INFO 608 – HUMAN-COMPUTER INTERACTION – Fall 2021-22

College of Computing & Informatics, Drexel University

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| *Instructor:* Elease McLaurin, Ph.D. | *Blackboard:* <http://learn.dcollege.net/> |
| *Class meeting:* 3675 Market Street, room 913 Mon. 06:00 pm - 09:20 pm (sync. section) | *Email:* [ejm376@drexel.edu](mailto:ejm376@drexel.edu) |
| *Office Hours:* email for Zoom meeting |  |
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# Course DESCRIPTION AND OutCOMES

This course focuses on the physiological, psychological and engineering basis of design and evaluation of human-computer interfaces covering such topics as; theoretical foundation of HCI; cognitive modeling of user interactions; task analysis techniques for gathering design information; iterative design cycles; formative and summative usability testing; and project planning and report writing.

*When you have completed this course, you will be able to:*

* Define the general areas of study within the field of human-computer interaction
* Explain the physiological and psychological aspects of humans as they relate to user-centered design of interactive computer systems
* Analyze the interactions between people, their work, the information systems they use, and the environments in which they work and understand the implications for technology designs

This course is about understanding human capabilities and behaviors – and how we can use that understanding to design computer-based information systems, websites, and devices. Although we explore approaches to human-centered design, and the design attributes that make a computer-based information system or artifact “usable,” this class does not focus on applying specific design methods or tools. Rather, the class introduces ideas that underpin HCI: the psychological concepts and theories that govern the design of human-computer interfaces, variations in human-centered design user-requirements, and evaluation criteria. The aim is to begin understanding the needs of users and systematically evaluating designs based on user-centered criteria. You will learn-by-doing: investigating and summarizing differences between various types of user, evaluating what qualities lead to a good website or application design, and communicating why these qualities are important to the ways in which users integrate technology into their daily lives and work.

### TEXTBOOK

The textbook that will be used for this course is: **Sharp, H., Rogers, Y., & Preece, J. (2019) *Interaction Design: Beyond Human-Computer Interaction*, 5th edition. Wiley.** This book is considered a core text across HCI courses nationally. You will read selected chapters from this book, covering key HCI concepts and their applications. ***It is available as an eBook via the library****.*

# Course Logistics

The best way to contact me is by email. **Please put the course number (INFO 608) in the subject line, and your name in the message.** This helps me to keep track of my emails! With *personal* or *urgent* questions, email me directly [ejm376@drexel.edu](mailto:sgasson@drexel.edu). If you want to discuss things 1:1, email me to arrange a Zoom meeting. If your question is of interest to others (e.g. syllabus, readings, schedule, or assignment questions), please post it on the Open Class Discussion Board so that others can benefit.

## COURSE Assignments

The major assignment for this course is a term-long project. In this project you will apply the HCI principles discussed in the lectures and readings in a heuristic evaluation of a technology system of your choice. The evaluation will assess the fit of the technology design to a persona of your creation. You will have the option to complete the project individually or in a group of 2-3 people. Additionally, each week there will be class discussion-based activities. There are no tests, quizzes, midterms, or final exam.

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| **Assignments** | **Grade %** |
| A1: System description and target persona | 20 |
| A2: Design heuristics about human capabilities | 20 |
| A3: Design heuristics about socio-technical systems | 20 |
| Final-Pt. 1: Project summary video | 10 |
| Final-Pt. 2: Class reflection essay | 10 |
| Class Participation Activities (weekly) | 20 |
| Total | 100 |

## ATTENDANCE AND Discussion

Besides the assignments, the major substance of this course will be class participation. HCI is rich with topics for discussion. If you are a student in the in-person class, there will be weekly class discussion activities during the meeting time. If you will miss an in-person class session, please let me know and complete the discussion activity assigned for the online students for that week.

