

COMM 650 – Evaluation and Usability Testing

Instructor Name
Instructor Office
Instructor Email
Office Hours

Required Text:

Sharp, H., Rogers, Y., and Preece, J. (2007). *Interactive Design: Beyond Human-Computer Interaction*. West Sussex: John Wiley & Sons, Ltd.

Additional Readings available on CARMEN

Rationale and Objectives:

How can one evaluate whether a digital communication system is effective? How do we test to see whether a system is user-friendly versus not-user-friendly? Finally, how does one communicate the results of evaluations and usability tests to corporate managers and system designers in ways that help them to accept your conclusions and inspire them to change problematic systems?

The goal of this class is to help you develop the necessary skills to evaluate existing communication systems, diagnose shortcomings in design, and persuasively suggest improvements to a variety of audiences. One of the primary tools for evaluating these systems is offered by a scientific approach to evaluating both quantitative and qualitative usability tests. You will be trained to use a variety of evaluation methods to inform your conclusions about whether a system is designed well.

In this course, we will cover some of the basics that you may have learned about in other methods classes—having a foundation in social science methodology is vital to being a good communication-system evaluator. However, the majority of the class will be spent examining specific methodologies that are unique to the process of evaluating user design. As such, this course will give you specialized knowledge about quantitative and qualitative approaches to user-design testing and evaluation. This specialized knowledge of / exposure to user-design methodologies and tools makes this class unique. Finally, this course is unique among methods courses in that we will learn about and practice how to persuasively communicate our findings to clients whose web-designs may be lackluster.

Learning Objectives:

Students who successfully complete this course will:

- Develop skills in quantitative methods of evaluating technological communication systems

- Develop skills in qualitative approaches to evaluating technological communication systems
- Develop knowledge of measurement instruments commonly used in evaluation and usability testing
- Develop skills relevant to the communication of usability testing and evaluation results to a variety of audiences

Course Format:

This course will use a variety of instructional techniques including lecturing, class discussions, in class activities, and individual and group assignments as mechanisms for students to learn the course material.

Course Requirements:

1. *Attendance is required.* While sickness and unexpected emergencies will arise from time to time, you should expect that if you are regularly absent your grade will be negatively affected.

There is one caveat to this attendance diatribe: **Students should NOT attend class while ill with influenza.** Students with flu symptoms will be asked to leave class. The illness and self-isolation period will usually be about a week. It is very important that individuals avoid spreading the flu to others.

Most students should be able to complete a successful quarter despite a flu-induced absence. If you are absent due to the flu, you will be provided with a reasonable opportunity to make up missed work. Completion of all assignments and exams assures the greatest chance for students to develop heightened understanding and content mastery that is unavailable through the weighting process. The opportunity to complete all assignments and exams supports the university's desire to enable students to make responsible situational decisions, including the decision to avoid spreading a contagious virus to other students, staff, and faculty, without endangering their academic work.

Students with the flu do not need to provide a physician's certification of illness. However, ill students should inform their teachers (but not through personal contact in which there is a risk of exposing others to the virus) as soon as possible that they are absent because of the flu. Students should, in addition to timely email notification, complete the "Explanatory Statement for Absence from Class" that can be found on the Wilce Health Center website.

For further information about the flu please consult <http://flu.osu.edu>.

2. *Course readings are required.* This course is designed, primarily, to help you develop the skills associated with evaluation and usability testing. Consequently, course readings will be more limited than in courses whose primary focus is knowledge acquisition. You should not let this lightened reading load mislead you into believing that readings are unimportant. On the contrary, they are vital.

This course requires the same textbook as COMM 450. Hopefully, you have retained your copy of the book. Although the course requires the same textbook, this course does NOT use any of the same readings from COMM 450. While COMM 450 focused primarily on what the principles of good web design are, this class will use readings to help you gain an appreciation of how to evaluate those principles and create a compelling argument in support of your evaluation.

3. *Assignments.* Substantial amounts of your coursework load for this class will be associated with completing problem sets, written work, or participating in online discussions. There will be a total of 8 assignments for this class; approximately one assignment will be due per week. Assignments must be turned in at the beginning of each class period when the assignment is due.

Assignments turned in late will be given an official grade of 0 *with no exceptions*. Assignments turned in late, but within one week of the due date, will be given written feedback. In other words, while late work will result in a zero score, you can still tell if you've grasped the materials if you turn in your work within one week of the due date.

