



Course Specification

Course Name: [Selected Topics in Information Systems - 2 (Human Computer Interface)]

Course Code: [IS496]

I. Basic Course Information

Major or minor element of program: Elective

Department offering the course: Information Systems Department

Academic level: 400 Level

Semester in which course is offered: Depends on Resources Available

Course pre-requisite(s): IS351 Analysis and Design of Information Systems - 1

IS352 Analysis and Design of information Systems - 2

Credit Hours: 3

Contact Hours Through:

Lecture	Tutorial *	Practical *	Total
2.5	0.0	1.5	4.0

* 1.5 hours for **either** Tutorial or Practical

Approval date of course specification: September 2014

II. Overall Aims of Course

The aim of this module is to introduce the student to the human, physical and informational aspects of the human-computer interaction design, and the importance of the systematic consideration of interaction characteristics. Emphasis is put on the role of interaction design, and how user experience is constructed and influenced, in the success of computer-based information systems.

III. Program ILOs covered by course

Program Intended Learning Outcomes (By Code)			
Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
[K9,K14,K19,K23]	[I17,I18]	[P9,P14,P19]	[G1,G2,G9]



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IV. Intended Learning Outcomes of Course (ILOs)

a. Knowledge and Understanding

On completing the course, students should be able to:

- K.1 Explain the critical role that interaction and user experience design play in the success of information systems and applications.
- K.2 Explain the relevance of noun and information architecture to interaction design.
- K.3 Illustrate the phases of the process of interfaces and human-computer interaction designs.
- K.4 Identify the human factors that apply in the design and evaluation of interactive systems with regards to both physical and informational aspects.

b. Intellectual/Cognitive Skills

On completing the course, students should be able to:

- I.1 Categorize the needs of the user of an interactive system.
- I.2 Evaluate and select appropriate user interface gadgets, elements, layouts and styles.
- I.3 Evaluate and select appropriate data gathering and field study techniques and methods.
- I.4 Carry out task and scenario analysis and task re-design.

c. Practical/Professional Skills

On completing the course, students should be able to:

- P.1 Investigate & gather field data on the contextual and use factors that should influence the design of interactive systems.
- P.2 Apply interaction design guidelines and rules to the design of interactive systems.
- P.3 Evaluate a systems interface with respect to the principles and guide the user of the system and the usage context.
- P.4 Creating noun and information architectures, navigation, presentation, and interaction schemes.

d. General and Transferable Skills

On completing the course, students should be able to:

- G.1 Understand, critique and present interface designs.
- G.2 Work on interface design and evaluation in a team.
- G.3 Carry out background research on interaction design and make use of available resources.

V. Course Matrix Contents

	Main Topics / Chapters	Duration (Weeks)	Course ILOs Covered by Topic (By ILO Code)			
			K & U	I.S.	P.S.	G.S.
1-	What is interaction design and why is it important? An introduction to User Centered Analysis	1	K1			
2-	Developing a design strategy: what and why	1		I1		



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3-	Usability goals, user experience goals; usability principles, design principles and design rules	1		I1	P2	G1
4-	Creating user profiles and personas	1		All	P3	G1
5-	Field studies and data gathering	1		I3	P1	G3
6-	Scenarios and task analysis	1		I4		G2
7-	Creating Noun and Information Architectures	1	K2		P4	
8-	The process of interaction design	1	K3		P2	
9-	User-centered design: navigation	1		I2	P2, P3, P4	G1, G2
10-	User-centered design: presentations	1		I2	P2, P3, P4	G1, G2
11-	The use of Color theory in presentation design	1	K4	I2	P2, P3, P4	G1, G2
12-	User-centered design: interaction	1		I2	P2, P3, P4	G1, G2
13-	Styles of evaluating usability and interaction design	1	K3	I2	P2, P3, P4	G2, G3
	Net Teaching Weeks	13				

