Course specification

(4106 Project)

Faculty:	*HICIT- **Higher Institute for Computers & Information Technology**-El Shorouk Academy*
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	4th Year –1st and 2nd Semesters
Date of specification approval	1/8/2022

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**
A3, A9, A11, A15, A16, A17, A18, A20, A21, A22	**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,D5, 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

Topic	Hours	Lecture	Practical
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(face-to-face)

5.2- Supervision, Feedback and guidance

5.3- Brainstorming and walkthrough sessions

5.4- Research assignments

5.5- Problem-Solving

5.6- Applying Inductive learning of project

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 – 2nd semester
Assessment 2 : Final presentation, Week # 18 – 2nd 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

Method of assessment	Percentage of total
Semester work and Training	**20%**
Final Year examination	**80%**
Total	**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	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Training	√	√	√	√	√	√	√	√	√	√	√	√	√	√
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. Ahmed El Abbassay **( )**
Date: 1/8/2022