

Prototyping the User Experience (Info 69I)

College of Computing & Informatics, Drexel University
Course Syllabus, Spring 2022

Professor

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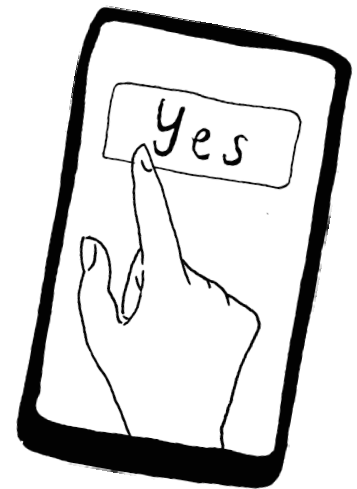
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Student Hours: by appointment

Course Overview

This course introduces students to prototyping techniques and tools for a range of user experience and design contexts. Students will learn about and practice a series of methods such as sketching, wire-framing, physical prototyping, functional prototyping and Wizard-of-Oz approaches. Students will learn about how different prototyping techniques serve different purposes in the design process and select or adapt appropriate methods to meet their needs.



Course purpose

This is one of the five core courses for the Human-Computer Interaction and User Experience major within the Masters of Science in Information degree program. As a **prerequisite** for this course, students should have taken Info 508 or Info 608 (concurrently is fine). This course focuses on specific techniques for generating, exploring and communicating design ideas, while other courses in the program focus on the design process and evaluating designs.

Learning targets

As a result of your experience in this course, you will be able to:

- Create user interface prototypes using a variety of tools
- Select appropriate prototyping methods and tools for different projects
- Adapt prototyping techniques when appropriate
- Explain the role of prototyping in user experience design
- Demonstrate the relationship between prototyping tools and designed products

In addition, as your instructor I will help you to:

- Self-reflect on your work and cultivate a growth mindset
- Receive and respond to feedback gracefully
- Build your confidence in presenting your ideas in physical, tangible form, including through sketching
- Develop your skills of good thinking and related habits of mind, such as love of learning, intellectual courage, intellectual humility, and practical wisdom
- Contribute to a team effort and learn what makes a design team successful

Course mechanics

Course structure

This course has two sections under one roof: one online and asynchronous (section 900); and another that meets in person on Thursdays (section 001). The course is organized into weeks, each running Monday to Sunday. You can find an at-a-glance view of each week's topic on the final page of this syllabus.

Assignments are always due on Sunday by 9:00 p.m. Eastern. (After 9 o'clock you can do something fun or turn in for a good night's sleep.)

Each week will include readings, videos and activities. For those in the synchronous section (001), we'll do many of these things during class. For those in the online section, all of this can be done according to your own schedule. There will be some elements of teamwork in the course; online students will be matched with teammates who have a similar schedule as much as possible.

Time commitment

This is a graduate course in a professional school. Drexel estimates that the total workload (readings, assignments, notes, exercises) will take *12 to 15 hours per week*. Be prepared for a serious commitment of attention and effort. It will pay off!

Textbooks

We'll use two books in this class, a textbook and its accompanying workbook:

- Buxton, Bill. (2007). **Sketching User Experiences: Getting the Design Right and the Right Design**. Morgan Kaufman.
- Greenberg, Carpendale, Marquardt and Buxton. (2012). **Sketching User Experiences: The Workbook**. Morgan Kaufman.

Online versions of both are available free to you through Drexel Libraries, but obtaining a hard copy of at least the workbook is highly recommended. These books are not just text—they are visual, engaging and designed for a tactile reading experience.

Materials and software

During the first week, you should procure a notebook. (If you've taken Info 508, you can use your same trusty Design Notebook, assuming you have spare pages. Otherwise, get Design Notebook II.) This can be of any size or type; the only requirement is that it must be a physical, paper notebook. Take this opportunity to find a notebook that inspires you. You can personalize it as much as you like, or leave it crisp and clean. It can be expensive or cheap; if you're interested in getting a high quality notebook, some popular brands include Leuchtturm 1917, Midori, Rhodia and, of course, Moleskine.

This course will make use of some free prototyping software, such as Figma (free for students). You will be introduced to a handful of digital tools, but you are free to explore other software as you like. This class involves an open-ended design project, and the hope is that you'll be interested and inspired enough to explore the use of basic image and video editors, perhaps rudimentary prototyping tools, etc.