VI. Course Weekly Detailed Topics / hours / ILOs

Week No.	Sub-Topics	Total Hours	Contact Hours	
			Theoretical Hours	Practical Hours *
1	What is interaction design and why is it important? An introduction to User Centered Analysis	2.5	2.5	
2	Developing a design strategy: what and why	4	2.5	1.5
3	Usability goals, user experience goals; usability principles, design principles and design rules	4	2.5	1.5
4	Creating user profiles and personas	4	2.5	1.5
5	Field studies and data gathering	4	2.5	1.5
6	Scenarios and task analysis	4	2.5	1.5
7	Midterm Exam			
8	Creating Noun and Information Architectures	4	2.5	1.5
9	The process of interaction design	4	2.5	1.5
10	User-centered design: navigation	4	2.5	1.5
11	User-centered design: presentations	4	2.5	1.5
12	The use of Color theory in presentation design	4	2.5	1.5
13	User-centered design: interaction	4	2.5	1.5
14	Styles of evaluating usability and interaction design	4	2.5	1.5
15	Final Exam			
Total Teaching Hours		51	33	18

* No Practical/Tutorial during the first week of the semester



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VII. Teaching and Learning Methods

Teaching/Learning Method	Selected Method	Course ILOs Covered by Method (By ILO Code)			
		K & U	Intellectual Skills	Professional Skills	General Skills
Lectures & Seminars	✓	All			
Tutorials					
Computer lab Sessions					
Practical lab Work	✓		All	All	
Reading Materials	✓	All			All
Web-site Searches	✓				All
Research & Reporting					
Problem Solving / Problem-based Learning			All	All	
Projects					
Independent Work			All		
Group Work	✓		All	All	All
Case Studies	✓		All	All	
Presentations	✓			All	
Simulation Analysis					
Others (Specify):					

VIII. Assessment Methods, Schedule and Grade Distribution

Assessment Method	Selected Method	Course ILOs Covered by Method (By ILO Code)				Assessment Weight / Percentage	Week No.
		K & U	I.S.	P.S.	G.S.		
Midterm Exam	✓	All	All	P1-P3		10%	7
Final Exam	✓	All	All	P1-P3		60%	15
Quizzes							
Course Work	✓			P2-P3	All	30%	5,6,8,9
Report Writing							
Case Study Analysis							
Oral Presentations	✓					All	5,6,8,9
Practical	✓		All	P1-P3			2,3,4
Group Project	✓		I2	P2-P3	G1-G2		2,3,4
Individual Project							
Others (Specify):							



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IX. List of References

Essential Text Books	<ul style="list-style-type: none"> • Rogers, Y., Sharp, H., Preece, J. (2011) Interaction design: beyond human-computer interaction, 3rd ed., Wiley. ISBN 978-0-470-01866-8 (web site: http://www.id-book.com/)
Course notes	<ul style="list-style-type: none"> • PDF version of the lecture slides. Most are available (in original form) at: http://www.id-book.com/ • Additional lecture slides and notes.
Recommended books	<ul style="list-style-type: none"> • Dix, Alan; Finlay, J.; Abowd, G.; Beale, R. (2004) Human-computer interaction, 3rd Edition, Prentice Hall. ISBN: 0130-461091 • Norman, D. (2002) The Design of Every Day Things, Basic Books.
Periodicals, Web sites, etc....	<ul style="list-style-type: none"> • http://homepage.mac.com/bradster/iarchitect/shame.htm • http://www.id-book.com/ • http://www.useit.com/ • http://www.usernomics.com/ • http://www.baddesigns.com/

X. Facilities required for teaching and learning

<p>List the facilities required</p> <ul style="list-style-type: none"> • Data show projector in the lecture theatre • Data show projector in the labs • High speed Internet connectivity • Microsoft Windows 8 • Microsoft Office Suite • Microsoft FrontPage • Axure (educational version) installed on all PCs in all laps used. • MS Visual Studio • Digital camera (available for loan to students) • Digital camcorder (available for loan to students) • A digital scanner. • A colour laser printer (for printing examination & test case studies). • Timetabling requirements: to allow some lectures to be converted to workshops to support students' projects, it is necessary to timetable lectures as two consecutive lecture slots.
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Course coordinator: Prof. Galal Hassan Galal-Edeen

Head of Department: Assoc. Prof. Ehab Ezzat

Date: September 2014