



Learning Outcomes

This course is an introduction to user experience, user-centered design and user interface implementation 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, research, design for user experience and how to 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, wire-framing, and paper prototypes.
- Apply data from UX evaluations to improve interfaces an iterative and user-centered design.

Required Resources

Course website: elms.umd.edu



The UX Book: Process and guidelines for ensuring a quality user experience
Hartson, R., & Pyla, P.S.
First edition (2012)
ISBN # 9780123852410

Dr. Kathy Weaver
keweaver@umd.edu

Class Meets
Tuesdays & Thursdays
2:00pm – 3:15pm
VMH 1207

Office Hours
Rudy's Café (VMH)
Tuesdays 3:30-4:30pm
OR by appointment

Teaching Assistant
Daniel Pauw
dpauw@umd.edu

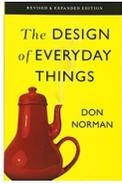
AMP
Kayla Sheehy
ksheehy@terpmail.umd.edu

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

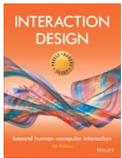
Recommended Resources



The Design of Everyday Things: Revised and expanded edition
Norman, D.A.
2013
Available online through UMD library



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



Interaction Design: Beyond human-computer interaction
Preece, J., Sharp, H., & Rogers, Y.
Fourth Edition (2015)
ISBN #:

Campus Policies

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

- 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 and follow up with me if you have questions.

Activities, Learning Assessments, & Expectations for Students

Before Class: You should 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 in the book per the schedule given in the syllabus. You are responsible for setting your own reading pace to keep ahead enough to be prepared for class discussions and in-class assignments. You are also responsible for knowing where we are in our class discussions.

Attendance: I expect students to come to all class meetings unless there is a university-accepted reason (e.g., illness). Your attendance will be part of your participation in this class. You are expected to attend every class. Please consider that much of the learning for the course 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 potentially in-class assignments. Please come to class on time.

Absences: If you have to miss a class due to an illness or similar reason, please contact the instructor before the class begins.

During Class: During class, we will have lectures, discussions, and in-class activities. Please bring pens, papers, and assigned reading with you to class. Students should participate in class discussions and welcome the participation of others. A participation grade will be assigned and designated by the amount of participation each student contributes to course discussions and in-class activities.

Let's Be Creative: With large classes it can be trickier to try out new activities and techniques that go beyond the traditional lecture. I am dedicated to trying out new activities and techniques however – so with this, there are several things I will ask of you:

- Please come ready to participate
- Please be patient with the iterative process of trying things out – some things will work better than others, we'll find our groove
- Please let me know of ideas and thoughts you have about class activities – I will solicit feedback several times throughout the semester

In Class Assignments: There will be in-class assignments that you will be expected to complete during the class period. These in-class assignments have been designed to contribute to your team's User-Centered Design projects. 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 can be made from an individual's in-class participation credit for various shortcoming (e.g., being absent when your team needs you for an in-class assignment).

Team Project: You will work in teams of 3-4 students on a semester-long User-Centered Design project. The project will involve defining your User-Centered Design goals, researching user experience to gather data, extracting design requirements, developing design prototypes, and evaluating design prototypes. Once the user experience research is complete, you will be required to organize the UX research data and prepare them for further analysis, requirement extraction, design, and evaluation. During the semester, the in-class assignments will contribute to your team projects, and this will allow me to help with the progress of your team project and answer your questions.

Project Websites/Blogs: **In addition to your project assignments**, your team needs to have an online space (of your choice) to upload the deliverable as a portfolio of your project (potentially for your future job seeking). It is recommended that you show your project websites/blogs to the class in your final team presentation.

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 present your User-Centered Design project results. The presentations should be 15 minutes in-class presentations (including 3-minute Q&A) highlighting 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. All students viewing the presentations will be expected to complete a feedback form, based on their knowledge of user-centered design gained throughout the semester, offering their opinion about the strengths and weaknesses of the projects.

Weekly Design Critiques: Each week you will be expected to find an item and critique's its design. You need to have an individual online space (of your choice) to share your design critique.

Individual Homework Assignments: There will be homework assignments that help with your learning in this course.

Mid-term Practice Quizzes: There will be 2 quizzes administered before the mid-term exam. The goal of these quizzes is for you to understand what type of questions will be on the mid-term and practice studying for them and answering them.