If you haven't already learned this the hard way, you should back up your work regularly. I recommend using a syncing backup service; Drexel offers all students 5 TB of space in [Drexel OneDrive](#). Other similar services include [Dropbox](#), [Google Drive](#) or [Box.net](#).

Contacting me

Student-instructor interaction is an important part of any course. I am available to you, even in this asynchronous, online setting. I want to help you succeed in this course, in your program at Drexel—and in life. Please contact me with any questions, problems, discoveries or anything else.

If your question is general and may be of interest to others in the class (e.g., syllabus, readings, schedule, etc.), please post it on the *Questions About the Course* Discussion Board so that others can benefit, or ask during class. With **personal or urgent questions**, you should email me directly (tjg68@drexel.edu). If you have a **technical question**, you will be better off contacting the Instructional Technology Group. See <http://www.drexel.edu/irt/help/learn> or call (215) 895-1224.

Feel free to email me at any time. Note, however, that I do not generally check email on nights or weekends. In our always-on society, it is important to set boundaries—firstly because healthy lives require off-time, and also because our academic activities require uninterrupted periods of time for reading, writing and thinking. Moreover, taking time for rest and pursuing leisure activities have been shown to improve productivity, creativity and accomplishment, as Alex Pang discusses in his book *Rest: Why You Get More Done When You Work Less*. I hope you will join me in living with more balance.

Assignments and Grading

This course includes four main types of assignments, some of which will be individual and some team-based. Full details are provided on Blackboard, but to give you an overview:

- **Sketching Exercises:** You will complete a number of exercises from *Sketching User Experiences: The Workbook*. You'll submit these in five batches spread throughout the term. These assignments should take about one hour per week.
- **Portfolio Website:** You'll create a personal portfolio website to host your design work. No coding is necessary; for this course, you can make use of free hosting platforms such as [Weebly](#) and [UXFolio](#). You'll start this early on in the course, and you'll post the following assignments there.
- **Team Prototypes:** With a small team, you'll create three prototypes responding to design requirements and scenarios that will be provided. Through these assignments, you'll practice storyboarding, mid-fidelity prototyping, physical prototyping and digital interface prototyping. As part of these assignments, you'll provide critiques (constructive feedback) on some of your classmates' work. Critique is an indispensable part of design, and we'll get to practice the skill of both giving and getting such feedback.
- **Innovation and Reflection:** In the final assignment of the course, you'll work solo to create a prototype for a voice- or gesture-based interface in response to design requirements and scenarios that will be provided. To accompany your prototype, you'll write a reflective essay.

Discussion and participation

Learning can be exciting and, at times, confusing. For students in the face-to-face section of the course, we'll be able to do this when we meet each week. For all students, the Discussion Boards will offer you an opportunity for you to share your journey with your classmates—to ask and answer questions, discuss the readings, share resources, etc. There are several forums that will be open throughout the term, and some forums will correspond to topics we'll discuss in particular weeks (e.g., for sharing our prototypes and giving feedback).

In the past, students have also benefited from creating informal learning groups via the Discussion Boards. If you learn better with colleagues, this is highly recommended! You can make use of Zoom or other software to meet or you could connect in person, geography permitting.

Grading

Research has demonstrated that grades diminish students' learning, decrease students' interest in the subject matter, and prevent students from taking creative risks. Moreover, many students experience anxiety about grades. In this class, we are here to learn, to become interested in design, and to take some creative risks by trying new things (not just following a rubric)—and we certainly don't need more anxiety in our lives. So in this class, we will take a different approach to assessment.

