SI 622: Needs Assessment and Usability Evaluation

Winter 2019 Syllabus

General Info

Meeting Times & Locations:

Section 001: Tuesday 5:30-8:30 pm (Room 2255 North Quad [North Quad](#))

Section 002: Wednesday 8:30-11:30 am (Room 2255 North Quad [North Quad](#))

Instructors:

Sec 001 (Tuesdays)

Mustafa Naseem, Clinical Assistant Professor, mnaseem@umich.edu

Sec 002 (Wednesdays)

Lija Hogan, Lecturer, lija@umich.edu

Graduate Student Instructors:

Sec 001 (Tuesdays): Lauren Elbaum, MSI Student, elbaum@umich.edu

Sec 002 (Wednesdays): Oshin Nayak, MSI Student, onayak@umich.edu

General: Carl Haynes, PhD Candidate, cchaynes@umich.edu

Office Hours & Locations:

Lija Hogan: Wed. 12:30-1:30 1243, Fri. 9:30-11:00 4445 or by appointment

Mustafa Naseem: Thursday 3:00 - 5:00 pm, NQ 3445, or by appointment

Oshin Nayak: Thursday 11:00 am – 12:30 pm, NQ 1270, or by appointment

Lauren Elbaum: Thursday 11:30am-12:30pm, NQ 1278 and by appointment

Carl Haynes: Wednesday 12:00pm - 2:00pm, NQ 4446

Emails

You can send emails to the instructor or the GSI directly if you are sure who is able to answer your questions. Otherwise, you can send your message to si622.w19@umich.edu and the entire teaching team will receive your message. Please include [SI622] in the subject of the email so that the instructional team can capture your email easily.

I am looking for…

Course Schedule for assignments and reading - (Canvas > Syllabus)

Electronic Readings - (Canvas > Files > Readings)

Example Assignments - (Canvas > Files > Samples Assignments)

Lecture Slides - (Canvas > Files > Lectures)

My Assignment Deadlines and Instructions - (Canvas > Assignments)

My Grades - (Canvas > Grades)

Learning Objectives

Students in this course will learn to:

- Evaluate the usability, usefulness, and acceptability of interactive software systems
- Select among diverse evaluation methods for specific goals and types of systems
- Write reports and give presentations that effectively communicate results of evaluations and argue for the validity and relevance of methods chosen

Course Content and Structure

This course is key component of SI's HCI curriculum and teaches skills and concepts that most HCI professionals will apply on a daily basis. In this course you learn how to evaluate the functionality and usability of an interactive system using a variety of methods:

- Mapping the interaction flow (a diagram of the system's reaction to user input)
- Embodying a set of target users and what they would want to do with the system
- Comparing the features and usability of your system with competitors' systems
- Surveying users for their opinions and experiences
- Using checklists and "heuristics" to evaluate the system from several points of view
- Doing user testing of typical tasks on the system
- Incorporating new and emerging evaluation methods such as log analysis and online testing

Most of these methods will be applied to a single product that will be chosen by you and your project group. By applying various methods to a single system, you will learn not only how to do the methods but also which methods give you what answers for what kind of effort.

The course ties together learning and doing. We will give background on the methods, teach the methods, have you try them out in class, and then you will conduct the method on your own product. For many of the methods, you will turn in a report styled like the ones given to developers directly. This way you learn to write the reports in a way most useful in your future career. The class meets once a week (see times above). Most of the classes will consist of a mixture of student presentations, lecture, exercises (with instructors consulting), and group work time (again, with instructors available to help out with various issues).

Course Materials

There is one required text for this class:

■ Goodman, E., Kuniavsky, M., and Moed, A. 2012. Observing the User Experience, Second Edition: A Practitioner's Guide to User Research. San Francisco: Morgan Kaufmann.

■ Also available on Mlibrary: http://mirlyn.lib.umich.edu/Record/012132268

Recommended additional text:

■ Rubin,J. and Chisnell, D. 2008. Handbook of Usability Testing: How to Plan, Design, and Conduct Effective Tests, 2 ed. Indianapolis: Wiley.

■ Also available on Mlibrary: https://mirlyn.lib.umich.edu/Record/012696873

In addition, several individual readings and websites will be made available via Canvas. Lecture slides will be made available on Canvas by the start of each class session.

Assignments and Grading

Assignments are products that show the results of your applying the methods taught.