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.

Final Exam: There will not be a final exam in this class. Your final evaluation will be your group project presentation. Each team member will be expected to participate in the presentation, which will translate into a grade equivalent to a final exam grade.

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 15% of its 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 five 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. In addition, there are studies that show that taking notes by hand uses a different part of your brain than taking notes with a computer. You will most likely be in a situation after graduation where you will not be allowed to use a computer in a meeting for note taking, so I'd like you to take this opportunity to practice note taking by hand. Therefore, 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.

I expect you to make the responsible and respectful decision to refrain from using your cellphone in class. 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.

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.

Learning Assessments	#	Points Each	Category Total	Category Weight
Homework (HW): out-of-class assignments submitted on ELMS	Varies	10		10%
Participation/In-class Assignments: individual and group assignments and contributions to class discussions	Varies	5		10%
Team Project:				60%
Project Assignment 1. Project Proposal Poster	1	10	10	5%
Project Assignment 2. Contextual Inquiry & Analysis	1	100	100	5%
Project Assignment 3. Requirements Extraction	1	100	100	10%
Project Assignment 4. Design – Part 1 & 2	1	100	100	10%
Project Assignment 5. Prototyping – Part 1 & 2	1	100	100	10%
Project Assignment 6. Evaluation	1	100	100	5%
Project Assignment 7. Project Presentation	1	100	100	15%
Design Critiques	8	5	40	8%
Practice Quizzes	2	5	10	2%
Midterm Exam	1	100	100	10%
Total Points:				100%

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 thing 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 - 89.9%	+ 77 - 79.9%	+ 67 - 69.9%	
A 93 - 96.9%	B 83 - 86.9%	C 73 - 76.9%	D 63 - 66.9%	F <60.0%
- 90 - 93%	- 80 - 82.9%	- 70 - 72.9%	- 60 - 62.9%	

UX = The UX Book

DOET = Design of Everyday Things

CDE = Contextual Design Evolved

DUE BEFORE CLASS		DURING OUR CLASS MEETING		DUE AFTER CLASS	
1 Tues	8/28		Introduction Course & Project/Class Expectations/User-Centered Design <u>In-class assignment:</u> Experience/skills and project interests survey		
2 Thur	8/30	DOET Ch. 1 (pp. 1-10) & Ch. 6 (pp. 217 – 236)	Design of Everyday Things Design Thinking/User-Centered Design process		
3 Tues	9/4	UX Ch. 6 (pp. 95 – 139)	Universal Tools: Recruiting and Interviewing <u>In-class Assignment:</u> Project workshop with team (Topic Selection)	<ul style="list-style-type: none"> • Individual HW 1. Full Design Critique 	
4 Thur	9/6	UX Ch. 1 (pp. 1-46), Ch. 2 (pp. 47 – 60)	Interviewing and Being Interviewed <u>In-class Assignment:</u> Project workshop w/team (Project concept development)		
5 Tues	9/11		Introduction to UX & the UX Process Lifecycle Template <u>In-class Assignment:</u> Finding design flaws on campus	<ul style="list-style-type: none"> • Weekly Design Critique 	
6 Thur	9/13	CDE (pp. 11 – 51)	Contextual Inquiry <u>In-class Assignment:</u> Project workshop w/team (Detailed planning for contextual inquiry)		
7 Tues	9/18	UX Ch. 3 (pp. 87 – 128)	Contextual Inquiry <u>In-class Assignment:</u> Project proposal poster presentation <u>Bring your posters to class!</u>	<ul style="list-style-type: none"> • Individual HW2. CITI Training Certificate • Project Assignment 1. Project Proposal Poster • Weekly Design Critique 	
8 Thur	9/20	UX Ch. 4 (pp. 129 – 160)	Contextual Analysis <u>In-class Assignment:</u> Project workshop w/team (Checking the progress) What and how your team's doing on Project Assignment 2. CI and CA		
9 Tues	9/25	UX Ch. 4 (pp. 129 – 160)	Contextual Analysis <u>In-class Assignment:</u> Project workshop w/team (Contextual analysis #1)	<ul style="list-style-type: none"> • Weekly Design Critique 	
10 Thur	9/27	UX Ch. 4 (pp. 129 – 160)	Contextual Analysis <u>In-class Assignment:</u> Project workshop w/team (Contextual analysis #2)		
11 Tues	10/2	UX Ch. 5 (pp. 161 – 180)	PRACTICE QUIZ 1 Extracting Interaction Design Requirements	<ul style="list-style-type: none"> • Project Assignment 2. Contextual Inquiry and Contextual Analysis 	
12 Thur	10/4	UX Ch. 5 (pp. 161 – 180)	Extracting Interaction Design Requirements <u>In-class Assignment:</u> Requirements extraction		
13 Tues	10/9	UX Ch. 7 (pp. 251-198)	Design Thinking, Ideation, and Sketching <u>In-class Assignment:</u> Empathy map development	<ul style="list-style-type: none"> • Project Assignment 3. Requirements Extraction • Weekly Design Critique 	
14 Thur	10/11	UX Ch. 7 (pp. 251-198)	Design Thinking, Ideation, and Sketching <u>In-class Assignment:</u> Finding design flaws on campus		
15 Tues	10/16	UX Ch. 7 (pp. 251-198)	Design Thinking, Ideation, and Sketching <u>In-class Assignment:</u> Persona	<ul style="list-style-type: none"> • Weekly Design Critique 	

