Syllabus for HCI 450: Foundations of HCI, Spring 2024

Overview

Application of psychological theory to the design of computer systems. Overview of applicable research methods. Sensation, cognition, decision making, display and control design.

Learning Outcomes

By the end of this course you should be able to:

- explain the *why* behind HCI usability guidelines and heuristics.
- determine when guidelines do and do not apply
- find, evaluate, and summarize research on a given HCI research topic
- deeply understand and describe one particular HCI research area

Prerequisites

IT 403

Textbooks

- Required: *Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Guidelines*, **THIRD** Edition, 2020. Jeff Johnson. ISBN-13: 978-0128182024, ISBN-10: 0128182024.
- Recommended: *The Design of Everyday Things*, 2013. D. Norman. Basic Books. ISBN: 0465050654.

Attendance

This class will run on an In-class/Online Sync/Async modality. Every Wednesday starting April 3rd at 5:45 PM central time, we will have an "interactive session" in class and via Zoom. This will be for announcements, warm-ups, and any other parts of the course where it is especially important that we meet "face-to-face". These sessions will be recorded so you can see them later if you can't join in at that time.

In the classroom, please silence and stow your cellphones. No texting or tweeting, etc during class. (Guesses about why?)

The interactive sessions will be augmented by videos where I go into more depth about the topics covered in the readings, show examples, etc. *There will also be exercises and discussion items linked to these, so watch them if you want a good grade!* These are listed under the Content tab in D2L on a week-by-week basis. You can use the checkbox feature there to track for yourself which parts you have already completed and which you still need to do.

Please note that because this class is hybrid in-class and online, more responsibility will fall on you to ensure that you're keeping up with all of the class videos, requirements, discussions, warm-ups, and assignments. I have tried to set it up in an organized fashion, but you might also want to keep an external calendar to help you keep track of what is due when. You can print out the calendar through the D2L calendar tool, or subscribe to the course calendar. (See instructions under `Content > Online Student Success > Subscribe to the Course Calendar`.)

Feeling **Zoom Fatigue?** It's a thing! Check out `D2L > Content > Online Student Success > Zoom Fatigue` for ways of coping, while still maximizing your participation in, and learning from class!

Class Plan

The following class plan is tentative and subject to change as the course progresses.

- **Class 1:** (4/3) Course overview. Introduction.
- **Class 2:** (4/10) Research methodology
- **Class 3:** (4/17) Perception I
- **Class 4:** (4/24) More perception: Color vision, Peripheral vision. Reading is unnatural.
- **Class 5:** (5/1) Cognition: Attention and memory
- **Class 6:** (5/8) Affordances. Motion
- **Class 7:** (5/15) Multiple minds; Learning.
- **Class 8:** (5/22) Rarely rational; Timing; Stress.
- **Class 9:** (5/29) Errors; Multitasking; Social effects.
- **Class 10:** (6/5) Course Review

Instructor Information

Email	peterh@cdm.depaul.edu
Home Page	http://reed.cs.depaul.edu/peterh/
Phone	312-362-5736
Office Hours	Via Zoom, phone, or in-office: Mondays and Wednesdays from 3:30-5:00pm, or by arrangement
Address	CDM Center 717

Assessment

Your final grade will be based on:

- Weekly warm-ups: 10 points
- Class participation: 10 points
- Two written assignments: 25 points (10 and 15 points)
- Literature Review topic, outline, paper and presentation: 35 points total
- Final exam: 20 points

The grading scale will be:

Points	Grade
93.3+	A
90	A-
86.6	B+
83.3	B
80	B-
76.6	C+
73.3	C

Points	Grade
70	C-
66.6	D+
60	D
< 60	F

Weekly Warm-ups:

To help you get the most out of the readings, there will be weekly warm-ups on that week's readings through D2L. The warm-ups will generally consist of around 6 questions, and must be completed **before noon** (i.e., 11:59 AM) on the day of the scheduled class. (This will allow me to integrate what you did into the class for the day.) The lowest warm-up score will be dropped.

