Course: DMED 540: Spacetime UX – 3 credits
Date & Time*: Thursday, 10am-2:30pm – May 9-June 28
Term: Summer 2019 - 1194
Instructor: Laura Ballay
Email: laura@uxdesigneducation.com

Note: If you have any mobility or health issues, please let me know in advance as our field trips will require venturing outside and into public spaces.

Please be aware that throughout the term you will need to prepare for class by completing assigned readings. I would strongly recommend getting a head start by reading some of the material before or early in the term.

Class content is always subject to change (for example: a lecture may be replaced by individual/team work sessions). I will always announce in class if there are any changes, and this will also be noted in our class slides. Between-class notifications will be posted to Canvas. Canvas will also always reflect any significant assignment date changes.

Course Goal

This course exposes students to concepts that relate to designing products and services that exist in three and four dimensions (physical space and time). It touches on the topics of physical interfaces, hybrid digital-physical spaces, navigation, wayfinding, service design, designing for emotion, and speculative design/design fiction. We will spend time analyzing and deconstructing experiences to understand if, and how, they work. Students will also create low fidelity, primarily non-digital, prototypes to explore and internalize these concepts.

Though the goal behind this course is serious, I also expect that our class will be fun, a bit eclectic and hopefully thought-provoking and engaging.

Important: Please note that this is NOT a class on:

- UI Design or rules you should follow for "good" user interface design
- Mobile app or web design
- Virtual Reality, Augmented Reality, or Mixed Reality
- Building a complete product from concept to high-fidelity prototype, beta testing and/or MVP
- Visual communications and graphic design: typography, grids, color theory etc
- Quantitative user research methods such as surveys, web analytics or unmoderated remote user testing tools

Course Objectives

Upon completion of this course, students will be able to:

- Explain the core tenets and follow a human-centered design framework
- Describe the benefits and value of empathy
- Apply user experience design principles to products and services that are not exclusively screen based
- Distinguish between different types of design practice (for example: interface design, interaction design, service design, information architecture)
- Demonstrate resourcefulness and creativity with prototyping methods and materials
- Rapidly sketch and ideate designs individually as well as part of a team

Course Topics
This course is structured as four related themes, each centered on a different, yet interrelated, set of questions.

These themes are:

People and Interactions: What is empathy, design, and interaction? How might we better learn about people and apply it to design?

Place and Space: How does physical space change design considerations? What is context and why does it matter? How can we better orient and guide people within a space?

Emotion and Play: How can we design for human emotion? How might we alter behaviors and habits? How can we optimize for play and flow?

Fiction and Futures: How can you show the design of something that doesn't yet exist? What are ways of exploring futuristic concepts?

Format of the course:

This course will partially incorporate a "flipped classroom" model. At times you will be expected to prepare for class by completing readings, assignments or submitting reflections prior to class. This will help you engage in class activities and discussion…and it also means that we can spend our time in class doing and making things instead of relying on the standard boring podium-style lectures.

Class time typically will include discussion, individual and group activities, and field trips. Assessments and feedback on design work show in class will typically be provided verbally during class, and it is expected that students capture this feedback and use it to improve their work. Assignments submitted on Canvas will receive marks/comments in Canvas.

Readings + Related Content:

Throughout the term we will refer to the following materials. All required readings will be posted to Canvas. Many of the readings may be found electronically through the SFU library.

Excerpts from the following publications will be available on Canvas:

John Dewey: Having an Experience
Don Norman: Perceived Affordances; Emotional Design
Bruno Munari: Design as Art
Stephanie Houde and Charles Hill: What do Prototypes Prototype?
Caitlin Kalinowski: Six Steps to Superior Product Prototyping
Article/video on Tom Chi/Google Glass
Nir Eyal: How You Can Help Users Change Habits/How to Build Habits

Optional Readings:

Herb Simon: Science of Design
W.I.B. Beveridge: Art of Scientific Investigation
Jan Chipchase: Mapping the Lives of Your Users/Hidden in Plain Sight
Roman Krznaric: How an industrial designer discovered the elderly
Indi Young: A New Way to Listen
Paul Arthur and Romedi Passini: Wayfinding
David Gibson: Wayfinding Handbook
William Whyte: Social Life of Small Spaces
Susan Hunter: Spatial Orientation
Ryoko Imai and Masahide Ban: Disrupting Workspace
Nathan Kinch: Design for the 5 senses
Mihaly Csikszentmihalyi: Flow
Greg Trefry: Play is the Thing
Scott McCloud: Understanding Comics
Kharis O'Connell: Designing for Mixed Reality

Grading and Evaluation:

Individual Assignments (5 total)	35
Team Projects (5 total)	35
Class Participation	15
Attendance	15
Total	100

For both individual assignments and team projects, your work will be evaluated based on the following rubric:

- **Quality of the work:** Did you put in effort, thought and care into your output? Is your writing /communication clear and without significant spelling/grammatical errors? Did you solicit feedback (i.e. utilize user research techniques)? Did you refine and iterate on your original idea based on the feedback?

