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

Unique Number: 27035

Semester: Fall 2019

Professor: Michelle R. Peterson, Ph.D.
214-629-9771
michelle.peterson@austin.utexas.edu

Office: Virtual
We'll set up virtual conferences as needed.

Office Hours: By appointment.
Please feel free to email me to request an appointment, even if there is no pressing need.

Class Time: T/Th, 6:00 – 7:30 p.m.

Classroom: SZB 240

Textbooks:

Norman, Donald A. (2013). *The Design of Everyday Things: Revised and Expanded Edition*. 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, e-commerce, and mobile devices has brought software user experience design 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 interaction (HCI) design problem. In the modern world, it's increasingly important for product managers, designers, and developers to depend NOT on their own intuitions as to what designs are likely to be usable. The way user interface designers and developers address this intentionally is by pursuing a practice of

"user-centered design" (UCD). UCD involves employing a collection of user experience 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 user experience
2 – the methods used in the pursuit of UCD, and
3 – careers in UX.

The course will entail four major instructional techniques:
1 – lecture on the scientific underpinnings and the methods of UCD,
2 – exercises, to demonstrate the use of such methods,
3 – guest presentations from UX professionals, to see and hear demonstrations of methods as applied to real-world design problems, and learn about careers in user experience
4 – a group UX project.

Objectives:

The student successfully completing this class will:
- be able to explain the basic 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, designers, or product managers should NOT depend on their own intuitions for what is a usable design,
- have exposure to a variety of usability professionals and labs.

Course Requirements:

Class attendance and participation.
Two exams, covering material presented in class and in the textbooks.
Several in-class exercises, culminating in a group project.

Grades:

Your grade will be based on four things:
1. attendance and participation in class and in your groups (20%)
2. one multiple-choice mid-term exam (25%)
3. group project (30%)
4. one multiple-choice final exam (25%)

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.* We'll go over the syllabus and I'll try to do a good job setting expectations.
2. *Scientific Underpinnings* – What do we know about human sensation, perception, memory, attention, and decision-making that steers our designs of user interfaces?
3. *Learning from Users* – How do we collect information about our potential users in order to inform our designs?
4. *Identifying Opportunities* – How do we use what we learned to define unmet needs or issues to be solved?
5. *Seeking Solutions* – How do we identify potential solutions to issues or ways to fill unmet needs?
6. *UX as a Career* – Through-out the semester a series of guest lectures will inform us about the variety of opportunities to use what we learned.

Detailed Schedule:

AUGUST

		TOPIC	NOTES
1	**Thursday** 29	INTRODUCTION Once around the room Review syllabus A little about User Experience	Start reading the Norman book

SEPTEMBER

		TOPIC	NOTES
2	**Tuesday** 3	NO CLASS Watch video of mock presentation by a UX consultant [actually, Dr. Bias :)]	By 5 p.m. tomorrow post on Canvas - Examples of good or poor **physcial** designs NOT websites or apps
	Thursday 5	Discussion of video & physical designs	By 5 p.m. tomorrow post on Canvas - Examples of good or poor **digital** designs websites, apps, etc.

SEPTEMBER

	TOPIC	NOTES
Tuesday **10** (3)	SENSATION & PERCEPTION Plus discussion of digital designs	
Thursday **12**	MEMORY & ATTENTION	

	TOPIC	NOTES
Tuesday **17** (4)	DECISION MAKING	
Thursday **19**	HUMAN FACTORS	Have finished reading the Norman book

	TOPIC	NOTES
Tuesday **24** (5)	IN-CLASS EXERCISE Personas Learning from Users	Start reading the Chabris & Simons book Form groups for group project
Thursday **26**	ACCESSIBILITY	Guest Speaker Matthew Krajewski

OCTOBER

		TOPIC	NOTES
6	**Tuesday** **1**	IN-CLASS EXERCISE Learning from Users	
	Thursday **3**	DESIGN THINKING	Guest Speaker Stephanie Hagadorn

		TOPIC	NOTES
7	**Tuesday** **8**	CAREERS IN UX	Guest Speaker Georgette Sullivan (Tentative)
	Thursday **10**	CAREERS IN UX	Guest Speaker Srikant (Cheenu) Chari

		TOPIC	NOTES
8	**Tuesday** **15**	REVIEW for Mid-term	Have finished reading the Chabris & Simons book
	Thursday **17**	CAREERS IN UX (Material covered will be on Final, but not Mid-term)	Guest Speaker Carmen Broomes

		TOPIC	NOTES
9	**Tuesday** **22**	MID-TERM EXAM	
	Thursday **24**	DATA SCIENCE & UX	Guest Speaker Eric Taylor, Ph.D. Start Reading the Krug book

OCTOBER

		TOPIC	NOTES
10	**Tuesday** 29	IN-CLASS EXERCISE Heuristics & Design Principles	
	Thursday 31	NO CLASS Reading Day	Work on your group projects

NOVEMBER

		TOPIC	NOTES
11	**Tuesday** 5	IN-CLASS EXERCISE Observing behavior	
	Thursday 7	CAREERS IN UX	Guest Speaker Kijana Knight-Torres

		TOPIC	NOTES
12	**Tuesday** 12	IN-CLASS EXERCISE Sketch solutions	
	Thursday 14	LEAN PRODUCT DEVELOPMENT	Guest Speaker Steve Sanderson

		TOPIC	NOTES
13	**Tuesday** 19	FIELD TRIP!!	IX Lab at the iSchool (Tentative)

NOVEMBER

Thursday **21**	FIELD TRIP!!	Visualization Lab - TACC (Tentative)

		TOPIC	NOTES
14	**Tuesday** **26**	NO CLASS Reading Day	Finish the Krug book Finish group projects Upload group projects to Canvas before 5 p.m. Nov. 27th
	Thursday **28**	NO CLASS HAPPY THANKSGIVING	

DECEMBER

		TOPIC	NOTES
15	**Tuesday** **3**	REVIEW and teary good-bye	
	Thursday **5**	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/UX 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:
  - Attend class meetings and watch videos when prescribed.
  - Participate in discussions and all in-class exercises.
  - Read three books.
  - Take two multiple-choice tests.
  - Complete a group project.

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. 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.

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: The complete guide to referencing and avoiding plagiarism.

Late Assignments & Make-up exams

No late assignments are accepted except for documented illnesses or religious holy days (see below). 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 documented excuse, please text or email me in advance. All make-up exams will be essay exams.

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. In addition, posting your 1-minute summary after each class will contribute to your 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.

Your Questions and General Level of Comfort

If you have a question, please ask. Feel free to email me, call, or text me any time, but do know that I might not be able to respond right away if it's during regular business hours. I'll try to get back to you as soon as possible, however!

Here we go!