



# Course Specification

**Course Title:** User Centered Design

**Course Code:** HCI3103

**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: (2)

#### 2. Course type

A.  University  College  Department  Track  Others

B.  Required  Elective

3. Level/year at which this course is offered: (3<sup>rd</sup> year/ 5<sup>th</sup> level)

#### 4. Course General Description:

This course provides an in-depth understanding of the principles and methodologies of Human-Computer Interaction (HCI), with a focus on Agile UX and Lean UX frameworks. Students will explore theoretical aspects of user-centered design, iterative processes, usability evaluation, and the integration of UX into product development within agile contexts. The course emphasizes analysis, discussion, and critique of key concepts and frameworks.

#### 5. Pre-requirements for this course (if any):

HCI2203 - User Research

#### 6. Co-requisites for this course (if any):

None

#### 7. Course Main Objective(s):

By the end of this course, students will be able to:

1. Understand the principles of Agile UX and Lean UX and their application to HCI.
2. Explain the theoretical frameworks underpinning user-centered design and iterative methodologies.
3. Analyze case studies and evaluate the effectiveness of HCI principles in real-world scenarios.
4. Discuss the challenges and opportunities of integrating UX into agile workflows.
5. Explore emerging trends in HCI and their theoretical implications.

### 2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> <li>• Traditional classroom</li> <li>• E-learning</li> </ul>		





No	Mode of Instruction	Contact Hours	Percentage
4	Distance learning		





### 3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		30

### 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
<b>1.0</b>	<b>Knowledge and understanding</b>			
1.1	Build a strong foundation in User-Centered Design principles and methodologies	K1	Lectures, discussions	Exams/ Assignments
<b>2.0</b>	<b>Skills</b>			
2.1	Apply user-centered research methods	S2	Lectures, discussions	Exams/ Assignments
2.1	Communication and Design Justification Skills	S3	Lectures, discussions	Exams/ Assignments
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1	Advocate for User-Centered Approaches	V2	Lectures, discussions	Exams/ Assignments
3.2	Emphasize Emotional Design	V5	Lectures, discussions	Exams/ Assignments

### C. Course Content

No	List of Topics	Contact Hours
1.	<p>Introduction to HCI and UX Principles</p> <ul style="list-style-type: none"> <li>• Overview of HCI as a discipline.</li> <li>• Key principles of user-centered design.</li> <li>• Differentiating Agile UX and Lean UX.</li> </ul>	2



2.	User-Centered Design Processes <ul style="list-style-type: none"> <li>Steps in a user-centered design process.</li> <li>Theoretical comparison of waterfall and agile approaches.</li> </ul>	2
3.	Theoretical Foundations of Agile UX <ul style="list-style-type: none"> <li>Core concepts of Agile UX.</li> <li>Theoretical basis for iterative design and evaluation cycles.</li> </ul>	4
4.	The Nature of UX Design <ul style="list-style-type: none"> <li>Bottom-Up Versus Top-Down Design</li> <li>Generative Design: Ideation, Sketching, and Critiquing</li> </ul>	2
5.	Lean UX canvas: <ul style="list-style-type: none"> <li>Business problems</li> <li>Business outcomes</li> </ul>	2
6.	Lean UX: Process <ul style="list-style-type: none"> <li>Hypotheses statement</li> </ul>	2
7.	Lean UX: Process <ul style="list-style-type: none"> <li>The minimum viable product</li> </ul>	2
8.	Lean UX: Process <ul style="list-style-type: none"> <li>Experiment</li> </ul>	2
9.	Lean UX: Process <ul style="list-style-type: none"> <li>Feedback</li> </ul>	2
10.	Collaboration	4
11.	<ul style="list-style-type: none"> <li>Affordances in UX Design</li> <li>The Interaction Cycle</li> </ul>	2
12.	Lean UX in Organization	4
<b>Total</b>		<b>30</b>

#### 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	Norman, D. A. (2013). <i>The design of everyday things</i> . MIT Press.
Supportive References	Krug, S. (2014). <i>Don't make me think, revisited: A common sense approach to web usability</i> (3rd ed.). New Riders Publishing.
Electronic Materials	
Other Learning Materials	





**You do not need to fill this page**

## 2. Required Facilities and equipment

Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Traditional Classroom
<b>Technology equipment</b> (projector, smart board, software)	Multimedia Projector
<b>Other equipment</b> (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

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

