



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 and interactive design through an iterative design process.

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. Tamara Clegg
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Class Meets
MWF
3:00pm – 3:50pm
SPH 1301

Office Hours
PTX 2109H
Tuesdays
10:45-11:45am
and by appointment

Teaching Assistants
Rebekah Valentine
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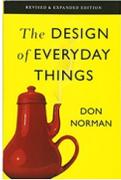
Prerequisites
PSYCH 100; INST201 or
INST301¹; INST 326

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



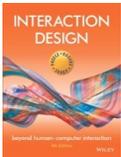
Recommended Resources



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 #:



Contextual Design, Second Edition: Design for Life
(Interactive Technologies)
Holtzblatt, K. & Beyer, H.
Second Edition (2017)
ISBN #: 978-0128008942

University Policies & Resources

As a student, you have the responsibility to be familiar with and uphold the Code of Academic Integrity and the Code of Conduct. You also have the responsibility to notify your course instructors in a timely fashion regarding academic accommodations related to absences and accessibility, as indicated below.

As a student, you have the right to know the expectations set by University Policy. The University of Maryland values the diversity of its student body and is committed to providing a classroom atmosphere that encourages the equitable participation of all students.

The University policies outlined at [this link](#) are particularly relevant to your experience in academic courses. Topics that are addressed within these various policies include academic integrity, student and instructor conduct, accessibility and accommodations, attendance and excused absences, grades and appeals, copyright and intellectual property.

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 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 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. They will be worth 10% of your grade. However, after a negative review, you can lose an additional 10% of your grade on the next assignment. Weights can continue to increase with each negative evaluation until evaluation scores increase.

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.

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

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: A final exam will be administered to test your understanding of the concepts and skills introduced throughout the course in class and readings.

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 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 except when required for in-class activities. 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 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.



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.

Group Chats

We are aware that there will likely be a group chat established for this course. We encourage the use of a group chat for discussion of the course material and concepts, as long as that discussion follows the acceptability guidelines listed below. All of the rules in this course syllabus also apply to any postings in a group chat or other social media venue.

Acceptable in Group Chats	Unacceptable in Group Chats
To use in cases when electronic devices are allowed in the course.	To use during exams or at other times when electronic devices are not allowed.
To discuss the concepts and ideas in the course, on homework assignments, and in other course assignments.	To give out an answer to a homework question, clicker question, or other assignment.
To report to the instructor any conduct or remarks on the group chat that go against the university’s Code of Academic Integrity or Non-Discrimination Policy.	To use to complete an in-class assignment when you are not in class, such as clicker questions or pop quizzes.



To ask about the mechanics of the course, such as when a due date is or where the class is being held.	To facilitate (help) others cheat, such as by passing on answers to assignments or quizzes, or telling others when in-class activities are occurring (i.e., clicker questions or pop quizzes).
To coordinate with other course members on a groupwork assignment.	To actively exclude another student in the course.

As you use a group chat for this course, keep in mind that *it is unacceptable to have another person do your own work*. You must write up your own answers in your own words, unless the assignment is a designated group activity. If others post information on the group chat, you should verify that it is correct and complete so that it helps your understanding rather than hinders it. You should never copy the work of another person or other source without quoting it, citing it, and providing a full reference, because otherwise that is plagiarism.

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.



Learning 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		15%
Team Project:				60%
Project Assignment 1. Topic & Client Concept Statement	1	10	10	5%
Project Assignment 2. Contextual Inquiry & Analysis	1	100	100	10%
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	5%
Project Assignment 6. Project Presentation	1	100	100	10%
Project Website	1	100	100	10%
Midterm Exam	1	100	100	10%
Final 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 this as making the cut (89.99 ≠ 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%		

Course Schedule

ID = INTERACTION DESIGN

UX = The UX Book (main book)

DOET = Design of Everyday Things

DfG = Designing for Growth

DUE BEFORE CLASS		DURING OUR CLASS MEETING		DUE AFTER CLASS	
1 Mon	1/28	-	Introduction Course & Project/Class Expectations/User-Centered Design <u>In-class assignment:</u> Experience/skills and project interests survey		
2 Wed	1/30	DOET Ch. 1 (pp. 1-25) &	Design of Everyday Things Design Thinking/User-Centered Design process		



