Syllabus

CGS/CS 4352: INTRODUCTION TO HUMAN-COMPUTER INTERACTION SUMMER 2024

PROFESSOR CONTACT INFORMATION

Name	Erika Orrick
Phone	214-766-2556
Email	erika.orrick@utdallas.edu (I am easiest to reach on WhatsApp if you have a general question or Teams if you have a grade question.)
Office Hours	Catch me in class to set up a time or send me a message so we can set up a time.

COURSE INFORMATION

Course Modality

This course is offered only in person. We will generally be meeting Tuesdays and Thursdays from 8:30 am–1:00 pm in room G2 of the CIEE building. Select days will be combined with ECS 3390. We will let you know when those days are.

Course Description

Broad overview of how human-computer interaction (HCI) informs the user-centered design (UCD) process. Practical experience in the core methods of user experience design and research throughout the product development cycle.

Student Learning Objectives/Outcomes

After completing this course, students should have accomplished the following course objectives:

1. Describe the basic user-centered design (UCD) process and how HCI, UCD, UX, usability, and other common industry terms relate.
2. Describe various types of UX research and the appropriate situation for each.
3. Describe and perform UX analysis and synthesis tasks.
4. Describe and apply relevant HCI theories and principles to design activities.
5. Evaluate and use appropriate tools to perform UX design tasks.
6. Describe and perform UX evaluation tasks.
7. Create HCI design deliverables that can be used to communicate to project stakeholders.

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INTRODUCTION

Introduction to Human-Computer Interaction is built around a semester-long group project designed to expose you to the basic end-to-end user experience research and design process. Because of the time available in a university semester, you will learn the overall lifecycle and basic processes from which most other design and research tools in use today are derived. By the time the semester is over, you will have been exposed to the entire lifecycle. Whether you go on to a career as in user experience, software engineering, or some other aspect of product or service development, you should take away from this class an understanding of why and how to keep the user present in the final design.

HOW TO BE SUCCESSFUL IN THIS COURSE

Things to keep in mind:

- **Read all information posted on eLearning,** including announcements and assignment updates, etc. I may provide information in more than one format, such as Teams or WhatsApp, to ensure you are aware of it, but eLearning is canonical.
- **Take the initiative to solve your own problems.** Make sure you've read the information I've provided before reaching out to me. UX requires self-reliance, brainstorming with peers, and thinking outside the box. If your question is still unanswered, reach out to me.
- **Even though UX is more than making things "pretty,"** everything you turn in should still be clean, use good visual hierarchy, and be as free of spelling and grammar errors as is reasonable. We'll talk more about this near the beginning of the semester.
- **Pay attention to the submission requirements.** I ask for specific file formats on each assignment for a reason. And put your name(s) on the actual assignment document(s) you turn in. Do not rely on eLearning to tell me who you are. These are both big pet peeves of mine.

COURSE DELIVERY

eLearning (Blackboard)

While this course is delivered in person, we will be relying on [eLearning](#) for course information and assignment submission, which must be accessed using your UT Dallas NetID account. You are responsible for being aware of any updates or announcements posted there.

For more details on eLearning-specific tools, please visit the [Student eLearning Tutorials](#) webpage for video demonstrations. If you have any questions about how something on eLearning works *and* you have already tried to find the answer using the resources provided, then make sure you ask me. I don't want your grade adversely affected by technology shortcomings.

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Other Communication

Teams. I use Teams as a complement to eLearning. Feel free to reach out to me on Teams for academic questions, and I will get back to you as soon as I can. I generally will get back to you more quickly on Teams than email. I will also send time-sensitive announcements on Teams, so be sure to set your notifications for Teams appropriately if you would like to be notified when I post announcements there.

Please note that class correspondence will only be answered if it comes from your official UT Dallas email or your Teams account. No exceptions. Student emails will be answered within two working days under normal circumstances.

WhatsApp. We will have a WhatsApp group used for general conversation as well as program reminders and announcements that are not course-specific or covered by FERPA. You ***must*** read messages from WhatsApp as we will be posting changes to schedules, meetings places, etc. there.

