



Course Specification

(Bachelor)

Course Title: **Fundamentals of Human-Computer Interaction**

Course Code: **HCI 1201**

Program: **BSc in Human Computer Interaction**

Department: **Software Engineering**

College: **Computing**

Institution: **Umm Al Qura University**

Version: **1.0**

Last Revision Date: **22/04/2025**



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A. General information about the course:

1. Course Identification

1. Credit hours: (4)					
4 Hours					
2. Course type					
A.	<input type="checkbox"/> University	<input type="checkbox"/> College	<input checked="" type="checkbox"/> Department	<input type="checkbox"/> Track	<input type="checkbox"/> Others
B.	<input checked="" type="checkbox"/> Required		<input type="checkbox"/> Elective		
3. Level/year at which this course is offered: (1st year/ 1st level)					
4. Course General Description:					
This course provides students with a firm foundation in the main HCI principles and a working knowledge of HCI-oriented software development. Additionally, to familiarize students with the basic concepts of User Experience (UX) from understanding the UX to mapping user journey and highlighting touchpoints, pain points and opportunities.					
5. Pre-requirements for this course (if any):					
None					
6. Co-requisites for this course (if any):					
None					
7. Course Main Objective(s):					
Equip students with a comprehensive understanding of Human-Computer Interaction (HCI) principles, including essential design processes, user-centered research methodologies, and the psychological and cognitive theories that inform effective interface design. Emphasis will be placed on the integration of User Experience (UX) fundamentals, enabling students to create intuitive and accessible user interfaces. This foundation will prepare students for advanced studies and practical applications in subsequent courses					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> • Traditional classroom • E-learning 		
4	Distance learning		



3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	60
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Describe foundational theories and models in Human-Computer Interaction (HCI), including their historical development and relevance to user-centered technology design	K1	Lectures, discussions	Exams
2.0	Skills			
2.1	Explain the role of cognitive and psychological theories in shaping user interaction and experience with technology and apply these insights to design solutions.	S2	Lectures, discussions	Exams
2.2	Employ user-centered research methodologies, including user personas, task analysis, and usability testing, to inform the iterative design process.	S4	Lectures, discussions	Exams/ Project
3.0	Values, autonomy, and responsibility			
3.1	Work in teams to review and analyze simple interactive systems that demonstrate an understanding of HCI principles and UX foundations.	V2	Lectures, discussions	Exams/ Project
3.2	Demonstrate creativity and empathy in developing Human-Computer Interaction (HCI) solutions, addressing real-world challenges by designing inclusive and socially responsible user experiences.	V5	Lectures, discussions	Exams/ Project



C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to HCI and Interaction Design	4
2.	Understanding Users: Cognition, Emotion, and Behavior	4
3.	HCI Design Principles and Guidelines	4
4.	Conceptualizing Interaction	4
5.	User-Centered Design Process	4
6.	User Research Techniques	4
7.	Designing for Accessibility and Inclusivity	4
8.	Prototyping Interfaces	4
9.	Evaluation and Usability Testing	4
10.	Interaction Beyond the Screen	4
11.	Designing for Mobile and Context-Aware Systems	4
12.	Ethics and Social Impact in HCI	4
13.	Emerging Trends in HCI	4
14.	Team-Based Design Projects: From Concept to Prototype	4
15.	Final Presentations and Reflection	4
Total		60

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	3-14	20
2.	Assignments	3-14	20
3.	Midterm	7-8	20
4.	Final Exam	16-17	40

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Kim, G.J. (2015). Human-Computer Interaction: Fundamentals and Practice (1st ed.). Auerbach Publications. https://doi.org/10.1201/b18071
Supportive References	Interaction Design: Beyond Human-Computer Interaction (4th Edition) by Yvonne Rogers, Helen Sharp, and Jenny Preece (2019)
Electronic Materials	





**Other Learning
Materials**

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Traditional Classroom
Technology equipment (projector, smart board, software)	Multimedia Projector
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Direct: Survey at the end of the course
Effectiveness of Students assessment	Instructor and quality assurance committee	Indirect: Course Report
Quality of learning resources	Instructor and quality assurance committee	Direct: Survey at the end of the course
The extent to which CLOs have been achieved	Instructor and quality assurance committee	Indirect: Course Report
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	SOFTWARE ENGINEERING DEPARTMENT COUNCIL
REFERENCE NO.	THE 17TH MEETING FOR THE ACADEMIC YEAR 1446H
DATE	22/04/2025

