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LIS-644

Usability Theory and Practice

Fall 2013

Wednesday 3:30-5:50p • Pratt Manhattan Center, Room 609

Credits: 3

Pre-requisites: none

Office Hours: Thursdays 3-6p and by appointment

Bulletin Description

This course provides the theoretical and practical foundations for evaluating digital interfaces from a user-centered perspective. Through lectures, in-class activities, readings and individual and group assignments, students will learn and apply usability principles and gain hands-on experience with several common usability evaluation methods, including traditional user testing plus inspection- and field-based methods. Because the goal of evaluation is always to improve the underlying usability of an interface, the course will focus on effectively communicating evaluation results. At the conclusion of this course, students will possess the knowledge and skills necessary for successfully planning, conducting, and leading usability evaluations across a diverse array of organizations and industries.

Course Goals & Objectives

The goals of this course are to:

- Gain a theoretical understanding of usability and its relation to the user-centered design process.
- Provide practical experience with contemporary usability evaluation methods.
- Improve individual and collaborative skills in problem solving, communication, and creative thinking.

Upon successful completion of this course, a student will be able to:

- **Define** and **explain** the concept of usability using appropriate terminology.
- **Choose** and **employ** appropriate usability evaluation methods based on technical, practical and organizational contexts.
- **Develop** strategies for implementing a usability evaluation in accordance with industry standards.
- **Create** high-quality work products that effectively communicate evaluation results and are consistent with professional practice.

Course Schedule

Session	Topic	Due
1 Aug 28	Welcome + What is Evaluation?	
2 Sep 4	Writing Evaluation Reports <ul style="list-style-type: none"> ▪ Brown, D. (2011). Usability reports. In <i>Communicating Design: Developing Web Site Documentation for Design and Planning</i> (2nd Ed.) (pp. 274-288). Berkeley, CA: New Riders. ▪ Rogers, Y., Sharp, H., & Preece, J. (2011). Introducing evaluation. In <i>Interaction Design: Beyond Human-Computer Interaction</i> (3rd Ed.) (pp. 433-451). Chichester: John Wiley & Sons, Inc. ▪ DOET: Ch. 1, 2, 3 	
3 Sep 11	The Design of Everyday Things + Intro to Cognitive Walkthrough <ul style="list-style-type: none"> ▪ DOET: Ch. 4, 5, 7 	NP
4 Sep 18	LAB: Cognitive Walkthrough <ul style="list-style-type: none"> ▪ Wharton, C., Rieman, J., Lewis, C., & Polson, P. (1994). The cognitive walkthrough method: A practitioner's guide. In J. Nielsen, & R. Mack (Eds.), <i>Usability inspection methods</i> (pp. 105-140). New York, NY: John Wiley & Sons, Inc. ▪ John, B. E., & Packer, H. Learning and Using the Cognitive Walkthrough Method: A Case Study Approach. In <i>Proceedings of the 1995 SIGCHI Conference on Human Factors in Computing Systems (CHI 95)</i>. New York, NY: ACM. 429-436. <p><i>NOTE: Come to class with cognitive walkthrough inputs</i></p>	CW Inputs
5 Sep 25	Intro to Heuristic Evaluation <ul style="list-style-type: none"> ▪ Nielsen, J. (n.d.). How to conduct a heuristic evaluation. Retrieved from: http://www.useit.com/papers/heuristic/heuristic_evaluation.html ▪ Nielsen, J. (n.d.). Ten usability heuristics. Retrieved from: http://www.useit.com/papers/heuristic/heuristic_list.html ▪ Nielsen, J. (n.d.) Severity ratings for usability problems. Retrieved from: http://www.useit.com/papers/heuristic/severityrating.html 	IE1
6 Oct 2	LAB: Heuristic Evaluation <ul style="list-style-type: none"> ▪ <i>No readings this week</i> <p><i>NOTE: Come to class with heuristic evaluation inputs</i></p>	HE Inputs
7 Oct 9	Heuristic Evaluation Analysis + LAB <ul style="list-style-type: none"> ▪ <i>No readings this week</i> <p><i>NOTE: Submit heuristic evaluation problem lists to lead evaluators</i></p>	HE Problem Lists

8 Oct 16	Intro to Diary Studies + LAB <ul style="list-style-type: none"> ▪ Rieman, J. (1993). The diary study: A workplace-oriented research tool to guide laboratory efforts. In <i>Proceedings of the INTERACT '93 and CHI '93 conference on Human factors in computing systems (CHI '93)</i>. New York, NY: ACM. 321-326. 	IE2
9 Oct 23	Recruiting Participants <ul style="list-style-type: none"> ▪ UTE, Ch. 2 <p><i>NOTE: Come to class with diary study forms and instructions</i></p>	<i>Diary Forms (group)</i>
10 Oct 30	User Testing I (set-up and planning) <ul style="list-style-type: none"> ▪ UTE, Ch. 6 <p><i>NOTE: Send completed diary entries to evaluators</i></p>	<i>Diary Entries (individual)</i>
11 Nov 6	User Testing II (implementation and moderation) <ul style="list-style-type: none"> ▪ UTE, Ch. 7 ▪ Nørgaard, M. & Hornbæk, K. (2006). What Do Usability Evaluators Do In Practice? An Explorative Study of Think-Aloud Testing. In <i>Proceedings of the 6th Conference on Designing Interactive Systems (DIS '06)</i>. New York, NY: ACM. 209-218. 	GE3
12 Nov 13	LAB: User Testing <ul style="list-style-type: none"> ▪ <i>No readings this week</i> 	
13 Nov 20	User Testing III (analysis) <ul style="list-style-type: none"> ▪ UTE, Ch. 8 	
14 Nov 27	**NO CLASS – Thanksgiving Break**	
15 Dec 4	LAB: User Testing Analysis & Reporting <ul style="list-style-type: none"> ▪ <i>No readings this week</i> 	FP
16 Dec 11	Course Wrap-up & Emerging Trends	GE4