4. *Exams.* You will have two exams in this course. Exams questions will be generated from the material covered in class lectures and textbook readings, and they will be similar in format to the types of questions you will complete in your weekly assignments.

The second exam covers material from only the second half of the course (only the material we cover in class / readings after the first exam). The second exam will occur during finals week after regular class periods are complete.

Grading Procedures

Attendance / Participation – 40 points (10% of total)

Exam Performance – 160 points (40% of total)

Exam 1 – 80 points (20%)

Exam 2 – 80 points (20%)

Assignment Performance – 200 points (50% of total)

Eight Assignments – worth 25 (6.25%) points each

Academic Integrity

The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Academic misconduct on any assignment will result minimally in receiving a zero on that assignment and may also lead to further disciplinary action. Penalty for violation of this Code can also be extended to include failure of the course and University disciplinary action. Each student in this course is expected to demonstrate academic integrity and to abide by the Code of Student Conduct:

(http://studentaffairs.osu.edu/info_for_students/csc.asp)

Accommodations for Students with Disabilities

I am available to discuss appropriate academic accommodations that may be required for students with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances. You can also contact the office for disability services at 292-3307 in room 150 Pomerene Hall to help coordinate reasonable accommodations (telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>).

Tentative Schedule of Course Topics

Session	Lecture Topics	Readings	Assignments
1	Course Introduction, Syllabus, Introduction to Evaluation and Usability Testing		
2	The 4 “W”s of evaluation, Evaluation approaches and methods	12.1 – 12.3.2 (pp. 584 – 595)	Assignment 1 Due
3	Data gathering: Introduction, methods, and tools	7.1 – 7.4.7 (pp. 290 – 308)	
4	Data gathering: Questionnaire and observation: and	7.5 – 7.6.3 (pp. 308 – 341)	Assignment 2 Due: Assignment, p. 620, complete questions 1 –

	associated tools		5, inclusive
5	Data analysis: Introduction to quantitative analyses.	8.1 – 8.3 (pp. 354 – 372)	
6	Data analysis: levels of analysis, variables, measurement	CARMEN: Singleton & Straits: (pp. 70 – 73; 109 – 120)	Assignment 3 Due: Assignment, p. 346-7, complete parts a – g, inclusive.
7	Data analysis: Quantitative analyses, t-tests and correlations, continued.	CARMEN: Norusis: (pp. 123 – 138)	
8	Data analysis: Introduction to Qualitative analyses	8.4 – 8.4.3 (pp. 373 – 386)	Assignment 4 Due
9	Case study approaches	12.4 – 12.5 (pp. 595 – 619)	
10	Tools to support data analysis, and using theory.	8.5 – 8.7.3 (pp. 386 – 407)	
11	EXAM 1		
12	Using an Evaluation Framework: What is the DECIDE framework?	13.1 – 13.2.6 (pp. 624 – 641)	
13	Group activity: Using the DECIDE framework to evaluate an evaluation study.	Group selected evaluation study Selected from from ACM digital library or www.hcibib.org .	Assignment 5 Due: In class group activity: Designing a presentation to communicate the results of an evaluation study. Assignment: p. 641
14	Analytical evaluation: Introduction / Heuristic evaluation	15.1 – 15.2.4 (pp. 684 – 701)	
15	Analytical evaluation: walkthroughs and predictive models	15.3 – 15.4.4 (pp. 702 – 714)	Assignment 6 Due: Assignment, p. 715
16	Communicating the	CARMEN:	

	Results of Usability Testing	A Business Case for Usability Testing (Travis, 2007) 10 Tips on Communicating with a Difficult Client (Howe, 2009)	
17	Usability Testing	14.1 – 14.2.2 (pp. 644 – 666)	
18	Usability Testing: Field studies	14.3 – 14.3 (pp. 667 – 683)	Assignment 7 Due: Communicating the results: Counseling clients who own the “car wrecks” of the information super highway.
19	Web 2.0: User to User interactions, user-generated content, and its effects on usability	CARMEN: Organization for Economic Cooperation and Development report on User-generated content (pp. 4 – 16; 28 – 39)	
20	Course wrap-up and evaluation. Some future directions in usability and design testing.		Assignment 8 Due: Designing an experiment testing the effects of user-generated content
Finals Week	EXAM 2		