

INF 315C – User Research

Unique Number: 27039

Semester: Fall, 2019

Instructor: Amy Rothbaum, MSIS

Office Hours: By appointment. amyrothbaum@utexas.edu

Class Time and location: UTA 1.502, Monday 6:00-9:00 pm

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Summary

Have you ever used an app or website and thought, “Man, this experience is terrible!” this course will teach you how to evaluate just how terrible it is, as well as how to make recommendations for improvements. The course is designed to help students to get hands-on experience with investigating and analyzing how people interact with their environments, but will place an emphasis on digital tools.

You do not need a computer science background nor any experience with designing or developing websites in order to be an effective user researcher. There is no substitute for asking people what they actually think, or watching what they actually do!

We will cover three main research methods: interviewing, surveying, and observation (specifically, usability testing). The textbook will help you develop a baseline knowledge of design principles. In class, you will read articles from industry sources to learn research best practices and begin developing your researcher toolkit. Combining those skills together, you will conduct sample research projects, write about, and present your findings to the class.

I may change portions of this syllabus throughout the semester to adjust to student needs and my scheduling demands.

Course prerequisites

None. You do not need to have a technical/computer science background to take this course. It is recommended you bring a laptop or tablet to class with you. If you do not have a personal device, please e-mail me and let me know ahead of classes starting (amyrothbaum@utexas.edu).

Required textbook

Johnson, J. (2014). *Designing with the mind in mind: Simple guide to understanding user interface design guidelines*. Morgan Kaufmann; 2nd edition.

Supplemental Readings will be available online via Canvas.

Students with 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 471-6259 (voice) or 471-4641 (TTY for users who are deaf or hard of hearing) as soon as possible to request an official letter outlining authorized accommodations.

Course schedule

Note: this course schedule is subject to change. Canvas will have the most up-to-date information about due dates.

Date	Day of Week	Research Topics	Design Readings	Assignment
Sep 2	Mon	NO CLASS: LABOR DAY	NO CLASS: LABOR DAY	NO CLASS
Sep 9	Mon	What is user research?	Ch 1: Our perception is biased Ch 2: Our vision is optimized to see structure	
Sep 16	Mon	Surveys: <ul style="list-style-type: none"> Purpose Survey design Choose topic 	Ch 3: We seek and use visual structure Ch 4: Our color vision is limited	
Sep 20	Fri			Instrument 1: Survey Questions due
Sep 23	Mon	Surveys: <ul style="list-style-type: none"> Review questions with peer Create survey in Qualtrics Test survey design with peer 	Ch 5: Our peripheral vision is poor Ch 6: Reading is unnatural	
Sep 30	Mon	Surveys: <ul style="list-style-type: none"> Discuss preliminary findings Begin writing Data Report 1 	Ch 7: Our attention is limited; our memory is imperfect Ch 8: Limits on attention shape our thought and action	
Oct 4	Fri			Data Report 1: Survey results due
Oct 7	Mon	Surveys: <ul style="list-style-type: none"> Peer review Interviewing: <ul style="list-style-type: none"> Purpose Interview planning Crafting interview questions 	Ch 9: Recognition is easy; recall is hard Ch 10: Learning from experience and performing learned actions are easy; novel actions, problem solving, and calculation are hard	Peer Review 1 due (you will do this together in class)
Oct 11	Fri			Instrument 2: Interview Questions due
Oct 14	Mon	Interviewing: <ul style="list-style-type: none"> Analyzing interview notes 	Ch 11: Many factors affect learning Ch 12: Human decision making is rarely rational	

