COURSE DESCRIPTIONS

Faculty	Science and Information Technology				
Department	Software Engineering			**NQF level**	7
Course Title	Graduation Project	**Code**	503499	**Prerequisite**	503401
Credit Hours	3	**Theory**	3	**Practical**	0
Course Leader	Dr. Muhyeeddin Alqaraleh	**email**	m.qaralleh@jadara.edu.jo		
Lecturers	Dr. Muhyeeddin Alqaraleh	**emails**	m.qaralleh@jadara.edu.jo		
Lecture time	-	**Classroom**	Online		
Semester	1st 2023_2024	**Production**	2008	**Updated**	2020
Awards	Bachelor of Software Engineering			**Attendance**	Fulltime

Short Description

The Graduation Projects (GP) helps students to go beyond their acquired knowledge and skills which are learnt through the program plane and outcomes by developing projects that demonstrate their intellectual, technical, and inventive abilities. In this course, student critically applies the accurate Software Engineering (SE) project development methodologies to develop either a software system with accompanying report or a comprehensive SE research report based on the research activity undertaken - oriented to real life problems. Students identify specific problem (define the research questions), conducts a literature survey, analysis, design for the proposed solution (an artifact), implement, and test the proposed solution to the identified problem utilizing computer algorithms, software packages and/or hardware devices. At the end of the course, the student has to demonstrate the project findings and submit a complete graduation project report. Students will be required to plan their work and meet deadlines. They also need to demonstrate the outcome of their SE research/ software system and write a comprehensive report.

Course Objectives

- Understand and apply facts, concepts, principles, theories, and practices relating to computer science, information systems, and software engineering.
- Use special skills to communicate with peers and specialists to transfer ideas and experience using formal presentation and scientific report.

Learning Outcomes

A. Knowledge - Theoretical Understanding

a1. Demonstrate critical knowledge and understanding of the generic steps for conducting SE project development including ethical issues. (K1)

a2. Demonstrate critical knowledge and understanding of suitable tools or techniques for SE project development methodologies, implementation, and testing. (K2)

B. Knowledge - Practical Application

C. Skills - Generic Problem Solving and Analytical Skills
b1. Analyze user and SE project requirements by using a range of approaches to critically analyze the effectiveness of the resulted software solution against the collected requirements and computational resources used. (S1)
b2. Examine and evaluate alternative solutions by using a range of approaches to critically evaluate and compare the project findings against solutions found in the literature. (S2)

D. Skills - Communication, ICT, and Numeracy

E. Competence: Autonomy, Responsibility, and Context

Teaching and Learning Methods
- Meetings and discussion with the supervisor
- Self-study using several books, journals and conference papers.

Assessment Methods
- As mentioned in the Course Assessment Plan (CAP)

			Course Contents		
Week	Hours	CILOs	Topics	Teaching & Learning Methods	Assessment Methods
1	3	a1, a2	Orientation: - Graduation Project Handbook - Project Proposal - Research Ethical Issues - Turnitin and Avoiding Plagiarism - Reference and Citation Style	Meeting & discussions	Supervisor objective view through the meetings
2	3	a1, a2, b2, b3	Prepare Projects Teams & Projects Topics: - Report writing (research and system development documentation template and guidelines) - Overview, Problem Statement, Motivation, Objectives and Scope	Meeting& discussions Self-study	Presentation and Evaluating project report
3	3	a1, a2, b2, b3	Viewing proposals and project structures	Meeting& discussions	Formative Presentation
4	3	b2, b3	Submit Chapter One	Meeting& discussions	As mentioned in the CAP
5	3	b2, b3, c1	Review Chapter One & Prepare Chapter Two.	Meeting& discussions	Formative Presentation
6	3	b2, b3	Submit Chapter Two	Meeting& discussions	As mentioned in the CAP
7, 8	6	b2, b3, c1	Review Chapter Two & Prepare Chapter Three.	Meeting& discussions	Formative Presentation
9	3	a3, a4, b2, b3	Submit Chapter Three	Meeting& discussions	As mentioned in the CAP

