



## Course Information

<b>Course Code</b>	8670542
<b>Course Section</b>	1
<b>Course Title</b>	HUMAN COMPUTER INTERACTION
<b>Course Credit</b>	3
<b>Course ECTS</b>	8.0
<b>Course Catalog Description</b>	Overview of next-generation user interfaces and underlying methodologies. A review of HCI concepts and history. Input devices and interaction techniques. User interface design paradigms. 3D user interfaces and adaptive interfaces. User modeling. Speech recognition and conversational interfaces. Wearable computers. Multimodal and perceptual interfaces.
<b>Prerequisites</b>	No prerequisites
<b>Schedule</b>	Not available
<b>Course Website</b>	<a href="http://www.ceng.metu.edu.tr/~tcan/se542_s1819/overview.shtml">http://www.ceng.metu.edu.tr/~tcan/se542_s1819/overview.shtml</a>
<b>Learning Management System</b>	ODTU-Class

## Instructor Information

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<b>Office Phone</b>	210 5537
<b>Office Hours</b>	By appointment

## Course Objectives

The primary objectives of this course are to expose students to the methods and principles of human factors, human-computer interaction (HCI), user-centered design (UCD), and usability evaluation. Upon completion of this course the students will:

- gain an understanding of human-computer interaction theory and research,
- recognize the impact of system design on users' attitudes and behaviors,
- become familiar with user-centered design and evaluation processes,
- and be able to employ user-centered design processes in designing and building interactive systems.

## Course Learning Outcomes

At the end of the course, students will:

- be able to evaluate user interfaces with respect to different usability criteria
- learn and be able to apply several prototyping methods
- understand the challenges in building multimodal interfaces
- be aware of next generation interfaces such as speech, vision based interfaces, and augmented reality

## Instructional Methods

Lectures, conference papers as reading assignments, term project

## Tentative Weekly Outline

Week	Topic	Relevant Reading	Assignments
1	Introduction, history of HCI		



Week	Topic	Relevant Reading	Assignments
2	Affordance, usability. Usability principles.	<p>The psychopathology of everyday things</p> <p>Optional Readings:</p> <p><a href="#">Affordance</a> <a href="#">Mapping</a> <a href="#">Visibility</a> <a href="#">Mental Model</a></p>	
3	The computer aspect of Human Computer Interaction		<p><a href="#">Assignment #1</a></p> <p>Due date: Oct 14 Tuesday</p>
4	Human information processing limitations, human cognitive and sensory limits.	<p>Optional Readings:</p> <p><a href="#">Recognition over Recall</a></p>	<p><a href="#">Assignment #2</a></p> <p>Quiz from the reading assignment on Oct 21.</p>
5	Prototyping techniques		<p><a href="#">Assignment #3</a></p> <p>Quiz from the reading assignment on November 4</p>
6	Usability criteria.		
7	Evaluating usability. Predictive and interpretive evaluation.		<p><a href="#">Assignment #4</a></p> <p>Quiz from the reading assignment on November 11</p>
8	User interface design paradigms, User interface design rules		
9	Process of interaction design. Design languages.		
10	User modeling and the user profile. Adaptive interfaces.		<p><a href="#">Assignment #5</a></p> <p>Quiz from the reading assignment on December 2</p>
11	3D User interfaces, augmented reality		<p><a href="#">Assignment #7</a></p> <p>Quiz from the reading assignment on December 16</p>
12	Multimodal interfaces, perceptual interfaces. Ubiquitous Computing		
13	Project Presentations (Part 1)		
14	Project Presentations (Part 2)		



## Course Textbook(s)

None.

## Course Material(s) and Reading(s)

### Material(s)

No material is required.

### Reading(s)

- J. Preece, Y. Rogers, and H. Sharp, *Interaction design : beyond human-computer interaction*, John Wiley & Sons, Inc. 2002.
- A. Dix, J. Finlay, G. Abowd, G., and R. Beale, *Human-computer interaction (3rd ed.)*, Prentice Hall. 2003.
- Conference papers will be provided as reading assignments.

## Supplementary Readings / Resources / E-Resources

### Readings

Conference papers will be provided as supplementary reading material throughout the semester.

## Assessment of Student Learning

Assessment	Dates or deadlines
Quizzes about reading assignments	
Midterm exam	TBA
Final exam	TBA
Term project final report	End of final exams.

## Course Grading

Deliverable	Grade Points
Quizzes from reading assignments	20
Term project	30
Midterm exam	25
Final exam	25
<b>Total</b>	<b>100</b>

## Course Policies

### Make up for Exams and Assignments

You need to bring official health report in order to be eligible for Make up exams.

## Information for Students with Disabilities

Students who experience difficulties due to their disabilities and wish to obtain academic adjustments and/or auxiliary aids must contact ODTU Disability Support Office and/or course instructor and the advisor of students with disabilities at academic departments (for the list: <http://engelsiz.metu.edu.tr/en/advisor-students-disabilities>) as soon as possible. For detailed information, please visit the website of



Disability Support Office: <https://engelsiz.metu.edu.tr/en/>

## Academic Honesty

The METU Honour Code is as follows: *"Every member of METU community adopts the following honour code as one of the core principles of academic life and strives to develop an academic environment where continuous adherence to this code is promoted. The members of the METU community are reliable, responsible and honourable people who embrace only the success and recognition they deserve, and act with integrity in their use, evaluation and presentation of facts, data and documents."*