		<ul style="list-style-type: none"> Review Instrument 2 with peer Revise Instrument 2 interview questions 		
Oct 21	Mon	Interviewing: <ul style="list-style-type: none"> Work on Data Report 2 	Ch 13: Our hand-eye coordination follows laws Ch 14: We have time requirements	
Oct 25	Fri			Data report 2: Interviews due
Oct 28	Mon	Interviewing: <ul style="list-style-type: none"> Peer review Usability: <ul style="list-style-type: none"> Purpose Industry measures and metrics – errors, time-on-task, SEQ, SUS How-to conduct usability testing workshop 	Readings to be distributed in class	Peer Review 2 due at the end of class
Nov 4	Mon	Usability: <ul style="list-style-type: none"> Writing an effective test plan 		
Nov 1	Fri			Instrument 3: usability test plan due
Nov 11	Mon	Usability: <ul style="list-style-type: none"> Conduct usability testing with your classmates in class (practice sessions) Modify test plan if needed 		
Nov 18	Mon	Usability: <ul style="list-style-type: none"> Continue working on your usability project 		
Nov 25	Mon	Usability: <ul style="list-style-type: none"> Continue working on your usability project 		
Dec 2	Mon	Presentations: <ul style="list-style-type: none"> You will discuss your usability findings with the class. 		Data report 3: usability test due at the beginning of class Peer review 3 due at the end of class

Assignments

You will need to complete assigned readings at home, work on 3 sample research projects in two parts, respond to peers' sample research, participate in class, and demonstrate knowledge of the readings.

Participation and Knowledge of the readings part 1: 13 Daily Quizzes: 30%

Throughout the semester, I will administer daily quizzes (1 on every day you have readings due). Each quiz will cover that day's readings with 2-4 questions. If you miss the time during class when the quiz occurs, you missed it. This quiz is essentially your attendance check – are you in class and paying attention? Then you will do well for 30% of your course grade.

Sample research projects part 1: 3x instruments of measurement 20%

You will turn in an instrument of measurement in advance of conducting each sample research project so that you can iterate on it for your subsequent data-gathering and report. Each should:

- Be submitted as one PDF document via Canvas to the appropriate assignment, on time, with college-level writing, and be related to a complex system.
- Include a citation and link to the relevant sources discussed in class or linked in the relevant assignment on Canvas.
- Begin with a paragraph describing the problem you are addressing.
- Include the instrument itself. (for example: the questionnaire, interview questions, or usability test plan procedure.)

Sample research projects part 2: 3x data reporting 30%

Next, you will carry out your research, with between 4 and 20 participants, depending on the method at hand (fewer for interviews, more for surveys). You will then provide me with a report, also in PDF format on Canvas, which includes:

- An introductory paragraph describing the problem you are addressing.
- Between 2 and 5 visualizations of your analysis, depending on the assignment (e.g. charts and graphs). 1-2 sentences explaining why each is important. You MAY describe negative results (e.g.; "I didn't prove my hypothesis.") In fact, acknowledging negative results is an important ethical consideration.
- A concluding paragraph suggesting what this research means for designs related to your topic (see: your own introduction.)
- An appendix with all of the data you collected.
- An appendix with a description of how and why you iterated on your original instrument.

- Citations to background work (e.g. the paper you cited in the first part of this project).

Sample research projects part 3: 3x peer responses: 20%

You will each respond to one of your peers’ reports. In your response, you should summarize what the point of their research was, in your own words. Be sure to:

- Suggest 1-2 future directions for the research area.
- Ask the author 2-3 questions about their findings.

You will be given time IN-CLASS to complete these peer reviews. This will not require effort outside of class time, but rather serves as an opportunity to discuss research techniques and reflect on your learnings with your classmates.

Grading

Your assignments will be graded based on college-level writing standards including Grammar and spelling, demonstrated clarity of thought, and structure in your writing. Your ability to follow the instructions given and your use of resources from class (including citations). The overall quality of your reports and responses. You have up to two weeks following receiving a grade to respectfully discuss with me if you have questions and why would like me to reconsider the evaluation.

Title	Repetitions	Total percent of final grade
Quizzes	18	30%
Instruments	3	20%
Reports	3	30%
Peer responses	3	20%

I use plus and minus grades for the final grade. The conversion will be as follows:

A	94 – 100 points
A-	90 - 93.9
B+	87 - 89.9
B	84 - 86.9
B-	80 - 83.9

C+	77 - 79.9
C	74 - 76.9
C-	70 - 73.9
D+	67 – 69.9
D	64 - 66.9
D-	60 - 63.9 (minimum for pass/fail students to pass)
F	Below 60

Late assignments

It is important to complete your work on time, both so you can stay on track and so you can work with your fellow students. You will be penalized 10% of the original grade for each day the assignment is late. Plan ahead.

Academic 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.