10	3	a3, a4, b2, b3, c1	Review Chapter Three & Prepare Chapter Four.	Meeting& discussions	Formative Presentation
11	3	a3, a4, b2, b3	Submit Chapter Four	Meeting& discussions	As mentioned in the CAP
12	3	a3, a4, b2, b3, c1	Review Chapter Four & Prepare Chapter Five & Six.	Meeting& discussions	Formative Presentation
13	3	a3, a4, b1, b2, b3	Submit Chapter Five & Chapter Six	Meeting& discussions	As mentioned in the CAP
14	3	a3, a4, b1, b2, b3, c1	Submit the Final Report	Meeting& discussions	As mentioned in the CAP
15	3	a1, a2, a3, a4, b1, b2, b3, c1	Final reports to be sent to the Examiners	Meeting& discussions	As mentioned in the CAP
16	2		The VIVA Date		As mentioned in the CAP

Infrastructure	
Textbook	- No Core textbook
References	
Required reading	- Graduation Project Handbook - e-Learning System, www.elearning.jadara.edu.jo - Journals, conference papers.
Electronic materials	All templates are available on e-Learning system.
Other	

Course Assessment Plan (CAP)											
Panel	**Supervisor (40%)**		**Assessor#1 (20%)**		**Assessor#2 (20%)**			**Assessor#3 (20%)**			
		Grade	**a1**	**a2**	**a3**	**a4**	**b1**	**b2**	**b3**	**c1**	
Supervisor: Planning and Commitment		**24**							10	14	
Punctuality of meeting with supervisor									5		
Well-prepared in meeting with supervisor									5		
Time commitment and deliver tasks on time										5	
Quality of delivered tasks										5	
Ability of creativity and innovation										4	
Assessors: Presentation		**15**							3	12	
Clear delivery of contents and describe all ideas.										3	
Projected confidence and mastery of the material.										3	
Body language, change in voice tone, and maintained eye contact with the audience.										3	
Used creative and clear presentation techniques										3	
Ability to handle Questions and Answers									3		

Assessors: Project Report	33	3	3	9	3	6	6		3
The logical structure of the report.									3
The illustration of figures, tables and equations.				3					
Referencing and citation		3							
The accuracy and the language correctness						3			
Clear specification of the project (problem statement, objectives, motivation, scope, methodology and contribution)			3						
Clear specification of requirements (functional, non-functional, user, system, …)						3			
Illustration of the design methods (Use Case, Class Diagram, Sequence, activity, ERD, DFD…)				3					
Clear specification of results							3		
Explanation of project GUIs.					3				
Project testing							3		
How effective is the developed software/ research				3					
Committee (Panel): Artifacts	**28**					7	14		7
Did the artifact have a stylish look and feel?									7
Does the artifact meet the intended requirements?						7			
Does the artifact function properly?							7		
Does artifact cover different validation aspects?							7		
Total	**100**	**3**	**3**	**9**	**3**	**13**	**20**	**13**	**36**

Plagiarism
Plagiarism is claiming that someone else's work is your own. The department has a strict policy regarding plagiarism and, if plagiarism is indeed discovered, this policy will be applied. Note that punishments apply also to anyone assisting another to commit plagiarism (for example by knowingly allowing someone to copy your code).
Plagiarism is different from group work in which a number of individuals share ideas on how to carry out the coursework. You are strongly encouraged to work in small groups, and you will certainly not be penalized for doing so. This means that you may work together on the program. What is important is that you have a full understanding of all aspects of the completed program. In order to allow proper assessment that this is indeed the case, you must adhere strictly to the course work requirements as outlined above and detailed in the coursework problem description. These requirements are in place to encourage individual understanding, facilitate individual assessment, and deter plagiarism.