Course Syllabus

User Experience Research Methods

Course Description
This is a research methods course designed to prepare students to conduct user research in industry and to provide foundational knowledge needed for academic research. It examines the theoretical and epistemological differences between research paradigms and provides an overview of qualitative, quantitative and mixed-method approaches. It overviews user-centered design (UCD) methods and uses Contextual Inquiry/Contextual Design as the backbone for a research project, incorporating related formative UCD methods and techniques. It is a project-based course, where students conduct a semester-long project to prepare them for the HCIM Capstone as well as other types of formative user research.

Learning Outcomes
After successfully completing this course you will be able to:
1. Explain similarities and differences between research paradigms and identify how these paradigms are used in academic and industry research.
2. Identify ethical issues with user research and explain how they are addressed in academia and industry.
3. Describe a variety of formative research techniques used within the field of human-computer interaction.
4. Explain the main elements of Contextual Design as a form of User Centered Design.
5. Design, plan and execute a user research project.
6. Conduct secondary research needed to understand a problem domain and relevant technology.
7. Gather qualitative field data, analyze it and present findings using appropriate visual models.
8. Apply structured techniques to ideate product ideas and present them in a professional manner.

Required Resources
Communication: inst710-2018fall.slack.com/
Assignment submission & grades: myelms.umd.edu/courses/1252445

Text:
Contextual Design, 2nd ed.
Design for Life (2016)
Holtzblatt, K, & Beyer, H.
eBook ISBN: 9780128011362
Paperback ISBN: 9780128008942

Updated 8/28/2018
Topics Covered

Types of research
- Overview of research methods - experimental, qualitative, quantitative, etc.
- Survey of formative UCD methods

Related topics
- Case Studies
- Usability Testing
- Experiments
- Ethnography
- Action Research
- Questionnaires/Surveys
- Diaries
- Observation
- Focus Groups
- Grounded Theory
- Content Analysis
- Log Analysis
- Social Network Analysis
- Empathy Mapping

Contextual Design
- Overview of CD
- Project Planning
- Contextual Inquiry/Contextual Interviews
- Interpretation Sessions
- Affinity Diagrams
- Traditional CD Models
- Experience Models
- The Wall Walk
- Visioning
- Product Concepts

Schedule
This preliminary schedule provides approximate dates of topics and major assignments. It is very likely to change. Changes will be posted in the Slack #announcements channel. I may be traveling during certain class meetings. While I am away, class sessions will be handled as online sessions and/or with a guest lecture.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics &amp; readings (before class)</th>
<th>Assignment</th>
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</thead>
</table>
| 1. Aug 27 | Introductions
Intro Contextual Design & Contextual Inquiry
Contextual interviews | Conduct a contextual interview |
| 2. Sep 3  | Intro semester user research project
Interpretation Sessions
Read: CD - chapters 1-4 | Conduct & interpret CIs to produce affinity notes |
| 3. Sep 10 | Research paradigms
Purpose & research questions
Quantitative, qualitative and mixed methods
Types of HCI research
Read: Pickard, A. (2013). Research Methods in Information, 2nd ed. – Introduction and chapter 1 | Conduct & interpret CIs to produce affinity notes |
| 4. Sep 17 | Ethics
Secondary research – literature reviews, market research
Readings TBA (also embedded in CITI training) | Complete CITI training
Create secondary research summary
Conduct & interpret CIs to produce affinity notes |
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Notes</th>
</tr>
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</table>
| 5. Sep 24 | Affinity Diagrams  
*Read: CD – chapters 5 & 6* | Affinity diagram |
| 6. Oct 1  | Traditional CD Models  
Experience Models  
*Read: CD – chapters 7 & 8* | Create traditional and experience models |
| 7. Oct 8  | Synthesis - Consolidating diagrams and models  
*Readings TBA* | Consolidate affinity and models |
| 8. Oct 15 | Visioning – Using the Data and Models  
*Read: Chapters 9-11* | Generate & evaluate product visions |
*Readings TBA* | Generate & evaluate product concepts |
| 10. Oct 29 | Visual design & communication  
*Readings TBA* | Produce digital visual presentations of models and concepts, project processes suitable for client presentation and portfolio |
| 11. Nov 5 | Planning a User Research Project  
*Readings TBA* | Create user research plan (v1) |
| 12. Nov 12 | TBA | Extend & refine research plan |
| 13. Nov 19 | **Thanksgiving Break – no class** | |
| 14. Nov 26 | TBA | |
| 15. Dec 3 | **Last class Dec 5**  
TBA  
Course evaluations | |
| 16. | **Final assignment** - Due by the end of the normal final exam time slot as published in Testudo, typically mid-semester. | Revised user research plan (v2) |

