

ISM 210 Introduction to Human-Computer Interaction

Course Information

Class number: 16261, Section 401
Online Class number: 16262, Section 410
Class times: Mondays and Wednesdays, 10:10-11:40 AM
Room: CDM 220 Campus: Loop
Course homepage: <https://d2l.depaul.edu/>
Class COL recordings are available through a link in D2L or directly from COLWeb: <https://col.cdm.depaul.edu/>

Instructor

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Course Summary and Objectives

This course introduces students to various components of human-computer interaction and the process of interaction design. Students draw upon theory, principles, design research methods, and case examples to develop perspectives and skills for designing interactive systems.

Learning Objectives

1. Students will develop a design point of view and will be able critique a software application or device drawing from principles of interaction design.
2. Students will be develop an understanding of the user-centered design process and practice methods for understanding users, generating insights, concept development, prototyping, and testing/evaluation.
3. Students will experience interaction design as a social process and will practice:
 - (a) *communicating and collaborating* using written, oral, and multimedia forms
 - (b) *observing and interacting with users* to develop empathy and understanding; and,
 - (c) *using tools* to develop and communicate representations of design ideas.

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)

Additional mandatory and optional reading materials will be provided on D2L.

Changes to Syllabus

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

Grading

Coursework includes the following components.

	Grade Proportion	Points
Class Participation	10%	20
Homework Assignments	25%	50
Midterm Exam	30%	60
Final Project and Presentation (Team)	35%	70
<i>Total</i>	100%	200

Grading Scale

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

A	93.00%	186 points
A-	90.00%	180 points
B+	88.00%	176 points
B	83.00%	166 points
B-	80.00%	160 points
C+	78.00%	156 points
C	73.00%	146 points
C-	70.00%	140 points
D+	68.00%	136 points
D	60.00%	120 points
F	0.00%	0 points

Class Participation

Class participation points are earned by attending class and being an active participant in class activities. Online students are expected to view each class recording and post one substantive comment or question in the D2L discussion for that class; or, submit work related to an in-class activity (any special instructions for online students will be provided).

Homework Assignments

Homework assignments are expected to be individual efforts. Details about each of these assignments will be posted in D2L and should be posted to D2L unless otherwise specified.

- HW1 Conceptual Framework/Critique
- HW2 Competitive Analysis
- HW3 Task Analysis
- HW4 Personas assignment
- HW5 Prototyping assignment

Midterm Examination

The midterm exam will assess understanding of key concepts covered in the first half of the course.

Final Project

The Final Project is done as part of a team All students are expected to contribute equally to the project. At the completion of the project, students 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.

Course Overview

MODULE 1 Introduction to HCI and Interaction Design

- WED 9/5 Syllabus review. Introduction to course topics and logistics. Discussion of interaction design examples.
Reading Saffer, Ch. 1 *What is Interaction Design?*; Ch. 2 *The Four Approaches to Interaction Design*
- MON 9/10 Consequences of bad design. Conceptual models, feedback, constraints, affordances.
Reading Norman, Prefaces, Ch. 1 *The Psychopathology of Everyday Things*; Ch. 2 *The Psychology of Everyday Actions*
In-Class Activity *Everyday Things* activity
Due HW1: Conceptual Framework/Critique

MODULE 2 Design Research Methods

- WED 9/12 Design strategy. Methods for framing problems. Project planning.
Reading Saffer, Ch. 3 *Design Strategy*
- MON 9/17 Design research process and methods. Talking to and observing people. Understanding needs and desires.
Reading Saffer, Ch. 4 *Design Research*
In-Class Activity Structured Interviews
Due HW2: Competitive Analysis
- WED 9/19 Making sense of data. Identifying patterns. Defining opportunities. Methods and formats for representing analysis.
Reading Saffer, Ch. 5 *Structured Findings*
In-Class Activity Task Analysis
- MON 9/24 Conceptual design. Developing insights and creating solutions.
In-Class Activity Brainstorming and concept generation
Reading Saffer, Ch. 6 *Ideation and Design Principles*
Due HW3: Task Analysis

MODULE 3 Developing and Refining a Concept

- WED 9/26 Laws and principles of interactions design. Frameworks. Design development methods.
In-Class Activity Scenarios, Use cases
Reading Saffer Ch. 7 *Refinement*
- MON 10/1 Focus on methods to develop and refine ideas.
Due HW4: Personas Assignment
- WED 10/3 Working with interaction design principles.
Reading Norman Ch. 3 *Knowledge in the Head and in the World*, Ch. 4 *Knowing What to Do*, and Ch. 5 *To Err is Human*
- MON 10/8 **Midterm Exam**

MODULE 4 Design and Prototyping

- WED 10/10 Elements and principles of visual interface design.
Reading TBA
- MON 10/15 Value of prototyping. Types of prototypes.
Reading Saffer Ch. 8 *Prototyping, Testing, and Development*
- WED 10/17 **In-Class Activity:** Paper prototype
Reading Rettig, Marc. "Prototyping for Tiny Fingers." *Communications of the ACM* 37, no. 4 (April 1994): 21-27. (Provided in d2l)
- MON 10/22 **In-Class Activity:** Prototyping tools
LAB location TBA

MODULE 5 Final Projects

WED 10/24 Project kick-off. Expectations for final projects.
Project work: Needs analysis and concept generation.
Due HW5: Prototyping Assignment

MON 10/29 Project work: Concept development

WED 10/31 Project work: Scenarios, storyboards

MON 11/5 Project work: Prototyping, testing

WED 11/7 **Final Presentations, Part 1**

MON 11/12 **Final Presentations, Part 2**

MON 11/19 **Final Projects due**

Policies & Expectations

Attendance

In-class students are expected attend all classes and participate in class activities. Attendance will be taken. 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. To get class participation credit for any classes missed, students must view the class recording and post one substantive comment to the d2l discussion for that class, and submit the in-class activity work, if applicable. Please notify me in advance if there are any special needs.

Online students are expected to view each class recording and must post at least one substantive comment or question related to the class topics. D2l discussion forums will be used to organize these reactions and conversations related to the class content. This counts toward the class participation points. Students are encouraged to read other comments and engage a conversation.

Class Participation

Take an active role in class discussions, activities, and group work. Be on time. Be a respectful participant by keeping phones in silent mode and being attentive to class activities.

Assignments

Homework assignments are to be posted via D2L by **10:00 AM** on the due date. All students are allowed one late assignment without penalty. Five (5) points will be deducted for each day that a homework assignment is late.

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.

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.

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>.

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.

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. 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.

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:

- PLoS 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