



Course Specifications

Course Title:	Human Computer Interaction
Course Code:	IT334
Program:	Information Technology
Department:	Information Technology
College:	College of Computer and Information Sciences
Institution:	Majmaah University



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A. Course Identification

1. Credit hours: 3(3,0,1)
2. Course type
a. University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b. Required <input type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: Level 9
4. Pre-requisites for this course (if any): CS 210/ IT210
5. Co-requisites for this course (if any):

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom		
2	Blended	44	100%
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	33
2	Laboratory/Studio	
3	Tutorial	11
4	Others (specify)	
	Total	44

B. Course Objectives and Learning Outcomes

1. Course Description

This course helps to build competence, knowledge, and skills in the field of Human-Computer Interaction Design. The course covers the following topics: Introduction to Human-Computer Interaction (HCI) and Human Cognitive Systems; Understanding Users; Interaction Frameworks, Paradigm and Styles; Evaluation of User Interfaces using Heuristic Evaluation and Usability Testing. The course covers also the underlying Design Principles and Designing Interaction including: Interaction Design Process, User-Centered Design and Prototyping, Conceptual and Physical Design, Interface Design Standards, Task Analysis and Discovery, Design Principles. Different Features of Interaction and User Interfaces will also be presented: Color, Interface Components (e.g. Windows, Icons, Menus, and Pointers etc.), Icons, Text, Speech, Touch, Augmented Reality, and Haptic. Students participate in-group projects on the design, development and evaluation of user interfaces.

2. Course Main Objective

1. Understand the basic theories behind designing Human-computer interaction systems.



2. Understand psychological principles underlying effective user interfaces.
3. Understand the technical, cognitive, and social factors that can make interactive systems usable.
4. Design and create effective user interface using available theories, principles and guidelines.
5. Establish requirements for the interaction design.
6. Evaluate user interfaces using questionnaires, experiments, and usability engineering.
7. Perform iterative design and evaluation for the interaction design.
8. Identify user interface (UI) problems.
9. Understand the limitations in current HCI paradigms and be aware if new trends in HCI.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Students are able to analyze HCI problem and identify the right solution.	K1
1.2	Students are able to identify HCI principles and guidelines.	K1
1...		
2	Skills :	
2.1	Students are able to design and build a computer-based system using prototype and GUI interface applying HCI principles.	S1
2...		
3	Values:	
3.1	Students identify the HCI principle to create and evaluate a computer-based system.	C1
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Human-Computer Interaction, Human Cognitive System	4
2	Interaction Paradigms	3
3	Interaction Frameworks	4
4	Interaction Styles	4
5	Interaction Design Process (Iterative Design, User-Centered Design, Interaction Design Models)	4
6	Discovery - (Discovery Phase Framework, Collection, Interpretation, Documentation)	4
7	Design - User-Centered Design and Prototyping, Conceptual and Physical Design, Interface Design Standards)	8
8	Design Principles	6
9	Usability Testing	6
10	Color	4
11	Interface Components	4
12	Icons & selected topics	4
Total		55



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	Students are able to analyze HCI problem and identify the right solution.	Online Teaching	Quiz, Mid Exam, Final Exam
1.2	Students are able to identify HCI principles and guidelines.	Online Teaching	Quiz, Mid Exam, Final Exam
2.0	Skills		
2.1	Students are able to design and build a computer based system using prototype and GUI interface applying HCI principles.	Online Teaching	In-class exercise Assignment
3.0	Values		
3.1	Students identify the HCI principle to create and evaluate a computer-based system.	Online Teaching	Project

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quizzes	3, 9	10%
2	Group Assignment	4,5	5%
3	Mid Term Exam	6	20%
4	In-class Exercise (prototyping)	8	5%
5	Tutorial	Every week	5%
6	Project	10	10%
7	Class Participation	All weeks	5%
8	Final Exam		40%

*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 :

Each student is allotted to an academic advisor for guidance and counselling

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	The Resonant Interface HCI Foundations for Interaction Design (1st Edition), Steven Heim, 2007, Addison-Wesley
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Essential References Materials	100 things Every Designer Needs to Know about People (1st Edition), Susan M. Weinschenk, 2011, New Riders.
Electronic Materials	
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Online
Technology Resources (AV, data show, Smart Board, software, etc.)	PC or Laptop with Windows/Linux, Smart Board, Projector
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Sketching papers for prototyping, sticky notes for card sorting, Microsoft Visual Studio, Dreamweaver. Online tools such as Wireframe and MockFlow.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Final Exam Answer Scripts Verification	Peer faculty members	Review
Course Learning Outcomes Feedback	Students	Survey
Final Exam evaluation	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	IT Council
Reference No.	IT Meeting #3 (1440-1441)
Date	(5-2-1440 H)