

ACN 6341.501
CGS/CS 4253.501
Human Computer Interaction 1
Fall 2012
ECSS 2.306
Mondays 7-9:45pm

INSTRUCTOR Erika Orrick
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OFFICE HOURS by appointment (I do not have an office on campus)

COURSE INFORMATION

PREREQUISITES None

COURSE DESCRIPTION Methods and principles of human-computer interaction (HCI), user-centered design (UCD), and usability evaluation. Provides broad overview of HCI and how HCI informs UCD processes throughout product development lifecycle. (3-0) T

LEARNING OBJECTIVES After completing the course, students should have accomplished the following course objectives:

1. Gain an initial understanding of human factors theory and research.
2. Obtain understanding of fundamentals of human-computer interaction (HCI) theory and research. Recognize the impact of system design on users' attitudes and behaviors.
3. Become familiar with fundamentals of User Centered Design (UCD) processes for the purposes of employing UCD processes in the analysis and design of systems.
4. Exhibit critical thinking skills and creative design skills in HCI research area. (ACN students only)

REQUIRED TEXT AND READINGS Hartson, R and P. Pyla. *The UX Book*. Morgan Kaufman. 2012. ISBN9780123852410.
Assigned readings as listed in the class calendar below.

RECOMMENDED READING Johnson, J. *Designing with the Mind in Mind*. Morgan Kaufman. 2010. ISBN 9780123750303.
Norman, D. *The Design of Everyday Things*. Basic Books. 2002. ISBN 065067107.

ASSIGNMENTS AND EXAMS

DESIGN JOURNAL

Before every other class, I would like you to send me a short (one page) discussion of a design you have seen “in the wild.” This design can be either remarkably good or remarkably bad, I would like to see each of you try for a balance of each.

In your discussion, talk about what problem is being solved (user enjoyment is an acceptable answer), what the creator did correctly or incorrectly, what you would change, and how you might go about testing or gathering feedback.

Occasionally, I will give you a slightly different topic for the following week’s design journal.

These entries should be $\frac{3}{4}$ to 1 page long. Email them to me at either address or hand them in in class if it is not something you can post. If you have drawn something by hand, scanning to pdf is acceptable for posting.

Due dates:

Every other Monday, by class time. You will need to complete six total journal entries by the end of the semester.

IN-CLASS ASSIGNMENTS

There will be four to five in-class assignments. You will receive more information about these assignments as the semester progresses.

HOMEWORK

Depending on the speed that we are able to make it through the material, there may be one to three homework assignments throughout the semester. They will be announced in class and on eLearning when assigned.

LITERATURE/ ARTICLE REVIEW (ACN STUDENTS ONLY)

Graduate students are responsible for a close reading and critique of a research article from an academic journal and will provide a written report with their findings. You will choose this reading from something aside from our required readings and get it approved by me.

In your paper, you are to describe the problem or issue that the authors are examining, what hypotheses they were testing, and why they thought the hypothesis should be tested. You are also to describe the methods they used, the results they obtained, and discuss what the study means. If you feel that there were methodological or other problems with the study, you are to critique the study.

The list below contains some suggested journals. If you choose one not on this list, please check with me for approval.

1. ACM Transactions on Computer-Human Interaction
2. CHI Conference Proceedings
3. Computers in Human Behavior
4. Communications of the ACM
5. Human-Computer Interaction

6. Human Factors
7. International Journal of Human-Computer Interaction
8. International Journal of Man-Machine Studies
9. Proceedings of Human Factors and Ergonomics Society

MIDTERM EXAM The mid-term exam will consist of fill-in-the-blank, short-answer, and essay questions covering the topics up to that point in the class.

FINAL EXAM The final exam will consist of fill-in-the-blank, short-answer, and essay questions covering the topics from the entire semester.

COURSE POLICIES

GRADING CRITERIA Grading is based on a set of a priori criteria: 90% correct for A's, 80% for B's, 60% for C's, and 50% for D's. In case we find that our assignments and exams were unusually difficult we may relax these criteria. Grades will be based on the total number of points across the course.

Assignments and exams for ACN students will be scored as follows:

- 10% design journal
- 25% class participation (attendance and in-class exercises)
- 15% article review
- 20% mid-term exam
- 30% final exam

Assignments and exams for CGS and CS students will be scored as follows:

- 15% design journal
- 35% class participation (attendance and in-class exercises)
- 20% mid-term exam
- 30% final exam

MAKE-UP EXAMS **DON'T MISS AN EXAM!** Make-up exams will be given only if: (a) you were seriously ill and have verifiable documentation from a physician, or (b) you were detained the day and time of the exam, or (c) you made arrangements prior to the exam to attend an urgent family affair (e.g., funeral). In any of these cases, you must notify me in advance of the scheduled time of the exam (call and leave a voice-mail message if you can do nothing else). Otherwise, you will receive an F. It is the student's responsibility to make sure that an exam is made up within one week of the scheduled time. Beware, make-up exams are designed to be more comprehensive to compensate for having more study time.

LATE WORK Late work will be penalized 10% for each day late. After 3 days, it will not be accepted without a valid university-approved excuse.

EXTRA CREDIT Occasionally during the semester, an opportunity will arise to review for professional conferences and the like. If something like this occurs, at my discretion, I may offer extra credit to those students

who choose to take advantage of these opportunities.

ATTENDANCE

A portion of your grade is determined based on participation in in-class discussion and exercises. Please notify me via email when you will be absent so I can send you any in-class exercises we did. You are allowed 10% absences with no penalty and no expected make-up.

**UT DALLAS
SYLLABUS
POLICIES AND
PROCEDURES**

These policies and procedures can be found at:

<http://go.utdallas.edu/syllabus-policies>

COURSE SCHEDULE

Aug 27	Introductions, overview of HCI.	None
Sep 3	Labor day – no class	
10	Human information processing limitations, human decision making.	UX Book: 1, 22.3
17	Computer systems and user interfaces, human-system interaction.	Myers, “A Brief History of Human-Computer Interaction Technology”
24	Interaction models and metaphors Principles guiding well-design human-system interaction	UX Book: 8, 20, 22
Oct 1	Mid-term exam online	
8	Lifecycle concepts	UX Book: 2, 3
15	Contextual inquiry & analysis	UX Book: 3-5
19	Midterm grades due (undergrads only)	
22	Requirements and Modeling	UX Book: 6-7
29	Design thinking and prototyping	UX Book: 9, 11
30	Last day to withdraw (undergrads)	
Nov 5	Intro to Evaluation, including rapid evaluation techniques	UX Book: 10, 12, 13
12	Evaluation Prep and Running the Session	UX Book: 14, 15
13	Last day to withdraw (grad students)	
19	Fall break – no class	
26	Evaluation Analysis and Reporting	UX Book: 16-18
Dec 3	UX and Agile, UX and Software Engineering	UX Book: 19, 23
10	Social Networking	TBD
Dec 17	Final exam – online	None
Dec 22	Grades due	

The descriptions and timelines described in this syllabus are subject to change at the discretion of the professor.