

ISM220: Interactive Design and Prototyping

Spring 2020, Location: Online

Prerequisites: ISM 210 or GD 200

Class website (updated weekly) available at: <http://d2l.depaul.edu>

Instructor: Kate Hollenbach

Contact Info: kate.hollenbach@depaul.edu

Pronouns: she/her or they/them

Office Hours (via video chat with [Zoom](#)):

Mondays and Wednesdays, 10-11:45am

Thursdays, 1:30-4:45pm

By appointment: Sunday-Wednesday, 8-9pm (tentative)

Course Overview

What does it take to create a digital application that is useful and usable? This course focuses on conceptualizing, designing, and prototyping interactive applications. Students will apply design principles and patterns in a user-centered design process, build and refine interactive prototypes.

Learning Objectives

1. Students will be able to create sketches, wireframes, and interactive prototypes of interaction designs as part of a user-centered design process.
2. Students will develop an understanding of common design patterns and practice applying them.
3. Students will be able to produce a coherent interaction design that reflects design and usability principles.
4. Students will be able to refine interaction designs by applying evaluation methods.

Texts

These are freely available through Safari Books Online via the DePaul Library.

- Tidwell, Jennifer. (2011). *Designing Interfaces: Patterns for Effective Interaction Design* (2nd Edition).
- Neil, Theresa. (2014). *Mobile Design Pattern Gallery: UI Patterns for Smartphone Apps*.
- Additional reading materials will be provided on D2L.

Course Structure

Our class exists online this quarter, during a tumultuous time. All of us are adjusting to recent changes in our home, work, and school lives.

Video lectures and assignments will be posted every week, but we will not meet online as a whole group. You can watch the video lectures at a time that is convenient for you. I will hold office hours during our normal class meeting times and be available by Zoom to answer your questions or talk about course content. I will remain flexible to make adjustments as the quarter goes on and we get a better sense of how to work together.

After the first week, our weekly rhythm will be:

- **Fridays:** Assignments and Course Materials for the following week will be posted on D2L by 5pm, starting with week 2.
- **Sundays:** Work from previous week due at 11:59PM, peer review opens.
- **Thursdays:** Peer reviews due on D2L discussion boards by 11:59PM (forum will lock at this time).

Any adjustments to this rhythm will be announced on D2L.

Course Website and Online Discussions

<http://d2l.depaul.edu>

Detailed assignments, video/reading links, and updates to course materials will be posted online every week. You will also turn in your work for grading here. We will use the discussion boards for peer reviews, taking the place of informal conversations that would have taken place in person. All major course announcements will take place via D2L.

Tentative Schedule

The course schedule will be updated every week on the class D2L page. I expect the topics covered here in the outline will change as we learn more about each other, but assignment due dates are set. Please check D2L every week for video lectures, readings, and assignment details.

Module 1: Introduction and Design Patterns		
Week 1 Monday, March 30	Lecture Topics <ul style="list-style-type: none">• Optional class meet & greet: Thursday, April 2, 1:30pm on Zoom• Introductions• User-centered design, usability, and design patterns	Activities <ul style="list-style-type: none">• Design Exercise #1• Peer Review #1: Introductions• Sign up for Design Pattern Presentations (link on D2L)• Read:<ul style="list-style-type: none">◦ What do Prototypes Prototype? (D2L)◦ Browse: https://darkpatterns.org/ and some of the other pattern library links in Class 1 slides
Module 2: Understanding Users and Context		