Course Syllabus
User-Centered Design

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	Ch. 6 (pp. 217 – 236)	Syllabus quiz	
3 Fri 2/1		<u>In-class Assignment:</u> Project workshop with team (Topic Interest)	Skills & Interest Survey
4 Mon 2/4	UX Ch. 1 (pp. 1-46)	Introduction to UX & the UX Process Lifecycle Template <u>In-class Assignment:</u> Project workshop w/team (Project concept development)	Individual HW 1. Design Analysis
5 Wed 2/6	UX Ch. 2 (pp. 47–60) & Ch.3 (pp. 96-98)	The UX Process Lifecycle Template & Concept Statement	
6 Fri 2/8	UX Ch. 3 (pp. 87 – 128)	Contextual Inquiry Observing the Unknown	Individual HW2. CITI Training Certificate
7 Mon 2/11		<u>In-class Assignment:</u> Project workshop w/team (Detailed planning for contextual inquiry) Interviewing Experience	
8 Wed 2/13		<u>In-class Assignment:</u> Project proposal workshop (<u>Bring Project Assignment 1 drafts to class!</u>)	
9 Fri 2/15	UX Ch. 3 (pp. 87 – 128)	Contextual Inquiry	Project Assignment 1. Topic & Client Concept Statement
10 Mon 2/18		Project Assignment 2 Field Work	
11 Wed 2/20	UX Ch. 4 (pp. 129 – 160)	Contextual Analysis <u>In-class Assignment:</u> Project workshop w/team (Checking progress) What and how your team’s doing on Project Assignment 2. CI and CA	
12 Fri 2/22		Contextual Analysis – Tammy @ NSF <u>In-class Assignment:</u> Project workshop w/team (Contextual analysis #1)	
13 Mon 2/25		Contextual Analysis <u>In-class Assignment:</u> Project workshop w/team (Contextual analysis #2)	
14 Wed 2/27	UX Ch. 5 (pp. 161 – 180)	Extracting Interaction Design Requirements	
15 Fri 3/1			Project Assignment 2. Contextual Inquiry and Contextual Analysis



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16 Mon	3/4		Extracting Interaction Design Requirements <u>In-class Assignment:</u> Requirements extraction
17 Wed	3/6	UX Ch. 7 (pp. 251-264)	Design Thinking, Ideation, and Sketching <u>In-class Assignment:</u> Design Thinking Intro Activity
18 Fri	3/8	UX Ch. 7 (pp. 251-264)	Design Thinking, Ideation, and Sketching: Design Thinking Perspectives
19 Mon	3/11		Midterm Study Guide
20 Wed	3/13		Midterm Exam
21 Fri	3/15		No class
3/18 – 3/25			SPRING BREAK
22 Mon	3/25	UX Ch. 7 (pp. 264-291)	Design Thinking, Ideation, and Sketching <u>In-class Assignment:</u> Persona
23 Wed	3/27		Project Work Day <u>In-class Assignment:</u> Personas and Sketching
24 Fri	3/29	UX Ch. 8 (pp. 299 – 332)	Mental Models and Conceptual Design
25 Mon	4/1	UX Ch. 8 (pp. 299 – 332)	Mental Models and Conceptual Design Project Assignment 3. Design Part 1: Personas & Design Alternatives
26 Wed	4/3	UX Ch. 9 (pp. 333 – 358)	Design Production <u>In-class Assignment:</u> Mental Models, Conceptual Designs, and Storyboards
27 Fri	4/5	UX Ch. 11 (pp. 391 – 426)	Prototyping
28 Mon	4/8		Design Alternatives Gallery Walk
29 Wed	4/10	Review UX Ch. 11 (pp.391-426)	Prototyping Project Assignment 3. Design Part 2: Design Alternatives – Sketching & Scenarios
30 Fri	4/12		Project Work Day BEFORE CLASS: Prepare and bring prototypes to class



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31 Mon 4/15	UX Ch. 12 (pp. 427 – 466)	UX Evaluation	Project Assignment 4. Prototyping – Part 1: Paper Prototyping & Test Results
32 Wed 4/17		UX Evaluation	
33 Fri 4/19	ID 14.1-14.3	Usability Testing	
34 Mon 4/22		UX Evaluation Tools and Techniques	Project Assignment 4. Prototyping – Part 2: Design low-fidelity wireframes
35 Wed 4/24	ID 14.4	Field Testing	
36 Fri 4/26	UX Ch. 17 (pp. 593 – 610)	Project Day – UX Evaluation	
37 Mon 4/29	DfG Ch. 12	The Learning Launch: On-ramping to Market Liedtka & Ogilvie Ch. 12	Project Assignment 5. Evaluation
38 Wed 5/1	Ch. 18 (pp. 611 – 618)		
39 Fri 5/3		Reporting and Wrapping up UX Evaluation	
40 Mon 5/6		Reporting and Wrapping up UX Evaluation <u>In-class Assignment: UX Evaluation report</u>	Individual HW3. Reflection Project Assignment 6. Project Presentation All teams' presentation slides must be submitted by this due date. You will give presentations for your projects in class.
41 Wed 5/8		Project Presentations 1	
42 Fri 5/10		Project Presentations 2	
43 Mon 5/13		Project Presentations 3 Final Review	Project Website
Sat 5/18		Final Exam 1:30 – 3:30pm	

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.