

INF 315C: Topics in Human-Computer Interaction: User Experience (UX) Design

Syllabus

Unique Number: 27803

Semester: Spring, 2017

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(Where in the heck is “UTA”?)
<http://www.utexas.edu/maps/main/areas/admin.html>)

Office Hours: Wednesdays, 1:00 – 2:00 p.m.
And by appointment.
Please feel free to come to office hours, or request an appointment, even if there is no pressing need. Also, as the tests approach I'll schedule some office hours in a room in SAC.

Class Time: T/Th, 3:30 – 4:45 p.m.

Classroom: UTC 4.134

Textbooks:

Norman, Donald A. (1990). *The design of everyday things*. New York: Doubleday.

Chabris, C., & Simons, D. (2009). *The invisible gorilla*. New York: Broadway.

Krug, Steve. (2014). *Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability (3rd Edition)*. Berkeley, CA: New Riders Publishing.

Synopsis:

The rapid expansion of the Internet and e-commerce has brought software usability engineering into prominence. As more and more information exists in electronic form (and sometimes ONLY in electronic form), the storage and retrieval of information is increasingly a human-computer interface (HCI) design problem. As computing oozes into every nook of

citizenry, it's increasingly important for software developers, and indeed any web site developers, NOT to depend on their own intuitions as to what designs are likely to be seen as usable. The way web and other user interface designers and developers address this intentionally is by pursuing a practice of "user-centered design" (UCD). UCD involves employing a collection of usability engineering methods across the life-cycle of a software product (or, indeed, any product, workflow, or other artifact).

The class will cover three major areas:

- 1 – perceptual psychology, cognitive psychology, and other scientific underpinnings of usability (i.e., the emerging "usability science"),
- 2 – the usability engineering methods used in the pursuit of UCD, and
- 3 – the justification for the application of UX design in a web- or other software-development project.

The course will entail four major instructional techniques:

- 1 – lecture on the scientific underpinnings and the methods of usability engineering,
- 2 – exercises, to demonstrate the use of such methods,
- 3 – guest presentations from representatives from local companies that have usability labs, to see and hear demonstrations of methods as applied to real-world software design problems, and
- 4 – individual and group UX projects, to be carried out by each student, with the results to be shared with the class.

Objectives:

The student successfully completing this class will:

- be able to explain the rudimentary aspects of how human beings take in and process information,
- be able to describe what the methods of UX design/usability engineering are and have experience with some of them,
- be able to explain why software developers should NOT depend on their own intuitions for what is a usable design,
- be able to make the arguments for cost-justifying a user-centered design approach,
- have exposure to a variety of usability professionals and labs,
- be able to write a usability test plan.

Some Important Meta-points:

Course Prerequisites - None

UT-Austin Honor Code

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the University is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

Cheating

Don't. Dire consequences. Don't cheat on tests, either. Policy on Scholastic Dishonesty: Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University.

Here is the UT Honor Code (or statement of ethics);

University Code of Conduct

The core values of the University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the University is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

Plagiarism

Plagiarism, as defined in the 1995 *Random House Compact Unabridged Dictionary*, is the "use or close imitation of the language and thoughts of another author and the representation of them as one's own original work." Within academia, plagiarism by students, professors, or researchers is considered academic dishonesty or academic fraud and offenders are subject to academic censure, up to and including expulsion. There, you see – I just did it myself! I copied those two sentences right off of Wikipedia and didn't give credit. Here's the citation: Plagiarism (2010). Wikipedia, <http://en.wikipedia.org/wiki/Plagiarism>. Web site accessed 1/13/2010. If you use words or ideas that are not your own you must cite your sources. Otherwise you will be guilty of plagiarism. Here's a resource designed to help you avoid plagiarism: www.lib.utexas.edu/plagiarism.

Late Assignments

Your grade will be docked one grade per day late, for any assignment. As for make-up exams, I will truly hate to have to create a second exam. But if you're sick, or have some other good excuse, please call me in advance.

Attendance

Attendance matters. Make sure you sign in on the attendance sheet every day. When you aren't here, you deprive your classmates of your shared wisdom. Your attendance will be considered in your overall "participation" grade.

Religious Holy Days

By UT Austin policy, you must notify me of your pending absence at least 14 days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

Disabilities

Any student with a documented disability (physical or cognitive) who requires academic accommodations should contact the Services for Students with Disabilities area of the Office of the Dean of Students at 512-471-6259 (voice) or 512-471-4641 (TTY for users who are deaf or hard of hearing) as soon as possible to request an official letter outlining authorized accommodations.

In Case of an Emergency

The following are recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512-471-5767, <http://www.utexas.edu/safety/> :

- Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.
- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors.
- Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.
- Behavior Concerns Advice Line (BCAL): 512-232-5050
- Link to information regarding emergency evacuation routes and emergency procedures can be found at: www.utexas.edu/emergency

Cell phones and computers

Here's the deal on cell phones. If you have kids, you get to leave your cell phone on. If you don't have kids, therefore, you get to leave you cell phone on, too. But please leave it on vibrate, and leave the room if you need to take a call or respond to a text message.

Your fellow students can be distracted by your laptop screen. Please use laptops only for taking notes or looking up information relevant to the topic at hand.