Week 2 Monday, April 6	Lecture Topics <ul style="list-style-type: none"> • Learning about users and context • User research and analysis • Prototypes 	Activities <ul style="list-style-type: none"> • Revised Design Exercise #1 • Peer Review #2 • Read: <ul style="list-style-type: none"> ◦ Watch on lynda.com: UX Design: 5 ◦ Creating Scenarios and Storyboards ◦ IDEO Tool kit: ◦ Find Themes: http://www.designkit.org/methods/5 ◦ Excerpts from (Kumar, 2012): Observations to Insights, Insights Sorting, Design Principles Generation
Module 3: Exploring Concepts and Solutions		
Week 3 Monday, April 13	Lecture Topics <ul style="list-style-type: none"> • Analysis, synthesis & ideation • Defining requirements with user stories • Generating Insights and design principles from user research <ul style="list-style-type: none"> ◦ Affinity diagramming ◦ Ideation and representation methods 	Activities <ul style="list-style-type: none"> • Design Exercise #2 • Peer Review #3 • Design Patterns Presentations (1) • Read: <ul style="list-style-type: none"> ◦ Tidwell, Ch. 2 Organizing Content: Information Architecture and Application Structure ◦ Tidwell, Ch. 3 Getting Around: Navigation, Signposts, and Wayfinding ◦ Tidwell, Ch. 4 Organizing the Page: Layout of Page Elements ◦ Neil, Ch. 1 Navigation
Week 4 Monday, April 20	Lecture Topics <ul style="list-style-type: none"> • NAVIGATION. Creating organization and structure • Writing user stories • Creating and testing paper prototypes • Design Pattern Presentations (1) 	Activities <ul style="list-style-type: none"> • Revised Design Exercise #2 • Peer Review #4 • Read: <ul style="list-style-type: none"> ◦ Prototyping for Tiny Fingers (Marc Rettig, 1994) ◦ Tidwell, Ch. 5 Lists of Things ◦ Neil, Ch. 4 Search, Sort, and Filter • Optional: The Skeptic's Guide To ◦ Low-Fidelity Prototyping (Busche, 2014)
Module 4: Designing the User Experience		
Week 5 Monday, April 27	Lecture Topics <ul style="list-style-type: none"> • 1:1 Check-ins with instructor 	Activities <ul style="list-style-type: none"> • Design Exercise #3

	<ul style="list-style-type: none"> • Creating Low Fidelity Prototypes 	<ul style="list-style-type: none"> • Peer Review #5 • Design Pattern Presentations (2) • Read: <ul style="list-style-type: none"> ◦ Tidwell, Ch. 8 Getting Input from Users: Forms and Controls ◦ Neil, Ch. 2 Forms
Week 6 Monday, May 4	Lecture Topics <ul style="list-style-type: none"> • SEARCH, SORT, AND FILTER • Design Patterns Presentations (2) 	Activities <ul style="list-style-type: none"> • Revised Design Exercise #3 • Peer Review #6 • Design Pattern Presentations (3) • Read <ul style="list-style-type: none"> ◦ Tidwell, Ch. 9 Using Social Media ◦ Neil, Ch. 8 Social Patterns
Week 7 Monday, May 11	Lecture Topics <ul style="list-style-type: none"> • FORMS • Design Pattern Presentations (3) 	Activities <ul style="list-style-type: none"> • Revised Design Exercise #3 • Peer Review #7 • Design Pattern Presentations (4)
Module 5: Testing and Refinement		
Week 8 Monday, May 18	Lecture Topics <ul style="list-style-type: none"> • SOCIAL PATTERNS • Design Pattern Presentations (4) 	Activities <ul style="list-style-type: none"> • Design Exercise 4 • Peer Review #8
Week 9 Monday, May 25	Lecture Topics <ul style="list-style-type: none"> • 1:1 Check-ins with instructor 	Activities <ul style="list-style-type: none"> • Revised Design Exercise #4 • Peer Review #9
Week 10 Monday, June 1	Lecture Topics <ul style="list-style-type: none"> • User testing 	Activities <ul style="list-style-type: none"> • Revised Design Exercise #4 + Write-up • Peer Review #10
Week 11 Thursday, June 11	Finals week <ul style="list-style-type: none"> • Design Exercise #4 Revisions DUE 	

Assignments

Further details for all assignments will be posted on D2L (<http://d2l.depaul.edu>) Please check there weekly for updates, including detailed requirements for each assignment.

Design Exercises (60%)

Assignments involve applying design patterns in user interface wireframes/prototypes.

Design Exercise 1: Sequence Map (10%)**draft due 04/05, final due 04/13* 11:59PM**

Learn to recognize and apply design patterns, practice sketching user interfaces, and practice designing a user interface to support a task while reflecting usability heuristics.

*final deadline is exceptionally on a Monday in observance of Easter Sunday.

Design Exercise 2: Figma Practice (10%)**draft due 04/19, final due 04/26 11:59PM**

Become acquainted with Figma and its main functions and practice applying design patterns that comprise the UI of an interactive system.

