



Course Syllabus

User-Centered Design

INST 362
Spring 2019
Section 0104

UPDATED Feb 14, 2019

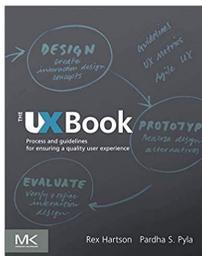
Learning Outcomes

This course is an introduction to user experience and user centered design methods in human-computer interaction (HCI). This course focuses on how HCI connects psychology, information systems, computer science, and human factors. Topics such as user needs, user behaviors, envisioning interfaces, and utilizing prototyping tools, with an emphasis on incorporating people in the design process from initial field observations to summative usability testing, are discussed. This course will introduce you to the user-centered design process, focusing on practical methods for approaching a design problem, including how to understand users, conduct user research, design for user experience, and evaluate user interfaces. Also discussed are appropriate uses of storytelling, sketching, and communication of design ideas within a design team and to potential users. Assignments will culminate into a single, comprehensive portfolio project. There will also be individual assignments and exams to help you better understand the user-centered design process.

After successfully completing this course you will be able to:

- Articulate important historical, current and emerging trends, critical issues, and theoretical underpinnings of User Experience design.
- Articulate and apply major user experience research methods, such as user interviews, surveys, contextual analysis, diary studies, storyboarding, experience design, persona development, task description, sketching, video scenarios, use cases, and competitive analysis.
- Demonstrate the appropriate use of UX design artifacts such as flow diagrams, wireframing, and paper prototypes.
- Apply data from UX evaluations to improve interfaces using an iterative and user-centered design process.

Required Resources



Required: Hartson, R., and Pyla, P. (2012). *The UX Book: Process and Guidelines for Ensuring a Quality User Experience*. Elsevier/Morgan Kaufmann. NOTE: a second edition was just published in December 2018, but we are going to be using the FIRST edition, not the second edition.

Dr. Jonathan Lazar

jlazar@umd.edu

Class:

Tuesdays and Thursdays

3:30-4:45 PM

EGR 1108

Office Hours

2-3 PM Thursday

And by appointment

Office: Hornbake 2117-J

Teaching Assistant:

Prathima Devanath

prathima@terpmail.umd.edu

Prerequisites

PSYCH 100; INST201 or

INST301¹; INST 326

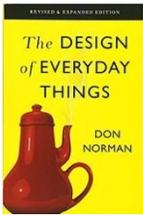
Course Communication

I will send time-sensitive information to students via ELMS announcements.

Students may contact me via email to discuss questions, absences, or accommodations. Here is a link with helpful guidance on writing professional emails (ter.ps/email).

¹Must have completed or be currently enrolled in one of these courses

Course website: elms.umd.edu



The Design of Everyday Things
Norman, D.A.
Third Edition (2013)
Available online through UMD library



Observing the User Experience
Goodman, E., Kuniavsky, M., & Moed, A.
Second Edition (2012)
Available online through UMD library



Contextual Design Evolved
Holtzblatt, H., and Beyer, H.
2014
Available online through UMD library

Course-Related Policies

It is our shared responsibility to know and abide by the University of Maryland's policies that relate to all courses, which include such topics as:

- Academic integrity
- Student and instructor conduct
- Accessibility and accommodations
- Attendance and excused absences
- Grades and appeals
- Copyright and intellectual property

Please visit www.ugst.umd.edu/courserelatedpolicies.html for the Office of Undergraduate Studies' full list of campus-wide policies. Follow up with me if you have any questions.

Activities, Learning Assessments, and Expectations for Students

Before Class: Complete all listed readings before class begins each day. Lectures will be brief and will cover course material, but you will only develop a deep enough understanding of the material for tests, assignments, projects, and discussion through completing the assigned reading. You are responsible for keeping up with readings per the schedule in the syllabus. You are responsible for setting your own reading pace to be prepared for class discussions and in-class assignments. You are responsible for knowing where we are in our class discussions.

Attendance: Your attendance will be part of your participation in this class. I expect students to come to all class meetings unless there is a university-accepted reason (e.g., illness). Much of the learning for the course and a significant amount of project work occurs in class. You cannot participate in this learning if you are not present.

- **Class starts on time:** Being late for class affects our learning experience and in-class assignments. Please come to class on time.
- **Absences:** If you have to miss a class due to an illness or similar reason, contact me before the class begins.

During Class: We will have lectures, discussions, and hands-on activities during class. Please bring pens, papers, and assigned reading with you. Students should participate in class discussions and welcome the participation of others. Your participation grade will reflect the amount of participation you contribute to course discussions and in-class activities.