- **Taking risks/Innovation:** Did you take risks in your work and go into uncharted territory? Did your work push the bar?
- **Solving Problems:** Have you distinguished between a problem and a solution? How did you go about validating the problem? How did you validate your solution?
- **Connecting, Synthesizing, Transforming:** Are you connecting ideas and concepts throughout the term and building upon the ideas? Are you drawing from your knowledge in other domains?

As a general guideline, you should individually be spending about 5-7 hours/week on your assignments. Remember this is an accelerated class so 12 weeks of material are covered in 8 weeks. Full explanations of these areas will be provided in course materials and discussed on the first day of class.

Course Assignments:

Unless otherwise noted, assignments are always due the Tuesday (by 8pm) before Thursday's class. This allows me time to review your work and tailor our class time to what is needed and most valuable. In many cases, since you're working on physical artifacts, you will need to take photos of your designs and submit that along with a brief description of how it works. You will be expected to be familiar with how to upload and attach your files in Canvas to successfully submit your assignments. If you have any issues with Canvas, please contact the IA before the assignment is due.

Assignments need to be submitted on time unless previous arrangements have been made.

If you miss the deadline, you may submit them up until the morning of class with .2/day penalty (i.e. Tuesday after 8pm = .2 deduction; Wednesday before 8pm =.4 deduction; Wednesday after 8pm until Thursday by 10am = .6 deduction). Unless prior arrangements have been made, assignments after Thursday's class will be marked as unsubmitted and receive a 0.

This class will have a total of 10 assignments consisting of:

- 5 Individual assignments (35% of your grade)
- 5 Team assignments (35% of your grade)

All assignments will be weighted equally. For details on each assignment, please refer to Canvas. Below are the assignment due dates.

Due Date	Theme	Assignment
Week 1- May 9	People + Interactions	Read Munari and Dewey; Simon (optional)
Week 2 – May 16	People + Interactions	Assignment 1. Dewey and Munari Reflection (indiv response) Assignment 2. Cube (indiv submission)
Week 3 – May 23	Place + Space	Assignment 3. Field Trip Notes (team submission) Assignment 4. Toolkit (team submission)
Week 4 – May 30	Place + Space	Assignment 5. Heuristics for an Environmental Experience (team submission)

Week 5 – June 6	Emotion + Behaviors	Assignment 6. Testing/reflecting on Heuristics (team submission) Assignment 7. Heuristic review of an interface (indiv)
Week 6 – June 13	Emotion + Behaviors	Assignment 8. Research summary/microintervention refection (indiv)
Week 7 – June 20	Fiction + Futures	Assignment 9. Game review (indiv response)
Week 8 – June 27 (last day of class)	Fiction + Futures	Assignment 10. Concept/Design Fiction Video (team submission)

Class Participation

This grade is determined by meaningful contributions to the class—meaning that you are engaged, enthusiastic, a participant in discussion and involved in class activities. As a show of respect to your peers and faculty, social media, cellphones and all devices should remain off and unused unless they are appropriate to class activity. Students should also not sleep in class.

Fine print: A student who habitually does not actively participate, sleeps or inappropriately uses social media, messaging or devices will be given one written warning. Following this, if s/he continues to not actively participate, or use media/devices, the student will receive a 0/15 for participation portion of grading.

Note that attendance is calculated separately.

Attendance:

Attendance is mandatory and will be taken at every class. Because the format of the class depends largely on the full participation of the class, it is critical for students to arrive at class on time and stay the entire class. **If you arrive late by more than five minutes or leave class early without permission of the instructor, you will be marked as absent.** If students must arrive late or miss class for an excusable reason, you need to email me for written permission IN ADVANCE. This means I need to reply back with permission. Students who are unavoidably absent due to illness, emergency or disability should notify me of their situation as soon as reasonably possible. Note that attendance is calculated separately.

Fine print: More than one unexcused absence will receive a 0/15 for the attendance portion of grading. In other words, you get one "free pass" to use at your discretion before it adversely impacts your grade.