**Grading**

Two types of marks are used in this course: Letter grades and check marks, both with plus (+) and minus (-) modifiers. These have equivalent numeric values, similar to GPAs. Your final grade for the course is computed as the weighted average of all your assessment grades. The marks and equivalent values are:
<table>
<thead>
<tr>
<th>Letter mark</th>
<th>Check mark</th>
<th>Numeric value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td></td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>✓ +</td>
<td>4.0</td>
<td>Reflects work, knowledge or skill that is equivalent to that which an entry-level professional or doctoral student would produce.</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td></td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>✓</td>
<td>3.0</td>
<td>Reflects work, knowledge or skill that is competent graduate work but is not yet equivalent to that which an entry-level professional or doctoral student would produce.</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>✓ -</td>
<td>2.0</td>
<td>Reflects substandard graduate work</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td>0</td>
<td>E.g., missing assignment</td>
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**Assessments**

<table>
<thead>
<tr>
<th>Activity/assignment</th>
<th>Type</th>
<th>Percent of grade</th>
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<tbody>
<tr>
<td>Affinity notes – Conduct contextual interviews, interpret them with teammates, and produce affinity notes (part of semester-long project)</td>
<td>Team</td>
<td>10</td>
</tr>
<tr>
<td>Affinity diagram (part of semester-long project)</td>
<td>Team</td>
<td>5</td>
</tr>
<tr>
<td>Experience models (part of semester-long project)</td>
<td>Team</td>
<td>10</td>
</tr>
<tr>
<td>Client presentation – user research, vision, product concepts, next steps (part of semester-long project)</td>
<td>Team</td>
<td>15</td>
</tr>
<tr>
<td>User research plan – v1</td>
<td>Individual</td>
<td>10</td>
</tr>
<tr>
<td>User research plan – v2</td>
<td>Individual</td>
<td>20</td>
</tr>
<tr>
<td>Completed CITI training</td>
<td>Individual</td>
<td>5</td>
</tr>
<tr>
<td>In-class activities – e.g. short written response</td>
<td>Individual</td>
<td>15</td>
</tr>
<tr>
<td>Research method (RM) presentation – Each team will present a RM from the “related methods” topics list above. Selections will be made during week 3. Presentations will start week 5.</td>
<td>Team</td>
<td>10</td>
</tr>
</tbody>
</table>

I am happy to discuss any of your grades with you, and if I have made a mistake I will correct it. Any formal grade disputes must be submitted in writing within one week of receiving the grade.

Team-based assessments will include a peer evaluation element and may be adjusted to reflect individual contributions.
Teaching Notes
Each week will typically follow this pattern, with some exceptions:

Before class (preparation):
- Do assigned readings and pre-class activities; watch any assigned videos.

In class – our time together in class is precious:
- Be ready to start on time. Arrive 5 minutes before class starts; have any paper assignments ready to hand in; have your notebook, sticky notes & pens ready.
- We will use a mix of lecture, discussion and lots of hands-on activities to help you apply the materials;
- We will make extensive use of paired and group work in class;
- Class is not a time for solo learning. As members of a learning community, we are mutually responsible to each other as learners. Each of us has to be fully engaged with each other in the activities. We have to be supportive of each other as we try to explain or demonstrate something new, as we inevitably make mistakes. We aren’t successful unless everyone is learning.
- Your in-class grade will come from work you produce during class hours, for example an exercise or a short written response to a question about the readings.

After class (assignments):
- There will be regular assignments to help you practice, reflect and extend your understandings.
- We will use Slack (Slack.com) as an online forum that you can use to ask/answer questions, get clarifications, point out my mistakes, etc. Sign up immediately and check it regularly.

Here is my suggested general strategy for working on assignments:
1. Start early – don’t wait. That will give you time to work through the problems and get help as needed.
2. When you run into a problem or confusion, spend 5-10 minutes trying to solve it on your own.
3. Then take a break. Sometimes this will allow you to come back and see something you missed. Letting your sub-conscious work on it for a while (unsupervised, so to speak) will often lead to useful ideas.
4. If you’ve spent 20-30 minutes and still are stuck, post your question online in Slack. We are here to help each other, so don’t beat your head against a brick wall - ask for help! When you post, provide as much information as you can. Often it helps to post a photo or screenshot with the problem.
5. I will be monitoring and will respond as soon as I am able, usually within a day (longer during weekends, travel, etc.).
6. If you see a question in Slack that you can answer, or if you have an idea, please respond. Don’t wait for me. You will be helping your colleagues.