Let's Be Creative: As you will learn in the course, the User-Centered Design process can be used to inform the design of a wide variety of artifacts – including classes! This class is an ongoing design project where we'll explore new ways to engage with the material. With large classes, it can be tricky to work outside the traditional lecture format. Therefore, there are several things I will ask of you:

- Come ready to participate.
- Be open to trying different approaches.
- Be patient with the iterative process – some things will work better than others, we'll find our groove.
- Tell me your ideas and thoughts about class activities – I will solicit feedback throughout the semester.

In Class Assignments: There will be in-class assignments to complete during the class period. These in-class assignments have been designed to contribute to your team's User-Centered Design project. Please refer to the course schedule for more details. Everyone begins the course with full in-class participation credit, and I hope all of you will retain it to the end. However, deductions will be made from an individual's in-class participation credit for various shortcomings (e.g., being absent when your team needs you for an in-class activity).

Team Project: You will work in teams of 3-5 students on a semester-long User-Centered Design project, and each student will be assigned to a group. The project will involve defining a user problem to be solved, exploring user context, gathering relevant data, hypothesizing solutions, developing design prototypes, testing your hypotheses, analyzing research data, evaluating your findings, making recommendations, and creating a video to present your results. During the semester, the in-class assignments will support your team projects, and will also allow me to help with the progress of your team project and answer your questions.

Collaboration: You are expected to work collaboratively as teams throughout the course of the project, which spans the semester. Each assignment should be collaboratively envisioned, planned, implemented, and written up with every member contributing equally to each part. Each team member will **individually** submit a confidential Team Member Evaluation Form to report the relative effort/contribution of each person including yourself for each major project deliverable. Evaluations will be factored into your grade.

Team Presentation: You will be expected to create a final group project video, of 5-10 minutes per group. The video should highlight your projects' goals, processes, procedures through the study, design outcomes, and evaluation results. You are to include your reflection on the successes and challenges throughout the procedures of your project. The video is to be posted on ELMS or on YouTube (your option). The final group video will be due Thursday, May 9th. All students will be expected to view all of the other group videos, by Thursday, May 16th, and write a small reflection blog about the videos as a whole.

Individual Homework Assignments: There will be homework assignments that help with your learning in this course. Some of these may be reflection blogs. These are individual, not group assignments.

Mid-term Exam: A mid-term exam will be administered to test your understanding of the concepts and skills in UCD introduced in class and readings. The mid-term exam will be held on March 14th.

Final Exam: A final exam will be administered to test your understanding of the concepts and skills introduced throughout the course in class and readings. The final exam will be held on May 22nd. Please note that this is a Wednesday, not during our regularly scheduled class, and it is scheduled for 10:30 AM to 12:30 PM.

Late Assignments: All assignments must be submitted on ELMS. Assignments must be turned in by 11:59pm on the day they are due. The general policy in this class is that late assignments (both individual and team assignments) will be deducted by 15% of its possible points after 11:59pm, and an additional 10% of its points each day they are late. Late assignments will be accepted according to this policy up to three days after the assignment due date. Assignments more than three days late will not be accepted. It is at the instructor's discretion to accept late work and assign late point deduction. Because the assignments of this course accumulate for the final project, it is crucial to follow the assignment schedule.

No Extra Credit Work: Students sometimes ask for some extra credit work in an attempt to bring up grades. However, extra credit work will not be given on an individual basis.

Course-Specific Policies

No computers, phones or tablet devices are permitted during our class meetings. I understand and have considered arguments for permitting laptop and tablet computers in the classroom. However, in my experience (and based on the research evidence) the reality is that they 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 both you and those sitting around you. For that reason, the use of computers and phones will not be permitted during class meetings (except when required for DSS accommodations). If a computer is needed to accomplish a class objective for the day I will provide it or give you advanced notice to bring one with you. Feel free to reach out to me if you wish to discuss this policy further.

I expect you to make the responsible and respectful decision to refrain from using your cellphone in class. If you have critical communication to attend to, please excuse yourself and return when you are ready. For more information about the science behind the policy watch: <http://youtu.be/WwPaw3Fx5Hk>

Submitting Assignments. For this course, some of your assignments will be collected via Turnitin on our course ELMS page. I have chosen to use this tool because it can help you improve your scholarly writing and help me verify the integrity of student work. For information about Turnitin, how it works, and the feedback reports you may have access to, visit [Turnitin Originality Checker for Students](#)

Making Up Missed In-Class Work. When you miss an **individual assignment** due to an excused absence, you may submit the assignment for full credit before the start time of the next class. For **group assignments**, you should submit a reflection on your group's work on the day you missed and your group's project since the in-class assignment was done. **Make up exams** will only be given for excused absences that are proven by relevant paperwork (e.g., a doctor's note). In such cases, make up times should be scheduled with the instructor.

