



## 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 using an iterative and user-centered design process.

## Required Resources

Course website: [elms.umd.edu](http://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

**Prof. David Weintrop**

[weintrop@umd.edu](mailto:weintrop@umd.edu)

### Class:

Tuesdays & Thursdays  
11:00 – 12:15  
HBK 0302H

### Office Hours

PXT 2109J  
Tuesdays 9:30 – 11:00  
and by appointment

### Teaching Assistants

Anam Bhatia  
[anam@terpmail.umd.edu](mailto:anam@terpmail.umd.edu)

### Office Hours:

Wednesdays 10-12  
HBK 0215

### Prerequisites

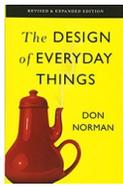
PSYCH 100; INST201 or  
INST301<sup>1</sup>; INST 326

### 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](http://ter.ps/email)).

<sup>1</sup>Must have completed or be currently enrolled in one of these courses

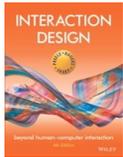
## Recommended Resources



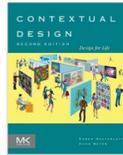
The Design of Everyday Things: Revised and expanded edition  
Norman, D.A.  
2013  
*Available online through UMD library*



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 shortcomings (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 Peer Review 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 short (around 10 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.** 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, all assignments will be submitted through the course ELMS page, with the exception of the paper prototype assignment, which will be turned in by hand.

**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 you 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
<b>Homework (HW):</b> out-of-class assignments submitted on ELMS	Varies	10		5%
<b>Participation/In-class Assignments:</b> individual and group assignments and contributions to class discussions	Varies	5		15%
<b>Team Project:</b>				<b>60%</b>
Project Assignment 1. Project 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%
<b>Midterm Exam</b>	1	100	100	10%
<b>Final Exam</b>	1	100	100	10%
<b>Total Points:</b>				<b>100%</b>

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 – 89.9%	+	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 – 92.9%	-	80 – 82.9%	-	70 – 72.9%
							60 – 62.9%

## Course Schedule

UX = The UX Book  
CDE = Contextual Design Evolved

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

	READ FOR CLASS	DURING OUR CLASS MEETING	DUE THIS CLASS (AT MIDNIGHT)
1 Tues 8/27	-	<b>Introduction</b> Course & Project/Class Expectations/User-Centered Design	
2 Thurs 8/29	<b>DOET Ch. 1 (pp. 1-10) &amp; Ch. 6 (pp. 217 – 236)</b>	<b>Design of Everyday Things</b> Design Thinking/User-Centered Design process <u>In-class Quiz: Syllabus</u>	Experience/skills and project interests survey
3 Tues 9/3	<b>DOET Ch. 1 (pp. 10-30) &amp; UX Ch. 1 sec. 1.1-1.3 (pp. 1-23)</b>	<b>Design of Everyday Things</b> Design Thinking/User-Centered Design process	
4 Thurs 9/5	<b>Skim: UX Ch. 1 sec. 1.4 – end (pp. 24-46)</b> <b>Read: UX Ch. 2 (pp. 47 – 60)</b>	<b>Introduction to UX &amp; Universal Tools: Recruiting and Interviewing</b>	<b>Individual HW 1.</b> Design Analysis
5 Tues 9/10	<b>UX Ch. 3 sec 3.1 &amp; 3.2 (pp. 87 – 98)</b>	<b>Introduction to UX &amp; the UX Process Lifecycle Template</b> <u>In-class Assignment:</u> Project workshop w/team (Topic Selection & Project concept development)	
6 Thurs 9/12	<b>UX Ch. 3 sec 3.3 (pp. 99 – 120)</b>	Contextual Inquiry <u>In-class Assignment:</u> Project workshop w/team (Detailed planning for contextual inquiry)	<b>Individual HW2.</b> CITI Training Certificate
7 Tues 9/17	-	<b>Contextual Inquiry</b> <u>In-class Assignment:</u> Project proposal poster presentation ( <u>Bring your posters to class!</u> )	<b>Project Assignment 1.</b> Concept Statement
8 Thurs 9/19	<b>UX Ch. 4.1 - 4.3 (pp. 129 – 144)</b>	<b>Contextual Analysis</b> <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 9/24	-	<b>Contextual Analysis</b> <u>In-class Assignment:</u> Project workshop w/team (Contextual analysis #1)	