Participation / Exercises

- All students can get participation points by posting comments to the weekly discussion topics. The postings should be meaty (not e.g., "I agree", or "I disagree").
- *Please note:* Timely participation is critical! Weekly discussion forums will close before the next class.
- Each week I will include at least a couple **Exercises**. You should post your answers to these on the Discussion Forum.
- My general expectation is that you will do all of the exercises. However, instead of doing one exercise, you can post a meaty response to someone else's answer.
- *Please note:* Please don't expect me to respond to every post. I will be browsing, but I can't respond to everything. *However,* there are also discussion forums for you to post questions about the assignments. I will respond to these, unless one of you makes a good response first!

You can get participation **extra credit points** (to make up for missed participation opportunities) by participating in the [CDM participant pool](#). Each hour of participation will earn 1 participation point, up to a max of 2 points. When you sign up for a study, you indicate which course you want the credit to apply to. Each study can only count for one course.

Assignments

- Unless otherwise stated, written assignments are due via D2L at the time and date posted on the course homepage.
- Late homework submissions will be accepted up to 3 days late with a penalty of 10% per day.
- All homework assignments will count towards the final grade.
- The Literature Review paper will include a video presentation to the class that describes what you learned.
- I will try my best to get feedback and grades to you within a week of submission. Availability of a grader and the number of students may affect that.

Final Exam

The final exam will be proctored for all students.

The exam will be given at the regularly scheduled class day and time during finals week. All students registered for the in-class section *must attend* at this time. There will be no make-up exam offered. The exam will be given either in the classroom, or via Zoom Remote Proctoring, TBD.

Students registered for the online section may register to take the final either in the classroom at the scheduled time, or take it with an approved proctor some time between the Sunday before finals

week and the time of the in-class final. See the <u>Exam Proctoring page</u> for more details.

Assignment resubmissions:

If you get 85% or lower on Project A1, A2, R1, or R2, you may resubmit the assignment for up to 75% of the missed points (except for late penalty points), if you, **within one week of receiving the initial grade**:

- *Using "Track Changes" or highlighting any changes*, create a modified document,
- Submit your modified assignment (with modifications clearly indicated by track changes or highlighting) to the **Resubmissions ONLY** D2L submissions folder.

However, this does not apply to assignments which were not submitted at all.

When you resubmit, add a note to clearly indicate which assignment this resubmission is for. Also, email me to notify that you have resubmitted, with the subject line: "HCI 450: Project _ RESUBMISSION for _" (filling in the project number and your name).

Academic Integrity Policy

Work done for this course must adhere to the University Academic Integrity Policy, which you can review in the Student Handbook or by <u>visiting the Academic Integrity website</u>.

You are encouraged to discuss all homeworks and projects with your classmates. You are, however, required to complete them on your own. In particular, this means that you are not allowed to "cut and paste" text from anywhere else, *or to paraphrase* someone else's work, unless:

- it is a *very small* part of your submission,
- AND the copied text is clearly indicated (i.e. surrounded by quotation marks),
- AND the source is clearly identified with an immediate citation,
- AND full reference information is given in the References section.

All assignments will be submitted to TurnItIn for automatic plagiarism testing, and "Originality Scores" will be visible. This system is very good at finding things that have been copied, so *just do not copy anything*. If you are unsure of how to cite a source, ask!

Communication

If you have questions, I prefer that you post them on D2L. I have set up forums for questions about each of the assignments, along with forums for exercises and other things. The benefit of posting a question this way is that when I answer, everyone will be able to see it. And you might even get a faster answer from a fellow student. If you have a private question, you can email me, but you should put "HCI 450" in the subject line so I will notice it. I should respond within 24 hours. If I don't, that means it got lost in the sea of junk email I get, so feel free to try again.

Diversity, Equity, and Inclusion

At DePaul, in CDM, and in this class, we take Diversity, Equity, and Inclusion very seriously. In particular for this class, that means that I am committed to maintaining an environment which values diversity, and where *all* members of the learning community will be given the support they need to best achieve the learning objectives of the course. For more information, consult <u>CDM's Diversity, Equity, and Inclusion page</u>.

<u>School policies on instructor evaluation, email, plagiarism and incompletes</u>