

SI 699 Mastery User Experience Research and Design

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School of Information
University of Michigan

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Thursdays, 1-4pm
Secret Lab – Ann Arbor District Library

Office Hours, Wednesdays 3:00-4:30pm, North Quad 4384. Please sign up [here Links to an external site.](#)

User Experience Research & Design is an interdisciplinary approach to technology that emerged out of earlier research and design methods and fields including but not limited to Participatory Design, Human-Computer Interaction and User Interface Design. It is often understood as a reaction to and intervention into engineering approaches to technological development. User Experience Research and Design as such can mean a variety of approaches and range of activities – often what is meant is highly dependent on the specific culture of an employer or the institution. Across various instantiations it is always though some form of blend of social scientific, technical, creative, and critical thinking skills, and this course will reflect this interdisciplinary commitment.

Course Structure:

Experience design is both fascinating and challenging because of its elusive character and its politics of inclusion. What is experience? Who gets to say so? What makes an experience fun, challenging, novel, or different? Are experiences shared, individual, or collective? How is it that some people are excluded from certain experience spaces? Is it possible to design experiences, or can we only design interactive things? Who is the user in user experience design? And what form can design take in user experience design? The first weeks of the class “Understanding User Experience Design” will help you articulate answers to these questions as well as work out your own approach to user experience design. The second part of the course “Prototyping and Hacking User Experience Design” will be focused on the hands-on engagement with a user experience design project.

This is a mastery course, i.e. an advanced one-semester course that requires students to demonstrate command of the key methods, theories, approaches, and capabilities that they have acquired in their training at UMSI so far. Unlike other courses with significant faculty-led structure and scaffolding, mastery courses require you to demonstrate initiative and show that you can critically engage with a contemporary societal, technological, economic and/or political issue and conceive of a design project in relation to this issue. I see my role as guiding you through this process. The goal is not to teach you technical or social science methods, but help you think out of the box, think beyond familiar and comfortable frames, and engage with issues of design and use in an ethical and responsible manner.

Problem Framing vs. Problem Solving

Bill Buxton makes a distinction between “getting the idea right” and “getting the right idea.” Getting the idea right is about refining and iterating on an idea, when you already know what the idea is. Getting the right idea is about exploring and surfacing many ways of addressing a given design opportunity, and selecting the best from among them—in other words, it’s what you do when you don’t know what you want to do. Example: Many people commute between cities A and B. Getting the idea right might be improving existing highways between those cities. Getting the right idea would be stepping back and considering whether automotive traffic is the best way to address this situation. Perhaps instead it is rail, boat, or air infrastructure that’s needed; or perhaps a better communications infrastructure would suffice; or maybe building up the area in the middle, or (etc.)...

My experience is that most students are more comfortable with getting the idea right and tend to jump to it too quickly. In other words, instead of patiently exploring different possible design directions, students tend to jump on the first plausible one and then start iterating on it. Often, they do so because they feel pressure to make progress and are afraid they will fall behind. In this course, I will argue that getting the right idea is an outcome or result of a design process, not the beginning of one. And I will use assignments to disrupt students’ tendency to commit to one idea early on—to the point that some of you might even feel frustrated. Sorry in advance for that bad experience, but hey, all doing is accompanied by a corresponding undergoing, which must be suffered, and yet it will all be worth it once it is all infused with an emotional coherence and thereby consummated as an (aesthetic) experience.[\[1\]](#)

In all seriousness, your ability to get the right idea and persuade others to pursue it is arguably your biggest selling point as a designer.

Computational Hardware Is Part of Your Job Description Now, Too

Looking at trends in computing, it is clear that the paradigm of phones/tablets and apps is well established and even past its prime. That means that if you want to look for a job in 2008, you should be focusing on apps. But if you want to get a job in 2018, it’s time to look forward, not back.

The energy in the design and HCI communities is on topics such as “smart” spaces (e.g., cars, homes, cities); robotics; the Internet of Things; voice-controlled interfaces (like Apple Siri and Amazon Echo); the maker movement; and so on. Common to all of these is that hardware is part of the design problem space. 15 years ago most interaction designers were limited to software—running on Windows, web servers, etc., but hardware was out of scope. That is changing. So I will challenge you throughout this course to educate yourself about upcoming computing trends, with an emphasis on computational/digital environments, what “smart” can or should mean when applied to cars or cities or whatever, and how users’ understandings of the physical/virtual divide will be changing in the next decade. And, of course, what sorts of experiences all of that will afford.

