Course Specifications

Course Title:	Graduation Project 1 for Computer Science
Course Code:	**ICS 410**
Program:	**B.Sc.**
Department:	**Computer Science**
College:	**College of Science Al Zulfi**
Institution:	**Majmaah University**

Table of Contents

A. Course Identification

1. Credit hours:
2. Course type **a.** University ☐ College ☐ Department ☐ Others ☐ **b.** Required ☐ Elective ☐
3. Level/year at which this course is offered: 7th
4. Pre-requisites for this course (if any)**: ICS 313 and at least 80 credit hours**
5. Co-requisites for this course (if any)**:** None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	30	50 %
2	**Blended**	12	20 %
3	**E-learning**	12	20 %
4	**Correspondence**		
5	**Other**	6	10 %

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	**Lecture (Discussion with Students)**	24
2	**Laboratory/Studio**	18
3	**Tutorial**	12
4	**Others** (specify): Self learning	6
	Total	60
Other Learning Hours*		
1	**Study**	30
2	**Assignments (Task to complete in the concerned week)**	20
3	**Library**	20
4	**Projects/Research Essays/Theses**	30
5	**Others** (specify)	
	Total	100

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description: This course is designed in a sequence of Graduation Project 1 and Graduation Project2. In Graduation Project 1, each group must identify a problem domain, define the problem, identify and specify the requirements, document the current system, analyze it, propose alternative systems, and design a solution. The design must include the definitions of all the required system models, such as the data model and the functional model. At the end of the course, each group must submit a formal report documenting the complete process.

2. Course Main Objective: This course is a real -life like experience where students team up to solve a real-world systems related problem by applying their concepts and software engineering approaches.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge:**	
1.1		
1.2		
1.3		
1.4		
2	**Skills :**	
2.1	Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	b2
2.2	Identify and analyze user needs and consider them during the selection, integration, and administration of computer-based systems.	b3
2.3		
2...		
3	**Competence:**	
3.1	Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles	c1
3.2	Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.	c2
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Discussion with students the method of selecting the graduation project	4
2	Determine the subject of the project Assign references to students to read about the project	4
3	Discussion with students the ways to build the project and set a timetable for project.	4
4	Theoretical explanation for the building and writing of the project and the preparation of the report	4

5	Open discussion with students about what has been accomplished over the previous period	4
6	Implementation of the project (and processing requirements) Showing initial outputs of the project	2
7	Final presentation of the project	2
8	Presentation to the projects committee for arbitration	2
...		
Total		30

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge**		
1.1	Knowledge of basic science to understand the principles of scientific analysis	Provide theoretical on the concepts of graduation project.	Degree for writing sample graduation project proposal.
1.2	Learn the skilled needed by a System Analyst to be affective, professional and a successful individual.	Discussion with various real life examples.	The attendance of the introductory lectures for the project
1.3	Ability to plan the research project and start its implementation.	Discussion with students for problem formulation and writing research proposal	The initial report of the graduation project presentation
2.0	**Skills**		
2.1	The use of scientific, engineering, and knowledgeable skills in the writing the proposed graduation project.	Practical application , Group Discussion, Lectures and definition of the graduation project.	Student attendance for course introductory lectures, Provide periodic reports on what has been achieved during those periods.
2.2	The ability to review scientific literatures and ability to use technical tools to represent the design and implementation of project's phases.	Provide periodic reports of what has been achieved during the project. Take advantage of office hours to the supervisor of the project Visit a number of institutions and companies related to the field of graduation project.	Provide periodic reports on what has been achieved during those periods, Submission of the final report for the graduation project proposal
…			
3.0	**Competence**		
3.1	The ability to write reports		Evaluation of the

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
			offer at the end of the semester
…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Each group must identify a problem domain, define the problem, identify and specify the requirements	3	5 %
2	Document the current system, analyze it, propose alternative systems, and design a solution.	٣	10 %
3	The design must include the definitions of all the required system models, such as the data model and the functional model.	٣	10 %
4	At the end of the course, each group must submit a formal report documenting the complete process.	٣	10 %
5	Showing initial outputs of the project	١	10 %
6	Final submission of the project	١	15 %
7	Presentation to the projects committee for arbitration	١	40 %
٨	Total	15	100 %

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	1- Modern System Analysis and Design, Jeffery Hoffer, Joey George. 2- Software Engineering a Practitioner's Approach by Roger S. Pressman
Essential References Materials	Analysis and Design of Information Systems by Langer, Arthur M.
Electronic Materials	Determines as the course is going on.

Other Learning Materials	Videos and presentations are available with instructor

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms and Labs as those that are available at college of science Az Zulfi
Technology Resources (AV, data show, Smart Board, software, etc.)	Smart Board and required software
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	N/A

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	