Course Requirements

Required Readings

There are **two required texts** for this course:

1. Barnum, C. M. (2011). *Usability testing essentials: Ready, set...test!* Burlington, MA: Morgan Kaufmann. ISBN: 012375092X
2. Norman, D. (2002). *The Design of Everyday Things*. New York, NY: Basic Books. ISBN: 0465067107

Additional readings will be made available via the LMS.

Assessment and Grading

The overall course grade will be based on a total of 200 points, weighted as follows:

10% NP: Norman Paper on Good & Bad Design

40% IE: Individual Evaluation Reports

IE1: Cognitive Walkthrough (20%)

IE2: Heuristic Evaluation (20%)

40% GE: Group Evaluation Reports

GE3: Diary Study (20%)

GE4: User Test (20%)

10% FP: Final Paper on Usability in the Real World

Detailed descriptions of each assignment will be distributed in class and posted to the LMS.

Grades will be awarded for points accumulated based on Pratt's grading scale:

Excellent	A	4.0 (93-100)	A-	3.7 (90-92.99)		
Above Average	B+	3.3 (87-89.99)	B	3.0 (83-86.99)	B-	2.7 (80-82.99)
Acceptable	C+	2.3 (77-79.99)	C	2.0 (73-76.99)		
Failure	F	0.0 (00-72.99)				

Assignments

Because of the project-based nature of this course, all graded assignments must be uploaded to the LMS before class on the due date (unless otherwise noted) **with no exceptions**.

*Late assignments will be graded at 50%. Assignments more than 24 hours late **will not be graded**.*

Attendance & Participation

Although it is ungraded, active participation in class is essential to successful learning in this course. The course format may vary each week, but typical class sessions will consist of short lectures and small group activities that directly inform individual and group project deliverables.

Attendance is therefore expected and required. Students with 3 absences (for any reason, including documented medical reasons) cannot expect to receive an A in the course and, in accordance with

Pratt Institute policy, may be asked to drop the class. **Please notify me ASAP if you know you will be absent.** You will be expected to make up any missed material for classes that you miss.

Additionally, there will be several activities throughout the term that must be completed before coming to class. These activities will not be graded but are essential to fulfilling course requirements, especially those that require group collaboration. Failure to complete these activities in a timely fashion will not only let down your classmates, it will have a negative impact on your overall learning experience.

Policies

Academic Honesty

Instances of cheating, plagiarism, and improper use of intellectual property will not be tolerated. Do not plagiarize or copy from anywhere, including articles, websites, class handouts, class slides, other students' work, web design templates, work you have submitted to another course, etc. Unless specifically indicated otherwise, all assignments submitted for this course must be **your own work**, with sources properly cited.

Any assignment that includes copied material will be given an automatic *zero* – this includes cases where only a portion of the assignment is copied. Depending on the nature of the offense, this may also result in failure of the course. **No excuses will be accepted.** More information about Pratt's academic integrity code can be found at: <http://www.prattsenate.org/learning/02-academic.htm>

Communication

The best way to contact me is by email (cmacдона@pratt.edu). I check e-mail regularly and you can expect an email response within 24 hours. Should that change, you will be notified in advance.

Disabilities

Students who require special accommodations for disabilities must obtain clearance from the Office of Disability Services at the beginning of the semester. For further information, contact the Coordinator of Disability Services in the Office of the Vice President for Student Affairs at 718.636.3711.

Incompletes

Incompletes will not be awarded except for documented medical reasons.

Institute-Wide Policies

All Institute-wide policies are listed in the Bulletin under "Community Standards" available online at http://www.pratt.edu/student_life/student_affairs/student_policies/ and which include policies on attendance, academic integrity, plagiarism, computer, and network use.

Laptops & Cell phones

Please turn your cell phone off during class. Laptops are permitted for coursework purposes only.

Research Participation

As part of this course, students may be asked to participate in research studies conducted by SILS faculty.

Revisions to the Syllabus

While this syllabus provides a reliable framework for the course, it is possible that assigned readings will be added or deleted or that events (guest lectures, extreme weather, etc.) may require changes to the schedule. Any changes will be announced in class or via e-mail.

SILS e-portfolio

Starting Fall 2012, all students entering the MSLIS degree program are required to complete an e-portfolio that must be approved by their advisor before they will be permitted to graduate. The e-portfolio provides students with an opportunity to showcase their best work from the courses they have taken at SILS, and an opportunity to demonstrate they have met the learning objectives of a Master of Information and Library Science.

Work completed for this course may be included in the e-portfolio. Students must demonstrate that their work fulfills at least one of the following learning outcomes:

1. Students carry-out and apply research.
2. Students demonstrate excellent communication skills and create and convey content.
3. Students use information technology and digital tools effectively.
4. Students apply concepts related to use and users of information and user needs and perspectives.
5. Students perform within the framework of professional practice.

Detailed information on the learning outcomes, requirements and how to create your e-portfolio is available from:

http://www.pratt.edu/academics/information_and_library_sciences/about_sils/sils_eportfolio/