TEXTBOOKS AND MATERIALS

Required Books

There are no required textbooks. All required reading will come from web sources or chapters from books available through McDermott Library. That being said, I recommend renting *The UX Book 2* if you are in a position to do so since the content in the second edition is better than the content available in the first edition, which is what we have access to through the library. (The authors call the second edition a rewrite, not just an update.) Get the ebook edition since it is a heavy book to pack.

Recommended Books

Links to all of these books can be found under Syllabus/Textbooks in eLearning.

Hartson, H. R., & Pyla, P. S. (2012). *The UX book: process and guidelines for ensuring a quality user experience*. Morgan Kaufmann.

> This book is available to rent as an ebook through Amazon if you do not wish to carry a textbook overseas with you. Please avoid using the first edition that is available through McDermott library since it is missing a considerable amount of information if you can. (The authors call the second edition a rewrite, not just an update.)

Johnson, J. (2021). *Designing with the mind in mind: simple guide to understanding user interface design guidelines* (Third edition.). Morgan Kaufmann.

> This is one of my favorite books for explaining human capabilities and limitations and how they affect design. I own every edition of this book (in some cases multiple copies) and used to regularly lend it out to engineers when I worked in an office.

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Rosenfeld, L., Morville, P., & Arango, J. (2015). *Information architecture : for the web and beyond* (4th ed.). O'Reilly.

>An older book, but still one of my favorite resources for information architecture.

Norman, D. (2013) *The design of everyday things: revised and expanded edition)*. Basic Books.

>I recommend anyone interested in HCI/UX read this book and keep it on their shelf. It is considered one of THE books in the field. It is unfortunately not available online through the library, but it's worth the purchase. I will be recommending chapters throughout the semester.

ASSIGNMENTS OVERVIEW

The most up-to-date information about assignments, including due dates, is available on eLearning.

Participation

This grade consists of assignments designed to encourage discussion and thought around user experience, to practice what you have learned, or otherwise contribute to the successful running of the course. This includes quizzes, surveys, discussion boards, etc.

A special note about discussion boards: yes, you are going to do a lot of "find something poorly designed" and "find something well-designed" throughout the semester. There is method to the madness, however. One of the most important things to develop as an UX/HCI practitioner is a keen eye for design and how it affects humans. The discussion board assignments are created to get practice in doing this.

Quizzes: There will be a couple of short quizzes to test your understanding of the information in the preceding topics. These will generally be multiple-choice, matching, etc. Quizzes are open book, open note, but not open classmate. You have up to two attempts, only the last one submitted counts (not the higher one). Honorlock/Lockdown browser are not required.

Semester Project

The main focus of this class is a semester-long group project. You will be working in groups of 4–5. Some time will be given to work on the project during class where you can work directly with me, but you will be expected to find time to meet with your group and work outside of class to complete each part. Unique to the study abroad program, parts of this group project will work in tandem with your final project in ECS 3390.

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Extra Credit

You will have the opportunity to earn up to 3 points of extra credit to add to your final grade. Each of the following will earn you 1 point. You may mix and match the extra credit opportunities as convenient for you. More details on the extra credit opportunities are in eLearning.

Extra credit must be turned in by the last day of our class (which is different than the last day of the university semester).

ACADEMIC CALENDAR

This course is composed of several topics and is designed to take you the entire semester to complete. Pay attention to due dates and don't wait until the last minute.