This course takes place in the Secret Lab, the makerspace of our local Ann Arbor District Library, providing you the room and materials to explore hardware design and research. The Secret Lab offers a myriad of resources, machines, and prototyping tools for you to use if you chose to do so.

Course Objectives:

Course readings, activities, and assignments were designed to provide students opportunities to achieve the following goals by the end of the semester:

- Complete and document a portfolio-quality design using recognized experience design methods
- Choose appropriate methods and theories in practical situations based on an understanding of the strengths and limitations of available approaches
- Articulate your approach to design and user experience design specifically in a clear manner
- Describe popular research and design processes used in UX as well as alternative approaches to UX design
- Implement prototypes common in design including but not limited to photoshop, illustrator, Arduino, 3d printing, proto.io, html, css, sketch, Axure.
- Practice peer design critique

Textbooks

There are no textbooks for SI 699.

There is a required fiction that is on the reading list, however, which has been pre-ordered for purchase: Gary Shteyngart – Super Sad True Love Story (it's probably what inspired Black Mirror!).

Assignments

This mastery course demands student engagement and active participation. I think you will learn a lot, and hone your design practice in lasting ways. But I am also hoping we'll have some fun together.

I expect you to complete all the **readings**. I chose them carefully, and I believe every one of them will strengthen you as a professional. Often, we recognize only weeks, months, or even years later what a particular piece of writing has allowed us to understand differently about this world. What might look confusing or less relevant now will eventually give you the vocabulary of a professional in your field – a learning process that never ends, not even for me. You will notice that the early weeks include more readings and that the readings trail off towards the end. This is on purpose to allow more time for project work as we progress throughout the semester. For each week that has an assigned reading, bring 5-7 key statements/quotes from the readings to class. Print the materials and highlight (or cut out) the paragraphs you would like to share with your peers. We will use them for in-class activity.

In total, there will be **2 small assignments** and **4 milestones** and one big assignment: the design project.

The small assignments are aimed at helping you grasp some of the more complex concepts covered in the texts and put them into practice. These assignments will begin in class and will likely spill over into homework time. These are not busy work, but designed to prep you for the major design project to be completed in this class.

The milestones are designed to guide you to successful completion of a **major design project**. The major design project assignment emphasizes process over product and is based on a museum exhibit. Why a museum exhibit?: A museum exhibit provides a context that is simultaneously concrete enough and yet open enough to mimic the requirements and constraints a client will inevitably pose to a professional designer, while at the same time given you enough room to explore freely and creatively a concept and implementation completely up to you. You will submit a concept proposal,

conduct research and prototyping, and will document your process and outcome in a video, and present the final project. You can work individually or in pairs.

Grading

In graduate school, grading is (or ought to be) a secondary motivation. I hope you are motivated not by the hope of getting an “A” but because you want to cultivate your skills as a designer and researcher and you recognize this class provides you opportunities to do precisely that.

I will use grading to provide feedback that helps you improve your work rather than summative feedback (feedback that tells you how you did).

The final grade breakdown is as follows:

Class attendance and participation: 40%

2 Small Assignments: 20%

Final design project (process and product): 40%

Policies

Timeliness

Timeliness is critical in professional settings. Managers and clients don't like to pay for work that's turned in late, and they aren't interested in hearing about why something is late. Start early and manage your projects so that you have plenty of time at the end to deal with unexpected surprises, failed disks, blackouts, cord-eating cats, misfiring romances, persistent coughs, Michigan winter, appointments for a facial, PlayStation injuries, unstable roommates, flat tires, religious conversions, and jury duty. Please don't be the source of the next excuse (pedestrian or bizarre) to add to the above list.

Your grade on assignments and the semester project will decline one full grade for each day it is late, unless I explicitly approve the delay in advance.

Classroom Behavior

I expect everyone to conduct themselves in a professional manner during class. That includes showing up to class on time; late arrivals distract everyone. It also means treating others with respect, even if you disagree with them.

