

Introduction to Usability

CS 247 - Fall 2020

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Virtual Office Hours Link: <https://us.bbcollab.com/guest/f4b3a680a2454504883c8a97a454ffa7>

Virtual Office Hours: 10:00-11:30pm MW
3:00-4:00pm TuTh

Section: 001C

Credits: 3

Class: M 3:30-5:00pm A&C S147
W 3:30-5:00pm Halsey 101C

Course Information

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 poorly designed door? Understanding the answer scientifically is based on understanding people and usability, not the mechanics of doors. 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.

HyFlex Delivery

Students are invited to participate flexibly across in-person and online delivery channels. The plan for the (majority of the) course is to have Tuesday be primarily lecture and Thursday be primarily lab work time. Lectures will be streamed live through the course Collaborate Ultra classroom in Canvas for those that opt to attend remotely. Lectures will also be recorded for reference at a later time. Unfortunately, our lab classroom *cannot* accommodate all students attending in-person. I will work with the class to arrange modulating attendance so that students that prefer to attend in-person may, but perhaps in a rotating schedule. I will also stream lab sessions live via Collaborate Ultra so that those attending remotely can participate and ask questions as well. Please contact me if you have any questions or concerns, and we will adjust as needed.

Textbook:

Interaction Design - Beyond Human-Computer Interaction (4th Edition), Preece, Rogers and Sharp, Wiley, 2015

Course Website: UWO Canvas

You should check Canvas on a regular basis - it will contain lecture notes, assignments, announcements, and grades. I'll do my best to let you know when something new and important comes up, but it is your responsibility to check the website frequently for information that you might not get otherwise.

Course Grading Policy

Your final grade for this course will be based on three components, namely exams, participation assignments, and an extended project (broken down into milestones). Your overall numerical grade for the course will be computed as the weighted sum of the component grades using the following weights:

Component	Weight
Exams (2)	30%
Project (broken down into milestones)	50%
Participation Assignments	20%

Tentative Exam Dates:

- Midterm - October 21
- Final - December 9

Your letter grade for the course will be computed as follows:

Numerical Score	Grade	Numerical Score	Grade
>=92	A	72-78	C
90-92	A-	70-72	C-
88-90	B+	68-70	D+
82-88	B	62-68	D
80-82	B-	60-62	D-
78-80	C+	<60	F

While this overall grading scheme is fixed, I will be happy to discuss any issue you may have with individual grades. If you notice a mistake or have a question regarding a specific grade, please come and talk to me as soon as possible. Do not wait until the end of the semester to bring up grading issues.

Course Activities and Deadlines

I strongly encourage students to participate synchronously in this course--meaning: attending class sessions (in-person or remotely). However, due to the current world we live in and the necessity for flexibility, no part of your grade will hinge on synchronous participation. Any assignments or participation points will be administered online (e.g., via a Discussion post, or an online Canvas assignment/quiz) with a reasonable time range to participate.

Accessibility

It is the University's policy to provide, on a flexible and individual basis, reasonable accommodations to students who have documented disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities must be registered with the Accessibility Center and receive an Accommodation Recommendation form to receive accommodations. The Accessibility Center is located in Dempsey Hall 125.

It is also the policy and practice of UW Oshkosh to create an inclusive learning environment. If there are aspects of the instruction or design of this course that result in barriers to your inclusion, please notify me as soon as possible. You are also welcome to contact the Accessibility Center at (920) 424-3100 or accessibilitycenter@uwosh.edu. For more information, visit the Accessibility website at <http://www.uwosh.edu/deanofstudents/accessibilitycenter>.

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 changed 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.