# COURSE SCHEDULE

***Course content is subject to change as the course progresses*** **- updated details and readings are available in the ‘Course Materials’ section of Blackboard at the start of the class week.**

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| **Week Start** | **Topic** | **Assignments due** |
| 1 9/20/21 | Intro to HCI & User-Centered Design |  |
| 2 9/27/21 | Human Bodies & Senses |  |
| 3 10/4/21 | Human Cognitive Functions\*  (\*at HFES conference—lecture will be pre-recorded) | A1: System description and target persona |
| 4 10/11/21 | Human Learning & Communication\*  (\*class time conflict with school holiday-- lecture will be pre-recorded) |  |
| 5 10/18/21 | Human Motivation, Stress, & Decision Making |  |
| 6 10/25/21 | Designing for normal human performance: Error-tolerant systems | A2: Design heuristics about human capabilities |
| 7 11/1/21 | Designing for information flow: Displays & Controls |  |
| 8 11/8/21 | Designing for collaboration: Teams, Socializing, & Automation |  |
| 9 11/15/21 | Safer, Faster, More Engaged: The Frontier of HCI | A3: Design heuristics about socio-technical systems |
| 11/22/21 | Thanksgiving Break (no lecture, work on final project assignments) | |
| 10 11/29/21 | Putting It All Together: Class Summary | Final-Pt. 1: Project summary video |
| 12/6/21 | Exam week | Final-Pt. 2: Class reflection essay |

### GRADING SCALE

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| **Grade** | **% Range** | **Standard** |
| **A+** | 96 - 100 | **Professional work of the highest caliber!** |
| **A** | 93 -95.9 | **Outstanding work.** Student demonstrates full command of the course materials and demonstrates a high level of originality and/or creativity that far surpasses project and course expectations. |
| **A-** | 89-92.9 | **Very good work.** Student demonstrates thorough knowledge of the course materials and exceeds project and course expectations by completing all requirements in a superior manner. |
| **B+** | 86-88.9 | **Good work.** Student performance demonstrates above-average comprehension of the course materials and exceeds project and course expectations on all tasks, as defined in the course syllabus. |
| **B** | 83-85.9 | **Acceptable work.** Student performance meets designated project and course expectations; demonstrates understanding of the course materials at an acceptable level. |
| **B-** | 79-82.9 | **Marginal work.** Student performance demonstrates an incomplete understanding of course materials. |
| **C+** | 76-78.9 | **Unsatisfactory work.** Student performance demonstrates incomplete and inadequate understanding of course materials, or superficial work indicated by missing assignment parts, wrongly-completed analyses, lack of attention to details. |
| **C** | 73-75.9 |
| **C-** | 69-72.9 |
| **D+** | 66-68.9 | **Unacceptable work.** |
| **D** | 50-65.9 |
| **F** | 0 - 49.9 |

#### Assistance With Writing

**If you are not sure how to write a professional report, or if your** English language or your writing skills are weak**, p**lease ask for advice at the Drexel Writing Center: 100-103 Korman Center, 215.895.6633, <http://www.drexel.edu/writingcenter>, email <mailto:lwr@drexel.edu>. They are open Mon-Thur, 9:00am-9:00pm, and Fri 9:00-5:00, with limited hours on Saturday and Sunday. You can also submit work online, for written feedback. Writing center tutors cannot provide feedback on course-specific content, but they can help you write more coherently and correctly.

#### SOURCES AND SOURCE CITATIONS

Your work should be based upon authoritative sources. This includes academic and industry technical papers, articles and books. This does not include on-line encyclopedias such as Wikipedia or web pages from unknown or unauthoritative sources (e.g. news sites). Assignments submitted without citations may be penalized. Sources should be cited in text, and a list of references provided. To cite sources, use a specific style and stick with it. I suggest APA or MLA style, although others are acceptable. For more information about styles, see:

<http://www.library.drexel.edu/resources/tutorials/citations.html> , a Drexel Library Resource

[*In-Text Citations: The Basics*](https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/in_text_citations_the_basics.html), by The Writing Lab & OWL at Purdue University (2018)

#### Academic Integrity

The Drexel University Library website lists several tutorials under the heading ***Avoid Plagiarism*** at <http://libguides.library.drexel.edu/tutorials>. If in doubt, consult the instructor for advice on citing sources.

