	Hashemite University Prince Al-Hussein bin Abdullah II Faculty for Information Technology Department of Software Engineering	

Course Syllabus

Year: 2018-2019 **Semester: (2)**

Course No.	Course Title	Designation	Prerequisite	Co-requisite	Credit Hours Lectures /Lab.
111003260	Fundamentals of Software Engineering	Compulsory	111001110	-	3 / 0

Instructor Name	E-mail	Office No.	Office ext.	Office Hours
Dr. Abdel-Rahman Al-Ghuwairi	ghuwairi@hu.edu.jo		4591	Sun, Tue, Thur (10-11)
Dr. Aladdin Baarah	aladdin.baarah@hu.edu.jo	246	4786	Sun, Tue, Thur (10-11)

Coordinator's Name:	Dr. Abdel-Rahman Falah Aqil Al-Ghuwairi

Course Description	This course covers the software development process, from requirements elicitation and analysis, through specification and design, to implementation, integration, testing, and maintenance (evolution). A variety of concepts, principles, techniques, and tools are presented, encompassing topics such as software processes, software requirements, system models, architectural design, user interface design, verification and validation, and software evolution.

Learning References:

a- Textbook:
1. Software Engineering (10th Edition). Ian Sommerville, Addison Wesley, 2015
b- Additional References:
1. Software Engineering: A Practitioner's Approach (8th Edition), Roger PressMan and Bruce Maxim, McGraw-Hill Education, 2014
2. Software Engineering: Principles and Practice (3rd Edition). Hans van Vliet, Wiley, 2008

Course Learning Outcomes (CLOs)

Upon successful completion of this course, students are expected to achieve the following learning outcomes:

Course Learning Outcomes (CLOs)
1- **Understand** essential concepts in software engineering. (1)
2- **Explain** the major concepts of requirement engineering process. (1,3)
3- Be able to **apply** (UML) as a modeling technique in software engineering to design and develop object oriented software. (2,3)
4- **Distinguish** stages of testing from testing, during software development to acceptance testing by system customers. (2)
5- **Demonstrate** software evolution processes as an important part of software engineering.(2)
6- Prepare coherent and structured technical report in a group and deliver oral presentation. (3)
Addressed Student Learning Outcomes (SLOs)
(1,2,3)

Topic Details	CLO number	Reference	No. of Weeks	Contact hours*
Introduction	1	Ch1	1	3
Software processes	1	Ch2	1	3
Requirements Engineering	2	Ch4	3	9
System Modeling	3	Ch5	3	9
Design and Implementation	3	Ch7	2	6
Software Testing	4	Ch8	2	6
Software Evolution	5	Ch9	2	6
Project Presentations	6	-	1	3
Total			**15**	**45**

Assessment Methods and Grading System:

Assessment method	Grade	Comments
First Exam	25%	Covers Chapters 1, 2, 4
Second Exam	20%	Covers Chapters 5 and 7
Project	15%	TBA
Final Exam	40%	Covers all topics that were discussed during the semester
Total	100%	