



Course description:

The course aims to illustrate and explain how human and computer could interact effectively in order to insure the best usability for the human.

Aims of the course:

This course introduces students to the problems and challenges that caused by designing problems by various software designs. In addition, the course aims to address the main concerns of human computer interaction and how to optimize it towards the best. Moreover, this course will introduce the students to the effective methods of interaction and how to deploy it within software design processes.

Intended Learning Outcomes: (ILOs)

A. Knowledge and Understanding

A1. Concepts and Theories:

Define the basic concepts of human computer interaction.

Define and understand the concepts of human cognition, perception, representation, attention and memory.

Understand the different types of interaction styles.

Understand and identify the characteristics of good design.

A2. Contemporary Trends, Problems and Research:

A3. Professional Responsibility:

B. Subject-specific skills

B1. Problem solving skills:

Learn How to design user friendly interfaces.

B2. Modeling and Design:

Learn the different methods to evaluate and improve the design of interfaces.

B3. Application of Methods and Tools:

Learn How to use the different heuristics to design usable interfaces.

C. Critical-Thinking Skills

C1. Analytic skills: Assess

Distinguish between good and bad design.

C2. Strategic Thinking:

Understand heuristics and tools to design usable interfaces.

C3. Creative thinking and innovation:

Plan how to design usable interface.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Communication:

D2. Teamwork and Leadership:

Discuss and work in a group in order to apply several heuristics for usable interfaces.

Course structures:

Week	Credit Hours	ILOs	Topics	Teaching Procedure	Assessment methods
1	3	A1, B2, C1, C2, C3	What is interaction design?	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
2	3	A1, B2, C1, C2, C3	What is interaction design? HCI and interaction design	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
3	3	A1, B1, B2, C1	Understanding and conceptualizing interaction Interface metaphors	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
4	3	A1,B1,B2	Interaction types	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
5	3	A1, B1, C1, C2	Understanding users	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
6	3	A1,B1,B2	Understanding users	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file

7	3	A1, B2, B3, C1, C2, C3	The process of interaction design	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
8	3	A1, B2, B3, C1, C2, C3	The process of interaction design	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
9	3	A1, B2, B3, D1, D2	Four basic activities in Interaction Design	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
10	3	A1, B1, B2	Identifying needs and establishing requirements	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
11	3	A1, B1, B2	Design, prototyping and construction	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
12	3	A1, B1, B2, C1, C2, C3	Introducing Evaluation	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
13	3	A1, B1, B2, C1, C2, C3	An evaluation framework	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
14	3	A1, B1, B2, C1, C2,	Evaluation studies: From controlled to natural settings	Presentation methods and	Diagnostic tests to identify the students level and areas

		C3, D1		techniques, Sources of information and Instructional Aids	of weakness Formal (stage) evaluation a) Class Participation b) Ist Exam c) 2nd Exam d) Activity file
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References:

A. Main Textbook:

Yvonne Rogers, Helen Sharp and Jenny Preece, Interaction Design Beyond Human Computer Interaction. Third edition, 2011 John Wiley & Sons Ltd..

B. Supplementary Textbook(s):

- Nielsen. Heuristic evaluation. In Usability Inspection Methods. John Wiley, New York, 1994
- Shneiderman. Designing the User Interface: Strategies for Effective Human-Computer Interaction. Addison-Wesley, New York, 1987

Assessment Methods:

Methods	Grade	Date
First Exam	20%	
Second Exam	20%	
Assignments (Reports /Quizzes/ Seminar / Tutorials)	10%	
Final Examination	50%	

