Note: This syllabus may represent a past offering of this course and future course offerings may differ.

HCDE 313: Introduction to User Research

Instructor: Jennifer Turns
Quarter/Year: Autumn 2012
Course Schedule: Lecture, Mondays and Wednesdays, 3:30-5:20PM
Lab, Thursdays, 1:30-2:20PM or 3:30-4:20PM

Course Description
This course will introduce user research methods, how to apply them to engineering design problems, and how to effectively communicate the results of user research. This course has two lectures weekly, as well as one quiz section. Throughout the quarter students will be introduced to a variety of user research methods, including interviews, surveys, field research, and usability tests. Quiz sections will include hands-on workshops, and time for students to work on homework assignments. The class will study samples of each of these methods, and review the circumstances that are appropriate for each method. In addition, the class will discuss the process one follows when conducting research such as selecting research sites, sampling, and interacting with study subjects. Ways to convey user research that are effective and informative will also be discussed, as well as issues of research ethics.

Course Objectives
By the end of the course, students will have learned to
- Understand how user research applies to engineering design problems
- Identify a range of user research methods and the associated instruments
- Ask the right questions to determine which kind of user research is best suited to different circumstances, including scope and timeline of a study
- Create user research instruments
- Construct a research problem and specific research question based on relevant literature, or experience, including identifying relevant variables
- Select and apply appropriate data analysis methods.

Grading and Assignments
- Getting started mini-project (5%)
- Project 1: Conduct 3 interviews (20%)
- Project 2: Design and implement an online survey (20%)
- Project 3: Conduct a field study (20%)
- Project 4: Communicating results (20%)
- Final synthesis (15%)
- In-class participation (required)
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Major Assignments
In this course, work will revolve around four major assignments. The goal for each of these assignments is to practice the method; understand human needs, skills, and desires as they relate to each student’s chosen domain; communicate findings; and begin generating ideas for design.

Assignment 1: Conduct 3 Interviews. Conduct three interviews with individuals who all use the same product, service, technology, or location. The student will develop inclusion/exclusion criteria, a recruitment strategy, and an interview protocol. Then, conduct three interviews; take detailed interview notes while interviewing; summarize findings; and present 3 – 5 design recommendations for improving the product, service, technology, or location the participants currently use.

Assignment 2: Design & Implement an Online Survey. Design and implement an online survey targeting individuals who all use the same product, service, technology, or location. This population can be the same as the population chosen for Assignment 1, if the student believes (s)he can recruit enough participants to satisfy the requirements of this assignment. For this assignment, students will develop an inclusion/exclusion criteria, recruitment strategy, and survey protocol. Then, they will publish the survey (using Catalyst, Survey Monkey, or another such tool), recruit at least 15 participants to take the survey, analyze and summarize their findings, and present 3 – 5 design recommendations for improving the product, service, technology, or location the participants currently use.

Assignment 3: Conduct a Field Study. Conduct a field study to better understand how individuals interact with a particular product, service, technology, or location. This population can be the same as the population you chose for Assignment 1 and/or 2. Students can choose to conduct a contextual inquiry, engage in participant observation, or shadow participants as they perform tasks. For this assignment, students will prepare a rationale for their choice of environment and method. Then, they will conduct a field study, take detailed notes while conducting the study, summarize their findings, and present 3 – 5 design recommendations for improving the product, service, technology, or location the participants currently use.

Assignment 4: Communicating Results. Practice synthesizing and communicating your research findings so they might be more useful for a design or marketing team. Students will create 3 – 5 personas depicting individuals who interact with a particular product, service, technology, or location. This population must be the same as a population chosen for Assignments 1, 2 and/or 3. The personas must be based on data collected from these activities, as well as supplementary secondary research (e.g. statistics, existing data). Then, students will write or draw one possible user scenario for how users currently interact with the chosen product, service, technology, or location.
Additional notes on assignments.

- Each major project will have an associated project brief with additional details on the goal of the project, required milestones, specifications for the final report, and grading criteria.
- Grading on the projects will be based on the following general rubric: Meets requirements (3.0), exceeds requirements (3.5), professionally insightful (4.0), and does not meet requirements (less than 3.0). We will unpack these categories for each major project.
- Reflections will be required at the end of each assignment. Please take time to think to reflect on your experiences and thinking about what you are learning.

Course Schedule

WEEK 1: Introducing User Research
Lecture Introduction to user research and human-centered design
Project Initial user research and design experience
Readings Courage Chapters 1 and 3
Lab Group formation

WEEK 2: Interviewing, part 1
Lecture Introduction to interviewing, planning an interview
Project Conducting interviews (project 1)
Readings Courage Chapters 4, 5, 6, and 7
Lab Review of interview plan

WEEK 3: Interviewing, part 2
Lecture Analyzing interview data
Project Conducting interviews (project 1)
Readings Courage Chapter 12
Lab Sharing/feedback on interview analysis and report
Speaker Ken Lunytnz

WEEK 4: Surveying, part 1
Lecture Introduction to surveying, planning a survey
Project Conducting surveys (project 2)
Readings Courage Chapter 8
Lab Sharing/feedback on survey plan

WEEK 5: Surveying, part 2
Lecture Analyzing survey data
Project Conducting surveys (project 2)
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Readings   TBD
Lab        Sharing/feedback on survey analysis and report
Speakers   TBD

WEEK 6: Field study, part 1
Lecture   Introduction to field studies, planning a field study
Project   Conducting a field study (project 3)
Readings  Courage Chapter 6
Lab        Sharing/feedback on field study plan

WEEK 7: Field study, part 2
Lecture   Analyzing field study data
Project   Conducting a field study (project 3)
Readings  TBD
Lab        Sharing/feedback on field study analysis and report
Speakers  TBD

WEEK 8: Synthesis (preview)
Lecture   How is this preparing you...
Project   Final synthesis
Readings  TBD
Lab        Initial synthesis exercise

WEEK 9: Communicating results
Lecture   Introduction to personas and scenarios
Project   Communicating results (project 4)
Readings  Courage Chapter 2, 12

WEEK 10: Communicating results
Lecture   Personas and scenarios (continued)
Project   Communicating results (project 4)
Readings  TBD
Lab        Sharing/feedback on personas and scenarios
Speakers  TBD

WEEK 11: Synthesis
Lecture   Looking back and looking ahead
Project   Final synthesis
Readings  TBD
Lab        Sharing/feedback on final synthesis presentations