Design Exercise 3: Low and Mid-Fidelity Prototype (20%)**draft due 05/03, revisions due 05/10, final + write-up due 05/17 11:59PM**

Create a low fidelity prototype using paper prototyping methods to detail the overall architecture of a website as well as the layout and interaction flows. Then, create a mid- fidelity (wireframe) prototype in Figma to add more detail. Document your process in a short write-up.

Design Exercise 4: Mid-High Fidelity Prototype (20%)**draft due 5/25*, revisions due 5/31, final + write-up due 06/11** 11:59PM**

Develop a more high fidelity prototype that looks similar to what could be a final product or polish website or app. Write a document outlining your design choices and rationale.

*deadline exceptionally on a Tuesday in observance of Memorial Day.

**deadline on Thursday, during finals week.

Design Pattern Presentations (10%)

Students will present examples and analyses of selected design patterns in use. Students will sign up for a topic during week 1. Deadlines vary.

Peer Reviews (30%)

Post a link to your work on the D2L Discussion boards for comments and questions from your peers. Comment on your peers' work as directed in the topic description. Exact structures for these may change week to week: sometimes you will provide a heuristic evaluation, other times you may read design proposals, and in other weeks you will directly test others' prototypes and share your thoughts. More detailed instructions will be posted weekly.

Peer review will be open for 4 days after a project is due (Monday-Thursday). There are 10 peer reviews (one per week) and each one is worth 3 points. If you do them on time, you get all the points. Late peer reviews will not be accepted.

Grading and Evaluation

Project Weighting Breakdown

Final grades will be determined by the following breakdown, with 100 total available points:

- 10 points: Design Exercise 1
- 10 points: Design Exercise 2
- 20 Points: Design Exercise 3
- 20 Points: Design Exercise 4
- 10 points: Design Presentation
- 30 points: Peer Review (10x, 3 pts each)

Grading Scale

Course final grades will be determined using the following scale

A	95-100	C+	77-79
A-	90-94	C	73-76
B+	87-89	C-	70-72
B	83-86	D	60-69
B-	80-82	F	59 and below

Turning in Assignments

Design exercises will be due weekly at 11:59pm on Sundays. For each Design Exercise, please turn in a link to your Figma file and/or a single PDF documenting your sketches and process, as appropriate. Use the appropriate submission folder on D2L to submit your work. Post your work to the appropriate discussion board so that it is visible to your peers for their feedback.

Late Work

Late work will be accepted according to the following schedule:

- Less than one week late: up to 90% credit
- 1-2 weeks late: up to 80% credit
- More than 2 weeks late: up to 50% credit

The last day to submit late exercises for partial credit is Sunday before week 10: May 31, 11:59PM.

If you feel behind with the course material, please talk to me as soon as possible so that we can figure out how to get you caught up.

Late work for the final Design Exercise #4 submission cannot be accepted because I have to turn in your grades on time. However, we live in exceptional times. If you need an extension on the final project, I will work with you to file for an Incomplete grade.

Course Policies

Commitment to Diversity and Safer Spaces

In this class we make a commitment towards diversity by acknowledging the different identities and backgrounds we inhabit. A collaborative effort between the students and the teacher is needed for creating a supportive learning environment. If a class member says that something you have said or shared with the group is offensive, remember this is a valuable opportunity for everyone present to grow and learn from one another with further discussion. All class members are encouraged to discuss such instances with the instructor so they can be addressed with greater care in the future. [voidLab / CC SA]

Communication

Please use email to contact me. I usually respond within a few hours, if the message is received between 9am-5pm on a weekday. Please allow up to 24 hours for a response on a weekday or 48 hours for a response on a weekend or holiday before sending a follow-up email. Students should include specific class/section number details in all email correspondence.

Students should check email and D2L for announcements daily.

Academic Integrity and Plagiarism

This course will be subject to the university's academic integrity policy. More information can be found at <https://resources.depaul.edu/teaching-commons/teaching/academic-integrity/Pages/default.aspx>.

There are many, many examples of p5.js and Javascript code online that you are encouraged to seek out and study—however, all code you write for this class should be your own. If you borrow some code from a forum or post online, include a link to the original source as a comment in your code. Not only does this give the original author credit, but it can also be helpful as a reference to you for future use. It can be murky what does and doesn't constitute plagiarism when code is involved. If you are unsure, please ask!

College Policies

Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be addressed during a weekly course video, Announcements in D2L, and sent via email.