I am going to START the semester with no explicit punishment associated with this guideline, but will retain the right to impose some stricter sanctions if it becomes a problem. Please just follow the rule.

Some University Deadlines

Last day to drop for possible refund – February 1

Last day to drop with Dean's approval – April 3

Final class day – May 4. This is the day of the final exam. There will be no final exam for this course during finals week.

Your Questions and General Level of Comfort

If you have a question, please ask. I will be very receptive to emails at any time, and phone calls before 10:00 p.m. If it is important, I'll be receptive to phone calls at any hour.

Course Requirements:

Class attendance and participation.

Grades:

Your grade will be based on six things:

1. your general contribution in class (20%),
2. one multiple-choice mid-term exam (20%)
3. heuristic evaluation exercise (20%)
4. usability test plan (20%)
5. one multiple-choice final exam (20%)

Final grades will include + and – distinctions (e.g., a B+ or B- is possible).

High-level Schedule:

Our course is divided up into six sections:

1. *Introduction*. First two weeks. The first day is always different. We'll go over the syllabus and I'll try to do a good job setting expectations. Next Tuesday we will start the inverted version of our class -- I will give you a link to a video of a mock presentation, as though I am a usability professional speaking to a team of web or other software developers, trying to convince them of the value of employing a user-centered design approach.
2. *"Scientific Underpinnings"* – What do we know about human sensation, perception, memory, cognition, and language that steers our designs of user interfaces?
3. *"Requirements Gathering"* – How do we collect information about our potential users in order to inform our designs?
4. *"Design Support"* – What sort of guidance can we offer designers and developers, so they can do a maximally good job with their first design?
5. *"User Interface Evaluation"* – Once we have a design in place, how do we go about evaluating it, as we undertake an iterative design approach (design-test-redesign-retest)?
6. *"Business/ Advocacy"* – It is not enough to collect user data. We must use these data as instruments for change. How can we best do this?

Detailed Schedule:

Wk.	Day	Date	Topic	Notes
			INTRODUCTION	
1	T	1/17	<ul style="list-style-type: none"> - Introduction. - Once around the room. Name, hometown, major. - Review of the syllabus - A little bit about human perception 	By 5:00 tomorrow post on Canvas a picture or link or verbal description of good and poor designs. NOT web sites. Physical objects.
	Th	1/19	<ul style="list-style-type: none"> - Lecture. What is UX Design? 	Start reading the Norman book.
2	T	1/24	NO CLASS. Watch video of mock presentation by a usability consultant (actually, by the class professor).	By 5:00 tomorrow post on Canvas a picture or link or verbal description of good and poor ONLINE, DIGITAL designs.
	Th	1/26	Discussion of video and designs.	Have finished reading the Norman book by class today.
			SCIENTIFIC UNDERPINNINGS	
3	T	1/31	NO CLASS. Watch video on Sensation and Perception	Start reading the Chabris & Simons book.
	Th	2/2	Discussion of sensation and perception.	
4	T	2/7	NO CLASS. Watch video on memory.	Have finished reading the Chabris & Simons book.
	Th	2/9	Discussion of Memory and Cognition.	
5	T	2/14	NO CLASS. Watch video on psycholinguistics	
	Th	2/16	Discussion of psycholinguistics.	
			REQUIREMENTS GATHERING	
6	T	2/21	NO CLASS. Watch video on Personas	
	Th	2/23	In-class exercise on personas	
7	T	2/28	NO CLASS. Watch video on “deep dive” requirements gathering.	
	Th	3/2	In-class discussion with Kijana Knight.	
8	T	3/7	Review. What do we know so far?	

	Th	3/9	Mid-term exam.	Start reading Krug book.
			DESIGN SUPPORT	
9	T	3/21	NO CLASS. Watch video of local designer, Jon-Eric Steinbomer.	
	Th	3/23	In-class discussion with Jon-Eric Steinbomer.	
			USER-INTERFACE EVALUATION METHODS	
10	T	3/28	NO CLASS. Watch video on inspection methods.	
	Th	3/30	In-class exercise on heuristic evaluation	Have read the Krug book
11	T	4/4	NO CLASS: Finish the heuristic evaluation exercise in your groups.	
	Th	4/6	In-class peer review of our heuristic evaluation exercise.	
12	T	4/11	NO CLASS. Watch Krug video.	
	Th	4/13	Discussion of end-user testing.	
13	T	4/18	NO CLASS. Demo of remote usability testing.	
	Th	4/20	Discussion of end-user testing	
			BUSINESS AND ADVOCACY	
14	T	4/25	Guest presentations by Beth Hallmark and Eric Nordquist.	
	Th	4/27	Cost-justifying usability.	
15	T	5/2	Teary good-bye. And summary of all.	
	Th	5/4	Final exam	

AND SO TO SUMMARIZE:

- I hope you have a great semester.
- This class is intended to introduce you to the field of usability and user-centered design, plus begin or continue to teach you some skills/approaches that will serve you throughout your life.
- This is what will be REQUIRED of you across the semester:
 - o Attend class meetings and watch videos when prescribed.
 - o Participate in discussions and all in-class exercises.
 - o Read three books and perhaps other ancillary articles.
 - o Take two multiple-choice tests.
 - o Complete a course evaluation.

Here we go!