Assignment	Author	Points
Micro Usability Test	Individual	2
Semester Plan	Group	2
Interaction Map	Group	5 (section 002, 4 (section 001)
Interviews	Group	12
Comparative Evaluation	Group	9

Survey	Group	12
Heuristic Evaluation	Group	8
Usability Test	Group	14
In-class Usability Exercise	Individual	3
Final Video	Group	15
Class Participation	Individual	16
	Total	**105**

Note that 16 points of your grade will be based on class participation. Participating in the class will take a number of forms, including in-class presentations, class discussions, in-class exercises, and participation in your group's activities (as assessed through peer evaluation). You can get up to 5 extra points in the class participation grade which includes in-class assignments, to accommodate lost points on assignments (i.e., it is still possible to receive a 100% (100 points) if you must miss a class).

Grading Scale

A+ = 4.3	100+ points
A = 4.0	100 - 93
A- = 3.7	92.9 - 90
B+ = 3.3	89.9 - 87
B = 3.0	86.9 - 83
B- = 2.7	82.9 - 80
C+ = 2.3	79.9 - 77
C = 2.0	76.9 - 73
C- = 1.7	72.9 - 70
D+ = 1.3	69.9 - 67
D = 1.0	66.9 - 63
D- = 0.7	62.9 - 60
F	59.9 - 0

Due Dates and Late Policy

- All assignments are due as listed on Canvas
- Assignments turned in 1 minute late will automatically be deducted 50% of points
- Assignments turned in 12 hours after the deadline will be deducted 100% of points
- If an extension is required for legitimate reasons*, you must make your request to the instructors by email at least 24 hours before the deadline.

 * "Legitimate reasons" for late assignments include circumstances beyond your control such as client responsiveness and unusual challenges with participant recruiting. Be sure to identify these problems as soon as possible and bring them to the attention of the instructors so that we can try to find a solution that will keep you on schedule. Falling behind in 622 can be a huge headache for all involved. "Legitimate reasons" can also include illness, family emergencies, job duties, and significant emotional distress, though the group nature of the work should be able to absorb some of the impacts of these individual issues.The legitimacy of each specific instance is at the discretion of the instructors and should be brought to their attention as soon as possible. All late requests must be accompanied by appropriate documentation such as doctor's notes etc.

Submitting Assignments

Assignments are submitted through Canvas (under the Assignment tab). You must read the submission requirements for each assignment as described. **Most assignments will require that you submit three components**: (1) a URL to the text of your assignment as a google doc (with public permissions so that the teaching team and view and comment), (2) a PDF of the formatted version of your assignment, and (3) a slide deck of no more than 3 slides describing the key findings from your assignment - you may be called upon to present these in class.

Re-grading Policy

The teaching team takes great care in grading and providing feedback. Any requests for re-grading will be escalated and completed by Professors Naseem and Hogan. Please keep in mind that one of the evaluation criteria during the re-grading process is whether or not the grading challenge is deemed legitimate. Also, all groups members must agree to petition for a re-grade.

Project

We will form the project groups based on input from you about who you would like to work with and who you would not like to work with. You will provide "peer evaluation" periodically, to assess the participation of the individual group members toward the assignments handed in. The peer assessments will be employed when calculating class participation grades.

Your first task after the groups have been formed will be to select a product (a website, device, or software application) and produce a semester plan. We will discuss the criteria for selecting an appropriate product for evaluation during the first two class meetings.

Communication

The course syllabus and schedule are hosted on Google Docs, which can be accessed via the course Canvas site. The lecture slides will be made available via Canvas. Assignment descriptions and submissions will be handled via Canvas. You are responsible for keeping up-to-date with the materials on Canvas, as dates, assignment details, and lecture topics may change as the semester progresses. The instructors will broadcast announcements via the Canvas email list whenever significant changes are made to the materials on the course site.

Academic Integrity

All assignments in this course are clearly designated at "group" or "individual" assignments. For the sole individual assignment, all submitted work must be your own, original work. For each group assignment, all submitted work must be the original work of the group. Any excerpts from the work of others (e.g., books, articles, web pages) must be clearly identified as a quotation, and a proper citation provided. You are expected to understand what plagiarism is and how to avoid it. If you are uncertain about what the boundaries are, you must educate yourself. Plagiarism.org and Purdue's Online Writing Lab provide excellent materials that can help you avoid trouble in 622 and elsewhere. Any violation of the School's policy on Academic and Professional Integrity (stated in the Master's and Doctoral Student Handbooks) will result in severe penalties, which might range from failing an assignment, to failing a course, to being expelled from the program, at the discretion of the instructor and the Associate Dean for Academic Affairs.

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 us 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; http://www.umich.edu/ sswd/) typically recommends accommodations through a Verified Individualized Services and Accommodations (VISA) form. We will treat any information you provide as private and confidential.

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 (732) 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/