	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
151003440	Software Quality Assurance	Required	SWE332	-	3/0

Instructor Name	E-mail	Office No.	Office ext.	Office Hours
Dr. Khaled Almakadmeh	khaled.almakadmeh@hu.edu.jo	321	-	Sunday (9-10) Tuesday (9-10) Thursday (9-10)

Coordinator's Name:	Dr. Khaled Almakadmeh

Course Description	The course explores variety of SQA components, activities, standards and tools that cover software project life cycle (requirements, design and implementation), project management, risk management, project budget and cost as well as development team. This course also covers quality metrics (metrics for the quality of analysis, design and code). Software complexity measures, case studies and hands on experiences covered in this course.

Learning References:

Textbook:
1. Roger Pressman, Software Engineering A Practitioner's Approach, 8th Edition – Mc Grow Hill, 2015.

Course Intended Learning Outcomes (ILOs)

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

Course ILOs	Program ILOs	Learning Method	Assessment Method
1- An ability to analyze models of software quality assurance and review techniques	SWE-I	Lectures	Exam
2- An ability to apply software-testing strategies for different types of applications such as conventional software, object-oriented software, and web-applications	SWE-C	Lectures	Exam
3- An ability to analyze and evaluate the effect of change in software	SWE-C	Lectures	Exam
4- An ability to apply software product metrics	SWE-A	Lectures	Exam

Course Schedule:

Topic Details	Course ILO number	Reference	No. of Weeks	Contact hours*
Quality Concepts	1	14	1	3
Review Techniques	1	15	1	3
Software Testing Strategies	2	17	2	6
Testing Conventional Application	2	18	2	6
Testing Object-Oriented software	2	19	1	3
Testing of Web-Applications	2	20	1	3
Formal Modelling and Verification	1	21	2	6
Change Management	3	22	2	6
Product Metrics for software	4	23	2	6
Total	-	-	**14**	**42**

Assessment Methods and Grading System:

Assessment method	Grade	Comments
First Exam	30%	Covers Chapters 14, 15, 17
Second Exam	30%	Covers Chapters 18, 19, 20
Final Exam	40%	Covers All Chapters
Total	100%	-

Course Relationship to Key Student Outcomes:

#	Student Outcome Description	Contribution
General and Software Engineering Student Outcomes		
SWE-A	An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline	
SWE-B	An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution	
SWE-C	An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs	
SWE-D	An ability to function effectively on teams to accomplish a common goal	
SWE-E	An understanding of professional, ethical, legal, security and social issues and responsibilities	
SWE-F	An ability to communicate effectively with a range of audiences	
SWE-G	An ability to analyze the local and global impact of computing on individuals, organizations, and society	
SWE-H	Recognition of the need for and an ability to engage in continuing professional development	
SWE-I	An ability to use current techniques, skills, and tools necessary for computing practice	
H=High, **M**= Medium, **L**=Low		