

Instructor

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Course Information

ISM 210 Section 401
 Class times: Mon and Wed, 10:10-11:40 PM
 Room: CDM 220 Campus: Loop
 Course homepage: <https://d2l.depaul.edu/>

Course Summary

Why study Human-Computer Interaction? As more and more of our everyday lives become mediated by interactive systems, it becomes even more pressing to understand how to create an effective user experience. This course will help you understand what makes interactive systems such as web sites, mobile apps, and games easy to use, efficient, useful, and enjoyable. Students in this class will draw upon theory, principles, user research methods, and case examples to develop perspectives and skills for designing interactive systems.

Learning Objectives

1. Students will be able to critique a software application or device using interaction principles of interaction design.
2. Students will develop an understanding of the user-centered design process and will be able to conduct user research methods for need finding, generating insights, and developing concepts for interactive systems.
3. Students will be able to apply user research to design a digital application (website or mobile app) and create an interactive prototype
4. Students will gain an understanding of usability and evaluation methods.

Class Format

Class meetings will involve a combination of lecture, discussions, hands-on activities, presentations of projects, and group work. I will encourage and expect participation and cooperation from each student, as the success and enjoyment of this class depends on it! I find that students will get more from the course if they are willing to collaborate and learning from each other.

Required Texts

- Saffer, Dan (2009). *Designing for Interaction: Creating Innovative Applications and Devices* (2nd Edition).
- Norman, Donald A. (1988). *The Design of Everyday Things* (2002 Edition)

Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If changes are made, they will be thoroughly addressed during class.

Evaluation & Grading

Coursework includes the following components.

	Grade Proportion
Participation	5%
Homework Assignments (individual)	30%
Group Project	30%
Midterm Exam	20%
Take-home Final Exam	15%
<i>Total</i>	100%

Participation. The participation portion of the grade is based on attendance and on contributions to class discussions and activities. Assigned readings are due on the date listed in the class schedule. Read, and review the material, take notes on it and be ready to discuss it. In some cases, satisfactory work from in-class activities must be handed in order to receive participation credit.

Homework Assignments. Homework assignments are expected to be individual efforts. Details about each of these assignments will be posted in D2L.

HW1 Design Critique I
 HW2 Design Critique II
 HW3 Principles Presentation

Group Project. Students will work in groups of two or three to design a new web site or mobile app. All students are expected to contribute equally to the project. At the completion of the project, students working in a group must provide a peer review of their teammates. The review is used, in part, in determining each student's team project participation score, which constitutes a portion of the student's overall final grade.

P1 User Research Protocol
 P2 Personas
 P3 Concept Exploration
 P4 Prototyping and Evaluation

Exams. The midterm and final exams will assess understanding of key concepts covered in the course.

Grading Scale

Letter grades will be given based on the following minimum percent of total points earned.

A	93.00%	Excellent/Outstanding effort
A-	90.00%	Very Good
B+	88.00%	
B	83.00%	Good
B-	80.00%	
C+	78.00%	
C	73.00%	Satisfactory
C-	70.00%	
D+	68.00%	
D	60.00%	
F	0.00%	

Class Schedule

MODULE 1 Introduction to HCI and Interaction Design

W Sep 11 **Intro to interaction design and user experience**
Saffer, Ch. 1 What is Interaction Design?
Saffer, Ch. 2 The Four Approaches to Interaction Design

MODULE 2 Essential Interaction Design Principles

M Sep 16 ***It's not your fault! Why so-called human errors are actually errors of design***
For this module, focus your reading on the key concepts. (Bring your The Design of Everyday Things book to class.)
Norman, Prefaces
Norman, Ch. 1 The Psychopathology of Everyday Things
Key concepts: affordance, conceptual models
Norman, Ch. 2 The Psychology of Everyday Actions
Key concepts: learned helplessness, 7 stages of action, gulf of execution, gulf of evaluation
Due [Student Questionnaire](#)

W Sep 18 ***How do you know what to do? IxD principles continued: visibility, constraints, feedback***
Norman, Ch. 3 Knowledge in the Head and in the World
Key concepts: memory, natural mappings, knowledge in the head, knowledge in the world
Norman, Ch. 4 Knowing What to Do
Key concepts: constraints, visibility, feedback
Activity Examining everyday objects; Sharing of HW1
Due [HW1: Design Critique I](#)

M Sep 23 ***Oops! Understanding and designing for error***
Norman, Ch. 5 To Err is Human
Key concepts: errors, slips, mistakes, structure of tasks, forcing functions
Norman, Ch. 6 The Design Challenge
Key concepts: designers/clients are not users, selective attention, creeping featurism, explorable systems
Activity Design task

W Sep 25 ***Applying Norman's seven principles in user interface design***
Norman, Ch. 7 User-centered Design
Key concepts: Norman's seven principles
Due [Principles presentations](#)

MODULE 3 Understanding User Needs

M Sep 30 ***What should we design and why? Methods for problem framing***
Saffer, Ch. 3 Design Strategy
Activity Design challenge brief; Competitive analysis
Due [Group Formation Survey](#)

W Oct 2 ***What do users need? User research methods: ethical conduct, interviews, observations***
Saffer, Ch. 4 Design Research
Activity Launch group work; User interviews
Due [HW2: Design Critique II](#)

M Oct 7 ***Group project work: User research; Midterm review/questions***
Due [P1: User research protocol](#) *Bring printed copy to class.*