Attendance

Your group activities and class participation grade both rely on you being in class. You are responsible for finding out what you missed in class by referring to the syllabus and to your classmates.

Communication

All course material (e.g., syllabus, schedule, lecture slides, any assignment descriptions, additional resources) will be made available via Canvas. You are responsible for keeping up-to-date with the

materials on Canvas, as dates, assignment details, and lecture topics may change as the semester progresses.

Academic Integrity

All assignments in this course are clearly designated as "peer" or "individual" assignments. For the individual assignments, all submitted work must be your own, original work. For peer assignments, all submitted work must be the original work of the group. Any excerpts from the work of others (e.g., books, articles, web pages) must be clearly identified as a quotation, and a proper citation provided. You are expected to understand what plagiarism is and how to avoid it. If you are uncertain about what the boundaries are, you must educate yourself. [Links to an external site.](#) and [Purdue's Online Writing Lab Links to an external site.](#) provide excellent materials that can help you avoid trouble in 699 and elsewhere. Any violation of the School's policy on Academic and Professional Integrity (stated in the Master's and Doctoral Student Handbooks) will result in severe penalties, which might range from failing an assignment, to failing a course, to being expelled from the program, at the discretion of the instructor and the Associate Dean for Academic Affairs.

ACCOMMODATION FOR STUDENTS WITH DISABILITIES

If you think you need an accommodation for a disability, please let me know at your earliest convenience. Some aspects of this course, the assignments, the in-class activities, and the way we teach may be modified to facilitate your participation and progress. As soon as you make me aware of your needs, we can work with the Office of Services for Students with Disabilities (SSD) to help us determine appropriate accommodations. SSD (734-763-3000; [Links to an external site.](#) typically recommends accommodations through a Verified Individualized Services and Accommodations (VISA) form. I will treat any information that you provide in as confidential a manner as possible.

Student Mental Health and Wellbeing

The University of Michigan is committed to advancing the mental health and wellbeing of its students, while acknowledging that a variety of issues, such as strained relationships, increased anxiety, alcohol/drug problems, and depression, directly impacts students' academic performance.

If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact Counseling and Psychological Services (CAPS) at (734) 764-8312 and <https://caps.umich.edu/> [Links to an external site.](#) during and after hours, on weekends and holidays or through its counselors physically located in schools on both North and Central Campus. You may also consult University Health Service (UHS) at (732) 764-8320 and <https://www.uhs.umich.edu/mentalhealthsvcs>, or for alcohol or drug concerns, see www.uhs.umich.edu/aodresources [Links to an external site.](#)

For a more comprehensive listing of the broad range of mental health services available on campus, please visit: <http://umich.edu/~mhealth/> [Links to an external site.](#)"

ACADEMIC INTEGRITY

Abridged version: Unless otherwise specified in an assignment, all submitted work must be the work of each individual student's own, original work. If students are referencing others' work, put it in quotes! If students are directly quoting, or building on others' writing, provide a citation. See [the Rackham Graduate policy on Academic and Professional Integrity Links to an external site.](#) for the definition of plagiarism, and associated consequences.

Collaboration: UMSI strongly encourages collaboration while working on some assignments, such as homework problems and interpreting reading assignments as a general practice. Active learning is effective. Collaboration with other students in the course will be especially valuable in summarizing the reading materials and picking out the key concepts. Students must, however, write their own homework submission on their own, in the individual student's own words, before turning it in. Students who work with others on the homework must list any and all collaborators on the written submission. Each course and each instructor may place restrictions on collaboration for any or all assignments. Read the instructions carefully and request clarification about collaboration when in doubt.

Plagiarism: All written submissions must be the student's own, original work. Original work for narrative questions is not mere paraphrasing of someone else's completed answer: students must not share written answers with each other at all. At most, students should be working from notes taken while participating in a study session. Largely duplicate copies of the same assignment will receive an equal division of the total point score from the one piece of work and are subject to receiving negative credit. Students may incorporate selected excerpts, statements or phrases from publications by other authors, but they must be clearly marked as quotations and must be attributed. Cite any work that may come from or be inspired by the ideas of prior authors. Students may obtain copy-editing assistance, and may discuss ideas with others; however, all substantive writing and ideas must be the ideas of the individual student's own, or be explicitly attributed to another. See the student handbook available on the UMSI intranet for the definition of plagiarism, resources to help you avoid it, and the consequences for plagiarism, whether intentional or unintentional.

