الجامعـــــــــة الهاشـــميـــــــــة
كلية الاميـر الحسين بـــــن عبدالله الثاني لتكنولوجيا المعلـــومات

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

Course Syllabus
Fall Semester 2018/2019

Course Title : Software Documentation **Course Number :** 151003320 **Prerequisite** : 151003221	**Assessment and Course Grade:** • First Exam **25 %** • Second Exam **25 %** • Project **10 %** ○ **Part I:** TA • Final Exam 40 %
Instructor : Dr. Hani Bani-Salameh **Office #** : IT 324 **Contact Info** : hani@hu.edu.jo **Phone #** : 4471	
Lectures & Office Hours: **Lectures:** ➢ **SUN, TUE, THU : 10:00 AM – 11:00 AM** ➢ **: 12:00 PM – 01:00 PM** **Office Hours :** ➢ **SUN, TUE, THU : 11:00 AM – 12:00 PM** **: 01:00 PM – 02:00 PM**	

Course Description

The course gives an introduction to major concepts of software documentation. Emphasis on construction of software system artifacts that support team development and evolution of software systems. The course covers topics related to software documentation process, documenting for the programmer, documenting system tests and online documentation. It covers in details topics related to types of online documentation, user documentation, system documentation, and software architecture documentation.

Textbook

1. Thomas T. Barker. (2003). *Writing Software Documentation: A Task-Oriented Approach*, 2nd Edition, Longman, New York.
2. Clements et al. (2010). *Documenting Software Architecture, Views and Byond*, 2nd Edition, Addison-Wesley Professional.
3. Comparing the SEI's Views and Beyond Approach for Documenting Software Architectures with ANSIIEEE 1471-2000 Paul Clements July 2005, Software Architecture Technology Initiative Technical Note).

Additional Reading

1. Jemutai Kipyegen, Noela; Korir, William P. K. Importance of Software Documentation. International Journal of Computer Science Issues (IJCSI); Sep2013, Vol. 10 Issue 5, pp. 223-228.

Course Objectives

Upon successful completion of the course, students will be able to:

1. Describe the nature of software documentation, and understand the task-orientation documentation process, and define the differences between the different forms of software documentation (Tutorials, Procedures, and References) **(a)**.
2. Identify the key elements of documentation design **(a).**
3. Apply the task-oriented documentation process phases, starting from the user analysis through the usability evaluation. Understanding users and their need for software documentation **(e).**
4. Understand the software architecture, and the possible design patterns, and design a software architecture documentation for a real software **(e, f).**

Topics Covered:

1. What is task-oriented software documentation?
2. Understanding the importance of software documentation.
3. Different forms of software documentation.
4. Understanding users and their need for software documentation.
5. The process of software documentation design and usability evaluation.
6. What is software architecture documentation?

Course Plan

Lectures are 75 minutes 2 times/week.

Topics Covered				
Part	**Topic**	**Chapters in text / Reading Assignment**	**Week(s)**	**Contact Hours**
I	Understanding Task Orientation	Barker- Chapter 1	2	6
	Importance of Documentation	Selected Material	1	3
	Writing to Teach	Barker- Chapter 2	2	6
First Exam ( )				
II	Analyzing Your user	Barker- Chapter 5	1	3
	Planning and Writing Your Documents	Barker- Chapter 6	2	6
	Conducting Useful Reviews	Barker- Chapter 7	1	3
Second Exam (October 25, 2018)				
	Conducting Usability Testing	Barker- Chapter 8	2	6
	Editing and Fine Tuning.	Barker- Chapter 9	2	6
III	Documenting Software Architecture – Part I	Clements et al. – Chapter 2	2	6
	Documenting Software Architecture – Part II	Discussion and Example(s)		
	Project presentation (*Assignment II*)	NA		
Final Exam (November 29, 2018)				
	Total	***15***		***40***

*Contact hours include lectures, exams, and project discussions.

#	Student Outcome Description	Contribution
	General and _____ Student Outcomes	
(a)	An ability to analyze a problem, and to identify and define the computing requirements appropriate to its solution.	**H**
(b)	An ability to design, implement, and evaluate a computer-based solution to meet a given set of computing requirements in the context of the discipline.	
(c)	An ability to communicate effectively with a range of audiences about technical information.	**L**
(d)	An ability to make informed judgments in computing practice based on legal and ethical principles.	**L**
(e)	An ability to function effectively on teams to establish goals, plan tasks, meet deadlines, manage risk, and produce deliverables.	**M**
(f)	An ability to support the delivery, use, and management of information systems within an information systems environment.	**L**
	H=High, **M**= Medium, **L**=Low	

General Notes: A team design project is required. The project will be divided into two parts. The project will focus on creating a task-oriented tutorials. It focuses on developing a software architecture document. Each team is required to turn in a technical report and to give an oral presentation of their project.

- ***Important Note:*** Any changes to the syllabus or schedule made during the semester (Spring 2016-2017) take precedence over this version. Check the eLearning site regularly for up-to-date information.