

QF01/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Department
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Study plan No.	2021/2022	University Specialization	Software Engineering
Course No.	0114443	Course name	Object Oriented Systems Analysis and Design
Credit Hours	3	Prerequisite Co-requisite	Systems Analysis and Design
Course type	<input type="checkbox"/> MANDATORY UNIVERSITY REQUIREMENT <input type="checkbox"/> UNIVERSITY ELECTIVE REQUIREMENTS	<input type="checkbox"/> FACULTY MANDATORY REQUIREMENT <input type="checkbox"/> Support course family requirements	<input checked="" type="checkbox"/> Mandatory requirements <input type="checkbox"/> Elective requirements
Teaching style	<input type="checkbox"/> Full online learning	<input type="checkbox"/> Blended learning	<input checked="" type="checkbox"/> Traditional learning
Teaching model	<input type="checkbox"/> 2Synchronous: 1asynchronous	<input type="checkbox"/> 2 face to face : 1synchronous	<input checked="" type="checkbox"/> 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	
Mohammad Muhairat	Associate Professor	-----	-----	drmohairat@zuj.edu.jo	
Division number	Time	Place	Number of students	Teaching style	Division number
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Brief description

Scrum is an Agile-based framework in which developers can address complex issues while delivering high-value products creatively and productively. It is used to manage product development. Developers can use it to deploy numerous processes and techniques for the development of the product.
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Learning resources

Course book information (Title, author, date of issue, publisher ... etc)	Essential Scrum: A Practical Guide to the Most Popular Agile Process, Kenneth Rubin, 2012, Addison Wesley.			
Supportive learning resources (Books, databases, periodicals, software, applications, others)	1. SCRUM: The Ultimate Beginner's Guide to learn and Master Scrum Agile Framework, HEIN SMITH, 2018, kindle.			
Supporting websites	<a href="https://www.scrum.org/">https://www.scrum.org/</a>			
The physical environment for teaching	<input checked="" type="checkbox"/> Class room	<input checked="" type="checkbox"/> labs	<input type="checkbox"/> Virtual educational platform	<input type="checkbox"/> Others
Necessary equipment and software	CASE TOOLS such as ClickUp			
Supporting people with special needs	-----			
For technical support	-----			

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Course learning outcomes (S= Skills, C= Competences K= Knowledge.)

No.	Course learning outcomes	The associated program learning output code
<b>Knowledge</b>		
<b>K1</b>	The knowledge of software engineering principles, including a thorough understanding of software analysis and design, evaluation and testing and software quality and correctness.	MK1
<b>K2</b>	Understanding of software engineering processes, including management of complex software development projects.	MK2
<b>Skills</b>		
<b>S1</b>	An ability to analyze, design, verify, validate, implement, apply, maintain, and manage the development of software systems to meet desired needs within realistic constraints.	MS1
<b>S2</b>	An ability to identify, formulates, and solve software engineering problems.	MS2
<b>S3</b>	An ability to use the techniques, skills, and modern tools necessary for software engineering practice.	MS3
<b>Competences</b>		
<b>C1</b>	An ability to function on multidisciplinary teams to communicate effectively.	MC1
<b>C2</b>	Ability to develop software systems in one or more significant application domains.	MC2

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)
Midterm exam	30%	30%	40%	30%
Participation / practical applications	0	0	10%	30%
Asynchronous interactive activities	30%	30%	0	0
Final exam	40%	40%	50%	40%

**Note:** Asynchronous interactive activities are activities, tasks, projects, assignments, research, studies, projects, work within student groups ... etc, which the student carries out on his own, through the virtual platform without a direct encounter with the subject teacher.

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

Week	Subject	learning style*	Reference **
1	Introduction Scrum Framework	Lecture	1-12 13-28
2	Agile Principles	Lecture	29-60
3	Sprints Requirements and User Stories	Lecture	61-78 79-98
4	Product Backlog Estimation and Velocity	Lecture	99-118 119-138
5	Technical Debt	Lecture	139-164
6	Product Owner Scrum Master	Lecture	165-184 185-194
7	Development Team Scrum Team	Lecture	195-212 213-224

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	Managers		225-246
<b>8</b>	Scrum Planning Principles Multilevel Planning	Lecture	247-256 257-266
<b>9</b>	Portfolio Planning Envisioning (Product Planning)	Lecture	267-286 287-306
<b>10</b>	Release Planning Sprint Planning	Lecture	307-334 335-346
<b>11</b>	Sprint Execution Sprint Review	Lecture	347-362 363-374
<b>12</b>	Sprint Retrospective	Lecture	375-394
<b>13</b>	Building a Project	learning through projects, learning through problem solving	----
<b>14</b>	Building a Project	learning through projects, learning through problem solving	----
<b>15</b>	Building a Project	learning through projects, learning through problem solving	----
<b>16</b>	Final Exam	-----	----

\* 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			
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3			
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