**All assignments in the College, including randomly-selected homework *and* discussion-board posts, are routinely checked using Turnitin.com, *even if you are not asked to submit via a Turnitin link*.** This compares them to a wide range of sources, including papers for this and other courses, articles, websites and papers from other Universities. *Your work may be screened using other plagiarism detection tools.*

**Academic dishonesty includes self-plagiarism**: reusing work produced for another assignment without making this clear (using quotes to cite the original). You should limit reuse to less than 10% of any work.

**Discussion posts are covered equally by this policy**. It is *painfully* clear when a student has copied ideas from a website. These appear out of context and with little discussion of *why* they are important, how they can be applied to the problem at hand, and how they compare to alternatives. Reuse of website materials without context or *relevant* discussion will automatically receive a C- grade. If you feel a website has some important points to make, **cite the source** and explain in your own words why these are important and how they add to the course-supplied materials.

Students who engage in any form of academic dishonesty will receive an “F” for both the assignment and the course. Any instance of Academic dishonesty will be reported to the University Academic Office and will appear on your student record. The University may impose disciplinary action (including dismissal from the University) in addition to any penalty imposed by the instructor. See the Drexel Academic Integrity Rules and Procedures and the definitions of academic integrity at   
https://drexel.edu/provost/policies/academic-integrity/

#### Student Conduct

Drexel University has 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 Drexel Student Handbook at: <http://www.drexel.edu/studentlife/community_standards/studentHandbook/> .

#### Support for Students with Disabilities

**Students requesting accommodations due to a disability at Drexel University need to present a current Accommodation Verification Letter (AVL) to faculty before accommodations can be made. AVL’s are issued by the Office of Disability Resources (ODR). For additional information, visit the ODR website at**<http://drexel.edu/oed/disabilityResources/students/>**, or contact the Office for more information:  
215-895-1401 (V), or**[**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 (sex), 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) 895-1403 or <http://www.drexel.edu/oed/>

#### COURSE EVALUATIONS

Course evaluations will be available online at the end of the course. Evaluations are important: they help both the Instructor and the College to improve the courses. ***Please complete the course evaluation survey*. Your comments are read and the course is updated based on this feedback.** Thank you!

#### COPYRIGHT TO 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 policy found here:   
<https://drexel.edu/it/about/policies/policies/01-Acceptable-Use/>

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 and will be investigated as such.

#### COVID-19 Arrangements

**Mask Etiquette for the 2021 Fall Quarter**

As of August 3, 2021, [Drexel requires all students and employees to wear a mask](https://drexel.edu/now/archive/2021/August/Message-masking-expanded-for-all-campus-Delta-precaution/) in all on-campus public and shared spaces, including instructional and research settings, regardless of vaccination status. Specifically, masks are to be worn in classrooms, laboratories, lecture halls and seminar rooms. Students are not permitted to eat during class or otherwise remove their mask. If a student needs to remove their mask (to drink water etc.) they may step outside the class, to do so and then return to class. Please remember your mask to avoid class disruption.

If a student does not wear a mask or follow other required health and safety guidelines in the classroom, the instructor will take the following steps:

* Ask the student to please correct their behavior. This may involve determining if there is a reason why the student is unable to comply with the request; for instance, they may not have a mask. If a solution to the problem can be easily identified, and the instructor is able to assist the student in complying, such as directing them as to where to find a mask, they will do so.
* If the student refuses to mask, the instructor will inform the student that they will be referred to Student Conduct and they will be asked to leave the class.

As members of the Drexel community, we all play a role in supporting our collective health and safety, and I appreciate your collaboration and commitment to this. If you have questions or concerns about masking in class, please do not hesitate to ask. More information about masking is available at the link above and on the [Drexel Response to Coronavirus website](https://drexel.edu/coronavirus/frequently-asked-questions/students/).

COURSE ADD, DROP & WITHDRAWAL

In the event that a student needs to drop the course or withdraw from the term, please follow the appropriate Drexel policies:

* Drops: <http://www.drexel.edu/provost/policies/course-add-drop>
* Withdrawals: <http://drexel.edu/provost/policies/course-withdrawal>