IDP 116: Introduction to Design Thinking

Interterm 2018

Course Schedule: January 16th to 22nd - 1.10pm to 4.00pm

Location: Capen Annex
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Office Hours: by appointment, in Capen Annex

Course Website: http://smithiesdesign.com/idp11618

This is a 1-credit Interterm course. The estimated daily time on this course will be 3 hours of in-class engagement and 2.5 hours of preparation or application outside of class.

Our one required reading will be available for download on the course website.

Course Description

This introduction to design thinking skills emphasizes hands-on, collaborative design driven by user input. Students will critique their own and each other's designs, and review existing technology designs to evaluate how well design principles are guided by the practices of the intended user. The class will focus on using qualitative research observations to inspire new approaches to design. Students will iteratively design a multimedia approach to framing problems, to communicating ideas, and to exploring the ethical, political, and social implications of design in the world.

Course Objectives and Topics Covered

Students in this course will appreciate that a "design" results in social action or interventions that are not limited to new products and new services, but include new experiences and new narratives.

Students will develop the following design thinking mindsets:
Human-centered – design that is driven by empathy for an articulated "other."
Experimental – learning through iteration, learning with materials.
Collaborative – leadership and joint effort in vision and execution of design tasks.
Metacognitive – reflective awareness and conscious use of process techniques.

Assignments & Grading

There will be daily assignments which are tailored to guide students in the delivery of a complete design project. All assignments should be posted on the course website.

Reading and Reflection on Process (10% in 2 parts)
– to be completed before class on 17 January and on 20 January, respectively
There is one reading. We will discuss the reading over several days in class. Students will be evaluated on two short written responses to this reading. Each response should be no longer than 250 words. Pay attention to the discussion of process techniques in the readings. Students are invited to pursue any theme or topic of reflection they deem appropriate for their written response.

Part 1 – Reflection 1 (5%).
The first response should be completed by 17 January. What are some of your concerns/expectations in anticipation of this week? What is your interpretation of design thinking and how might it lead to philosophical and practical questions about creativity, productivity, social change, progress, and the human condition?

Part 2 – Reflection 2 (5%)
The second response should be completed by 20 January after you have tried your hand at prototyping. What are some new ideas that have arisen from your applications of design thinking this week? How can these be extended beyond the scope of the class? What has changed about your process or perspective on design since the start of the class?

Fieldwork (30% in 2 parts)
– both parts to be completed before class on 18 January
The purpose of this fieldwork is to go out with your teammate(s) and to observe your user in their natural environment. The fieldwork can be completed in one long trip (~2 hours) or in two shorter trips.

Part 1 - Ethnographic Needfinding (15%)
Watch your user do their thing for at least 10 minutes. If this is not possible, ask them to simulate doing it for you. Conduct a 30 minute interview with your user. Record the interview (audio with some video if appropriate), take notes and photographs of the user, their personal (or working) space, and any tools essential to their activities. Compile a user profile inspired by the template provided in class. Transfer your notes to post-its making sure to limit yourself to one observation/question per post-it (but user as many post-its as you need). We will build on this work in class on the 19th.

Part 2 - Technology Design Review (15%)
Review an existing technology that has been designed to help your intended user. **Go out and watch this tool in use *in situ*.** If, for example, your user is a barista whose life is all about making coffee then pick a tool that is essential to their work and observe them making coffee. Observe how your user engages with this tool. Draw a

sketch of the tool, take a photograph of it in use. What need has it been designed to address? How well does it do so? How could the design be improved? Jot down notes on what you have learnt from looking at the tool through the eyes of this user. How does the tool extend your user's capabilities or alter their experience? Supplement your observations with some background research on the tool so that you have a fuller understanding of it's purpose, limitations, and variations. Come prepared to present your review in class.

Team Dynamics and Safety (required but not graded)
– to be completed before class on 19 January
Meet up with your teammate(s) after class for coffee or a drink or a special treat. Save the receipts for a refund! Get to know each other. Discuss your strengths and what may be obstacles to collaboration. Determine how you will make decisions as a team, what roles each member will play on the team, and how you'll hold each other accountable. Bring a note with your roles to class on the 18th.

