



Shoubra  
Faculty of  
Engineering

# Model No.12

## Course Specifications : Electrical Testing-1B

Alfarabi for Quality Assurance and Accreditation System - at 16/2/2014 4:57 PM

**University :** Benha university

**Faculty :** Shoubra Faculty of Engineering

**Department :** Electrical Engineering Department

### 1- Course Data

**Course Title:** Electrical Testing-1B

**Code:** EPE121

**Lecture:** 0

**Tutorial:** 0

**Practical:** 4

**Total:** 4

**Program on which the course is given:** B.Sc. Electrical Engineering (Electrical Power and machine)

**Major or minor element of program:** Major

**Department offering the program:** Electrical Engineering Department

**Department offering the course:** Electrical Engineering Department

**Academic year / level:** **First Year / Second Semester**

**Date of specifications approval:** 20/6/2010

### 2- Course Aim

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

2.1- Demonstrate of basic principles of electronics.

2.2- Provide students with a sound understanding of modern logic circuits.

### 3- Intended Learning Outcomes of Course (ILOS)

#### a- Knowledge and Understanding

On completing this course, students will be able to:

a- 1 –Demonstrate fundamental concepts, principles, theories and applications of basic engineering / electrical engineering courses.

#### b- Intellectual Skills

At the end of this course, the students will be able to:

b- 1 -Use of scientific principles in development of engineering and/or electrical engineering solutions to practical problems.

#### c- Professional Skills

On completing this course, the students are expected to be able to:

c- 1 – Use of workshop, laboratory and measuring equipment to generate valuable data.

#### d- General Skills

At the end of this course, the students will be able to:

d- 1 - Collaborate effectively within multidisciplinary team.

d- 2 - Work in stressful environment and within constraints.

d- 3 - Communicate effectively.

### 4- Course Contents

No.	Topics	No. of hours	ILOs	Teaching/learning methods and strategies	Assessment method
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1	1- Experiments: Fundamentals of Electronics	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
2	1- Experiments: Fundamentals of Electronics	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
3	2- Logic Circuits.	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
4	2- Logic Circuits.	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
5	3- Measuring & Testing devices	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
6	3- Measuring & Testing devices	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
7	3- Measuring & Testing devices	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
8	mid-term		a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
9	4- Methods of Measuring	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
10	4- Methods of Measuring	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
11	5- Methods of Testing Software's.	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
12	5- Methods of Testing Software's.	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
13	6-Components identifications.	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data	Home Assignments,

				show	Quizzes, Oral Exam
14	6-Components identifications.	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
15	final exam	4	a1, b1, c1, d1, d2, d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam

## 5- Teaching and Learning Methods

- 5.1- Modified Lectures.
- 5.2- Class activity.
- 5.3- Assignments / homework.

## 6- Teaching and Learning Methods of Disables

None

## 7- Student Assessment

### a- Student Assessment Methods

1	Assignments to assess knowledge and intellectual skills.
2	Quizzes. To assess knowledge and intellectual skills.
3	Mid-term exam. to assess knowledge and intellectual skills.
4	Oral exam. To assess knowledge and intellectual skills.
5	Final exam. To assess knowledge and intellectual skills.

### b- Assessment Schedule

No.	Assessment	Week
1	Assignments	2,5,9,11
2	Quizzes	4,6,10,12
3	Mid-term exam	8
4	Practical and Oral Exam	14
5	Final exam	15

### c- Weighting of Assessments

Assessment	Weight
Mid_Term Examination	10 %
Final_Term Examination	50 %
Oral Examination	20 %
Practical Examination	10 %
Semester work	5 %
Other types of assessment	5 %
Total	100 %

**Course coordinator:** Prof. Dr. Nagat kamel , Dr. mohamed shebl

**Course instructor:** Prof. Dr. Nagat kamel

**Head of department:** Prof. Dr. Sayed Abo\_Elsood Ward

### Matrix of course content and ILO's

**Course Title:** Electrical Testing-1B **Code:** EPE121  
**Lecture:** 0 **Tutorial:** 0 **Practical:** 4 **Total:** 4  
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Course content	ILO a's	ILO b's	ILO c's	ILO d's		
	1	1	1	1	2	3
1- Experiments: Fundamentals of Electronics	✓	✓	✓		✓	
2- Logic Circuits.	✓	✓	✓			
3- Measuring & Testing devices	✓	✓	✓	✓		
4- Methods of Measuring	✓	✓	✓			
5- Methods of Testing Soft wares.	✓	✓	✓			
6-Components identifications.	✓	✓	✓			✓

### Matrix of course aims and ILO's

**Course Title:** Electrical Testing-1B **Code:** EPE121  
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Course content	ILO a's	ILO b's	ILO c's	ILO d's		
	1	1	1	1	2	3
Understanding of basic principles of electronics.	✓		✓		✓	
To provide students with a sound understanding of modern logic circuits.	✓	✓	✓	✓		✓

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