اعتماد
NCAAA

T4

2020

Course Specifications

Course Title:	Human Computer Interaction
Course Code:	BSCS 3345
Program:	Computer Science
Department:	Computer Science
College:	Hekma School of Engineering, Computing, and Informatics
Institution:	Dar Al-Hekma University

Table of Contents

A. Course Identification

1. Credit hours: 3(2,2)	

2. Course type
a. University ☐ College ☐ Department ☐ Others ☐
b. Required ☐ Elective ☐

3. Level/year at which this course is offered:

4. Pre-requisites for this course (if any)**:**
BSCS 2355 Object-Oriented Programming

5. Co-requisites for this course (if any)**:**

None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	60	100
2	**Blended**	0	0
3	**E-learning**	0	0
4	**Distance learning**	0	0
5	**Other**	0	0

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	30
2	**Laboratory/Studio**	30
3	**Tutorial**	0
4	**Others** (specify)	0
	Total	60

B. Course Objectives and Learning Outcomes

1. Course Description

This course focuses on designing, implementing, and evaluating user interfaces of computational systems to enhance the interactions with human activities. It covers user-centric designing, rapid prototyping and experimentation, user interface standards, cognitive and social models. It also covers interaction designs, Graphical User Interfaces (GUI) principles and visual design tools. The course illustrates the designing of Human Computer Interaction (HCI) on webpages, business applications, mobile applications, games, and other computer applications.

2. Course Main Objective

A major course that fulfils the requirements of the CS POS for graduation.
The main purpose of the course is to focus on the user preferences when designing, implementing, and evaluating user interfaces of computational systems to enhance the interactions with human activities. The students will employ rapid prototyping and experimentation to gather and document user responses while understanding and complying

with international user interface design standards. The students will practice their social and cognitive abilities during software design and plan stages for a Human-Computer Interaction project. The students will create a Graphical User Interfaces (GUI) program using visual design tools, event handling, and/or constraint-based layout management. Finally, the students will examine Human Computer Interaction (HCI) designs on webpages, business applications, mobile applications, games, and other computer applications.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding**	
1.1	Discuss international user interface design standards.	1
1.2	Discuss the latest visual design tools to create visual content.	1
1.3		
1...		
2	**Skills :**	
2.1	Discuss the social and the cognitive in Human-Computer Interaction during software design and plan stages.	2
2.2	Examine the creation of Human Computer Interaction (HCI) webpages, E-Commerce, and mobile applications.	2
2.3	Use rapid prototyping and experimentation techniques to gather (and document) user responses	2
2.4	Implement Graphical User Interfaces (GUI) programming concepts including event handling and constraint-based layout management.	2
2.5	Design Human Computer Interaction (HCI) on either business applications, games, or other computer applications.	2
3	**Values:**	
3.1		
3.2		
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	User-centric design	4
2	Rapid prototyping and experimentation techniques	8
3	International user interface design standards	4
4	Social and cognitive in Human-Computer Interaction	8
5	Graphical User Interfaces (GUI) programming	12
6	Visual design tools	8
7	Human Computer Interaction (HCI)	8
8	HCI industry demand	8
Total		60

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
1.1	Discuss international user interface design standards.	Lectures, labs	Assignments and presentations
1.2	Discuss the latest visual design tools to create visual content.	Lectures, labs	Assignments and presentations
…			
2.0	**Skills**		
2.1	Discuss the social and the cognitive in Human-Computer Interaction during software design and plan stages.	Lectures, labs	Assignments and presentations
2.2	Examine the creation of Human Computer Interaction (HCI) webpages, E-Commerce, and mobile applications.	Lectures, labs	Assignments and presentations
…			
3.0	**Values**		
3.1	Use rapid prototyping and experimentation techniques to gather (and document) user responses.	Lectures, labs	Project
3.2	Explain and implement Graphical User Interfaces (GUI) programming concepts including event handling and constraint-based layout management.	Lectures, labs	Project
…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quiz 1	4th	5%
2	Assignment 1	6th	5%
3	Midterm Examination	7th	20%
4	Quiz 2	8th	5%
5	Assignment 2	9th	5%
6	Project Report	10th	15%
7	Project Presentation	11th	5%
8	Final Exam	14th	30%
9.	Participation	All the weeks	10%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

Full time faculty are required to have a minimum of 10 office hours per week on campus. Usually, the time allotted to student exceeds this amount since faculty are always available to students as required.

Part time faculty are required to have a minimum of one office hour per week on campus for each course. The faculty is also available through email and Blackboard messaging system.

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Preece, J., Sharp, H., & Rogers, Y. (2016). Interaction design: Beyond human-computer interaction. Chichester: Wiley. ISBN: 9781119020752
Essential References Materials	None
Electronic Materials	To be assigned
Other Learning Materials	GUI Programming Tool Kit

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Computer lab equipped with 20 computer stations.
Technology Resources (AV, data show, Smart Board, software, etc.)	Computers with Windows Operating System Projector connected to the instructor computer Internet connection Audio system White board
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Instructors distribute surveys to students during the semester to evaluate teaching methods. Students also have the opportunity to post their feedback on the course discussion forums.	**Student feedback**	surveys
The university collects valuable feedback from the student course evaluation which is completed at the end	**Student course evaluations**	surveys

Evaluation Areas/Issues	Evaluators	Evaluation Methods
of the semester for each course.		
These surveys are conducted based on the request of the program director; an example of these surveys is the five-year curriculum review. On the macro-level, the university also surveys alumni, employers, faculty, and staff on different aspects of the educational experience that affect students	alumni, employers, faculty, and staff	**Ad-Hoc surveys**
The University gathers several surveys measuring teaching effectiveness; this includes Student Satisfaction Survey and Graduating Senior Survey which are both held every year.	Students	Survey

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	6
Reference No.	6
Date	20/05/2021