User Interface Design & Implementation (2010031437)

Second Semester 2021/2022

COURSE INFORMATION	
Course Name: User interface design & implementation **Semester:** Second Semester 2021/2022 **Department:** Department of Software Engineering **Faculty:** Prince Al-Hussein Bin Abdullah II Faculty for Information Technology	**Course Code: 2010031437** **Section:** Elective **Core Curriculum**:
Day(s) and Time(s): Sunday, Thursday, Tuesday: 17:00-18:00 Sunday, Thursday, Tuesday: 18:00-19:00 **Classroom:** online_ Microsoft Teams	**Credit Hours:** 3 **Prerequisites**: 1910011212 Object Oriented Programming (2)

COURSE DESCRIPTION

Three credit hours is counted for this course. This course provides theoretical and practical principles and guidelines needed to develop high quality interface designs–ones that users can understand, predict and control. It covers theoretical foundations, and design processes such as expert reviews and usability testing. Numerous examples of .direct manipulation, menu selection, and form fill–in give readers an understanding of excellence in design

In addition, the profound changes brought by user–generated content of text photo, music, and video and the raised .expectations for compelling user experiences

DELIVERY METHODS

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

- PowerPoint lectures and active classroom based discussion
- Video lectures
- E-learning resources: e-reading assignments and practice quizzes through Model and Microsoft Team

FACULTY INFORMATION

Name	**Maryam Alzawahra**
Academic Title:	**Tutor**
Office Location:	**IT 250**
Telephone Number:	

Email Address:	Maryam_alz@hu.edu.jo
Office Hours:	Sunday 10:00-11:00 Thursday 10:00-11:00 Tuesday 10:00-11:00 *Please send an e-mail (Maryam_alz@hu.edu.jo) to meet at any other time.*

REFERENCES AND LEARNING RESOURCES

Required Textbook:

- Designing the User Interface: Strategies for Effective Human-Computer Interaction (6th Edition), Ben Shneiderman, Catherine Plaisant, Maxine Cohen, Steven Jacobs, Addison Wesley, 2017.

Suggested Additional Resources:

- GUI: Graphical User Interface Design, SendPoints, SendPoints, 2015
- Basics Interactive Design: Interface Design, an introduction to visual communication in UI design , David Wood, 2017

STUDENT LEARNING OUTCOMES MATRIX*

Core Curriculum Learning Outcomes	Program Learning Outcomes	Course Objectives	Course Student Learning Outcomes	Assessment Method
	[EA1] Understanding of engineering principles and the ability to apply them to analyze key engineering processes.	• Identify the usability measurements • Understands the process of design • Give overview about interaction style • Identify expert review and usability testing methods	• [CLO1] Explain the usability of interactive systems. • [CLO2] Discuss how to design, implement and evaluate user interface [CLO5] Identify issues that typically exist in a user interface	• Exams • Project
	[EP1 4p] Understanding of, and the ability to apply, an integrated or systems approach to solving engineering problems.		• [CLO3] An ability to communicate effectively with a range of audiences about technical information. • [CLO4] Compare different interaction styles used in user interface design	• Exams • Project
	[D3] Work with information that may be incomplete or uncertain and quantify the effect of this on the design.		• [CLO 6] Apply appropriate interaction devices for user interface community	• Exams • Project

	[D4] Apply advanced problem-solving skills, technical knowledge and understanding, to establish rigorous and creative solutions that are fit for purpose for all aspects of the problem including production, operation, maintenance and disposal.		• [CLO 6] Apply appropriate interaction devices for user interface community	• Exams • Project
	[D5] Plan and manage the design process, including cost drivers, and evaluate Outcomes.		• [CLO2] Discuss how to design, implement and evaluate	• Exams • Project

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:
Tel:
Location:
Email:

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.**

The instructor has the right to fail the coursework or deduct marks where plagiarism is detected

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
First Exam	25 %	
Second Exam	25%	
Project	10 %	
Final Exam	40%	

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, writing code or descriptive questions.

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
A		3.75
A-		3.50
B+	Very Good	3.25
B		3.00
B-		2.75
C+	Good	2.50
C		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 #**
Usability of Interactive Systems 1.1 Introduction 1.2 Usability Requirements 1.3 Usability Motivation 1.4 Universal Usability	Chapter 1	Week1,2 (6 Lectures)
Guidelines, Principles and Theories 2.1 Introduction	Chapter 2	Week3,4 (6 Lectures)

2.2 Guidelines 2.3 Principles 2.4 Theories		
Managing the Design Process 3.1Introducation 3.2OrganizationalDesigntoSupportUsability 3.3TheThreePillarsofDesign 3.4DevelopmentMethodologies 3.5 Ethnographic Observation 3.6ParticipatoryDesign 3.7ScenarioDevelopment	Chapter 3	Week 5,6 (6 Lectures)
Evaluating Interface Designs 4.1 Introduction 4.2 Expert Review 4.3 Usability Testing 4.4 Survey instrument 4.5 participatory design	Chapter 4	Week 7,8 (6 Lectures)
Direct Manipulation and Virtual Environments 5.1 Introduction 5.2 Specification method 5.3 Interface Building Tools 5.6 Evaluation and Critiquing Tools	Chapter 5	Week 9,10 (6 Lectures)
Command and Natural Languages 8.1 Introduction 8.2 Functionality to Support Users' Task 8.3 Command-Organization Strategies 8.4 The Benefits of Structure	Chapter 8	Week 11,12 (6 Lectures)
Case studies	Selected Material	Week 13,14 (6 Lectures)

ASSESSMENT RUBRICS

ASSESSMENT for the Project					
Criteria	**Quality**				**Total**
Presentation	Full with a good language, topic	Full but with weak language and topic	Lot of missing things	Presentation is very poor and there is no much work on it	
	10	8	4	0	**/10**
					Total out of 10