

**University of Wisconsin Oshkosh
Computer Science Department**

**CS 480: Introduction to Usability –
Making Everything Easier or Harder**

Spring 2009

----- Course Syllabus -----

COURSE SCHEDULE

	Days	Time	Location
Section 002	TTh	9:40-11:10am	HS 212

INSTRUCTOR

Dr. Robert (Bob) Ball
Computer Science Department
EMAIL ballr@uwosh.edu PHONE (920) 424-7080
IN-PERSON OFFICE HOURS*(HS 218): MTRF 1:20pm-2:40pm
*Also available other times by appointment

PREREQ Junior-level standing and instructor permission

COURSE DESCRIPTION

The nature of life in general requires understanding into 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. What needs to be kept in mind to create – or use – a safe, usable environment for people? This class will focus on several basic principles that range from defining usability, design, sketches, and how to evaluate usability. In addition, we will have a case study of web usability to help drive home the points discussed.

PURPOSE OF THE CLASS

The purpose of this class is to present the basic theory and professional views on design and usability. I hope that every student will leave with the knowledge and ability to create basic designs and perform basic usability analysis.

MATERIALS AND RESOURCES

Required Books:

1. Don't Make Me Think: A Common Sense Approach to Web Usability, 2/e, Krug
2. The Design of Everyday Things, Donald Norman
3. Sketching User Experiences: Getting the Design Right and the Right Design, Bill Buxton

In this class we will not be using a textbook in the classic sense. Instead, we will be using three books that are designed for the professional. These books will help you get first-hand reading experience with professional books. It is an important skill to develop to read professional books and take the important parts out yourself.

This is opposed to the more classical textbook approach where more summarized information is presented. The classical textbook approach has its place in the traditional classroom.

LEARNING OBJECTIVES AND ASSESSMENT OF STUDENT LEARNING

Main Course Objective: To present to students the concepts of usability as a whole and web usability as a case study.

Specific course objectives:

1. Scientifically differentiate usability in different contexts including, but not limited to the following:
 - a. Gulf of Execution
 - b. Gulf of Evaluation
2. Summarize how various parts of the system contribute to overall usability.
3. Explain high-level psychology concepts that often pertain to usability, particularly web usability including, but not limited to the following:
 - a. Spatial memory
 - b. External memory
 - c. Feedback
4. Explain high-level visual perception components related to web usability including, but not limited to the following:
 - a. Basics of how eyes work including rods, cones, etc.
 - b. Basics of optical illusions
 - c. Basics of the visual sensory store
5. Explain how usability is related to stake holders
6. Demonstrate how optimal (perfect) usability is unreachable
7. Prove the often inverse relationship between usability and security
8. Create a series of tests to scientifically rate the usability of a product
9. Design the basis of a usable product
10. Differentiate between usable and useful

PROJECTS AND PRESENTATIONS

PROJECTS

There will be two main projects in this class:

1. Design the basis of a usable product. This product will require a series of steps, sketches, and evaluations to be performed on the idea. This project will be either group or individually based and will include a formal presentation to the class to defend the design.

2. Create a series of tests that will evaluate a commercial product. This can include industry-strength open-source software if desired. A proposal must be submitted and then approved by the instructor. After the proposal has been approved, a reasonable amount of actual evaluation will take place for practical experience. A written summary will be submitted with an accompanying class presentation. This project will be either group or individually based.

PRESENTATIONS

Aside from the two presentations given in the main projects in the class there will be an individual presentation by each member of the class. The small presentation will be a short, 5 to 8-minute presentation on the usability of a given object that people use. The presentation will be purely analytical based on ideas derived from class. The presenter needs the instructor's verbal consent to present on a given object *before* the presentation.

EXAMS

There will not be any traditional exams in this class. Instead there will be four quiz-like exams that will help you stay on top of the material. These exams are important to help you study and retain the information that you will need to do your projects.

DETERMINATION OF GRADES

Points Possible

Projects – 2 @ 200 points	400
Exams/Quizzes - 4 @ 20 points	80
Individual presentation	<u>20</u>
Total Possible Points:	500

Your letter grade for the course will be determined based on total points earned in the course as follows:

Point Range	Grade	Point Range	Grade
460 to 500	A	360 to 394	C
445 to 459	AB	345 to 359	CD
410 to 444	B	300 to 344	D
395 to 409	BC	0 to 299	F