

LMC 6313.

PRINCIPLES OF INTERACTION DESIGN

Spring 2022
Units: 3

Course Meeting

Mondays and Wednesdays 2:00 - 2:50pm, Skiles 343 / MS Teams [General Class Meeting](#)
Open lab hours / office hours: Fridays 9:30am - 12:15pm, MS Teams General Class Meeting

Instructor

Noura Howell, PhD
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[she / her / hers](#)

Office hours: By appointment only on Mondays and Wednesdays.

Teaching Assistant

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Office hours: Open lab hours on Fridays, see above

Important Links

[General Class Meeting](#)

[Canvas Course LMC-6313-NH](#): Submit PDFs or PNGs of assignments and check your grades

[Figma Class Projects](#): Create your assignments here

From this page, you will go into the specific assignment, go into the Page with your name, and create your work there. In class, the instructor will screen share the Figma file to showcase each student's work.

Note: If at any point I provide a link to something where you don't have access, please contact the instructor on MS Teams so the issue can be addressed.

Course Description

Interaction Design is designing how people interact with technology. This class strategically focuses on screen based interfaces, with some special topics such as voice or tangible interfaces. This class approaches design as a practice and asks students to learn by doing, critiquing, and doing again. Students will dive into the nitty gritty details of designing interfaces and gain familiarity in designing and evaluating interfaces.

Goals

The projected learning outcomes of this course are:

- Conduct exploratory qualitative design research in the form of contextual inquiry
- Conduct detail-oriented task analysis of existing user interactions
- Design and prototype interfaces
- Evaluate interfaces: think aloud, heuristic, and accessibility evaluations
- Iterate and refine the design of interfaces on the basis of evaluation results

Textbooks

About Face: The Essentials of Interaction Design, 2014 edition.

[You can read this book online for free with a GT login.](#)

Additional readings will be provided online.

Schedule

Note, changes to the schedule may occur. Stay tuned for announcements. Readings for each class day and assignment details will be finalized and released as we go along.

	Date	Topic	Class Activities	Read / watch before class	Due at start of class
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1	Mon Jan 10	What is Interaction Design?	Course overview Introduce Assignment #1 (A1) Example of an interaction design		
	Wed Jan 12		Present and discuss examples of interaction designs Introduce Assignment #2 (A2)	What is interaction design?	(A1) Example of an interaction design from your everyday life
	Fri Jan 14		Open lab: help with Figma, feedback, work on assignments, open crit hours, industry questions, open Q&A		
2	Mon Jan 17		<i>MLK day - no class</i>		
	Wed Jan 19	Make, Evaluate, Iterate	Paired thinkalouds and classwide design critique of One-Button UI v1 Introduce A3	Thinking Aloud: The #1 Usability Tool from Nielsen Norman Group About Face Ch1: A Design Process for Digital Products	(A2) One-Button UI v1
	Fri Jan 21		Open lab (Hint: use this time to refine the One-Button UI in Figma)		
3	Mon Jan 24		Design critiques of One-Button UI v2 Introduce design research		(A3) One-Button UI v2
	Wed Jan 26		Form user-designer pairs in class, select context and activity to study Introduce A4	Contextual Inquiry: Inspire Design by Observing and Interviewing Users in Their Context About Face Ch2:	

				Understanding the Problem: Design Research	
	Fri Jan 28		Open lab (Hint: use this time for the contextual inquiry and task analysis with your pair. One hour you are the designer, one hour you are the user.)		
4	Mon Jan 31	Contextual Inquiry & Task Analysis	Present user context, task analysis, goals	Task Analysis: Support Users in Achieving Their Goals About Face Ch3: Modeling Users: Personas and Goals	(A4) Contextual Inquiry & Task Analysis
	Wed Feb 2		<p>Reflect on varied user contexts: divergence/commonalities of pain points, divergence/commonalities of rewarding aspects of different contexts or tasks investigated</p> <p>Talk about how you might generate "problem statements" and "vision statements" for selected contexts investigated last time. Is there even a problem here? And, what role if any can design play in engaging this issue? Design can't solve everything. Pick an appropriate</p>		

			niche for design engagement. Introduce A5		
	Fri Feb 4		Open lab		
5	Mon Feb 7	Other Design Research Methods	Review other qualitative methods used in design research, and how to move from research to ideation	About Face Ch4: Setting the Vision: Scenarios and Design Requirements	(A5) Personal written reflection on contextual inquiry and task analysis
	Wed Feb 9		TA guest lecture (TBD) Introduce A6		
	Fri Feb 11		Open lab		
6	Mon Feb 14	Design Process Synthesis	Share a few design process summaries in class. What parts of the design process have we touched on?	About Face Ch5: Designing the Product: Framework and Refinement	(A6) Synthesize Design Process
	Wed Feb 16	Accessibility	Introduce accessibility principles and assessment methods Introduce A7	TBD	
	Fri Feb 18		Open lab		
7	Mon Feb 21		Present accessibility audits	TBD	(A7) Accessibility Audit
	Wed Feb 23		Discuss readings Introduce A8	The Promise of Empathy - Design, Disability, and Knowing the "Other" The problem with personas	
	Fri Feb 25		Open lab		

8	Mon Feb 28	Interacting with information	Conduct heuristic evaluations of class schedule redesign	About Face Ch19: Designing for Mobile and Other Devices How to conduct a heuristic evaluation 10 Usability Heuristics for UI Design	(A8) Class Schedule Redesign
	Wed Mar 2		Self-tracking / Personal informatics / Quantified Self lecture Introduce A9		
	Fri Mar 4		Open lab		
9	Mon Mar 7		Paired thinkalouds and design critiques of Track Just One Thing v1	Self-Tracking Introduction About Face Ch14: Rethinking Data Entry, Storage, and Retrieval	(A9) Track Just One Thing v1
	Wed Mar 9		Discuss reflective design, data representations, privacy issues Introduce A10	Reflective Design	
	Fri Mar 11		Open lab		
10	Mon Mar 14		Design critiques of Track Just One Thing v2	Designing Documentary Informatics	(A10) Track Just One Thing v2
	Wed Mar 16		Design critiques of Track Just One Thing v2 Introduce A11		
	Fri Mar 18		Open lab		
	Mon Mar 21		<i>Spring break - no class</i>		