Responding to Email. All email concerning the class should be addressed to the instructor. I will make every effort to answer your email in a timely fashion. However, you should not necessarily always expect to get an immediate reply (e.g., when it is several hours before an assignment is due). Please put "[INST 362 User-Centered Design]" at the beginning of the subject line of your email.

Showing Respect. You are expected to show your respect to all people and projects in class. For example, when you evaluate others' ideas or other teams' design, show your respect for their effort and design, and then provide your comments or suggestions in a way to help improve the interaction design.

Get Some Help!

You are expected to take personal responsibility for your own learning. This includes acknowledging when your performance does not match your goals and doing something about it. Everyone can benefit from some expert guidance on time management, note taking, and exam preparation, so I encourage you to consider visiting <http://ter.ps/learn> and schedule an appointment with an academic coach. Sharpen your communication skills (and improve your grade) by visiting <http://ter.ps/writing> and schedule an appointment with the campus Writing Center. Finally, if you just need someone to talk to, visit <http://www.counseling.umd.edu>.



Everything is free because you have already paid for it, and **everyone needs help**... all you have to do is ask for it.

Grades

Grades are not given, but earned. Your grade is determined by your performance on the learning assessments in the course and is assigned individually (not curved). If earning a particular grade is important to you, please speak with me at the beginning of the semester so that I can offer some helpful suggestions for achieving your goal.

All assessment scores will be posted on the course ELMS page. If you would like to review any of your grades (including the exams), or have questions about how something was scored, please email me to schedule a time for us to meet in my office.

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

Assessments	#	Points Each	Category Total	Category Weight
Homework (HW): out-of-class assignments submitted on ELMS	Varies	10		5%
Participation/In-class Assignments: individual and group assignments and contributions to class discussions	Varies	5		5%
Team Project:				50%
Project Assignment 1. Project Concept Statement	1	10	10	5%
Project Assignment 2. Contextual Inquiry & Analysis	1	100	100	5%
Project Assignment 3. Design – Part 1 & 2	1	100	100	10%
Project Assignment 4. Prototyping – Part 1 & 2	1	100	100	10%
Project Assignment 5. Evaluation	1	100	100	10%
Project Assignment 6. Project Video	1	100	100	10%
Midterm Exam	1	100	100	20%
Final Exam	1	100	100	20%

Final letter grades are assigned based on the percentage of total assessment points earned. To be fair to everyone I have to establish clear standards and apply them consistently, so please understand that being close to a cutoff is not the same this as making the cut (89.99 \neq 90.00). It would be unethical to make exceptions for some and not others.

Final Grade Cutoffs									
+	97 - 100%	+	87 - 89.99%	+	77 - 79.99%	+	67 - 69.99%		
A	93 - 96.99%	B	83 - 86.99%	C	73 - 76.99%	D	63 - 66.99%	F	<60.0%
-	90 - 92.99%	-	80 - 82.99%	-	70 - 72.99%	-	60 - 62.99%		

Course Schedule

UX = The UX Book
 CDE = Contextual Design Evolved

DOET = Design of Everyday Things
 OTUX = Observing the User Experience

DUE BEFORE CLASS		DURING OUR CLASS MEETING	DUE THIS CLASS (AT MIDNIGHT)
1 Tues 1/29		SNOW DAY!!!!	
2 Thurs 1/31	-	Introduction Course & Project/Class Expectations/User-Centered Design <u>In-class assignment:</u> Experience/skills and project interests survey	
3 Tues 2/5	DOET Ch. 1 (pp. 1-10) & Ch. 6 (pp. 217 – 236)	Design of Everyday Things Design Thinking/User-Centered Design process <u>In-class Assignment:</u> Project workshop with team (Topic Selection)	
4 Thurs 2/7	OTUX Ch. 6 (pp. 95 – 139)	Universal Tools: Recruiting and Interviewing	
5 Tues 2/12	UX Ch. 1 (pp. 1-46), Ch. 2 (pp. 47 – 60), Ch. 6 (pp. 192-194)	Introduction to UX & the UX Process Lifecycle Template <u>In-class Assignment:</u> Project workshop w/team (Project concept development)	
6 Thurs 2/14	CDE (pp. 11 – 51)	Finish UX Process Lifecycle and start on Contextual Inquiry	Individual HW 1. Design Analysis
7 Tues 2/19	UX Ch. 3 (pp. 87 – 128)	Contextual Inquiry (Dr. Lazar at legislature in Annapolis, Dr. Ge Gao gives guest lecture)	
8 Thurs 2/21	UX Ch. 3 (pp. 87 – 128)	Contextual Inquiry (Dr. Lazar at workshop in Seattle, TA Prathima Devanath finishes Contextual Inquiry and helps students with their project assignments) <u>In-class Assignment:</u> Project workshop w/team (Checking the progress)	Project Assignment 1. Concept Statement
9 Tues 2/26	UX Ch. 4 (pp. 129 – 160)	Contextual Analysis <u>In-class Assignment:</u> Project workshop w/team (Contextual analysis #1)	
10 Thurs 2/28	UX Ch. 4 (pp. 129 – 160)	Contextual Analysis (Dr. Lazar at legislature in Annapolis, Dr. Tammy Clegg gives guest lecture)	

