Human Computer Interaction

Course Code:

CSE 489

Course Period:

Spring

Course Type:

Area Elective

Credits:

3

Theoric:

3

Practice:

0

Laboratory Hour:

0

ECTS:

5

Course Language:

English

Course Objectives:

The aim of this course is to provide students with a basic understanding and the ability to create solutions on how human computer interaction (HCI) can help solve real-world design problems and improve usability of technology by making computer-based systems easier to use and more effective for people and organizations.

Course Content:

This course introduces students to human computer interaction by describing the main pillars of this interdisciplinary field – human and computer. Accordingly, this course introduces; introduction to interactive systems, interaction design basics, design rules,

HCI in the software process, HCI evaluation techniques.

Course Methodology:

1: Lecture, 2: Question-Answer, 3: Lab, 4: Case-study

Course Evaluation Methods:

A: Testing, B: Experiment, C: Homework, D: Project

Course Learning Outcomes	Program Learning Outcomes	Teaching Methods	Assessment Methods
1) Basic knowledge of human computer concepts; ability to identify and deduce the usability and interaction related issues.	1,6	1,2,4	A, C, D
2) Ability to design and implement usability evaluation for software and hardware systems under realistic constraints and conditions.	3,4,6	1,2,3	B, C, D
3) Ability to identify, test and select best design and evaluation techniques for a proposed computer system.	1,4,6	1,2,3	A, C
4) Knowledge and ability to devise, select, and use modern techniques and tools needed to design and evaluate computer systems.	4,6	1,2,3	B, D

COURSE CONTENT

Week	Topics	Study Materials
1	INTRODUCTION TO HUMAN COMPUTER INTERACTION	Textbook
2	HUMAN AND COMPUTER	Textbook
3	USABILITY OF INTERACTIVE SYSTEM	Textbook
4	WHAT IS INTERACTION	Textbook
5	DESIGN PROCESSES	Textbook
6	INTERACTION DESIGN BASICS	Textbook
7	MIDTERM EXAM I	Textbook
8	DESIGN RULES	Textbook
9	UNIVERSAL DESIGN	Textbook

10	COGNITIVE MODELS	Textbook
11	HCI IN THE SOFTWARE PROCESS	Textbook
12	HCI EVALUATION TECHNIQUES	Textbook
13	COLLABORATION AND SOCIAL MEDIA PARTICIPATION	Textbook
14	UBIQUITOUS COMPUTING AND AUGMENTED REALITY	Textbook

RECOMMENDED SOURCES

Textbook	Lecture Notes: http://cse.yeditepe.edu.tr/v2/en/academic/course-pages [1] Lab material: http://cse.yeditepe.edu.tr/v2/en/academic/course-pages [1]
Additional Resources	HUMAN COMPUTER INTERACTION, BY A. DIX, J. FINLAY, G. D. ABOWD, R. BEALE (3RD EDITION) ISBN: 978-0130461094

MATERIAL SHARING

Documents	http://coadsys.yeditepe.edu.tr/ [2]
Assignments	http://coadsys.yeditepe.edu.tr/ [2]
Exams	

ASSESSMENT

IN-TERM STUDIES	**NUMBER**	**PERCENTAGE**
Mid-terms	1	30
Assignment	6	30
Term Project	1	40
Total		**100**
CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE		35
CONTRIBUTION OF IN-TERM STUDIES TO OVERALL GRADE		65
Total		**100**

COURSE'S CONTRIBUTION TO PROGRAM

No	Program Learning Outcomes	Contribution

		1	2	3	4	5
1	Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied information in these areas to model and solve engineering problems.					**X**
2	Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.					
3	Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.					**X**
4	Ability to devise, select, and use modern techniques and tools needed for engineering practice; ability to employ information technologies effectively.					**X**
5	Ability to design and conduct experiments, gather data, analyze and interpret results for investigating engineering problems.					
6	Ability to work efficiently in intra-disciplinary and multi-disciplinary teams; ability to work individually.					**X**
7	Ability to communicate effectively both orally and in writing; knowledge of a minimum of one foreign language.					
8	Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself.					
9	Awareness of professional and ethical responsibility.					
10	Information about business life practices such as project management, risk management, and change management; awareness of entrepreneurship, innovation, and sustainable development.					
11	Knowledge about contemporary issues and the global and societal effects of engineering practices on health, environment, and safety; awareness of the legal consequences of engineering solutions.					

ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION

Activities	Quantity	Duration (Hour)	Total Workload (Hour)
Course Duration (Excluding the exam weeks: 12x Total course hours)	12	3	36

Hours for off-the-classroom study (Pre-study, practice)	14	2	28
Midterm examination	1	1.5	1.5
Homework	6	4	24
Project	1	35	35
Final examination	1	1.5	1.5
Total Work Load			126
Total Work Load / 25 (h)			5.04
ECTS Credit of the Course			5