A. Basic Information

Course Title: Measuring instruments
Code: EPE213
Lecture: 4	Tutorial: 2	Practical: -
Total: 6
Program on which the course is given: BSc Electrical Engineering (Power)
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/First 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:
- Understand the measuring concepts of the electrical quantities
- Knowing the construction of the different measuring instruments
- Capable of analysis of the measuring errors

2. Intended Learning outcomes of Course (ILOs)

a. Knowledge and Understanding:
   a1. Concepts and theories of mathematics and sciences, appropriate to the discipline.
   a3. Characteristics of engineering materials related to the discipline.
   a5. Methodologies of solving engineering problems, data collection, and interpretation.
   a8. Current engineering technologies as related to disciplines.
b. Intellectual Skills
   b3. Think in a creative and innovative way in problem solving and design.
   b5. Assess and evaluate the characteristics and performance of components, systems and processes.

   b6. Investigate the failure of components, system, and processes.

c. Professional and Practical Skills
   c13. Design and perform experiments, as well as analyze and interpret experimental results related to electrical power and machines systems.
   c14. Test and examine components, equipment and systems of electrical power and machines.

d. General and Transferable Skills
   d4. Demonstrate efficient IT capabilities.

3. Contents

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### 4. Teaching and Learning Methods

Lectures
Class activity
Assignments / homework
5. **Student Assessment Methods**
   - Assignments to assess knowledge and intellectual skills.
   - Quiz to assess knowledge, intellectual and professional skills.
   - Mid-term exam to assess knowledge, intellectual, professional and general skills.
   - Oral exam to assess knowledge and intellectual skills.
   - Final exam to assess knowledge, intellectual, professional and general skills.

6. **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 Oral Exam on week 14
   - Assessment 5 Final exam on week 15

7. **Weighting of Assessments**
   - Home assignments 05%
   - Quizzes 05%
   - Mid-term examination 10%
   - Oral examination 20%
   - Final-term examination 60%
   - Total 100%

8. **List of References**

   8.1 Course Notes

   - …………

   8.2 Essential Books (Text Books)
   - Electronic Instrumentation and Measurements David A.Bell.
8.3 Recommended Books
   Electronic Instruments and Measurements Larry D. Jones and A. Soster Chin

8.4 Periodicals Web sites, etc

9. Facilities Required for Teaching and learning
   Lecture room equipped with presentation board

Course coordinator:  Prof. Dr. Manar Abdel- Aziz Foda
Course instructor:    Prof. Dr. Mousa Abd-Allah
Head of department:  Prof. Dr. Mousa Abd-Allah
Date:                1/12/2011