SI 422: Needs Assessment and Usability Evaluation
Syllabus Winter 2020

Revised syllabus for remote activities from March 16 to April 21. Main changes highlighted. See instructions here for how to join Zoom using a computer or phone.

Instructor: Gabriela Marcu
(gmarcu@umich.edu)  
Office Hours: Fri 9-11am (and by appointment)  
Lecture:
[001] Mon 10-11:30am  
Zoom 775-766-7938  
Zoom 477-341-861 (Register)

GSIs:
Bettie Zhang
(zhcy@umich.edu)  
Office Hours: Tues 1-3pm  
Discussion Sections:
[002] Wed 10-11:30am  
Zoom 341-397-636  
[005] Mon 4-5:30pm  
Zoom 664-983-346

Sunny Kim
(minseon@umich.edu)  
Office Hours: Wed 11:30-12:30pm  
[003] Wed 10-11:30am  
BlueJeans 109 254 657  
BlueJeans 111 084 902  
Mon 4:30-5:30pm  
BlueJeans 450 439 704  
[004] Mon 3-4:30pm  
BlueJeans 160 521 102 1

Shannon Weber
(webersh@umich.edu)  
Office Hours: Mon 3:00-4:00  
[006] Mon 4:30-6pm  
Zoom 824-901-938  
Zoom 782-199-882  
Thurs 5:00-6:00  
Zoom 805-128-584  
[007] Tues 10-11:30am  
Zoom 158-607-988

Students must attend the discussion section for which they are registered.

IAs:  
Kayla Guerrero [002]  
(krgu@umich.edu)  
Courtney Hunter [003, 007]  
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Reeshma Kumar [005]  
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Lauren Zielinski [004, 006]  
(laurzie@umich.edu)

Course Overview

Have you ever been frustrated navigating the menu of a device or an application? Have you given up trying to reprogram the clock on your microwave? Does Siri ever give you the answer you are looking for?
Many products fail because they are designed with little knowledge of user desires, needs, and capabilities. It doesn’t have to be this way. Any product can be more successful when developed through a process that identifies how it will be used, elicits input from potential users, and watches how it functions in real time with real users.

This course is designed to equip you with the hands-on knowledge and skills necessary for evaluating and testing the usability of products – website, mobile device, or some form of electronically mediated service. Throughout the term, we will be working on individual, pair, and group projects that apply usability techniques to real products of your choice. As such, it is the class is focused on enabling you to develop critical thinking skills that drive your ability to:

- Formulate research objectives, goals, and questions
- Create solid research plans
- Conduct nuanced observational analysis
- Create well-supported findings and recommendations

Class attendance is critical, as the course will be “flipped” as much as possible; that is, the expectation will be that you will be reading and watching content outside of class, and getting hands-on experience and guidance in class.

**Course Objectives**

In this course you will learn to evaluate interactive products using a range of methods, including:

- Comparison of features and usability with the competition (competitive/comparative analysis)
- Group task analysis (group walkthrough)
- In-depth analysis of user needs (observation and ethnographic methods)
- Asking users about their opinions and experiences (interviews and surveys)
- Identifying a set of target users and uses (personas and scenarios)
- Using checklists to evaluate the system from several points of view (heuristic evaluation)
- Doing user testing of typical tasks on the system (usability testing)
- Improving details of the user interface (design best practices)
- Monitoring and testing the design of a system (experiments, log analysis)
- Working with a larger team (real-world issues)

The course will be divided into four parts:

1. **Principles, methods, and best practices.** We will spend the first few weeks of the course talking about and practicing writing solid research questions, doing analysis, and learning methods. You will also be expected to participate in studies to build empathy with participants.

2. **Discovery and Strategy.** We will cover the research questions and methods that UX researchers leverage as they learn what user needs are, assist in the formation of strategy, and define what they should build.
3. Design and Development. We will cover and practice the methods are used to understand design documentation.

4. Post-Launch. We will discuss and use methods that UX researchers leverage to help improve features and functions within an existing experience.

Grading

Each week, we will give you background on the methods (through readings and videos), review the methods (in class), have you try them out (in class exercises), and you will apply these techniques in assignments. For many of the assignments, you will submit reports like those you would be expected to submit to partners, clients, or managers in a user experience job.

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<td>Discussion attendance and participation</td>
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**Attendance and Participation**

Learning the content of this course requires practice, because simply reading or thinking about research methods will not work. It is important to actively engage with the content, apply key concepts in hands-on work, and ask questions to ensure your comprehension. Attendance and participation will make up a significant portion of your grade.

**Lecture**

Before each lecture, fill out the [lecture check-in form](#) by 8am that day. You can submit it any time in between lectures, as soon as you are ready to answer the questions:

- **Review:** Please describe any clarification you need about last week’s practice questions (formerly iClicker), or any key concepts so far.
- **Readings:** What is the muddiest part of this week’s readings?
- **Rubric:** Please describe any questions you have about how to apply the rubric to your assignments.

