



# **Course Specifications**

Muharram 1437 H

Institution: Majmaah University

Academic Department: Department of Computer Science and Information

Programme: Computer Science and Information Technology

Course: Capstone Project 2

Course Coordinator: Assoc. Prof. Hassan Aly

Programme Coordinator:

Course Specification Approved Date: ..../ .... H



### A. Course Identification and General Information

- Course title: Capstone Project 2 Course Code: CSI 520					
2. Credit hours: 3 credit hours (9 hours Labs)					
3 - Program(s) in which the course is offered: Computer Science and					
	Informat	ion Technology			
4 – Course Language : English	4 – Course Language: English				
5 - Name of faculty member res	5 - Name of faculty member responsible for the course: Dr. Hassan Aly				
6 - Level/year at which this coun	rse is offered: 8 <sup>th</sup> level				
7 - Pre-requisites for this course (if any):					
• Capstone Project 2, CSI 520.					
8 - Co-requisites for this course (if any):					
• N/A					
9 - Location if not on main campus:					
( College of Science at AzZulfi )					
10 - Mode of Instruction (mark all that apply)					
A - Traditional classroom	What percentage?	%			
B - Blended (traditional and online)	What percentage?	%			
D - e-learning	√ What percentage?	20 %			
E - Correspondence	What percentage?	%			
F - Other	√ What percentage?	80 %			
	-	-			

#### Comments:

The mode of instruction depends mainly on the discussion between the supervisor and the student. The student will present his achievements to the board of the project one time a month. In the first presentation, the board will inform him and his supervisor if they accept the idea of the project. The final presentation looks like a defense from the student to his project and will receive questions from the board and also from the audience. Traditionally, the college announces on the day of such presentation for all faculties, students, and stockholders.

During the work of the project, student will visit different places to complete his job

- 1. Will visit library to read about related topics of his project
- 2. Will visit IT-companies to discuss points related to the implementation.
- 3. Will visit stockholders to know the need of his product.
- 4. Will visit other professors in the department to discuss points related to his final report.





## **B** Objectives

#### What is the main purpose for this course?

The capstone project is a two-semester process in which students pursue independent research and implementation on idea of their choice to produce a product that reflects a deep understanding of their topics. Capstone projects are intended to be intensive, active learning projects, requiring significant effort in the planning and implementation, as well as preparation a substantial final written work product. These two-semester courses have a purpose to deeply learn the students the following characteristics:

- 1. Originality: The student must reach his own deep understanding of a clearly defined and focused topic.
- 2. Independence: Although the student has a capstone mentor as a guide and domain expert, he will work primarily on his own.
- 3. Appropriate Scope: The capstone projects are equivalent to a five-credit hours course. Therefore, the student should plan to spend at least as much time and energy on his project as he has devoted to his most challenging courses. Therefore, he will need to keep his project within a limited and realistic scope.
- 4. Orderly & Objective Process of Inquiry: The project demonstrates his facility with the methods of inquiry. These include the ability to ask the right questions, to synthesize ideas, to identify and use evidence, to draw and support conclusions, to recognize compelling research, to communication his ideas, or to solve a problem using a specific set of tools.
- 5. Intellectual stretch: The capstone projects should take him to a place where he has not been before, and perhaps, did not even think he could reach.

During the capstone project 2, student will continue developing the software systems in the proposal started in CSI 510. Each student must use a particular tool to implement the system in a good programming practice. This implementation tool is preferably new –i.e. not taken in previous courses. Furthermore, student must generate a user manual for their information system in an appropriate format. At the end of the semester, student must submit a final report, which documents completely the information system from the problem definition phase to the implementation phase and contains a user manual for the information system. The course has the following objectives:





- 1. Manage and execute a substantial project in a limited time.
- 2. Identify and learn whatever new skills are needed to complete the project.
- 3. Apply the design and IT skills in the accomplishment of a single task.

Briefly describe any plans for developing and improving the course that are being implemented:

## C. Course Description

1. Topics to be Covered

List of Topics		Contact Hours
Implementing the project that has been designed in the first course.	4.	8
Testing the implementation on different data.	4	8
Determining the bugs and resolve them.	4	8
Preparing the documentation of the report of the system		4
Final presentation.	1	2

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	0	0	0	135	0	135
Credit	0	0	0	45	0	45

3. Additional private study/learning hours expected for students per week.

90





4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

		8 8	
	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Understand the tools of the system.		
1.2	Define every part of the design and describe its tools.		
1.3			
1.4			
1.5			
1.6			
2.0	Cognitive Skills		
2.1	Integrate different tools in the project smoothly.		
2.2	Analysis the advantage and disadvantage of each part in the system.		
2.3			
2.4			
2.5			
2.6			
3.0	Interpersonal Skills & Responsibility		
3.1	Write a good scientific report on your problem.		
3.2	Test every part with a real data.		
3.3			
3.4			
3.5			
3.6			
4.0	Interpersonal Skills & Responsibility		
4.1	Show good oral communication skills.		
4.2			
4.3			
<b>4.6</b>	Davohomoton		
5.0	Psychomotor		
5.1	•••••••	•••••	•••••





## 5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	Presentations	Every month	10%
2	Originality	During the work	20%
3	Scope of survey	During the work	10%
4	Oral Communications	During the work	10%
5	Submission in time (report, presentation,)	During the work	10%
6	Final Presentation and report		40%
7	Total		100%

## **D.** Student Academic Counseling and Support

Nine contact hours are assigned for discussion with supervisor. In addition, 4 presentations will be held with the board.

#### **E.** Learning Resources

- 1. List Required Textbooks:
  - Based on the subject
- 2. List Essential References Materials :
  - Based on the subject.
- 3. List Recommended Textbooks and Reference Material:
  - Based on the subject.
- 4. List Electronic Materials:
  - Based on the subject.
  - ullet
- **5. Other learning material:** 
  - Based on the subject.





F. Facilities Required
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Library and on-line digital library.				
2. Computing resources				
Available labs at the department.				
3. Other resources				
•				
•				
<b>G</b> Course Evaluation and Improve	ement Processes			
1 Strategies for Obtaining Student Feedl	back on Effectiveness of Teaching:			
•				
•				
2 Other Strategies for Evaluation of Tea	aching by the Program/Department			
Instructor:				
•	<del>···</del>			
Processes for Improvement of Teaching:				
•				
•				
4. Processes for Verifying Standards of Student Achievement				
•				
•				
5 Describe the planning arrangements for periodically reviewing course				
effectiveness and planning for improvem				
•				
•				
Course Specification Approved				
Department Official Meeting No ( ) Date / / H				
Course's Coordinator	Department Head			
Name :	Name :			
Signature :	Signature :			
Date :/ H	Date :/ /			

