second Major	Projects Due Dates		Final
<b>Exams Dates:</b>	Sun. March. 26, 2006	Tue. May 9, 2006	TBA		Tuesday 7:30 a.m. May 30 <sup>th</sup> , 2006
<b>Exams Times:</b>	8:00-9:30	6:30-8:00			
<b>Exams Places:</b>	<b>B14-108</b>	<b>B14-108</b>			
<b>Important Dates:</b>	Last day to drop the course <b>without</b> a permanent record	Last day to drop the course with “W” grade		Last day to drop <b>all courses</b> with “W” Thru Registrar’s office.	
	<b>February 22, 2006</b>	<b>March 29, 2006</b>		<b>April 19, 2006</b>	

**Note #1:** Final Exam is comprehensive (i.e. covers all chapters as described in the syllabus). It is common to all sections.

**Note #2:** According to the rules and regulations of KFUPM, attendance is **MANDATORY**. More than **8** unexcused absences will be reported to the registrar office and result in a **GRADE of DN** regardless of the student’s grade.

**Note #3:** It is your responsibility to solve the homework as soon as the material is covered in the class. Homework solution will be published on WebCT. Quizzes will be given regularly based on the homework problems.

**Note #4:** You are urged to use **your instructor’s** office hours whenever is possible. To help you further we are coordinating the course and you can visit **any instructor** of the course in his office hours if your instructors office hours are not convenient for you.

**Note #5:** You can access the homework solutions and any other supplement material, communication items, and any **course information** at your instructor’s WebCT course page.

## B. Tentative Course Outline and Schedule

Week	Date	Topics	Text Section	Homework Problems
1	Feb 12-15	Introduction to 3- $\phi$ circuits	11.1-11.3	
2	Feb 18-22	Balanced three-phase circuits	11.4-11.6	HW1:
3	Feb 25-Mar 1	Natural and step responses of RLC circuits	8.1-8.2	<b>Ch11:</b> 7,11,20,21 <b>Ch11:</b> 24,27,28,38
4	Mar 4-8	Natural and step responses of RLC circuits	8.3-8.4	HW2:
5	Mar 11-15	Natural and step responses of RLC circuits. State equations and computer aided circuit analysis.	8.5 Handout*	<b>Ch8:</b> 3,4,10,12 <b>Ch8:</b> 25, 28, 32, 37, 45
6	Mar 18-22	State equations and computer aided circuit analysis	Handout	HW3: <b>Ch. 7</b> Bobrow: 6,9,21,25,38,40
<b>Major I Sun. March 26, 8:00-9:30 pm (B14-108); Up to sec. 8.5</b>				
7	Mar 25-29	Resonant circuits	Handout	HW4:
8	Apr 3-5	Resonant circuits, Circuit analysis in s-domain	Handout	<b>Ch 10</b> Bobrow 23,26,27,33
<b>Midterm Break 1-2 April</b>				
9	Apr 8-12	Circuit analysis in s-domain	Handout	HW5: <b>Ch 10</b> Bobrow 40,42,50,53,54
10	Apr 15-19	Circuit analysis in s-domain Mutual inductance and transformers	Handout 6.4-6.5	HW6: <b>Ch.6:</b> 6:35,36,37,39,40
11	Apr 22-26	Mutual inductance and transformers	9.10, 9.11	<b>Ch.9:</b> 60, 61, 63, 68
<b>Major II Tue. May 9, 6:30-8:00 pm (B14-108); Up to Transformers 9.11</b>				
12	Apr 29-May 3	Filters and Bode plot	14.1-14.4	HW7:
13	May 6-10	Filters and Bode plot	14.6-14.7	<b>Ch.14:</b> 2,4,7,8,12 31,32,33(c),34
14	May 13-17	Two-port networks	18.1-18.2	HW8:
15	May 20-24	Two-port networks	18.3-18.4	<b>Ch.18:</b> 2,3,10,11 19,20,30,38
	May 27-28	Review		
<b>Final Tuesday May 30<sup>th</sup>, 7.30 am</b>				

\* Handouts can be downloaded from your WebCT course pages.