Be sure to complete safety training if you haven't already done so. Successfully completing training will grant you access to the prototyping studio outside class hours.

Prototype Portfolio (50% in parts)
Emphasis will be placed on process and portfolio work of students. While teamwork will merit a team grade, individual members of the team must demonstrate their contributions to the collaborative efforts of the team.

Part 1 – Build a prototype, demo the prototype in class, explore areas for improvement. **Due at the end of class on 19 January.**
Part 2 – Build a prototype, conduct a test of it with the user, generate ideas on how to improve. If appropriate, feel free to invite your users to test at Capen Annex on 22 January. **Due before class on 22 January.**
Part 3 – A visual and multimedia story about the user, their need, the evolution of your prototype that demonstrates how testing guided all improvements and new directions pursued (pivots). **Due 11.59pm on 22 January.**

The portfolio will be weighted for the following qualities:
- "Embrace of failure that results in demonstrable learning or new understanding." The designers must explain their process, describe their iterations, and detail how they incorporate user feedback.
- "Human-centeredness." There is evidence the design is inspired by users. The role of the user's story on the evolution of the project is clear and evocative.
- "A major intellectual risk was taken." There is evidence that "bad" ideas were entertained in a productive and reflective way for the purposes of creating moments of learning.
- The team shows the ways they work together, and shows examples of reflective teamwork in action. Each member of the team has a notable contribution to the collective effort and overall result.

Community Membership (10%)
Contributions to other teams' efforts and to class discussions that foster a spirit of collegiality and intellectual generosity will be rewarded. Leadership and partnership in keeping our learning space open and accessible to all students will be most valued.

Late Submissions
An assignment is treated as a late submission if it is not ready for delivery on the due date. Late submissions will not be accepted. Should students experience extenuating circumstances, which require late submissions, they should work directly with the instructor and their Class Dean to accommodate changing needs.

Honor Code
Throughout this course, it is expected that students will adhere to the Smith College Honor Code. It is a violation of the Honor Code to submit another's work as one's own or to provide one's work to another student for submission. That said, collaboration is strongly encouraged, and indeed, the goal of the course is to facilitate opportunities to work with fellow students and explore concepts learned in imaginative ways. Team project submissions must outline the role and contributions of each team member. Where possible, acknowledge outside help and insights that led to breakthroughs in your work. If there are concerns about what is considered to be an Honor Code violation students must refer to the College guidelines and/or talk to the instructor. Any violation of the Honor Code is serious and will be presented to the Honor Board for their adjudication.

Disability Accommodation
Contact the Office of Disability Services in College Hall 104 or ods@smith.edu for any accommodations needed. This must be done as soon as possible to ensure accommodations can be implemented in a timely fashion.

Course Schedule

Tuesday 16 January

In class: *What is design?*
  • The Notebook Design Challenge
  • Show and Tell
  • Syllabus overview, teams, and users

After class:
Reading and Reflection on Process – Part 1.
Preliminary preparation for Fieldwork assignment (meet with teammates, pick user, contact users, schedule time for fieldwork).

Wednesday 17 January

In class: *What is the need?*
- Team dynamics
- Empathy and needfinding
- Ethnographic methods

After class:
Fieldwork Parts 1 and 2.

Thursday 18 January

In class: *Problem framing not problem solving*
- Empathy mapping: Making sense of fieldwork observations.
- Define: Distilling data into insights that guide design.
- Ideate: Tips and techniques for brainstorming.

After class:
Team dynamics.
Select a promising idea from your brainstorming to focus on in class tomorrow.

Friday 19 January

In class: *Why prototype?*
- Prototype test series: Build a prototype and conduct a demo in class.
- Test and Pivot: Use feedback to deliberate on revisions and iterations.
- Discover the Prototyping Studio.

After class:
Prototype test series (conducted with user). Incorporate major and minor revisions revealed by testing your prototype with the user. Preparation for Show and Tell on Monday 22nd. Begin work on prototype portfolio.

Monday 22 January
In class:
- Storytelling
- Show and Tell
- Debrief

After class:
Complete and submit prototype portfolio.