هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

Course Specification

— (Bachelor)

Course Title: Human Computer Interaction
Course Code: CIT 1201
Program: Bachelor in Information Technology
Department: Information Technology
College: Computers and Information Technology
Institution: University of Tabuk
Version: 1.0
Last Revision Date: 27 July 2022

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours:
3 CRs. (Three-Credit Hours)

2. Course type

A.	☐ University	☐ College	☒ Department	☐ Track	☐ Others
B.	☒ Required			☐ Elective	

3. Level/year at which this course is offered: (Level 4/ 2ⁿᵈ Year)

4. Course general Description:

Human-Computer Interaction (HCI) is concerned with the design and use of computer technology, focusing on the interfaces between people and systems. This interdisciplinary field sits at the intersection of computing, behavioral sciences, design and evaluation.

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

Introduction to Programming (CSC1103)

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

N/A

7. Course Main Objective(s):

Upon Completion of this course, students will be able to:
- Understand the human components functions regarding interaction with human and computer.
- Demonstrate understanding of interaction between the human and computer components.
- Explorations of the social and emotional components of interacting with apps, digital devices, and computers
- Descriptions about how to design, prototype, evaluate and construct technologies that support human-computer interaction
- Discussions of the cognitive aspects of interaction design, as well as design and evaluation, including usability testing and expert reviews.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45 Hrs	100%
2	E-learning		
3	Hybrid		

No	Mode of Instruction	Contact Hours	Percentage
	● Traditional classroom ● E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	45
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		45

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

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Define the human and computer components' functions regarding the interaction.	**K2**	● Lectures ● In class discussion	● Exam ● Assignments
1.2	Explorations of the social and emotional components of interacting with apps, digital devices and computers	**K3**	● Lectures ● In class discussion	● Exam ● Assignments
1.3	Define the design process stages	**K2**	● Lectures	● Exam ● Assignments

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
			• In class discussion	
1.4	Identify the factors that help to produce a technology that support effective interaction between human and computers.	K2	• Lectures • In class discussion	• Exam • Assignments • Project
2.0	**Skills**			
2.1	Apply the phases that should be used to implement interfaces.	S1	• Lectures	• Exam • Assignments • Project
2.2	Design usable interfaces for tech products according to specific requirements.	S2	• Lectures	• Exam • Assignments • Project
2.3	Employ the evaluation techniques.	S3	• Lectures	• Exam • Assignments • Project
2.4	The implementation of interaction design basics.	S4	• Lectures	• Assignments • Project
3.0	**Values, autonomy, and responsibility**			
3.1	Illustrate teamwork and communication skills.	V2	• Lectures • Research activities	• Project

C. Course Content

No	List of Topics	Contact Hours
1.	**What is interaction design?:** Introduction, Good and Poor Design, What Is Interaction Design, The User Experience, Understanding Users, Accessibility and Inclusiveness, Usability and User Experience Goals.	3
2.	**The process of interaction design:** What Is Involved in Interaction Design?, Some Practical Issues.	3
3	**Conceptualizing interaction:** conceptualizing Interaction, Conceptual Models, Interface Metaphors, Interaction Types, Paradigms, Visions, Theories, Models, and Frameworks.	3
4	**Cognitive aspects:** What Is Cognition?, Cognitive Frameworks.	3
5	**Social Interaction:** Being Social, Face-to-Face Conversation, Remote Conversations, Co-presence, Social Engagement.	3
6	**Emotional Interaction:** Emotions and the User Experience, Expressive Interfaces and Emotional Design, Annoying Interfaces, Affective Computing and Emotional AI, Persuasive Technologies and Behavioral Change, Anthropomorphism.	3
7	**Interfaces:** Interface Types, Natural User Interfaces and Beyond, Which Interface?	3
8	**Data gathering:** Five Key Issues, Data Recording, Interviews, Questionnaires, Observation, Choosing and Combining Techniques.	3
9	**Data analysis, interpretation, and presentation(part1):** Quantitative and Qualitative, Basic Quantitative Analysis, Basic Qualitative Analysis.	3
10	**Data analysis, interpretation, and presentation(part2):** Which Kind of Analytic Framework to Use?, Tools to Support Data Analysis, Interpreting and Presenting the Findings.	3
11	**Discovering requirements(part1):** What, How, and Why?, What Are Requirements?, Data Gathering for Requirements.	3
12	**Discovering requirements(part2):** Bringing Requirements to Life: Personas and Scenarios, Capturing Interaction with Use Cases.	3
13	**Design, prototyping, and construction:** Prototyping, Conceptual Design, Concrete Design, Generating Prototypes, Construction.	3
14	**Interaction design in practice:** Agile UX, Design Patterns, Open Source Resources, Tools for Interaction Design.	3
15	**Introducing evaluation:** The Why, What, Where, and When of Evaluation, Types of Evaluation, Evaluation Case Studies, What Did We Learn from the Case Studies?, Other Issues to Consider When Doing Evaluation.	3
Total		**45**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Mid Term Exam1	6 or 7	15%
2.	Mid Term Exam2	11 or 12	15%
3.	Project	14	20%
4.	Assignments	3,5,8 and 9	10%
5.	Final Exam	16	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	**Interaction Design: Beyond Human-Computer Interaction, 5th Edition ISBN: 978-1119547259 , 2019 Human-Computer Interaction, Dix, Alan; Finlay, Janet; Abowd, Gregory; and Beale, Russell, 2004, 3rd Edition, Prentice Hall. ISBN-13: 978-0130461094**
Supportive References	**Designing the User Interface: Strategies for Effective Human-Computer Interaction, Ben Shneiderman, Catherine Plaisant, Maxine Cohen, Steven Jacobs. John Wiley & Sons Inc. 2016. ISBN-13: 978-0134380384**
Electronic Materials	**Journal of Human–Computer Interaction. Taylor & Francis** https://www.tandfonline.com/toc/hhci20/current#.UlAAKxBaaI8
Other Learning Materials	**N/A**

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom
Technology equipment (projector, smart board, software)	White board, data show projector, computer and internet connection.
Other equipment (depending on the nature of the specialty)	**N/A**

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of Teaching	Faculty, Program Leaders, and Advisory Board	Both Direct and Indirect
	Students	Indirect

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of Students Assessment	Faculty, Program Leaders, Advisory Board, and Independent Opinion	Both Direct and Indirect
Quality of Learning Resources	Faculty, Students, and Advisory Board	Indirect
The Extent to which CLOs have been Achieved	Faculty, Program Leaders, Advisory Board, and Independent Opinion	Direct (as in section B) and Indirect/Surveys
	Students	Indirect

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	