Course Schedule

Class	Theme	Topic
Before class		Start your reading ☺: Dewey, Munari and Simon Reading
Week 1 – May 9	People + Interactions	**Primary topic: Four orders of design** **10a – 11:30a** In-class discussion: • Sorting exercise • What is design? **12p – 2:00p** In-class activities: • Affordances exercise • Cube exercise Due May 14: 1. Dewey, Munari and Simon Reflection (indiv response) 2. Cube (indiv submission)
Week 2 – May 16	People + Interactions	**Primary topic: Empathy** **10a – 2:00p** Empathy Field Trip (until 1:00) Field trip Show and Tell (1p – 2p) Due May 21: 3. Field Trip Notes (team submission) 4. Toolkit (team submission)
Week 3 – May 23	Place + Space	**Primary topic: Wayfinding + How Space Works** **10a – 11:00a** In-class discussion: • Toolkit Show and Tell • Digital heuristics exercise **11:00 – 2:00p** Physical heuristics warm-up @ CDM Heuristics Field Trip Due May 28: 5. Heuristics for an Environmental Experience (team)

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Week 4 – May 30	Place + Space	**Primary topic: Evaluation + Validation** **10a – 11:30a** In-class discussion: • Heuristic evaluation • How might you assess a space? **11:30a-2pm** Assessing Heuristics Field Trip Due June 4: 6. Testing/reflecting on Heuristics (team) 7. Heuristic review of an interface (indiv)
Week 5 – June 6	Behavior + Emotion	**Primary topic: Prototyping, Evaluation + Validation** **10a – 12p** In-class discussion: • Recap: Why Prototype? How can you Prototype? • User Research ever-so-briefly **12p – 2p** Interviewing, Researching + Observing Due June 11: 8. Research summary/microintervention refection (indiv)
Week 6 – June 13	Behavior + Emotion	**Primary topic: Games and Play** **10a – 11am** In-class discussion: • Reading on flow, play and games • Discussion on flow, play and games **11:30-2:00pm** Playing physical, social and board games Due June 18: 9. Game reflection (indiv)
Week 7 – June 20	Fiction + Futures	**Primary topic: Ideation + Storytelling** **10a-11:30a:** In-class discussion: • Elements of a good story • What makes for good design fiction **11:30a – 2p:**

		In-class Activity: Staging microinterventions @ CDM with lo-fi prototyping Rapidly ideating stories; Storyboarding Storyboards for design fiction Due June 27 (on last day of class): 10. Concept/Design Fiction Video
Week 8 – June 27	Fiction + Futures	**Primary topic: What did we do?** **10a-11:30a:** Design fiction screening Review the course **11:30-Noon:** Theresa visits **12p-2:00p** Wrap-up

Written & Spoken English Requirement:

Written and spoken work may receive a lower mark if it is, in the opinion of the instructor, deficient in English.

Religious Accommodation:

The university accommodates students whose religious obligations conflict with attendance, submitting assignments, or completing scheduled tests and examinations. Please let your instructor know in advance, preferably the first week of class, if you will require any accommodations on these grounds.

Academic Integrity

MDM considers plagiarism to be the most serious academic offense that a student can commit. Regardless of whether or not it was committed intentionally, plagiarism has serious academic consequences and can result in expulsion from the university. Plagiarism involves the improper use of somebody else's words or idea's in one's own work.

It is the student's responsibility to ensure you fully understand what plagiarism is. Please see the SFU website for an explanation of the various types of plagiarism and to take the plagiarism tutorial: http://www.lib.sfu.ca/help/writing/plagiarism

Grading Profile

A+	*95-100*
A	*90-94*
A-	*85-89*
B+	*80-84*
B	*75-79*
B-	*70-74*
C+	*65-69*
C	*60-64*
F	*0 - 59*

Policies

The student and academic policies of the Masters of Digital Media Program and of Simon Fraser University apply within this course.

Relevant SFU policies can be found at:

- Graduate General Regulations
  http://students.sfu.ca/calendar/for_students/grad_regulation.html
- Academic Honesty and Student Conduct Policies
  http://www.sfu.ca/policies/Students/index.html
- Teaching and Instruction Policies
  http://www.sfu.ca/policies/teaching/index.htm
- University Policies (complete site)
  http://www.sfu.ca/policies

CDM

Schedule of events open to cohort:

Sign up by…	Class	Topic
May 4, max 15	May 10 12 – 2pm	**Primary topic: Four orders of design** **12p – 2:00p** • Affordances exercise • Cube exercise
May 4, max 12	May 17 10am-2pm	**Primary topic: Empathy** **10a – 2:00p** Empathy Field Trip (until 1:00) Field trip Show and Tell (1p – 2p)
May 18, no max	May 24 11am-2pm	**Primary topic: Wayfinding + How Space Works** **11:00 – 2:00p** Physical heuristics warm-up @ CDM Heuristics Field Trip
June 4, no max	June 7 12pm-2pm	**Primary topic: Games and Play** **12p – 2p** Playing physical, social and board games
June 8, max 15	June 14 10:30am-2pm	**Primary topic: Prototyping, Evaluation + Validation** **10:30a – 2:00p** 10:30-12p: Interviewing + Observing 12 – 2:00: Staging playful physical interventions @ CDM with lo-fi prototyping
June 22, max 4	June 28	**Primary topic: What did we do?** **12p-2:00p** "Having an experience" debrief/celebration – place TBD

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