Preferred Name & Gender Pronouns

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the quarter so that I may make appropriate changes to my records. Please also note that students may choose to identify within the University community with a preferred first name that differs from their legal name and may also update their gender. The preferred first name will appear in University related systems and documents except where the use of the legal name is necessitated or required by University business or legal need. For more information and

instructions on how to do so, please see the Student Preferred Name and Gender Policy at <http://policies.depaul.edu/policy/policy.aspx?pid=332>

Online Course Evaluations

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 three weeks. Students do not receive reminders once they complete the evaluation.

Academic Policies

All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at:

<http://www.cdm.depaul.edu/Current%20Students/Pages/PoliciesandProcedures.aspx>

Incomplete Grades

An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term and when otherwise the student had a record of satisfactory progress in the course. All incomplete requests must be approved by the instructor of the course and a CDM Associate Dean. Only exceptions cases will receive such approval. Information about the Incomplete Grades policy can be found at

<http://www.cdm.depaul.edu/Current%20Students/Pages/Grading-Policies.aspx>

Withdrawal

Students should always be encouraged to discuss potential financial impacts in advance of making a decision to withdraw. Financial aid and tuition counselors are available in the [DePaul Central Office](#) for this purpose.

Students who miss the final withdrawal deadline and have a valid extenuating circumstance for missing that deadline may submit an appeal for administrative withdrawal to CDM or to the Dean of Students Office using the appropriate online submission form. Note that the CDM administrative withdrawal appeal process is for students who have a legitimate reason for missing the drop date, never attended class or extenuating circumstances that prevented them from withdrawing by the stated deadline. The Dean of Students administrative withdrawal appeal process is for students facing medical, mental health, or personal crises and were not able to withdraw by the stated deadline. If approved, a WA (administrative withdrawal) will appear on the transcript for the course. Students may direct any further questions regarding the financial implications of the administrative withdrawal to OFA_AdmWdrl@depaul.edu

Resources

Tutoring

The College of Computing and Digital Media offers a tutoring center as an additional resource to students in CDM 208. Use the tutoring website to set up an appointment:

<http://www.cdm.depaul.edu/Current%20Students/Pages/TutoringProgram.aspx>

Software Tutorials

Additional tutorials for using the Adobe Creative Suite are available via LinkedIn Learning (formerly lynda.com). For details on how to log in for free with your DePaul credentials, please see:

<https://offices.depaul.edu/information-services/services/technology-training/Pages/online-training.aspx>

Emergency Plan

An emergency can occur at any time, suddenly and without warning. Proper planning is essential to minimize the impact of any emergency on the university community, operations and facilities. The following link provides detailed information on Emergency Evacuation and Fire Alarm safety:

<https://resources.depaul.edu/emergency-plan/emergency-evacuation/Pages/Evacuation.aspx>. The University will use the DPU Alert to announce school closing or other emergencies. In the event of an emergency evacuation, the primary outdoor assembly area for CDM will be Grant Park (Southeast corner of Jackson and Michigan Ave).

Students with Disabilities

Students seeking disability-related accommodations are required to register with DePaul's Center for Students with Disabilities (CSD) enabling them to access accommodations and support services to assist with their success. There are two office locations:

Loop Campus – Lewis Center #1420 – (312) 362-8002

Lincoln Park Campus – Student Center #370 – (773) 325-1677

Students who register with the Center for Students with Disabilities are also invited to contact Dr. Gergory Moorhead, Director of the Center, privately to discuss how he may assist in facilitating the accommodations to be used in a course. This is best done early in the term. The conversation will remain confidential to the extent possible.

Please see <https://offices.depaul.edu/student-affairs/about/departments/Pages/csd.aspx> for Services and Contact Information.

Important Dates + Academic Calendar

For the entire academic calendar for the year, please see

<https://academics.depaul.edu/calendar/Pages/default.aspx> and make sure to pick 2019-2020.

April 3, 2020 11:59 PM

Deadline to add classes to Spring 2020 schedule

April 13, 2020

Last day to drop Spring 2020 classes with no penalty (100% refund of tuition if applicable and no grade on transcript)

April 14, 2020

Grades of "W" assigned for Spring 2020 classes dropped on or after this day

April 17, 2020

Last day to select auditor status for Spring 2020 classes

May 15, 2020

Last day to withdraw from Spring 2020 classes