I encourage you to read my teaching philosophy and approach at https://questionablepedagogy.com/teaching/. It provides more detail on why I design and teach our course this way.

Policies
The purpose of the university’s policies (www.president.umd.edu/policies/) is to enable all of us to fully participate in an equitable, accessible and safe academic environment so that we each can be challenged to learn and contribute most effectively. Policies are, by necessity, often written in impersonal, legalistic language. Nevertheless, we are all responsible for following them. The following sections summarize selected policies as implemented for this course and provide links to additional information. We are all responsible for knowing and following all university policies.
Academic Integrity
Academic dishonesty is a corrosive force in the academic life of a university. It jeopardizes the quality of education and deprecates the genuine achievements of others. Apathy or acquiescence in the presence of academic dishonesty is not a neutral act. All members of the University Community - students, faculty, and staff - share the responsibility to challenge and make known acts of apparent academic dishonesty. As a student, you have a responsibility to avoid violations of the Code of Academic Integrity. This includes:

- Cheating: "Intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise."
- Fabrication: "Intentional and unauthorized falsification or invention of any information or citation in an academic exercise."
- Facilitating Academic Dishonesty: "Intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty."
- Plagiarism: "Intentionally or knowingly representing the words or ideas of another as one's own in an academic exercise."

For additional information on the Code of Academic Integrity see shc.umd.edu/SHC/StudentAcademicDishonesty.aspx.

Use computers only for specified activities
We use computers for a number of activities during class. But, in my experience, and based on the research evidence, the reality is that they also present an irresistible distraction and detract from the cooperative learning environment. Researchers have found that these distractions do in fact interfere with learning and active participation. For that reason, we only use computers for specified activities (except when required for ADS accommodations). Please plan to take your notes the old-fashioned way - on paper in a journal.

Phones are not permitted at any time
Please make the responsible and respectful decision to refrain from using your cellphone in class. For the science behind these policies watch: http://youtu.be/WwPaw3Fx5Hk.

Late Work
I do not accept late work unless I have approved it by prior arrangement. If you have to miss a deadline, you should inform me as soon as possible, indicating the reason and when you propose to submit your work. If you have a legitimate reason, such as a major medical or family emergency, I may agree to an extension or makeup work, which I will grade at the end of the semester. Documentation of the emergency (e.g. a doctor's letter) may be required.

Students with Disabilities
The University is ethically and legally obligated to provide appropriate accommodations for students with disabilities. The campus’ Disability Support Services Office (DSS) works with students and faculty to address a variety of issues ranging from test anxiety to physical and psychological disabilities. If a student or instructor believes that the student may have a disability, they should consult with DSS (301-314-7682, dissup@umd.edu, www.counseling.umd.edu/DSS/). To receive accommodations, students must first have their disabilities documented by DSS. The office then prepares an Accommodation Letter for course instructors regarding needed accommodations. Students are responsible for presenting this letter to their instructors.

Attendance Policy
University policy excuses the absences of students for illness, religious observances, participation in University activities at the request of university authorities and compelling circumstances beyond the student's control. Students who miss a single class for a medical reason are not required to provide medical documentation, but...
students who are absent more than once are responsible for providing various forms of documentation, depending on the nature of the absence. For additional information on attendance policies, see president.umd.edu/policies/iii510a.html (religious observance) and president.umd.edu/policies/v100g.html (medical absence). You must notify me of any planned absences at the beginning of the semester or as soon as you become aware of them.

Syllabus Change Policy
This syllabus is a guide for the course and is subject to change with advance notice. Changes will be posted in Slack.

Names/Pronouns and Self Identifications
The University of Maryland recognizes the importance of a diverse student body, and we are committed to fostering equitable classroom environments. I invite you, if you wish, to tell us how you want to be referred to both in terms of your name and your pronouns (he/him, she/her, they/them, etc.). The pronouns someone indicates are not necessarily indicative of their gender identity. Visit trans.umd.edu to learn more.

Additionally, how you identify in terms of your gender, race, class, sexuality, religion, and dis/ability, among all aspects of your identity, is your choice whether to disclose (e.g., should it come up in classroom conversation about our experiences and perspectives) and should be self-identified, not presumed or imposed. I will do my best to address and refer to all students accordingly, and I ask you to do the same for all of your fellow Terps.