Register for [Zoom using your UM email](#), and use that link to join each lecture. There will also be polls throughout the lecture, asking practice questions (formerly iClicker questions) to check your understanding of the readings and key concepts.

20% of your final grade will be for attendance and participation in lecture. This will be determined on a weekly basis in two ways:

- 0.5 points: Complete the check-in form for lecture by 8am that day.
- 0.5 points: Zoom automatically logs the minutes you spend in each meeting - log 65 minutes in each lecture (audio/video/phone). [Zoom will monitor your computer usage during lecture](#). For full points, do not browse the internet or use your computer for other tasks.
- 1 point total: Lowest two weekly scores out of 1 point will be dropped for second half of the semester (starting 3/16).

**Discussion**

Before each discussion, fill out the [discussion check-in form](#) by 8am the day of your section. You can submit it any time in between discussions, as soon as you are ready to answer the questions:

- **Assignment instructions:** What questions do you have about how to complete the assignment, after reading the assignment instructions document?
- **Communication:** How have you communicated with your group and/or instructional team this past week?
- **Progress:** What have you contributed to group work? What progress have you made on the assignment?
Use the Zoom links/IDs listed above to join discussion remotely. Use the chat function to raise any technical issues or ask questions about the content.

20% of your final grade will be for attendance and participation in discussion. This will be determined on a weekly basis in two ways:

- 2.5 points: Complete the check-in form for discussion by 8am that day.
- 2.5 points: Zoom automatically logs the minutes you spend in each meeting - log 65 minutes in each discussion (audio/video/phone). **Zoom will monitor your computer usage during discussion.** For full points, do not browse the internet or use your computer for other tasks.
- 5 point total: Lowest two weekly scores out of 5 points will be dropped for second half of the semester (starting 3/16).

**Assignment Late Penalty and Resubmissions**

- Late submissions will lose 1 point per 24 hours.
- Resubmissions can be turned in for up to 80% of the original points. All resubmissions must be received within 2 weeks of the grade being released. 4 resubmissions are allowed for the entire semester. When re-submitting, you must include a list of the changes/improvements you have made. Resubmissions without thoughtful, substantive changes will not be accepted.
- **No assignments will be regraded.** The instructional team carefully constructs rubrics and makes those available as each assignment is released. Please make sure you understand the rubric and ask any questions about what is expected for each assignment. Once you have received a grade, we encourage you to attend office hours should you want to improve your understanding of the course content.

**Exams**

The midterm exam will still be administered on Monday, March 30 during our scheduled lecture time. It will be a timed online exam, but it will be short enough that everyone will be able to take their time and complete it without rushing:

There will be no final exam.

**Communication**

Canvas is the dissemination method for course materials including assignment descriptions and the course schedule. You are responsible for keeping up-to-date with the materials on Canvas. Course announcements will be made by the instructor via Canvas and in lecture.

Slack will be used for clarification questions, assignment help, and midterm review. Join the course [Slack workspace using this link](https://example.com).
For individual questions or more personal concerns, please email your GSI or the instructor directly (see email addresses above). This is a large course and we all have multiple sections, so please make sure to include your section number. All communication should be professional.

**Academic Integrity**

**Collaboration.** UMSI strongly encourages collaboration while working on some assignments, such as group projects and interpreting reading assignments as a general practice. All assignments in this course are clearly designated as “group”, “pair”, or “individual” assignments. Collaboration with other students in the course will be especially valuable in summarizing the reading materials and picking out the key concepts. You must write your individual homework submissions on your own, in your own words, before turning them in. If you worked with someone on the homework before writing it, you must list any and all collaborators on your written submission, following the assignment format listed detailed above. Read the instructions carefully and request clarification about collaboration when in doubt.

**Plagiarism.** All written submissions must be your own, original work. Original work for narrative questions is not mere paraphrasing of someone else’s completed answer: you must not share written answers with each other at all. At most, you should be working from notes you took while participating in a study session.

You may incorporate selected excerpts, statements or phrases from publications by other authors, but they must be clearly marked as quotations and must be attributed. If you build on the ideas of prior authors, you must cite their work. You may obtain copy editing assistance, and you may discuss your ideas with others, but all substantive writing and ideas must be your own, or be explicitly attributed to another. See the BSI student handbook available on the UMSI intranet for the definition of plagiarism, resources to help you avoid it, and the consequences for intentional or unintentional plagiarism.

For more information, please see:
http://www.lsa.umich.edu/academicintegrity/index.html

**Accommodations 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; ssd.umich.edu/) 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/ 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 (734) 764-8320 and https://www.uhs.umich.edu/mentalhealthsvcs, or for alcohol or drug concerns, see www.uhs.umich.edu/aodresources.

For a more comprehensive listing of the broad range of mental health services available on campus, please visit: http://umich.edu/~mhealth