A. Basic Information

Course Title: Electrical Testing (3) **Code**: EPE 221
Lecture: - **Tutorial**: - **Practical**: 4 **Total: 4**
Program on which the course is given: B.Sc. Electrical Engineering (Electrical Power and machines)
Major or minor element of program: N.A.
Department offering the program: Electrical Engineering Department
Department offering the course: Electrical Engineering Department
Academic year / level: Second Year / **Second** Semester
Date of specifications approval: 10/5/2006

B. Professional Information

1. Overall aims of course

By the end of the course the students will be able to:

- Understanding the basic principles of operation of electronic circuits.
- Supplying graduates with sufficient information about the electronic circuits.
- Establishing the experimental test for AC circuits.
- Establishing the experimental test for digital circuits.
- Establishing the experimental test for magnetic circuits.

2. Intended Learning outcomes of Course (ILOs)

a. Knowledge and Understanding:

a1- Understanding the principles of electronic, digital and magnetic circuits.

b. Intellectual Skills

b1- Ability to understand different types of connections of devices for electronic, digital and magnetic circuits.

c. Professional and Practical Skills

c1- Proper use of workshop, laboratory and measuring equipment to generate valuable data.

d. General and Transferable Skills

d.1) Collaborate effectively within multidisciplinary team.
d.2) Work in stressful environment and within constraints.
d.3) Communicate effectively.

3. Contents

No	Topic	No. of hours	ILOs	Teaching / learning methods and strategies	Assessment method
1	Electronic circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
2	Electronic circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
3	Electronic circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
4	Electronic circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
5	AC circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
6	AC circuits experiments	4	a1, a5, b1, b2, b3, a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam

7	AC circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
8	Mid term exam				
9	AC circuits and Digital circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
10	Digital circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
11	Digital circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
12	Magnetic circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
13	Magnetic circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
14	Magnetic circuits experiments	4	a1, b1, c1, d1, d2, d3	Tutorial, experimental work	practical Assignments, Quizzes, practical Exam
15 16	Final exam				

4. Teaching and Learning Methods

4.1- lectures
4.2- Tutorial…. **(√)**
4.3- Experimental work **(√)**

Student Assessment Methods

1-Written examinations……. A2, b2, c4
2- Oral examination A2, b2, c4
3- Laboratory examinational A2, b2, c4

5. Assessment schedule

Assessment 1 on weeks 2, 5, 9, 11
Assessment 2 Quizzes on weeks 4, 6, 10, 12
Assessment 3 Mid-term exam on week 8
Assessment 4 practicalral Exam on week 15
Assessment 5 Final exam on week 16

6. Weighting of Assessments

Mid-Term Exam.	30 / 100	30 %
Oral Examination	20 / 100	20 %
Final Term Exam.	50 / 100	50 %
Total		100%

List of References

1- Course Notes by Prof. Prof. Dr. Abdel Salam Hafez A. Hamza
2- Required Books (Text Books)

Course Notes by Prof. Prof. Dr. Abdel Salam Hafez A. Hamza

Essential Books (Text Books)
Experimental Course Notes by Prof. Prof. Dr. Abdel Salam Hafez A. Hamza
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6.1 Recommended Books
Electrical engineering text books

6.2 Periodicals Web sites, etc
…… ……..

Internet Web sits

7. Facilities Required for Teaching and learning

Presentation board, computer and data show,
Practical equipments and components for the experiment

Course coordinator: Prof. Dr. Abdel Salam Hafez A. Hamza
Course instructor: Prof. Dr. Abdel Salam Hafez A. Hamza
Head of department: Prof. Dr. Mousa Abd-Allah **Date: 22 / 11 / 2011**