



Shoubra Faculty of  
Engineering

## Model No.12 Course Specifications : Project 2

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**University** : Benha university

**Faculty** : Shoubra Faculty of Engineering

**Department** : Electrical Engineering Department

### 1- Course Data

Course Code : ECE 414

Course Title : Project

Study Year : Fourth Year – second term

Specialization :

Date of specifications approval:  
20/6/2010

Teaching Hours:

Lecture :

Tutorial :

Practical :5

### 2- Course Aim

For students undertaking this course, the aims are to:

- Provide a broadly based educational experience in which the essential scientific and technical elements of the engineering curriculum are integrated with the humanities and social sciences to prepare students with competencies needed for personal enrichments, career development, and lifelong learning.
- Ensure that the graduates have an understanding of the highest standards of personal and professional integrity, and ethical responsibility in the practice of computer engineering.
- Ensure that the graduates are well trained in several areas of computer engineering, and are able to identify, formulate, and solve a wide range of computer engineering problems using modern engineering tools and techniques

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

#### a- Knowledge and Understanding

On completing this course, students will be able to:

A-1- Demonstrate concepts and theories of mathematics and sciences, appropriate to the computer engineering area.

A-2 . Describe the basics of information and computer technology (ICT)

A-3 . Identify the principles of design including elements design, process and/or a system related to computer engineering area.

A-4 . Discover current engineering technologies in the computer engineering area.

A-5 . Learn about technical language and report writing.

**b- Intellectual Skills**

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

B-1 . Select appropriate solutions for engineering problems based on analytical thinking

B-2 . Think in a creative and innovative way in problem solving and design.

B-3 . Combine, exchange, and assess different ideas, views, and knowledge from a range of sources.

B-4 . Select the appropriate mathematical tools, computing methods, design techniques for modeling and analyzing computer systems

**c- Professional Skills**

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

C-1 . Apply knowledge of mathematics, science, information technology, design, business context and engineering practice to solve engineering problems.

C-2 . Create and/or re-design a process, component or system, and carry out specialized engineering designs.

C-3 . Use a wide range of analytical tools, techniques, equipment, and software packages pertaining to the discipline and develop required computer programs.

C-4 . Use appropriate specialized computer software, computational tools and design packages throughout the phases of the life cycle of system development.

**d- General Skills**

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

D-1 . Demonstrate efficient IT capabilities.

D-2 . Effectively manage tasks, time, and resources

D-3 . Search for information and engage in life-long self learning discipline

D-4 . Write technical reports and presentation

D-5 . Develop skills related to creative and critical thinking as well as problem

**4- Course Contents**

No.	Topics
1	Implement the system database
2	Implement the user interface
3	Implement the system models
4	Test the system models
5	Implement the system interface
6	Integrate the models
7	Finalize the system document

8	Prepare the project presentation
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## 5- Teaching and Learning Methods

5.1- Presentations

## 6- Teaching and Learning Methods of Disables

6.1- NA

## 7- Student Assessment

### a- Student Assessment Methods

1	Presentations to assess knowledge, intellectual skills and professional and practical skills.
4	Oral to assess professional, practical, general and transferable skills.
5	Final exam to assess knowledge, intellectual skills and professional and practical skills.

### b- Assessment Schedule

No.	Assessment
1	Presentations
2	Oral Exam

### c- Weighting of Assessments

Assessment	Weight
Oral Examination	70%
Other types of assessment	5%
Total	75 %

## 8- List of References

None

- Head of Department : Prof/ Sayed Abo-Elsood Sayed Ward



Shoubra Faculty of  
Engineering

## Model No.13 Course Specifications : Project

**University :** Benha university

**Faculty :** Shoubra Faculty of Engineering

**Department :** Electrical Engineering Department

**Matrix of Knowledge and Skills of the course**

week	Topics	No of hours	Basic Knowledge	Intellectual Skills	Professional Skills	General Skills
1	Implement the system database	3	A-1,A-4	B-3,d13	C-1	D-1,D-2,D-3
2	Implement the user interface	3	A-1,A-4	B-1,B-3	C-1,C-3	D-1
3	Implement the system models	3	A-1,A-2,A-4	B-1,B-3	C-1	D-1
4	Implement the system models	3	A-1,A-2	B-1,B-4	C-1	D-1
5	Implement the system models	3	A-2	B-2 ,B-4	C-2,C-3,C-4	D-1,D-2,D-5
6	Implement the system models	3	A-2	B-2,B-4	C-2,C-3,C-4	D-1,D-2,D-5
7	Implement	3	A-2,A-3	B-2,B-4	C-2,C-3,C-4	D-1,D-2,D-5