		<u>In-class Assignment</u> : Project workshop w/team (Contextual analysis #2)	
11 Tues 3/5	UX Ch. 5 (pp. 161 – 180)	Extracting Interaction Design Requirements	Individual HW 2. Reflection blog
12 Thurs 3/7	UX Ch. 5 (pp. 161 – 180)	Extracting Interaction Design Requirements <u>In-class Assignment</u> : Requirements extraction	
13 Tues 3/12		Midterm Exam review	Ungraded DRAFT Due of Project Assignment 2. (only first section on Contextual Inquiry)
14 Thurs 3/14		MIDTERM EXAM	
Spring Break (Mar 16-24)			
16 Tues 3/26	UX Ch. 7 (pp. 251-298)	Design Thinking, Ideation, and Sketching <u>In-class Assignment</u> : Persona-- Midterm Review Guest speaker: Dr. Mark Riccobono, president of the National Federation of the Blind	Project Assignment 2. Contextual Inquiry and Contextual Analysis
17 Thurs 3/28	UX Ch. 8 (pp. 299 – 332)	Mental Models and Conceptual Design <u>In-class Assignment</u> : Ideation and Sketching (accessibility module #1)	
18 Tues 4/2	UX Ch. 8 (pp. 299 – 332)	Mental Models and Conceptual Design (accessibility module #2)	
19 Thurs 4/4	UX Ch. 9 (pp. 333 – 358)	Design Production <u>In-class Assignment</u> : Mental Models, Conceptual Designs, and Storyboards (Note: you may be interested---this is the date of the HCIL symposium)	Project Assignment 3. Design Part 1: Persona, Ideation, Sketching
20 Tues 4/9	UX Ch. 11 (pp. 391 – 426)	Prototyping	
21 Thurs 4/11	UX Ch. 11 (pp. 391 – 426)	Prototyping <u>In-class Assignment</u> : Paper Prototyping and Testing	Project Assignment 3. Design Part 2: Mental Models, Conceptual Design, and Storyboards
22 Tues 4/16	UX Ch. 12 (pp. 427 – 466)	UX Evaluation	
23 Thurs 4/18	UX Ch. 12 (pp. 427 – 466)	UX Evaluation (accessibility module #3)	Project Assignment 4. Prototyping – Part 1: Your team’s paper prototypes and the paper prototyping test results

24 Tues 4/23	UX Ch. 13 (pp. 467 – 502)	Rapid UX Evaluation <u>In-class Assignment</u> : Evaluation of Other Teams' Prototype	
25 Thurs 4/25	UX Ch. 13 (pp. 467 – 502)	Rapid UX Evaluation	Project Assignment 4. Prototyping – Part 2: Design low-fidelity wireframes Update your design based on the test results and design low-fidelity wireframes for all the screens and/or widgets of your scope. BEFORE 4/25 CLASS: Print and bring your team's complete set of low-fidelity wireframes and tasks description for the in-class assignment
26 Tues 4/30	UX Ch. 17 (pp. 593 – 610) Ch. 18 (pp. 611 – 618)	Reporting and Wrapping up UX Evaluation	
27 Thur 5/2		Wrapping up for semester and finalizing videos	Project Assignment 5. Evaluation – Evaluating Other Teams' Prototype
28 Tues 5/7		Dr. Lazar AT CHI--Prathima available to give feedback on videos	
29 Thur 5/9		Dr. Lazar AT CHI--Prathima available to give feedback on videos	Project Assignment 6. Group Video Presentation Due
30 Tue 5/14		Final exam review	Individual HW3. Reflection blog
30 Wed 5/22		Final Exam (10:30 – 12:30)	

Note: This is a tentative schedule, and subject to change as necessary – monitor the course ELMS page for current deadlines. In the unlikely event of a prolonged university closing, or an extended absence from the university, adjustments to the course schedule, deadlines, and assignments will be made based on the duration of the closing and the specific dates missed.