	Wed Mar 23		<i>Spring break - no class</i>		
	Fri Mar 25		<i>Spring break - no class</i>		
11	Mon Mar 28	Interface aesthetics	Discuss examples Typography, color, visual hierarchy Visual aesthetics are culturally specific	About Face Ch17: Integrating Visual Design	(A11) Example of a visual interface
	Wed Mar 30		Introduce chat apps, video calling apps, etc Introduce A12	Ruha Benjamin: Which Humans? Innovation, Equity, and Imagination in Human-Centered Design (Keynote)	
	Fri Apr 1		Open lab		
12	Mon Apr 4		Present and discuss Not Another Chat App Introduce A13	About Face Ch13: Metaphors, Idioms, and Affordances	(A12) Not Another Chat App v1
	Wed Apr 6	Internet of Things	Present and discuss IoT examples		(A13) Example of an IoT app
	Fri Apr 8		Open lab		
13	Mon Apr 11		Design critique of IoT Design v1		(A14) IoT Design v1
	Wed Apr 13		Present and discuss Voice UI examples		(A15) Example of a Voice UI
	Fri Apr 15		Open lab		
14	Mon Apr 18	Voice UI	Wizard of Oz paired evaluation and design critique of Voice UI v1	How to Design Voice User Interfaces UX Prototypes: Low Fidelity vs High Fidelity	(A16) Voice UI v1
	Wed Apr 20	Special topic: A/B testing	A/B testing. How would you design	TBD	

			an A/B test for your Voice UI v1?		
	Fri Apr 22		Open lab		
15	Mon Apr 25	Special topic: Tangible Interaction	Tangible, embodied, embedded interactions		
			<i>No exam</i>		

Assignment Grading Breakdown

Grading of each assignment will be by number of points. The number of points for an assignment indicates its weight in determining the final grade. Assignments are due at the beginning of the class session unless otherwise specified. Late submissions will not be accepted, because many assignments rely on being turned in on time in order to get feedback on the assignment in class. In cases of excused absences, proactively communicate with the instructor to find an alternative "make up" assignment, which may take a different form than the original assignment. The [Georgia Tech Honor Code](#) applies.

A#	Name	Points	%	Deadline (beginning of class)
A1	Example of an interaction design you encounter in your everyday life	3	1.5%	Wed Jan 12
A2	One-Button UI v1	10	5.0%	Wed Jan 19
A3	One-Button UI v2	10	5.0%	Mon Jan 24
A4	Contextual inquiry and task analysis	20	10.0%	Mon Jan 31
A5	Written reflection	10	5.0%	Mon Feb 7
A6	Synthesis diagram of design process	10	5.0%	Mon Feb 14
A7	Accessibility audit	10	5.0%	Mon Feb 21
A8	Class schedule mobile redesign	10	5.0%	Mon Feb 28
A9	Track Just One Thing v1	10	5.0%	Mon Mar 7
A10	Track Just One Thing v2	10	5.0%	Mon Mar 14
A11	Example of a visually compelling interface	3	1.5%	Mon Mar 28
A12	Not Another Chat App v1	10	5.0%	Mon Apr 4
A13	Example of an IoT app	3	1.5%	Wed Apr 6
A14	IoT design v1	10	5.0%	Mon Apr 11
A15	Example of a Voice UI	3	1.5%	Wed Apr 13

A16	Voice UI design v1	10	5.0%	Mon Apr 18
A17	Topic of Interest Presentation	5	2.5%	The day you sign up for.
	Participation in class activities and discussion, especially paired or small group activities. Excused absences do not count against participation.	53	26.5%	throughout
	<i>totals:</i>	200	100.0%	

Grade Ranges

100-90% : A

89 - 80% : B

79 - 70% : C

69 - : D

Attendance

Stay home if you feel sick, to protect yourself and others. These are excused absences. You can review online materials and communicate with classmates, instructor, and TA to catch up on what you missed.

Proactively communicate about absences. Some assignments are due in class and will not be accepted late, in which case you will need to work with the instructor to determine a "make up" assignment, which may take a different form than the original assignment.

Accommodations

Please refer to the [Office of Disability Services](#) for information on how to request [accommodations](#). The instructor and TA are committed to working with you to accommodate your needs.

Technology use

Bring a computer to class every day. No use of cell phones (including texting) in class.

Inclusivity Statement

The Ivan Allen College of Liberal Arts supports the Georgia Institute of Technology's commitment to creating a campus free of discrimination on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. We further affirm the importance of cultivating an intellectual climate that allows us to better understand the

similarities and differences of those who constitute the Georgia Tech community, as well as the necessity of working against inequalities that may also manifest here as they do in the broader society.

Workload

Students are expected to work not only in class but also outside of class sessions on assignments and projects.

If you are experiencing anxiety or depression or a medical, personal, or family crisis, or if you just feel overwhelmed, please do not hesitate to reach out for help. Everybody needs help sometimes, and being in school can be a personally challenging time. You are not alone, and many of us are available to be sympathetic listeners and to share our own strategies for coping with stressful situations. In addition, professional counselors and medical practitioners have expertise that can be very helpful. The Dean of Students has a list of services (see <https://studentlife.gatech.edu/content/get-help-now>).