My intention with this class is to help you to work in an organic way, as you will after graduation. So while you will get a final grade in the class, I will not put quantitative grades on individual assignments. Rather, when I review your work, I will ask questions and make comments meant to engage your work rather than simply evaluate it. You, too, will reflect deeply on your work and that of your peers throughout this quarter, and we will discuss your learning and effort as the course progresses. We will do this throughout the course, but there are three things I will ask you to do as anchors for this process:

- **Goal-Setting:** During Week 1, we will set goals for our learning this quarter to give us each a concrete place to aim for in addition to the general course learning outcomes listed above.
- **Midterm Reflection:** During Week 5, I will provide you with a link to an online form that will guide you through a reflection on your work thus far—particularly with respect to the goals you set for yourself. At the end, you'll be asked what letter grade you would give yourself for your work to date. This is your chance to assess yourself realistically and challenge yourself to improve in the second half of the term. I will respond to your reflection, and we'll have a conversation if our respective assessments do not match.
- **Final Reflection:** Ahead of Exam Week, I will provide you with another link to an online form where you'll complete your final self-reflection for the term. Again, I'll ask you what grade you would give yourself. I prefer to give everyone the grade they would give themselves, I do reserve the right to make adjustments.

For reference, here is my interpretation of the letter grades:

- *A – Excellent:* You have demonstrated significant progress toward the learning targets for this course while exceeding expectations in effort, participation and results.
- *B – Good:* You have demonstrated progress toward the learning targets for the course while meeting expectations.
- *C – Acceptable:* You are making progress toward most of learning targets for the course.
- *D – Poor:* You do not meet the expectations of one or more of the learning targets for the course.
- *F – Failing:* You demonstrate no progress toward the learning targets for the course.

I know this process is quite different from how we usually think about grades. If any of this causes more anxiety than it alleviates, contact me at any time to discuss your progress in the course. As the course goes on, you'll be able to track your progress in the My Grades section on Drexel Learn.

If you are worried about getting a good grade in this class, your best strategy should be to do the readings, dedicate yourself to your group's success, ask questions often, complete the assignments diligently and on time, and engage earnestly with all your classmates.

Policies

Academic integrity

You are expected to conduct yourself in a respectful manner as befitting the university environment. This includes academic integrity. In this course, as with any Drexel course, cheating will not be tolerated. This includes plagiarism (using others' intellectual work without reference). All work you submit must be your own work, with sources properly cited. Any plagiarism or other academic dishonesty will result in a sanction that may extend to failing the course. I am obligated to report incidents of cheating (including plagiarism) to Drexel administration. A student who is found in violation twice (even if in two different courses) will be expelled from the university. For more information, please refer to the [Provost academic integrity policy](#) or to resources regarding [Student Conduct and Community Standards](#).

Dropping the course

If you are considering whether to continue your enrollment in the course, please refer to the [Course Add/Drop Policy](#) and the [Course Withdrawal Policy](#).

Changes to the syllabus

I reserve the right to make changes to this course or its syllabus during the quarter if circumstances warrant such a change. Topics, readings and dates are subject to change, but only if necessary. Additional topics may be discussed as issues and ideas arise in the news and in discussion. All changes will be provided to students in writing as far in advance as possible.

Student conduct

Drexel University adopted a student conduct policy requiring that all students have the responsibility to be aware of, and abide by, the University's policies, rules, regulations, and standards of conduct. The Student Conduct and Community Standards policy information is available in the [Official Student Handbook](#).

Appropriate use of course materials

It is important to recognize that some or all of the course materials provided to you may be the intellectual property of Drexel University, the course instructor, or others. Use of this intellectual property is governed by Drexel University policies, including the [Acceptable Use Policy](#). Briefly, this policy states that course materials, including recordings, provided by the course instructor may not be copied, reproduced, distributed or re-posted. Doing so may be considered a breach of this policy and will be investigated and addressed as possible academic dishonesty, among other potential violations. Improper use of such materials may also constitute a violation of the University's [Code of Conduct](#).

Participating in course evaluations

Student evaluations are a required element of every course. Evaluation forms are completely anonymous. They are confidentially used to make improvements in our curriculum and teaching. They are also used by administration in evaluating faculty performance, and in decisions about promotion, tenure and retention. Please take part in course evaluations.

Support and Recommendations

If you are experiencing anxiety, depression or other issues

Drexel offers free and confidential support for anxiety-related problems, depression, family concerns, relationship issues, adjustment issues, eating disorders, alcohol- and drug-related problems, and questions about gender and sexual identity, all through the Drexel Counseling Center. The Counseling Center is located at Suite 201 in the Creese Student Center at 3210 Chestnut. The telephone number is (215) 895-1415. **For emergencies, or to reach an on-call counselor after regular business hours, please call (215) 416-3337.** Learn more [on the Counseling Center website](#).

