

## Course specification

(4106 Project)

**Faculty:** HICIT – Higher Institute for Computers & Information Technology

**Programme(s) on which the course is given:** Under graduate program in Computer Science

**Major or minor element of programme:** Compulsory

**Department offering the programme:** Department of Computer Science

**Department offering the course:** Department of Computer Science

**Year / Class:** 4<sup>th</sup> Year – 1<sup>st</sup> and 2<sup>nd</sup> Semesters

**Date of specification approval:** 22/9/2015

### A- Basic Information

**Title:** Project

**Code:** 4106 (continuous-2semesters)

**Weekly Hours: Lecture:** 1

**Exercise: - Practical:** 5

**Total:** 6

### B- Professional Information

#### 1- Course Objectives:

This course deals with the planning, design, validation and implementation of a large scale project using state-of-the-art software engineering techniques.

Students are allowed to choose among a number of projects, suggested by different staff members. The general aim of the project is to allow each student to integrate all the disciplines that are previously studied in unified chunk of knowledge. On the behavioral side, students are allowed to work in a team so as to practice working in collaborative environment. This emphasizes also proper documentation & presentation procedures.

#### 2- Program ILOs Covered by Course

##### Program Intended Learning Outcomes

Knowledge and understanding	Intellectual Skills	Professional and practical skills	General and Transferable skills
	b1, b2, b3, b4, b5, b6, b7, b8, b9, b10, b11, b12, b13, b14, b17, b18, b19	c1, c3, c4, c5, c6, c7, c8, c9, c10, c11, c12, c13, c15, c17, c19	d1, d2, d3, d4, d6, d7, d8, d9, d10

#### 3 - Intended learning outcomes of course (ILOs)

Successful completion of this module will lead to the following learning outcomes:

##### a- Knowledge and understanding:

- a1. Understand the knowledge of the essential concepts and major principles relevant to Systems analysis and development.
- a2. Understand the importance of a wide range of software and Hardware used in development of computer systems and information technology products.
- a3. Explain the principles of software project management.
- a4. Recognize the importance of software documentation.

### **b- Intellectual skills**

- b1. Analyze a wide range of systems and provide solutions through suitable designs, structures, diagrams, and other appropriate analysis and design methods.
- b2. Identify a range of solutions and critically evaluate them and justify proposed design and development solutions.
- b3. Design and implement practical software systems.
- b4. Transform user requirements into system requirements.
- b5. Design and evaluate Man-Machine interfacing methodologies.

### **c- Professional and practical skills**

- c1. Plan and undertake a major individual / group systems analysis project in the area of computer science.
- c2. Prepare and deliver coherent and structured written technical reports.
- c3. Give technical systems analysis presentations suitable for the time, and audience.
- c4. Use appropriate computer-based design support tools.

### **d- General and transferable skills**

- d1. Work effectively with systems owners and for systems users

## **4- Contents**

<b>Topic</b>	<b>Hours</b>	<b>Lecture</b>	<b>Practical</b>
Initiation phase (Survey Study)	18	3	15
Analysis Phase	30	5	25
Design Phase	30	5	25
Implementation Phase	40	8	32
Testing Phase	18	3	15
Documentation	20	2	18

## **5-Teaching and learning methods**

The department assign a supervisor to each project group. Teaching methods comprise:

- 5.1- Discussion of achieved work
- 5.2- Supervision, Feedback and guidance
- 5.3- Brainstorming and walkthrough sessions
- 5.4- Research assignments

## **6- Student assessment methods**

- 6.1 Midterm presentation
- 6.2 Evaluating delivered progress reports, and demos
- 6.3 Evaluating project final document (report)
- 6.4 Final presentation

## **Assessment schedule**

- Assessment 1 : Midterm presentation, Week # 3 – 2<sup>nd</sup> semester
- Assessment 2 : Final presentation, Week # 18 – 2<sup>nd</sup> semester
- Assessment 3 : Evaluating project final documentation, Week #17
- Assessment 4 : Semester work (progress reports & Demos): from Week#2 to Week# 15.

## **Weighting of assessments**

**Max. points: 200**

<b>Method of assessment</b>	<b>Percentage of total</b>
Semester work	20 %

Final Year examination  
Total

80 %  
100 %

### 7 -List of references

Depend on the project

### 8- Required Facilities

Depend on the project

### Course Content/ILO Matrix

Course Contents	a1	a2	a3	a4	b1	b2	b3	b4	b5	c1	c2	c3	c4	d1
Initiation phase (Survey Study)	√	√	√	√										
Analysis Phase					√	√	√	√	√					
Design Phase					√	√	√	√	√	√	√	√	√	
Implementation Phase					√	√	√	√	√	√	√	√	√	
Testing Phase					√	√	√	√	√	√	√	√	√	√
Documentation										√	√	√	√	√

### Learning Method /ILOs Matrix

Learning Methods	a1	a2	a3	a4	b1	b2	b3	b4	b5	c1	c2	c3	c4	d1
Discussion of achieved work	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Supervision, Feedback and guidance	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Brainstorming and walkthrough sessions	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Research assignments	√	√	√	√	√	√	√	√	√	√	√	√	√	√

### Assessment Methods /ILOs Matrix

Learning Methods	a1	a2	a3	a4	b1	b2	b3	b4	b5	c1	c2	c3	c4	d1
Midterm presentation	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Final presentation	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Evaluating project final documentation	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Semester work(progress reports & Demos)	√	√	√	√	√	√	√	√	√	√	√	√	√	√

**Course Coordinator:** All Teaching Staff

**Head of Department:** Dr. Farouk Shabaan ( )

**Date:** 22/9/2015