Course Specifications

Program(s) on which this course is given:	Electronics & Electrical Communications Engineering
Major or Minor element of programs:	Major
Department offering the program:	Electronics & Electrical Communications Engineering
Department offering the course:	Electronics & Electrical Communications Engineering
Academic year / Level:	Third Year
Date of original/modified specification approval:	2003
Semester of course offering:	Second

A- Basic Information

1.a. Title:	Measurements (3)		**1.b. Code:**		ELC 304 B		
2. Units/Credit hours per week:	2.a. Lectures	4	2.b. Tutorial	--	2.c. Practical	--	2.d. Total	4

B- Professional Information

1. Overall Aims of the Course:	• Be familiar with some measurement instruments and its usage. • Be familiar with remote measurement systems. • Be familiar with Design problems and their solutions. • Be familiar with PCB rules.

2. Intended Learning Outcomes of Course (ILOs):	**a) Knowledge and Understanding** 1. Identify the principles of operation of some instruments (1.2, 1.7). 2. Identify remote measurement systems (1.2, 1.7). 3. Identify PCB design rules (1.7). **c) Professional and Practical Skills** 1. Design and test a data acquisition system (2.1, 2.4, 2.6, and 2.7). 2. Present work both in written and oral form (2.8). **d) General and Transferable Skills** 1. Work efficiently within a multi-disciplinary team and communicate effectively both orally and in writing (4.7). 2. Manage tasks and resources efficiently (4.4).

3. Contents

Topic	Total hours	Lectures	Tutorial/ Practical
Cathode ray oscilloscope	6	6	0
Digital storage oscilloscope and its advantages	2	2	0
Transducers	6	6	0
Electronic Design Problems	12	12	0
Remote Measurement systems	6	6	0
PCB rules	6	6	0
Project Description	4	0	4

2. Teaching and Learning Methods:	Lectures (Y)	Practical Training/ Laboratory (N)	Seminar/Workshop (N)
	Class Activity (N)	Case Study (N)	Projects (Y)
	E-learning (N)	Assignments /Homework (N)	Other:

5. Student Assessment Methods

5.a. Method	To assess (with reference to the ILOs)

- Final Exam	a1, a2
- Project	a3, c1, c2, d1, d2
5.b. Assessment Schedule	**Week**
-Assessment 2; project	13
-Assessment 1; Final	15
5.c. Weighting of Assessments	
- Final Examination	70 %
- Project	30 %
- Total	100 %
6. List of References	
6.a. Course Notes and Lectures	
6.b. Periodicals and Web Sites: N/A.	
7. Facilities Required for Teaching and Learning	
• Data show and white boaard	
Course Coordinator:	**Dr. Amin Nassar / Dr.Mohamed Riad**
Head of Department:	**Dr. Mahmoud Al-Hadidi**
Date:	**2010-2011**