10 Thurs	9/26	<b>UX Ch. 4.4 (pp. 144 – 157)</b>	<b>Contextual Analysis</b> <u>In-class Assignment:</u> Project workshop w/team (Contextual analysis #2)	
11 Tues	10/1	-	<b>Extracting Interaction Design Requirements</b>	
12 Thurs	10/3	<b>UX Ch. 5 (pp. 161 – 180)</b>	<b>Extracting Interaction Design Requirements</b> <u>In-class Assignment:</u> Requirements extraction	
13 Tues	10/8	<b>UX Ch. 5 (pp. 161 – 180)</b>	<b>Design Thinking, Ideation, and Sketching</b> <u>In-class Assignment:</u> Empathy map development	<b>Project Assignment 2.</b> Contextual Inquiry and Contextual Analysis
14 Thurs	10/10	<b>UX Ch. 7 (pp. 251-298)</b>	<b>Design Thinking, Ideation, and Sketching</b>	<b>Project Assignment 2.</b> Peer Review
15 Tues	10/15		<b>Midterm Exam</b>	
16 Thurs	10/17	<b>UX Ch. 7.1 - 7.4 (pp. 251-261)</b>	<b>Design Thinking, Ideation, and Sketching</b> <u>In-class Assignment:</u> Persona Midterm Review	
17 Tues	10/22	<b>UX Ch. 7.5-7.7 (pp. 264-291)</b>	<b>Design Thinking, Ideation, and Sketching</b> <u>In-class Assignment:</u> Persona	
18 Thurs	10/24	<b>UX Ch. 8.1-8.3 (pp. 299 – 316)</b>	<b>Mental Models and Conceptual Design</b> <u>In-class Assignment:</u> Ideation and Sketching	<b>Project Assignment 3.</b> Design Part 1: Persona, Ideation, Sketching
19 Tues	10/29	<b>UX Ch. 8.4-8.7 (pp. 316 – 332)</b>	<b>Design Production</b>	
20 Thurs	10/31	<b>UX Ch. 9 (pp. 333 – 358)</b>	<b>Design Production</b> <u>In-class Assignment:</u> Mental Models, Conceptual Designs, and Storyboards	<b>Project Assignment 3.</b> Design Part 2: Mental Models, Conceptual Design, and Storyboards
21 Tues	11/5	<b>UX Ch. 11 (pp. 391 – 426)</b>	<b>Prototyping</b>	<b>Project Assignment 3.</b> Peer Review
22 Thurs	11/7	<b>UX Ch. 11 (pp. 391 – 426)</b>	<b>Prototyping</b> <u>In-class Assignment:</u> Paper Prototyping and Testing	<b>Project Assignment 4.</b> Prototyping – Part 1: Your team’s paper prototypes and the paper prototyping test results
23 Tues	11/12	<b>UX Ch. 12 (pp. 427 – 466)</b>	<b>Digital Prototyping &amp; Wireframes</b>	
24 Thurs	11/14	<b>UX Ch. 12 (pp. 427 – 466)</b>	<b>UX Evaluation</b>	<b>Project Assignment 4.</b> Prototyping – Part 2: Design low-fidelity wireframes
25 Tues	11/19	<b>UX Ch. 12.5 – 12.5.3 (pp. 436 - 452)</b> <b>13.1-13.4 (467-479)</b>	<b>UX Evaluation</b>	<b>Project Assignment 4.</b> Peer Review

26 Thurs 11/21	<b>UX Ch. 17 (pp. 593 – 610) Ch. 18 (pp. 611 – 618)</b>	<b>Reporting and Wrapping up UX Evaluation</b>	<b>Project Assignment 5.</b> Evaluation – Evaluating Other Teams' Prototype
27 Tues 11/26		<b>Final Review</b>	<b>Project Website</b>
<b>Thanksgiving Break</b>			
28 Tues 12/3		<b>Project Presentations 1</b>	<b>Project Assignment 6.</b> Project Presentation  All teams' presentation slides must be submitted by this due date/time. No other deliverables. You will give presentations for your projects in class.
29 Thurs 12/5		<b>Project Presentations 2</b>	<b>Individual HW3.</b> Reflection  <b>Final Project Peer Review</b>
30 Wed 12/11		<b>Final Exam (10:30 – 12:30)</b>	

**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.