DUE BEFORE CLASS		DURING OUR CLASS MEETING		DUE AFTER CLASS
16 Thur	10/18	UX Ch. 8 (pp. 299 – 332)	Mental Models and Conceptual Design <u>In-class Assignment:</u> Ideation and Sketching	
17 Tues	10/23	UX Ch. 8 (pp. 299 – 332)	PRACTICE QUIZ 2 Mental Models and Conceptual Design	<ul style="list-style-type: none"> • Project Assignment 4. Design Part 1: Persona, Ideation, Sketching
18 Thur	10/25	UX Ch. 9 (pp. 333 – 358)	Design Production <u>In-class Assignment:</u> Mental Models, Conceptual Designs, and Storyboards	
19 Tues	10/30	UX Ch. 11 (pp. 391 – 426)	Prototyping	<ul style="list-style-type: none"> • Project Assignment 4. Design Part 2: Mental Models, Conceptual Design, and Storyboards • Weekly Design Critique
20 Thur	11/1	UX Ch. 11 (pp. 391 – 426)	Prototyping <u>In-class Assignment:</u> Paper Prototyping and Testing	
21 Tues	11/6	UX Ch. 12 (pp. 427 – 466)	UX Evaluation <u>In-class Assignment:</u> Finding design flaws on campus	<ul style="list-style-type: none"> • Project Assignment 5. Prototyping – Part 1: Your team’s paper prototypes and the paper prototyping test results • Weekly Design Critique
22 Thur	11/8	UX Ch. 12 (pp. 427 – 466)	UX Evaluation Midterm Review	
23 Tues	11/13		Midterm Exam	
24 Thur	11/15	UX Ch. 13 (pp. 467 – 502)	Rapid UX Evaluation <u>In-class Assignment:</u> Evaluation of Other Teams’ Prototype	<ul style="list-style-type: none"> • Update your design based on the test results and design low-fidelity wireframes for all the screens and/or widgets of your scope.
25 Tues	11/20	UX Ch. 13 (pp. 467 – 502)	Rapid UX Evaluation	<ul style="list-style-type: none"> • Project Assignment 5. Prototyping – Part 2: Design low-fidelity wireframes
Thur	11/22		Thanksgiving Break	
26 Tues	11/27	UX Ch. 17 (pp. 593 – 610) Ch. 18 (pp. 611 – 618)	Reporting and Wrapping up UX Evaluation	<ul style="list-style-type: none"> • Project Assignment 6. • Evaluation – Evaluating Other Teams’ Prototype • Weekly Design Critique
27 Thur	11/29		Project Presentations 1	<ul style="list-style-type: none"> • Project Assignment 7. Project Presentation • All teams’ presentation slides must be submitted by this due date/time. No other deliverables. You will give presentations for your

DUE BEFORE CLASS		DURING OUR CLASS MEETING		DUE AFTER CLASS	
				projects in class.	
28 Tues	12/4		Project Presentations 2		
29 Thur	12/6		Project Presentations 3	<ul style="list-style-type: none"> • Individual HW3. Reflection 	