	the system models					
8	Test the system models	3	A-2,A-3	B-2,B-4	C-2,C-3,C-4	D-1,D-2,D-5
9	Implement the system interface	3	A-3	B-2,B-4	C-2,C-3,C-4	D-1,D-2,D-5
10	Integrate the models	3	A-3	B-2,B-4	C-2,C-3,C-4	D-1,D-2,D-5
11	Integrate the models	3	A-3	B-2,B-4	C-2,C-3,C-4	D-1,D-2,D-5
12	Finalize the system document	3	A-3	B-2,B-4	C-2,C-3,C-4	D-1,D-2,D-5
13	Finalize the system document	3	A-5	B-1,B-2	C-1	D-4
14	Prepare the project presentation	3	A-5	B-1,B-2	C-1	D-4



## Matrix of course content and ILO's

<b>Content</b>	<b>A-1</b>	<b>A-2</b>	<b>A-3</b>	<b>A-4</b>	<b>A-5</b>	<b>B-1</b>	<b>B-2</b>	<b>B-3</b>	<b>B-4</b>	<b>C-1</b>	<b>C-2</b>	<b>C-3</b>	<b>C-4</b>	<b>D-1</b>	<b>D-2</b>	<b>D-3</b>	<b>D-4</b>	<b>D-5</b>
Searching for a real project	√			√			√		√	√				√	√	√		
Discuss ideas with supervisor	√			√		√		√		√		√		√				
Define project scope	√	√		√		√		√		√				√				
Analysis the project (data gathering)	√	√				√			√	√				√				
Build system models		√					√		√		√	√	√	√	√			√
Database design		√	√				√		√		√	√	√	√	√			√
User interface design			√				√		√		√	√	√	√	√			√
Modules design			√				√		√		√	√	√	√	√			√
System interface design			√				√		√		√	√	√	√	√			√
Prepare system analysis and design documentation					√	√	√			√								√
Prepare system analysis and design presentation					√	√	√			√								√

## Matrix of course aims and ILO's

<b>Course aims</b>	<b>ILO's 1</b>	<b>ILO's 2</b>	<b>ILO's 3</b>	<b>ILO's 4</b>	<b>ILO's 5</b>	<b>ILO's 6</b>	<b>ILO's 7</b>	<b>ILO's 8</b>	<b>ILO's 9</b>	<b>ILO's 10</b>	<b>ILO's 11</b>
Provide a broadly based educational experience in which the essential scientific and technical elements of the engineering curriculum are integrated with the humanities and social sciences to prepare students with competencies needed for personal enrichments, career development, and lifelong learning.	<b>A-1</b>	<b>A-2</b>	<b>B-2</b>	<b>B-4</b>	<b>C-1</b>	<b>C-3</b>	<b>D-1</b>	<b>D-2</b>	<b>D-3</b>		
Ensure that the graduates have an understanding of the highest standards of personal and professional integrity, and ethical responsibility in the practice of computer engineering	<b>A-1</b>	<b>A-3</b>	<b>A-4</b>	<b>B-1</b>	<b>B-3</b>	<b>C-1</b>	<b>C-2</b>	<b>D-1</b>	<b>D-2</b>	<b>D-3</b>	<b>D-5</b>
Ensure that the graduates are well trained in several areas of computer engineering, and are able to identify, formulate, and solve a wide range of computer engineering problems using modern engineering tools and techniques	<b>A-1</b>	<b>A-4</b>	<b>A-5</b>	<b>B-1</b>	<b>B-4</b>	<b>C-3</b>	<b>C-4</b>	<b>D-2</b>	<b>D-3</b>	<b>D-4</b>	<b>D-5</b>

**- Head of Department : Prof/ Sayed Abo-Elsood Sayed Ward**