QF01/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Cyber Security Department

Study plan No.	**2024/2025**	**University Specialization**		**Cybersecurity**	
Course No.	**0133492**	**Course name**		Graduation Project 1	
Credit Hours	**2**	**Prerequisite Co-requisite**		Department Approval	
Course type	☐ MANDATORY UNIVERSITY REQUIREMENT ☐ UNIVERSITY ELECTIVE REQUIREMENTS	☐ FACULTY MANDATORY REQUIREMENT ☐ Support course family requirements		☐ Mandatory requirements	☐ ✓ **Elective** ☐ **requirements**
Teaching style	☐ **Full online learning**	☐ Blended learning		☐ ✓Traditional learning	
Teaching model	☐ 2Synchronous: 1asynchronous	✓2 face to face: 1synchronous		☐ 3 Traditional	

Faculty member and study divisions information (to be filled in each semester by the subject instructor)

Name	**Academic rank**	**Office No.**	**Phone No.**	**E-mail**	
Dr. Ahmad Alkhatib	**Associate Professor**			**ahmad.alkhatib@zuj.edu.jo**	
Division number	**Time**	**Place**	**Number of students**	**Teaching style**	**Approved model**

Brief description

This course is the first of two courses that focus on the graduation project. In this course, students prepare a comprehensive proposal for their graduation project, as well as prepare the methodology for this project and the project design. The course introduces students to the basics of research projects, provides them with the basic skills for preparing project proposals, and provides an understanding of the concepts of scientific research, including its types, stages, and related skills.

Learning resources

Course book information (Title, author, date of issue, publisher ... etc.)	• Guidelines and templates for graduation project preparations, Software engineering Departments • Guidelines for graduation project preparations, quality assurance forms.			
Supportive learning resources (Books, databases, periodicals, software, applications, others)	• Schwalbe, K. (2019). Information technology project management. Cengage Learning. • Tilley, S., & Rosenblatt, H. J. (2024). Systems analysis and design. Cengage Learning.			
Supporting websites				
The physical environment for teaching	☐ ✓**Class room**	☐ ✓labs	☐ **Virtual educational platform**	☐ Others
Necessary equipment and software				
Supporting people with special needs				

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For technical support	E-learning and Open Educational Center. Computer Center

Course learning outcomes (S= *Skills,* ***C****= Competences* ***K****= Knowledge,* ***MT****= Transferable Skills)*

No.	Course learning outcomes	The associated program learning output code
	Knowledge	
K1	**Examine** cybersecurity research problems and critically analyze existing literature to identify gaps and research opportunities.	**MK1**
K2	**Understand** cybersecurity standards, frameworks, and best practices relevant to the proposed project domain.	**MK2**
	Skills	
S1	**Analyze** cybersecurity problems and evaluate alternative solutions using appropriate research and analytical methods.	**MK4**
S2	**Develop** a structured project proposal including objectives, scope, methodology, and feasibility analysis.	**MK1**
	Competences	
C1	**Work** effectively within a team to plan and manage the graduation project activities professionally.	**MC1**
C2	**Apply** ethical, legal, and professional standards in cybersecurity research and project planning.	**MC2**
	Transferable Skills	
MT1	**Present** project ideas, proposals, and progress reports clearly to technical and non-technical stakeholders.	**MT1**

Mechanisms for direct evaluation of learning outcomes

Type of assessment / learning style	Fully electronic learning	Blended learning	Traditional Learning (Theory Learning)	Traditional Learning (Practical Learning)
First exam	0	**0**	0	0
Second / midterm exam	%30	%30	%30	%30
Participation / practical applications	0	0	0	0
Asynchronous interactive activities	%30	%30	%30	%30
final exam	%40	%40	%40	%40

Note: Asynchronous interactive activities include tasks such as projects, assignments, research, and group work performed through the virtual platform without direct teacher interaction.

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Schedule of simultaneous / face-to-face encounters and their topics

Week	Subject	Learning Style*	Reference **
1	Introduction to graduation project and topic selection	Lecture, discussion	Academic databases
2	Problem identification and scope definition	Lecture, problem-based learning	Security reports
3	Literature review techniques	Lecture, guided learning	Standards & frameworks
4	Cybersecurity threat analysis	Lecture, case study	Research methodology books
5	Requirements analysis	Lecture, project-based learning	PM guidelines
6	Research methodology	Lecture, discussion	Project proposal
7	Project planning and scheduling	Lecture, project-based learning	Risk management standards
8	Mid-project review	Presentation, feedback	Ethics guidelines
9	Risk assessment and feasibility analysis	Lecture, case study	Writing manuals
10	Ethical and legal issues in cybersecurity	Lecture, discussion	Documentation standards
11	Proposal writing techniques	Guided learning	Presentation guidelines
12	Technical documentation standards	Lecture, guided learning	Supervisor feedback
13	Presentation skills	Practice, discussion	Evaluation rubrics
14	Proposal refinement	Project-based learning	Approved proposal
15	Project evaluation	Discussion, assessment	Academic databases
16	Final proposal presentation	Presentation	Security reports

*** Learning styles: Lecture, flipped learning, learning through projects, learning through problem solving, participatory learning ... etc.**

**** Reference: Pages in a book, database, recorded lecture, content on the e-learning platform, video, website ... etc.**

Schedule of asynchronous interactive activities (in the case of e-learning and blended learning)

Week	Task / activity	Reference	Expected results
1	•	•	
2	•	•	
3	•	•	
4	•	•	
5	•	•	
6	•	•	
7	•	•	
8	•	•	