If you need technical support

Get 24/7 technical support for Blackboard Learn from the Instructional Technology group [online](#) or by calling (215) 895-1224. For any other technical support (email, logins, etc.), Drexel University IT is here for you. You can contact them through email at consult@drexel.edu, by phone at (215) 895-2020, or by submitting the online [Problem Report Form](#).

Support for equality and diversity

Drexel University strives to promote an environment of equality of opportunity and compliance with university policies and federal, state and local laws prohibiting discrimination based upon race, color, religion, gender, marital status, pregnancy, national origin, age, disability and veteran status. If you have a question or complaint concerning discrimination, harassment, and/or retaliation, contact the Office of Equality and Diversity [online](#) or at (215) 895-1405.

Coaching, mentorship and tutoring

The [Center for Learning and Academic Success Services](#) (CLASS) serves as the organizing department for a variety of programs and services that promote coaching, peer mentoring and tutoring at Drexel. The Center is located on campus at the Creese Student Center (3210 Chestnut Street), Suite 050.

Campus activities and community

Find the Student Handbook, conduct and community standards, and the Counseling Center at [on the Student Life website](#). Consult this site for information on campus activities and student programs.

English help

The [English Language Center](#) offers English language instruction and support services to students, especially those who speak English as a second language. They are located at 229 N. 33rd Street. The telephone number is (215) 895-2022.

If you have a disability or are facing other challenges

The Office of Disability Resources (ODR) team coordinates reasonable [accommodations for all Drexel students with disabilities](#) to ensure a level playing field on which they can succeed. ODR can also facilitate temporary adjustments for students with short-term impairments such as those due to accident, injury or illness. If you are a student with a disability, you are encouraged to register with ODR to request reasonable accommodations. This office is here to work with you, so reach out to them for assistance.

For any accommodations to be made, you will need to request a current Accommodations Verification Letter (AVL) in the [ClockWork database](#) (if you are new to the system, start by clicking “Online Intake”). These requests are received by ORD, who then issues the AVL to the appropriate contacts, such as

professors. For additional information, [visit the DR website](#), reach them by phone at (215) 895-1401 or email at disability@drexel.edu, or visit them in person in Suite 228 in the Main Building.

Free health services

The [Student Health Center](#) is located at 3401 Market St, Ste 105. You can call them at (215) 220-4700.

Career counseling

[CCI Career Services](#) offers help with job placement, job postings and credentialing. Outside our college, the [Steinbright Career Development Center \(SDLC\)](#) offers individualized career counseling, career fairs, career programs and resume workshops. The office is located at 3201 Arch Street, Suite 250. The telephone number is (215) 895-2185.

Course Schedule

In this course, the weeks run Monday to Sunday. Remember, assignments listed in a given week are always due by Sunday at the end of that week at 9:00 p.m. Eastern. (After 9 o'clock you can do something fun or turn in for a good night's sleep.)

| Wk | Dates | Meeting | Topic | Assignments |
|-----------|--------------|----------------|--|--|
| 1 | Mar 28–Apr 3 | Mar 31 | Sketching and Paper Prototyping | Goal Setting |
| 2 | Apr 4–10 | Apr 7 | Storyboarding and Wireframing | Sketching 1 Portfolio Site Setup |
| 3 | Apr 11–17 | Apr 14 | Feedback and Critique in Design | Team Prototype 1 |
| 4 | Apr 18–24 | Apr 21 | Physical Prototyping | Sketching 2 TP1 Critiques |
| 5 | Apr 25–May 1 | Apr 28 | Video Prototyping | Midterm Reflection Sketching 3 |
| 6 | May 2–8 | May 5 | Functional and Wizard-of-Oz Prototyping | Team Prototype 2 |
| 7 | May 9–15 | May 12 | Visual Design, Accessibility and Inclusion | Sketching 4 TP2 Critiques |
| 8 | May 16–22 | May 19 | Prototyping Theory and Practice | Sketching 5 (sec. 6) |
| 9 | May 23–29 | May 26 | New Interaction Paradigms | Team Prototype 3 |
| 10 | May 30–Jun 5 | Jun 2 | Wrap-up | TP3 Critiques Innovation & Reflection |
| Ex | – | – | – | Final Reflection <i>due Sun, Jun 12</i> |