Design Thinking for Disruptive Innovation

Instructor: Prof. Dr. Oğuzhan Özcan

Course Description

Considering today's conjecture, adapting to the changes in the world is becoming more and more vital. The purpose of Design Thinking for Disruptive Innovation is to help develop thinking skills to produce multiple, unusual, and user-centered solutions in problem-solving processes.

Within the course scope, approaches for the discovery and analysis of problems, tips for idea generation processes, and acclaimed methods for idea presentation will be explained. During the course, important issues for conducting group work will also be introduced.

At the end of the course, students will

- Develop the mindset that places users at the center to drive innovation,

- Discover the unusual needs of the users through various design thinking techniques,

- Learn how to experiment with their assumptions to minimize risks,

- Quickly express ideas with visual representations in an effective way,

- Apply design thinking to many domains such as products, services, and systems.

Supplementary readings, ranging from academic papers to case studies, will be provided. Students are expected to read each day's documents before class (reading time approx. 1,5 hours).

References and textbook

1. Norman, D. A.*The Design of Everyday Things*. (2002). Basic Books.
2. *IDEO Design Thinking Toolkit* http://www.designthinkingforeducators.com/toolkit/
3. Schön, Donald A. *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. Jossey-Bass, 1987.
4. Buchanan, Richard. "Wicked problems in design thinking." *Design issues* 8.2 (1992): 5-21.
5. Zimmerman, John. "Video Sketches: Exploring pervasive computing interaction designs." *IEEE pervasive computing* 4.4 (2005): 91-94.

Timeline

The course will be conducted for four days, and each class will last for 3,5 hours. In every 40 minutes, we will have 10-minute breaks.

Day 1

• Introduction to design thinking

• Defining the problem

• Analyzing the case: Points to be considered while forming a design thinking team and tips for the problem identification phase

• Forming the research question

• Analyzing the case: Methods for creating different types of research questions

Day 2

• Preparing user research

• Analyzing the case: Common challenges and suggestions for user research processes

• Analyzing user data

• Visualization techniques

• Analyzing the case: Ways to create the visual outputs of the user data and its key points

Day 3

• Generating ideas

• Analyzing the case: Tactics to kick start and prolong brainstorming sessions in groups

• Choosing and refining ideas

• Prototyping ideas

• Analyzing the case: Tips to refine ideas and considerations for creating understandable prototypes

Day 4

• Introduction to prominent online collaborative tools for design thinking practice

• Online design thinking practice session: Fundamentals of group work using the Miro platform

• Tips to achieve productive online design thinking sessions

Grading

		Criteria
In-Class Evaluation	**%100**	In course evaluation according to criteria set by every classwork. Students who are absent in a class will be graded 0 for that class. There will be no compensations for the grade (extra homework or repeating the classwork). If the student brings a certified report for his/her absence, that week's grade will not affect his/her final grade.

Academic Dishonesty

Cheating, plagiarism or collusion in assignments, exams, or papers are serious offenses that will result in a failing grade and more severe disciplinary action. There are no exceptions to this rule. You may also face additional, more severe disciplinary action. Plagiarism is taking and using another person's thoughts, ideas, writings, images or music as your own, without acknowledging or giving appropriate references to the source of those ideas and expressions. In terms of copyrighted work, plagiarism is illegal. If you are in doubt about the definitions of plagiarism, consult your instructor and make sure that you are familiar with the Koç University Academic Regulations and the Regulations for Student Disciplinary Matters, particularly those related to academic honesty.