W Oct 9 **MIDTERM EXAM**

MODULE 4 Making Sense of User Research

- M Oct 14 **Now What? Tools and methods for analyzing user research data**
Saffer, Ch. 5 Structured Findings
Activity Turning insights to design principles
Due Research research results *Bring the results of your user interviews to class (i.e., printed notes). These are not graded, but required in class participation.*
- W Oct 16 **Group project work: Analyzing research**
Activity Developing personas
- M Oct 21 **What should it do? Brainstorming, creating concepts, design principles**
Saffer, Ch. 6 Ideation and Design Principles
Activity Ideation methods

MODULE 5 Design, Prototyping, and Testing

- W Oct 23 **Making your ideas come alive. Methods for documenting and refining design**
Site maps, scenarios, sketches, storyboards, task flows, use cases
Reading Saffer Ch. 7 Refinement (focus on methods for documenting and refining a design)
Activity Sharing of P2; Sketching
Due P2:Personas *Bring a printed copy to class and post to D2L.*
- M Oct 28 **How should it work? Prototyping**
Reading Saffer Ch. 8 Prototyping, Testing, and Development
Activity Paper prototype
- W Oct 30 **Shaping the user experience: Laws of interaction design; Gestalt principles; Wireframes**
LAB TBA **Introduction to Balsamiq Mockups**
Reading Saffer Ch. 7 Refinement (focus on design principles)
Activity Sharing of P3; Applying Gestalt principles
Due P3: Concept Exploration *Bring a printed copy to class and post to D2L.*
- M Nov 4 **Checking for usability: Heuristic evaluation; More work with Balsamiq Mockups**
LAB TBA **Activity** Evaluating and refining group projects
- W Nov 6 **Does it do what we want it to do? Usability and User Testing**
LAB TBA **Activity** Evaluating and refining group projects

MODULE 6 Projects: Putting it all Together

- M Nov 11 **Project work**
- W Nov 13 **Final presentations, Part 1**
Due Group presentations, first group
- M Nov 18 **Final presentations, Part 2; Wrap-up** *Last class meeting*
Due Group presentations, second group
Due P4: Prototype and Evaluation
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- W Nov 20 **Due:** Take-home Final Exam

Assignments, Deadlines, and Submissions

Deadlines. Assignments must be submitted **by 9:00 AM** on the due date indicated above, unless announced otherwise. All assignments should be submitted to D2L.

Policies & Expectations

Attendance

Students are expected to attend all classes and participate in class activities. Attendance will be taken. Please communicate with me if you must be absent for any reason. Students are individually responsible for material they may have missed due to absence or tardiness.

Unexcused absences should not exceed two during the quarter. A third absence will reduce your final grade by one letter grade. Tardiness that exceeds 30 minutes is counted as an absence. Two late arrivals or early departures, or a combination of both, are counted as one absence. Please notify me in advance if there are any special needs.

Guidelines for Class Behavior

- Take an active role in class discussions and activities.
- Be on time.
- Be a respectful participant by keeping phones in silent mode.
- When working in a computer lab, please keep eyes up (and off your individual monitors) when attention should be paid to the group discussion or presentation. It is unprofessional and disrespectful to the instructor and other students to be surfing the internet, chatting, or checking social media.

Incomplete Grades

An incomplete grade is given only for an exceptional reason such as a death in the family, a serious illness, etc. Any such reason must be documented. Please note that University guidelines require that you must be earning a passing grade at the time you request an incomplete grade. You should have completed most of the course, with at most one or two major forms of evaluation missing. Any incomplete request must be made at least two weeks before the final, and approved by the Dean of the College of Computing and Digital Media. Any consequences resulting from a poor grade for the course will not be considered as valid reasons for such a request.

Coursework Grade Review Requests

Every effort is made to grade in a fair and consistent manner. Should a disagreement arise about a coursework grade, the student may submit a grade review request in writing to the instructor. The request must be submitted within 48 hours after the assignment grade has been posted. The request must include the student's argument for a different grade evaluation, based on verifiable evidence presented by the student. The instructor handles grade review requests and responds to the student with a review decision as soon as possible.

Academic Integrity Policy

This course will be subject to the faculty council rules on the Academic Integrity Policy. Cheating includes plagiarism, fraud, and other forms of academic dishonesty. University guidelines on academic integrity and plagiarism can be found at <http://academicintegrity.depaul.edu>.

Resources for Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted either:

- PLuS Program (for LD, AD/HD) at 773-325-4239 in SAC 220
- The Office for Students with Disabilities (for all other disabilities) at 773-325-7290 Student Center 307

Plagiarism

The university and school policy on plagiarism can be summarized as follows: Students in this course, as well as all other courses in which independent research or writing play a vital part in the course requirements, should be aware of the strong sanctions that can be imposed against someone guilty of plagiarism. If proven, a charge of plagiarism could result in an automatic F in the course and possible expulsion. The strongest of sanctions will be imposed on anyone who submits as his/her own work a report, examination paper, computer file, lab report, or other assignment which has been prepared by someone else. If you have any questions or doubts about what plagiarism entails or how to properly acknowledge source materials, be sure to consult the instructor.

Assignments submitted to D2L will be electronically checked for plagiarism (using specialized software built in to D2L).

Online Instructor Evaluation

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over two weeks. Students do not receive reminders once they complete the evaluation.