

# Introduction to Human-Computer Interaction (Info 110)

College of Computing & Informatics, Drexel University  
Course Syllabus, Spring 2019

Tues and Thurs at 2-3:20 p.m.  
3675 Market, Room 1056

## Professor

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*Office hours:* Weds 3-5 p.m. in 3675 Mkt #1118

## Course Overview

This course introduces the field of human-computer interaction, including a variety of approaches for conceptualizing, designing, and evaluating user interfaces and experiences. Intended for students *without* a computing background, this course focuses on using design thinking to define problems and solutions and developing skills for critiquing interactive systems. Topics include design principles, research methods, usability evaluation, and novel interaction paradigms.

## Expected learning outcomes

Upon successful completion of this course, you will be able to:

- Describe the scope of the field of human-computer interaction, across research and practice
- Critique the usability and user experience of interactive systems
- Use design thinking to analyze real-world contexts in order to define problems and solutions
- Perform user testing to make recommendations for improving usability and user experience
- Understand the purpose of the human-centered design process

Additionally, throughout this course you will develop the following skills:

- Working in a team to organize, complete, and document a project
- Using library and other sources to connect course content with other knowledge and experience
- Presenting material in a variety of communications styles
- Recognizing barriers and difficulties associated with real-world design problems

## Contacting me

Student-instructor interaction is an important part of any course, and I am available to you. I want to help you succeed in this course, in your program at Drexel—and in life. Feel free to contact me with any questions, problems, discoveries, ideas or anything else. My **office hours are Wednesdays from 3 to 5 p.m. in my office, #1118 in 3675 Market**. I am also generally available before class. If you would like to meet another time, email me to set up an appointment.

Feel free to email me at any time. Note, however, that I do not often check email on nights or weekends. In our always-on society, it is important to set boundaries—firstly because healthy lives require off-time, but also because academic activities require uninterrupted periods of time for reading, writing and thinking. I hope you will join me in living with more balance.

## Course readings

The only required text for this course is Don Norman's *The Design of Everyday Things* (revised and expanded edition, 2013). The cover is yellow, not black. Either digital or paperback is fine. The book is available on two-hour loan from the library, and it can be purchased cheaply at the Drexel bookstore or online. Feel free to buy a used copy. The textbook is referenced as DOET in the schedule below. In addition, we'll be reading several articles, all of which are available for free and will be linked on Blackboard.

## Participation, Assignments and Grading

Taking a class is like buying a gym membership: you won't get results if you don't go; and *you* are ultimately responsible for your success. To that end, plan to attend and participate in class regularly. Attendance and participation are not graded per se, but it'll be hard to get a good grade in the course if you don't take part. Your final grade will be calculated as follows:

Assignment	% of Grade
Pop quizzes	14 (2 apiece)
Article presentation	9
Design principles assignment	9
Midterm exam	25
Final exam	25
Wireframes assignment	9
Wireframes group presentation	9

### Pop quizzes

To check your comprehension of the readings, pop quizzes will be given on some days at the beginning of class. If you've done the readings, they won't be difficult. There will be eight quizzes total, and your lowest score will be dropped. These quizzes are low-stakes, but I hope they'll encourage you to come to class on time. Please note that out of fairness to the rest of the class, **I will not allow quizzes to be made up for any reason.** Remember, your lowest score will not be counted, so it's not the end of the world if you miss one.

### Article presentation

At some point in the term, you will give a presentation and facilitate a discussion/activity on a reading. Sign-up will be during Week 2. Your presentation should be 7–10 minutes, and the ensuing discussion or activity should be an additional 17–20 minutes. Further details are available in the Assignments section on Blackboard.

## Design principles assignment

Based on our reading of DOET, you'll examine an interactive system that you use in your daily life in a short essay. Further details are available in the Assignments section on Blackboard.

## Wireframes assignment and group presentation

The main project in this course will consist of evaluating an existing interactive interface and proposing improvements to that interface. You'll work with a small group to choose an interface to evaluate and critique. You'll work on your own and turn in your assignments individually, and then you'll come back together as a group to compare and combine your findings and then present those findings to the class during Week 10. A group grade will be assigned for the presentation based on content and professionalism. Further details are available on Blackboard.

## Exams

There will be a midterm exam and a final exam in this class. Exams will cover the readings and class discussions and will consist of multiple choice and short answer questions. The midterm exam will be given online during Week 6, covering the material from the first half of the course. The final exam will take place during Finals Week. It will be non-cumulative, covering readings and discussions from the second half of the course.

## Grading

You can expect to receive grades and feedback within a week of the assignment's due date. Please let me know if you have any concerns. Your final grade for the course will be assigned as follows:

A+	98-100%	A - Excellent. Goes above and beyond. Original thinking.
A	94-98%	Creatively synthesizes class readings and discussions with additional readings, reflections and observations. Strongly supports arguments with evidence and citations.
A-	90-94%	
B+	87-90%	B - Good. Demonstrates understanding of the facts and concepts presented in class. Few misapprehensions. Most arguments are well-supported.
B	83-87%	
B-	80-83%	
C+	77-80%	C - Acceptable. Meets most expectations, but some material is misapprehended or ignored.
C	73-77%	
C-	70-73%	
D+	67-70%	D - Poor. Demonstrates faulty understanding of significant portions of course material.
D	60-67%	
F	0-60%	F - Failing. Deep misunderstandings, poor attention.

# Policies

## Academic honesty, plagiarism and cheating

You are expected to conduct yourself in a respectful manner as befitting the university environment. This includes academic honesty. In this course, as with any Drexel course, cheating will not be tolerated. This includes plagiarism (using others' intellectual work without reference).

