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

Current Catalog Description:
This course presents the basic theory and professional views on design and usability, with an emphasis on human-computer interaction in web-based environments. The nature of life in general requires understanding of how people think and act. What makes a well-designed door versus a poor design? Understanding the answer scientifically is based on understanding people and usability. This class will focus on several basic principles that range from defining usability, design, sketches and how to evaluate usability. A case study will be conducted using high-level psychology and visual perception concepts that often pertain to usability. Prerequisites: A grade of C or better in Comp Sci 142 or Comp Sci 221 or Info Sys 318.

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 content 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.

Academic Misconduct:
As a UW Oshkosh student, it is your responsibility to be informed about what constitutes academic misconduct, how to avoid it and what happens if you decide to engage in it. Examples of academic misconduct include (but are not limited to):
• plagiarism (turning in work of another person and not giving them credit),
• stealing an exam or course materials,
• copying another student's homework, paper, exam

• cheating on an exam (copying from another student, turning in an exam for re-grading after making changes, working on an exam after the designated time allowance)
• falsifying academic documents
Please refer to UWS Chapter 14 (University of Wisconsin Student Academic Disciplinary Procedures) for information on academic misconduct. Pay particular attention to UWS 14.03 (definition of academic misconduct) and UWS 14.04 (disciplinary sanctions). Please note that all incidents of academic dishonesty will be reported to the appropriate university authorities. It is not acceptable for two or more students to work together and turn in the same work unless the assignment is specifically a group assignment. In the case of a group assignment, groups are treated as a unit and the sharing of work between groups is not permitted. Plagiarism is defined as the use of another's work without attribution. It is acceptable to use a published solution to a particular problem if the solution's source is documented. If you are using material from a published source or an organization's internal documents, that source must be documented or referenced. If proprietary materials are utilized, appropriate permissions must be obtained.

Disability accommodations
If you would benefit from any disability-related accommodations or assistance in this classroom, let me know as soon as possible and I will do everything I can to help. You will want to contact Disability Services (Dean of Students Office, 125 Dempsey Hall, 424-3100) for the University accommodation request form and documentation requirements if you have not already done so.

"Students are advised to see the following URL for disclosures about essential consumer protection items required by the Students Right to Know Act of 1990: https://uwosh.edu/financialaid/consumer-information/."

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:

****If any substantive changes are made in the course syllabus, such as changes in schedule or assignments, notification will be provided in a timely manner and a revised syllabus made available.**

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 – Oct. 19
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, & 14: Evaluation and Usability Testing
Week 13 – Project Presentations and Review
Week 14 – Exam II – Dec. 14