Course Specifications

General Information

Course name	Human Computer Interaction
Course number	ITCS4322
Faculty	
Department	
Course type	Major Needs
Course level	4
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - To expose students to the central concepts of human-computer interaction

2 - To identify the main forms of human computer interaction

3 - To understand the new roles that computers and Information Technologies in general are playing in human activities

4 - To introduce students to techniques for user interface design, interaction paradigms, and current trends in HCI research and development

5 - To learn (and to apply) useful criteria for guiding the design and evaluation of user interfaces

6 - To identify key open problems in HCI and to discuss potential solutions

Intended Learning Outcomes

Knowledge and Understanding	* a1) Understand the basics of human and computational abilities and limitations * a2) Understand how these lead to models of interaction * a3) Understand basic theories, tools and techniques in HCI
Intellectual Skills	* b1) Apply appropriate techniques to real-world problems * b2) Demonstrate awareness of HCI issues, implications and developments * b3) Apply evaluation techniques relevant to HCI
Professional Skills	* c1) Plan for a major Group project and successfully execute the steps in the plan * c2) Use a GUI toolkit to create a simple application that supports a graphical user interface * c3) Professionally present work both in written and oral format
General Skill	* d1) Ability independently to gather and organize material from various sources (including library, electronic and online resources), and to critically evaluate its significance * d2) Recognizing and identifying views of others and working constructively with them - understand group dynamics and intercultural backgrounds in the use of negotiating skills to reach objectives * d3) Capacity to make oral presentations, using appropriate media for a target audience

Course Contents

1 - What is Interaction Design?
2 - Understanding and Conceptualizing Interaction
3 - Understanding Users
4 - Affective Aspects
5 - Interfaces and Interactions
6 - The Process of Interaction Design
7 - Identifying needs and establishing Requirements
8 - Design, Prototype and Construction
9 - Introducing Evaluation
10 - An Evaluation Framework
11 - Analytical Evaluation

Teaching and Learning Methods

1 - Lectures
2 - Project and/or Assignments
3 - Tutorial Exercises
4 - Discussion

Students Assessment

Assessment Method	TIME	MARKS
Mid-Term Exam I	6th week	20
Mid-Term Exam II	12th week	20
Project & Presentation	15th week	10
Final Exam	16th week	50

Books and References

Essential books	Dix, A., Finlay, J., Aboed, G., Russell, B. (2004). Human-Computer Interaction, 3rd ed., Prentice Hall.
Recommended books	Imaz, M. and Benyon D. (2007) .Designing With Blends: Conceptual Foundation of Human-Computer Interaction and Software Engineering, Mit Pr.
	Galitz, W. (2007).Essential Guide to User Interface Design: An Introduction to GUI Design Principles and Techniques, John Wiley and Sons Inc.

Knowledge and Skills Matrix

Main Course Contents	Study Week	Knowledge and Understanding	Intellectual Skills	Professional Skills	General Skill
What is Interaction Design?	1-2	a1,a3	b1	c1	d1,d2,d3
Understanding and Conceptualizing Interaction	3-4	a1,a2	b2	c3	d2,d3
Understanding Users	5	a1	b1	c2	d1-d3
Affective Aspects	6	a3	b1,b3	c2	d1-d3
Interfaces and Interactions	7	a1	b2	c1	d1-d3
The Process of Interaction Design	8	a3	b1	c1	d3
Identifying needs and establishing Requirements	9	a2,a3	b3	c3	d1
Design, Prototype and Construction	10	a1,a3	b2,b3	c2	d2
Introducing Evaluation	11	a1	b1	c3	d2
An Evaluation Framework	12	a1	b2	c1	d1
Analytical Evaluation	13-14	a1,a2	b2	c3	d1-d2