If you are keen on avoiding unintentional plagiarism, the Drexel University Libraries offer several tutorials for avoiding plagiarism, which can be found at <http://www.library.drexel.edu/resources/tutorials/plagiarism/plagiarism.html>. Individualized advising is available from your Drexel University Libraries–appointed CCI librarian, Tim Siftar, at [siftar@drexel.edu](mailto:siftar@drexel.edu).

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 range from an F on the assignment to an F for the course, depending on the severity of the plagiarism. 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 dishonesty policy at [http://www.drexel.edu/provost/policies/academic\\_dishonesty.asp](http://www.drexel.edu/provost/policies/academic_dishonesty.asp) or to resources regarding Student Conduct and Community Standards at [http://www.drexel.edu/studentlife/community\\_standards/overview/](http://www.drexel.edu/studentlife/community_standards/overview/).

## Changes to the syllabus

I am here to help you learn, and I want to make sure we achieve the expected learning outcomes in this course. To do this, I may have to make some changes to the syllabus—for instance, if it becomes clear that we need to spend more time on some topic. I'll do my best to honor the syllabus as is, and I'll be sure to let you know about any changes as far in advance as possible.

## Dropping the course

If you are considering whether to continue your enrollment in the course, please refer to the Course Add/Drop Policy, the Course Withdrawal Policy, or other relevant policy made available by the Office of the Provost at [http://www.drexel.edu/provost/policies/course\\_drop.asp](http://www.drexel.edu/provost/policies/course_drop.asp).

## 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 at [http://drexel.edu/studentlife/community\\_standards/studentHandbook/](http://drexel.edu/studentlife/community_standards/studentHandbook/).

## Time management

Drexel University assumes that each credit-unit requires four hours of work per week (i.e., a 3-unit course means a student will spend 12 hours per week on that course), including reading, participation and completing assignments. This is a three-credit course. Please plan accordingly. In particular, you'll find that this class requires more reading than you may be used to.

# 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 sexual identity, all through the Drexel Counseling Center. The Counseling Center is located at Suite 201 in the Creese Student Center at 3210 Chestnut St. 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 at [http://drexel.edu/studentaffairs/support\\_health\\_services/cc\\_ucmc/](http://drexel.edu/studentaffairs/support_health_services/cc_ucmc/).

## **If you have a disability or are facing other challenges**

Students requesting accommodations due to a disability at Drexel University need to request a current Accommodations Verification Letter (AVL) in the ClockWork database before accommodations can be made. These requests are received by Disability Resources (DR), who then issues the AVL to the appropriate contacts. For additional information, visit the DR website at [drexel.edu/oed/disabilityResources/overview/](http://drexel.edu/oed/disabilityResources/overview/), or contact DR for more information by phone at (215) 895-1401, or by email at [disability@drexel.edu](mailto:disability@drexel.edu).

## **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. Students, faculty, and staff with questions about or complaints concerning discrimination, harassment, and/or retaliation should contact the Office of Equality and Diversity at (215) 895-1405 or <http://www.drexel.edu/oed/>.

## **Participating in course evaluations**

Student evaluations are a crucial element of every course. Evaluation forms are completely anonymous. They are confidentially used to make improvements in the 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, which are conducted online toward the end of the quarter.

# Course Schedule

Week	Date	Readings	Notes
1	Apr 2	This syllabus!	
	Apr 4	DOET Ch. 1, "The Psychopathology of Everyday Things"	
2	Apr 9	DOET Ch. 2, "The Psychology of Everyday Actions"	
	Apr 11	Tidwell, "What Users Do"	
3	Apr 16	Johnson, "Conceptual Models in a Nutshell" Nielsen, "Mental Models"	
	Apr 18	DOET Ch. 3, "Knowledge in the Head and in the World" Budiu, "Memory Recognition and Recall..."	
4	Apr 23	DOET Ch. 4, "Knowing What to Do"	
	Apr 25	DOET Ch. 5, "Human Error? No, Bad Design" Laubenheimer, "Preventing ... Slips" Laubenheimer, "Preventing ... Mistakes"	
5	Apr 30	Nielsen, "First Rule of Usability? Don't Listen to Users" Nielsen, "User Satisfaction vs. Performance Metrics" Ricken, "User Testing ... Car Manufacturers' Mobile Apps"	Design principles assignment due
	May 2	Budiu, "The State of Mobile User Experience" Pernice, "Very Large Touchscreens" Schade et al., "4 iOS Rules to Break"	<i>No class meeting</i>
6	May 7		Midterm exam (online)
	May 9	Vitale et al., "Hoarding and Minimalism"	<i>No class meeting</i>
7	May 14	Nielsen, "10 Usability Heuristics..." Nielsen, "How to Conduct a Heuristic Evaluation"	
	May 16	Gray et al., "The Dark (Patterns) Side of UX Design" ACM Code of Ethics	
8	May 21	DOET Ch. 6, "Design Thinking" Stanford d.school, "Design Thinking Bootleg"	
	May 23	Bleecker, "Design Fiction"	
9	May 28	Rohrer, "When to Use Which ... Research Methods" Spencer, "Card Sorting" Farrell, "Test Paper Prototypes to Save Time and Money"	Wireframe assignmt due
	May 30	Turner, "Example UX Docs and Deliverables" Bedford, "Personas Make Users More Memorable..."	
10	Jun 4	DOET Ch. 7, "Design in the World of Business"	
	Jun 6		Group presentations
Final	TBD		Final exam