The Hashemite University



Faculty of Prince Al-Hussein Bin Abdullah II for Information Technology

الجامعة الهاشمية



كلية الامير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات

Syllabus*: Software Documentation (151003320) Second Semester 2021/2022

| COURSE INFORMATION | | | | |
|---------------------|-------------------------------|------------------------|-----|--|
| Course Name: | Software Documentation | Course Code: 151003320 | | |
| Semester: | Spring 2021/2022 | Section: 1 | | |
| Department: | Department of Software | Core Curriculum: | | |
| Enineering | | | | |
| Faculty: Prince A | Al-Hussein bin Abdullah II of | | | |
| Information Tech | nnology | | | |
| Day(s) and Time(s): | | Credit Hours: 3 | | |
| Sunday: | 10:00-11:00 , 12:00-01:00 | Prerequisites: No | one | |
| Tuesday: | 10:00-11:00 , 12:00-01:00 | | | |
| Classroom: | IT 101, IT 202 | | | |

COURSE DESCRIPTION

The course introduces major concepts of software documentation. An overview of writing methods and practices that software engineers use to create software documentation. The course covers topics related to software documentation process: user analysis, planning, designing, reviewing, and testing. It covers in details topics related to different task-oriented types of documentation, such as Tutorials, Procedures, and References.

DELIVERY METHODS

The course will be delivered through a combination of active learning strategies. These will include:

- PowerPoint lectures and active classroom based discussion
- Collaborative learning through small groups acting in an interdisciplinary context.
- Relevant films and documentaries
- Video lectures
- E-learning resources: e-reading assignments and practice quizzes through Model and Microsoft Team

| FACULTY INFORMATION | | | |
|---------------------|--|--|--|
| Name | Hani Bani-Salameh | | |
| Academic Title: | Professor | | |
| Office Location: | IT 324 | | |
| Telephone Number: | 4471 | | |
| Email Address: | hani@hu.edu.jo | | |
| Office Hours: | Sunday 12:00 PM – 01:00 PM | | |
| | Tuesday 12:00 PM – 01:00 PM | | |
| | Monday 10:00 AM – 11:00 AM (Online) | | |
| | Wednesday 10:00 AM – 11:00 AM (Online) | | |
| | Please send an e-mail (hani@hu.edu.jo) to meet at any other time. | | |
| | | | |

REFERENCES AND LEARNING RESOURCES

Required Textbook:

Thomas T. Barker *Writing a Software Documentation: a Task-oriented approach* (Pearson Education: 2003).

Suggested Additional Resources:

- 1. Clements et al. *Documenting Software Architecture, Views and Byond*, 2nd Edition (Addison-Wesley Professional: 2010).
- 2. Paul Clements. *Comparing the SEI's Views and Beyond Approach for Documenting Software Architectures with ANSI-IEEE*. 1471-2000 July 2005.

STUDENT LEARNING OUTCOMES MATRIX*

| Core Curriculum Learning Outcomes | Program Learning Outcomes | Course Objectives | Course Student Learning Outcomes | Assessment Method |
|-----------------------------------|--|--|--|---------------------------------|
| | [D1p] Understand and evaluate business, customer and user needs, including considerations such as the wider engineering context, public perception and Aesthetics. | Introduce major concepts of software documentation. Present writing methods and practices that software engineers use to create software documentation. Discuss the software documentation process. It covers in details topics related to different task-oriented types of | [CLO2] Explain the forms of software documentation such tutorials, procedures, and references. [D1p] | Exams Assignments Quizzes |
| | [D5p] Plan and manage the design process, including cost drivers, and evaluate Outcomes. | | [CLO1] Explain the task orientation process and how you break the project to small tasks, and how to construct a task list from a project. [D5p] [CLO3] Explain the process of software documentation, from user analysis thru editing and fine tuning. [D5p] | Exams Assignments Quizzes |
| | [D6p] Communicate their work to technical and non-technical audiences. | documentation. | • [CLO4] Explain the tools of software documentation, by the tools here we mean that the elements we used in creating the documentation such as screen, page design and using a standard language and the elements of each other. | Exams Assignments Quizzes |

ACADEMIC SUPPORT

It is The Hashemite University policy to provide educational opportunities that ensure fair, appropriate and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their Instructor to ensure that their individual needs are met. The University through its Special Need section will exert all efforts to accommodate for individual's needs.

