

CS-247 Human Computer Interface

*Welcome to Usability Design and Evaluation. You will learn a structured approach to developing technology that is intuitive and pleasurable for the intended user." **User experience**" encompasses all aspects of the end-user's interaction with a company, its services, and its products.*

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Classroom: 5:10 – 8:10 Thursdays, Halsey 101C Computer Lab
Office hours: 4:30 – 5:00 Thursday or by appointment, Halsey 101C
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Text: “Interaction Design – Beyond human-computer interaction”,
Rogers-Sharp-Preece

Topics:

- The usability engineering design cycle.
- Usability evaluation techniques.
- GUI development,
- Website Usability,
- Technical communication skills.
- Usability Testing

Grading: Two Exams with a Final Presentation 50%, Class Project 25%, and Assignments 25%

Course Description:

This course will help you:

- *implement* user interfaces on a variety of platforms
- *notice* the usability of everyday things
- *practice* user centered design principles
- *evaluate* the usability of computer systems
- *conduct* a usability test
- *communicate* in a professional manner

Learning Objectives and Outcomes:

Learning outcomes are statements of what the student will be able to do following successful completion of the course. The learning outcomes for Usability are listed below:

1. Understand the advantages and be able to distinguish between good and poor human – computer interaction design.
2. Learn how to introduce paradigms, theories, models, and frameworks. Explain what is meant by the problem space.
3. Effectively use mental models such as cognition and memory, in design decisions.
4. The students will study the different social media effects on today's society and be able to explain telepresence.
5. The student will learn how to describe the way technology has changes people's attitudes and behaviors.
6. Distinguish the difference between graphical (GUIs) and natural user interface (NUIs).
7. The students will be able to design a questionnaire, run an interview, and execute an observation.
8. The students will be made aware of software packages that are available to help run usability analysis.
9. Consider how the interaction design activities can be integrated into the wider product development lifecycle.
10. This course will enable the student to develop a scenario, a use case, and an essential use case from a simple description.
11. Simple prototypes will be produced from the class project model developed during the requirements activity.
12. Discuss some of the practical challenges that evaluators have to consider when doing usability evaluation.
13. This course will aim to provide an understanding of the conceptual, practical, and ethical issues involved in evaluation.
14. Problem solving of issues with field studies and usability testing will be covered as well as an outline of the basics of experimental design.

Extra Credit: During the semester, if you find an interesting article or new current event pertaining to, demonstrating or describing a relative topic of web design usability, post it to the discussion question and you will receive extra credit points toward your assignments.

Discussions: There will be online discussions on current usability topics. To get credit for participating please post at least one response to the instructor's question and at least one or two responses to other student's comments. Your posts will go toward your quiz/assignment grade.

Requirements: You are expected to learn all of the material presented in the lectures. Lab assignments are a requirement of the course and must be turned in to receive a grade. An unacceptable assignment will not receive a grade if:

1. It is not handed in by the end of the course.
2. It is not a reasonable attempt to solve the assigned problem, or
3. It is not your own work

Programming assignments are to be submitted on the due date announced. Assignments turned in after the scheduled due date are counted as late. The grade for that assignment will be reduced 10% each week until the assignment is turned in.

Attendance: Attendance is necessary to learn the material. There will be things Presented in class that are not on the slides and you need to be here to learn them. If you need to miss a class, make sure to get the notes from a reliable classmate.

Exams and Quizzes: If you are unable to take a scheduled exam or quiz, you may take a make-up provided that you make arrangements **prior** to the exam or quiz:

Grades:

93-100	A	78-79	C+
90-92	A-	73-77	C
88-89	B+	70-72	C-
83-77	B	60-69	D
80-82	B-	59 – below	F

Course Schedule:

Week 1 - Chapter 1: What is Interaction Design?

Week 2 - Chapter 2: Understanding and Conceptualizing interaction

Week 3 - Chapter 3: Cognitive aspects

Week 4 - Chapter 4: Social Interaction

Week 5 - Chapter 5: Emotional Interaction

Week 6 – Chapter 6&7: Interfaces and Data Gathering

Week 7 - Review and Exam I

Week 8 - Chapter 8: Data analysis, Interpretation, and Presentation

Week 9 - Chapter 9: The Process of Interaction Design

Week 10 – Chapter 10: Establishing Requirements

Week 11 – Chapter 11: Design Prototyping and Construction

Week 12 – Chapter 12&13: Evaluation

Week 13 – Chapter 14: Usability Testing

Week 14 – Exam II