*This schedule is **tentative** and will be updated with more specifics as I learn this class. eLearning will always be kept up to date.*

WEEK	DATE	TOPIC(S)	ASSIGNMENTS
1	Tue May 28	Joint course kickoff and intro to HCI/UX	Interest survey GUI Bloopers
1	Thu May 30	Project planning User research	Figma signup Project plan
2	Tue Jun 4	Analysis and synthesis Human capabilities and limitations	DB 1 User/task frequency matrix Persona and/or task analysis
2	Thu Jun 6	Design basics Analytical evaluation	Heuristic evaluation
3	Tue Jun 11	Information architecture	DB 2
3	Thu Jun 13	Prototyping Evaluation	Testable interactive prototype Usability test plan
4	Tue Jun 18	Analyzing evaluation research Creating client deliverables and reports	DB3
4	Thu Jun 20	Portfolios and project work time	Portfolio case study
5	Tue Jun 25	Other topics (TBD)	DB 4
5	Wed, Jun 26	Joint course project workshop	
5	Thu Jun 27	Joint course project presentations	Client deliverable Self/peer evaluations

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GRADING POLICY

Grades will be based on the total number of points across the course, weighted by assignment type.

Assignments and exams will be scored as follows:

- 60% participation
- 40% semester project

Standard grading scale applies, though if we find that our assignments and exams were unusually difficult, we may relax these criteria.

- A+   97 or above
- A   94–97
- A-   90–93
- B+   87–89
- B   84–86
- B-   80–83

- C+   77–79
- C   74–76
- C-   70–73
- D+   67–69
- D   63–66
- D-   60–63
- F   59 or below

TECHNICAL REQUIREMENTS

You will need to bring a laptop or tablet to class with you most days as we will be relying on these heavily for in-class work. I will let you know if a laptop/tablet is not needed that day. Of course, you are always welcome to bring it if that is your preference for notetaking.

At a minimum, you must have access to the following:

- A modern web browser such as Chrome, Edge, Firefox.
- A word processor and/or presentation software such as Microsoft Word and PowerPoint. (I encourage you to use the online version available through UTD for collaborating with your group members and sharing with me.)
- The ability to capture your screen and/or a camera. (Cell phone camera is fine for pictures. Both Windows and Mac provide built-in screen capture utilities, or you can use an tool such as TechSmith's Snagit.)
- Figma.com for prototyping. Information about setting up an educational account is provided under Resources on eLearning.

All students have access to Microsoft 365 through the university's site license. See [Resources for Students](#) for more information.

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important these requirements on the [Getting Started with eLearning](#) webpage.

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COURSE & INSTRUCTOR POLICIES

LATE WORK will be penalized 10% off the total possible score (not the score received) for each day late. After 3 days, it will not be accepted without a valid university-approved excuse.

FOLLOW THE SUBMISSION GUIDELINES. You must include your NAME(S) on your actual assignment documents and follow all submission guidelines listed in assignment instructions. There is generally a reason for the guidelines I post. Submission guidelines are listed with each assignment and are part of the rubric grading. You will have unlimited opportunities to submit most assignments in case you initially submit an incorrect format. Only the last one will be graded.

CLASS PARTICIPATION

The study abroad program has a zero-absence policy. You are expected to attend all classes, read assigned material, perform assignments, and contribute to the course. You will be engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures. Class participation is documented by faculty. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Let me know as soon as possible if an absence is unavoidable. Out of respect for your fellow class members and your instructor, you are expected to be on time for class.

ASSIGNMENT SUBMISSIONS

All assignments that are to be submitted through eLearning for credit unless otherwise specified. Submission of assignments by any other method for work that is assigned to be submitted through eLearning will not be accepted and will result in a grade of zero. Assignments should be submitted in the format described in the assignment.

CLASS MATERIALS

The instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. This may include videos, readings, and presentation notes. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

ACADEMIC SUPPORT RESOURCES

The information contained in the following link lists the University's academic support resources for all students.

Please go to the [Academic Support Resources](#) webpage for these policies.

SERVER UNAVAILABILITY OR OTHER TECHNICAL DIFFICULTIES

The university is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time-sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online [eLearning Help Desk](#). The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The [eLearning Support Center](#) includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

COMET CREED

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

UT DALLAS SYLLABUS POLICIES AND PROCEDURES

The information contained in the following link constitutes the university's policies and procedures segment of the course syllabus.

Please go to the [UT Dallas Syllabus Policies](#) webpage for these policies.

The descriptions and timelines contained in this syllabus are
subject to change at the discretion of the professor.

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