Special Needs Section:



COURSE REGULATIONS

Participation

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. Those exceeding this limit of 15% will receive a failing grade regardless of their performance. It is a student's responsibility to monitor the frequency of their own absences. Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

Plagiarism

Plagiarism is considered a serious academic offence and can result in your work losing marks or being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a student is expected not to engage in behaviours that compromise his/her own integrity as well as that of the Hashemite University.

Plagiarism includes the following examples and it applies to all student assignments or submitted work:

- Use of the work, ideas, images or words of someone else without his/her permission or reference to them.
- Use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks.
- Misrepresentation of the sources that were used.

<u>The instructor has the right to fail the coursework or deduct marks where plagiarism is detected</u>

Late or Missed Assignments

In all cases of assessment, students who fails to attend an exam, class project or deliver a presentation on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a fail grade for this part of the assessment.

- Submitting a term paper on time is a key part of the assessment process. Students who fail to submit their work by the deadline specified will automatically receive a 10% penalty.
 Assignments handed in more than 24 hours late will receive a further 10% penalty. Each subsequent 24 hours will result in a further 10% penalty.
- In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with University regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

Student Complaints Policy

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

COURSE ASSESSMENT

Course Calendar and Assessment

Students will be graded through the following means of assessment and their final grade will be calculated from the forms of assessment as listed below with their grade weighting taken into account. The criteria for grading are listed at the end of the syllabus

| Assessment | Grade Weighting | Deadline Assessment | |
|----------------|-----------------|------------------------|--|
| | | | |
| Exam 1 | 25% | Add date/time | |
| Exam 2 | 20% | Add date/time | |
| Quizzes | 5% | | |
| Homework | 10% | | |
| Final Exam (3) | 40% | Add date/time | |

Description of Exams

Test questions will predominately come from material presented in the lectures. Semester exams will be conducted during the regularly scheduled lecture period. Exam will consist of a combination of multiple choice, short answer, match, true and false and/or descriptive questions. **Homework:** Will be given for each chapter, while the chapter in progress you are supposed to work on them continuously and submit in next lecture when I finish the chapter.

You are also expected to work on in-chapter examples, self-tests and representative number of end of chapter problems. The answers of self-tests and end of chapter exercises are given at the end of the book.

Quizzes: Unannounced quizzes will be given during or/and at the end of each chapter based upon the previous lectures. It will enforce that you come prepared to the class.

No make-up exams, homework or quizzes will be given. Only documented absences will be considered as per HU guidelines.

Grades are not negotiable and are awarded according to the following criteria*:

| Letter Grade | Description | Grade Points |
|-----------------|-------------|-----------------|
| A+ | Excellent | 4.00 |
| А | | 3.75 |
| A- | | 3.50 |
| B+ | Very Good | 3.25 |
| В | | 3.00 |
| B- | | 2.75 |
| C+ | Good | 2.50 |
| С | | 2.25 |
| C- | | 2.00 |
| D+ | Pass | 1.75 |
| D | Pass | 1.50 |
| F | Fail | 0.00 |
| I | Incomplete | - |

WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION

| Topic | Chapter in Text | Week# | Lecture | Content | Delivery Method |
|---------------------------|-------------------|--------------------------|--------------------|--|--------------------------------------|
| Understanding | | | Lect. 1 | Intro. | Face to face |
| Task Orientation | Ch1 | Week1 | Lect. 2 | Task-Orientation Strategies | Face to face |
| | Ch1 | | Lect. 3 | Task-Orientation Strategies (cont.) | Online\ asynchronous video (Moodle) |
| Understanding | | | Lect. 1 | Principles of Software Documentation | Face to face |
| Task Orientation | | | Lect. 2 | Forms of Software Documentation | Face to face |
| (cont.) | Ch1 | Week2 | Lect. 3 | Task List Creation | Online\ asynchronous video (Moodle) |
| | | Week3 | Lect. 1 | Intro. | Face to face |
| Importance of | Selected Material | | Lect. 2 | Document Preparation/Creation | Face to face |
| Software Documentation | | | Lect. 3 | Chapter Review | Online\ asynchronous video (Moodle) |
| | | | Lect. 1 | Intro. | Face to face |
| | | | Lect. 2 | Guidelines - Designing Tutorials | Face to face |
| | | Week4 | Leet. 2 | | Online\ asynchronous |
| Writing to Teach | Ch2 | | Lect. 3 | Try your Tutorial & Review | video (Moodle) |
| - | | | Lect. 1 | Guidelines - Designing Tutorials (cont.) | Face to face |
| | | Week5 | Lect. 2 | Tutorials – Basic Elements | Face to face |
| | | | Lect. 3 | Trends in Tutorial Design & Review | Online\ asynchronous video (Moodle) |
| | | | Lect. 1 | Analysis Guidelines | Face to face |
| | | Waalse | Lect. 2 | Analysis Guidelines (cont.) | Face to face |
| Analyzing Your user | | Week6 | Lect. 3 | · | Assignment #1 – Online Submission |
| | Ch5 | | Lect. 1 | Thing you want to know about users | Face to face |
| | | Week7 | Lect. 2 | Thing you want to know about users (cont.) | Face to face |
| | | | Lect. 3 | | Assignment #1 – Online Submission |
| | | | Lect. 1 | Planning and Documentation Process | Face to face |
| | | Week8 | Lect. 2 | Task-List Design | Face to face |
| Planning and | | | Lect. 3 | Quiz | Online\ asynchronous video (Moodle) |
| Writing Your | Ch6 | | Lect. 1 | Documentation Plan - Intro | Face to face |
| Documents | | Week9 | Lect. 1 | Basics to Writing Documentation Plan | Face to face |
| | | Weeks | Lect. 3 | Strategies to Make the Plan Persuasive | Online\ asynchronous video (Moodle) |
| | Ch7 | Week1 0 Week1 1 | Lect. 1 | Getting Reviews - Guidelines | Face to face |
| | | | Lect. 2 | Getting Reviews – Guidelines (cont.) | Face to face |
| Conducting | | | Lect. 3 | Quiz | Online\ asynchronous video (Moodle) |
| Useful Reviews | | | Lect. 1 | Reviewing vs. Testing vs. Editing | Face to face |
| Cocidi IC vic ws | | | Lect. 2 | The Purpose of Reviews | Face to face |
| | | | Lect. 3 | Walkthrough Review | Online\ asynchronous video (Moodle) |
| | | Week1 | Lect. 1 | Usability Test - Guidelines | Face to face |
| Conducting | | 2 | Lect. 1 | Usability Test – Guidelines (cont.) | Face to face |
| | Ch8 | | LCCI. 2 | Performance Objectives – Discussion and | Online\ asynchronous |
| Usability Testing | | | Lect. 3 | Examples | video (Moodle) |
| Editing and Fine Tuning. | Ch9 | Week1 3 | Lect. 1 | Intro. & Guidelines | Face to face |
| | | | Lect. 2 Lect. 3 | Types of Editing Writing vs. Editing - Discussion | Face to face Online\asynchronous |
| | | Week1 | Lect. 1 | Documenting Software Architecture – Part | video (Moodle) Face to face |
| Documenting Software | 4 | | Lect. 2 | Documenting Software Architecture – Part I (cont.) | Face to face |
| Architecture | | | | Documenting Software Architecture – Part | Online\ asynchronous |