



Shoubra  
Faculty of  
Engineering

## Model No.12

### Course Specifications : Test 1-A

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 Code : EPE112

Course Title : Test 1-A

Study Year : First Year

Specialization :

Teaching Hours:

Lecture :

Tutorial : 4

Practical : 4

Date of specifications approval: 20/6/2010

#### 2- Course Aim

For students undertaking this course, the aims are to:

- 2.1- Demonstrate of basic principles of electrical engineering.
- 2.2- Provide students with sound experimental and practical skills.
- 2.3- Provide students with instruments and components.

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

##### a- Knowledge and Understanding

On completing this course, students will be able to:

- a- Fundamental concepts, principles, theories and applications of basic electrical engineering courses

##### b- Intellectual Skills

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

- b- 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- 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
1	Experiments on Fundamental of	16	a, b, c, d1,d2,d3	Classroom board, computer and data	Home Assignments, Quizzes, Oral Exam

	electric circuits carrying out experimental and practical experiments covering, basic and fundamentals of electric and electronic engineering including series, parallel circuits, Kirchoff's law, loop and node methods			show	
2	Experiments on Fundamental of electric circuits	32	a, b, c, d1,d2,d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
3	Experiments on Fundamental of electronic circuits, identify the basic component of computer systems	16	a, b, c, d1,d2,d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam
4	Experiments on Fundamental of electronic circuits, programming and its applications in electrical engineering	24	a, b, c, d1,d2,d3	Classroom board, computer and data show	Home Assignments, Quizzes, Oral Exam

### 5- Teaching and Learning Methods

- 5.1- 1) Modified lectures
- 5.2- 2) Tutorial
- 5.3- 3) Experimental work

### 6- Teaching and Learning Methods of Disables

None

### 7- Student Assessment

#### a- Student Assessment Methods

1	Written examinations to assess A2, b2, c4
2	Oral Examination to assess A2, b2, c4
3	Laboratory Examination to assess A2, b2, c4

**b- Assessment Schedule**

No.	Assessment	Week
1	Assessment 1	2, 5, 9, 11
2	Assessment 2 Quizzes	4,6,10,12
3	Assessment 3 Midterm	8
4	Assessment 4 Practical exam	14
5	Assessment 5 final exam	16

**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 %

**8- List of References**

**a- Books**

1- 1- Course Notes by Prof. Prof. Dr. Abdel Salam Hafez A. Hamza Experimental Course  
Notes by Prof. Dr. Abdel Salam Hafez A. Hamza

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**- Course Coordinator :**

- 1 – Prof: Nagat Mohamed kamel
- 2 - Prof. Dr. Abdel Salam Hafez A. Hamza

### Matrix of Knowledge and Skills of the course

No.	Topics	No. of hours	Basic Knowledge	Intellectual Skills	Professional Skills	General Skills
1	Experiments on Fundamental of electric circuits carrying out experimental and practical experiments covering, basic and fundamentals of electric and electronic engineering including series, parallel circuits , Kirchoff's law, loop and node methods	16	a	b	c	d1,d2,d3
2	Experiments on Fundamental of electric circuits	32	a	b	c	d1,d2,d3
3	Experiments on Fundamental of electronic circuits ,identify the basic component of computer systems	16	a	b	c	d1,d2,d3
4	Experiments on Fundamental of electronic circuits , programming and its applications in electrical engineering	24	a	b	c	d1,d2,d3

#### - Course Coordinator :

- 1 – Prof: Nagat Mohamed kamel
- 2 - Prof. Dr. Abdel Salam Hafez A. Hamza

### Matrix of course content and ILO's

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Course content	ILO a's	ILO b's	ILO c's	ILO d's		
	a	b	c	1	2	3
Experiments on Fundamental of electric circuits carrying out experimental and practical experiments covering, basic and fundamentals of electric and electronic	✓	✓	✓	✓	✓	✓

engineering including series, parallel circuits , Kirchhoff's law, loop and node methods						
Experiments on Fundamental of electric circuits	✓	✓	✓	✓	✓	✓
Experiments on Fundamental of electronic circuits ,identify the basic component of computer systems	✓	✓	✓	✓	✓	✓
Experiments on Fundamental of electronic circuits , programming and its applications in electrical engineering	✓	✓	✓	✓	✓	✓

### Matrix of course aims and ILO's

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Course Aims	ILO a's	ILO b's	ILO c's	ILO d's		
				1	2	3
Understanding of basic principles of electrical engineering.	✓	✓	✓	✓	✓	
Providing students with sound experimental and practical skills	✓	✓	✓	✓		✓
Familiarizing students with instruments and components	✓	✓	✓	✓	✓	

**Head of department:**

Prof. Dr. Sayed A. Ward