Course Schedule

Week	Date	Theme	Studio	Readings	Assignments
Understanding User Experience Design Foundations, Recap & Getting Started on Project Work					
W 1	09/06	Course Introduction	Understanding Experience	--	

W 2	09/13	Understanding Experience	Observe an experience	<p>Lucy Kimbell. Behaving and Experiencing. </p> <p>Jeffrey Bardzell and Shaowen Bardzell. From Usability to User Experience. </p> <p>(their whole book is available through UM Mirlyn)</p> <p><i>Additional Resources (Optional):</i></p> <p>Forlizzi and Batterbee. 2004. Understanding Experience in Interactive Systems. </p> <p><i>John McCarthy & Peter Wright. 2004. Technology as Experience</i></p>	<p>Assignment 1: Analyze an experience in your space of interest.</p> <p>DUE 09/19, 8pm</p>
W 3	09/20	Design: Thinking tools and Inquiry	Museum Design	<p>Tim Parsons. Thinking Tools. </p> <p>Halse and Boffi. Design Interventions as a Form of Inquiry. </p> <p>John Falk & Lynn Dierking. "Understanding the Museum Experience" from: The Museum Experience. </p>	<p>Milestone 1:</p> <p>Concept Proposal</p> <p>DUE 10/03, 8:00pm</p>

W 4	09/27	The Designer: Empathy vs. Accountability	Design Noir	<p>Shteyngart – Super Sad True Love Story</p> <p>Short reads:</p> <p>Design Justice Zine</p>  <p>IDEO. Empathy on the Edge. Links to an external site.</p> <p>Thomas Wendt. Empathy as Faux Ethics Links to an external site.</p> <p>Rob Girling and Emilia Palaveeva. Beyond the Cult of Human-centered Design Links to an external site.</p>	<p>Assignment 2: Write up a one-page reflective account of who you are as a designer</p> <p>DUE 10/03, 8:00 pm</p>
Prototyping and Hacking User Experience Design					
W 5	10/04	The User: Individual vs. Societal, cultural, socio-economic, political	<p>From Creating Personas to Creating Storyworlds</p> <p>Bodystorming & Experience Prototyping</p>	<p>Tim Parsons. Participation Chapter. Co-design</p>  <p>Buchenau & Suri "Experience Prototyping"</p> 	<p>Milestone 2:</p> <p>Document Research Results and Design Process</p> <p>DUE 10/17, 8:00pm</p>

W 6	10/11	Object Worlds	Object Implosions	Tim Parsons. Thinking Objects. Contemporary Approaches in Product Design. Introduction + Chapter 1  Laura Forlano. Posthumanism and Design.  Listen to: 99% Invisible – the Drinking Fountain Links to an external site.	Bring an object to class that relates to your current project idea/status. DUE 10/18 in CLASS
W 7	10/18	Studio: Object Implosions	Object Implosions		Milestone 3: Implementation Plan DUE 11/07, 8:00 pm
W 8	10/25	Design Fiction & Speculative Fiction	Near Future Laboratory	Blythe and Wright. Pastiche scenarios  Dunne & Raby. Speculative Everything. 	

W 9	11/01	Values in Design	Critical Breaking & Making	Schull. Engineering Experience  Rebekah Modrak. Learning to Talk like an urban Woodsman: an artistic intervention  Garnet Hertz. Critical Making Links to an external site.	
W 10	11/08	NO CLASS - Silvia AT CONFERENCE			
W 11	11/15	STUDIO TIME		--	Bring your implementation plan and your design workbook to class. 11/15 - IN CLASS Milestone 4: Work on presentation, video & finalizing prototype - DUE 12/06 noon
W 12	11/15	STUDIO TIME		--	

W 13	11/22	THANKSGIVING - NO CLASS		--	
Week 14	12/06	STUDIO TIME: Final Presentations		--	