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Course Profile   -   Department of Information Technologies

Course Number : **IT 423**	Course Title : Human Computer Interaction
Required / Elective : Elective	Pre / Co-requisites : Systems analysis and design
Catalog Description: Principles of human computer interaction. Elements of interactive computer systems, windows, and input devices. Window systems and dialog control. Design of dialogues for interactive systems. Psychological, physiological, linguistic and perceptual factors. Advantages and disadvantages of various interaction techniques, command language syntaxes, and data presentations. Design methodology and guidelines.	Textbook / Required Material : Human-Computer Interaction (3rd Ed.) Alan Dix, Janet E. Finlay, Gregory D. Abowd, Russell Beale

Course Structure / Schedule : **(3+0+0) 3 / 6 ECTS**

Extended Description :

This course provides an introduction to the field of human-computer interaction (HCI). HCI is an interdisciplinary field that integrates cognitive psychology, design, computer science and others. Examining the human factors associated with information systems provide the students with knowledge to understand the factors that influence usability and acceptance of IS. This course will examine human performance, components of technology, methods and techniques used in design and evaluation of IS. Societal impacts of HCI such as accessibility will also be discussed. User-centered design methods will be introduced and evaluated. This course will also introduce students to the contemporary technologies used in the empirical evaluation methods.

Design content: The theory perspective of HCI research, the current methods in design and testing and the final implementation of the project.	Computer usage: Extensive

Course Outcomes:
After completing this course, students should be able to:
- design, implement and evaluate effective computer interfaces. [3,4]
- recognize the concepts of user differences, user experience and collaboration as well as how to design contextually. [3,7]
- comprehend the basic cognitive psychology issues involved in HCI. [7,8]
- distinguish the different devices used for input and output and the issues / opportunities associated with these devices. [4]
- apply the software design process in order to create computer interfaces. [2,3]
- comprehend the role of theory and frameworks in HCI. [4,7]
- demonstrate a number of design techniques. [2,3]
- apply the contemporary techniques used in evaluating computer interfaces. [2,3,8]

Program Outcomes for Management Information Systems Program:

1. A foundation in mathematics and basic sciences and ability to apply acquired knowledge as they relate to the study and practice of information systems management.
2. An ability to align information technology, organizational and strategic matters.
3. An ability to propose, analyze, design, develop, test and maintain an information technology system including software solutions, security model, computer and network infrastructure, etc. to solve information systems problems.
4. An ability to analyze local and global impact of computing on individuals, organizations and society; and the ability to apply information systems techniques, skills, and tools for regular computing practices as well as to improve effectiveness of current methodologies.
5. An ability to effectively communicate in oral and written media with all kinds of related audiences; and prepare documentation for this purpose as required.
6. An understanding of professional, ethical, legal, and social issues and responsibilities of information systems management profession.
7. A taste and breadth of knowledge across several social topics outside the immediate requirements of the information systems management profession, and the ability to work within heterogeneous teams to accomplish a common goal including people from the information systems area as well as other disciplines.
8. An ability to engage in life-long learning and professional development for personal improvement to follow contemporary information systems issues.

Teaching methods

Pre-readings, Case-studies, lectures, project

Assessment methods

1 Midterm exam	20%
1 Subject presentation	20%
1 Design project	20%
1 Final	40%

Student workload:

Preparatory reading	40 hrs
Lectures, workshop, discussions	45 hrs
Projects, presentations	50 hrs
Midterm Exam	6 hrs
Final Exam	9 hrs
TOTAL ……………………………	**150 hrs**

Prepared by : Dr. N.Z. Perdahci	Revision Date : Jul 18, 2010