University of Oklahoma College of Engineering

Computer Science 4063/5063

Human-Computer Interaction Spring 2024 Syllabus

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General Information

Class Time:	Tuesday and Thursday 12:00 pm - 1:15 pm
Class Location:	Carson Engineering Center 117
Prerequisites:	CS 2413 or CS 2414, and CS 2813 or MATH 2513 $$

Instructor and Office Hours:

Name	Office	Hours	Email	
Ji Hwan Park	Zoom	Tuesday $3:00 \text{ pm} - 4:00 \text{ pm}$	jpark@ou.edu	
	Zoom	Thursday 3:00 pm - 4:00 pm		

Teaching Assistant and Office Hours: TBD

Name	Office	Hours	Email
Cameron Bristol	Zoom	Monday 8:00 am - 9:00 am	cameron.p.bristol@ou.edu
	Zoom	Wednesday $8:00 \text{ am} - 9:00 \text{ am}$	

Important Dates

Final Exam 1:30 - 3:30 pm May 7 (Tuesday), 2024

Text and Course Materials

Required Materials:

Ben Shneiderman, et al. Designing the User Interface: Strategies for Effective Human-Computer Interaction, 6th Edition. Pearson, 2017. ISBN-13: 978-0134380384,

Supplemental Materials (not an exhaustive list):

1. Git, https://www.atlassian.com/git/tutorials/atlassian-git-cheatsheet

2.1 Ownership of Course Materials

The instructor retains ownership and all rights to original content. This includes but is not limited to exams, lectures, quizzes, handouts, protocols, electronic documents, syllabi, and all other materials. Original or transcribed course content may not be copied, recorded, retransmitted, posted on-line, or sold without the expressed written consent of the instructor. Violation of content ownership will be treated as academic misconduct.

2.2 Course schedule

This schedule is tentative and subject to change.

The due date for the term project: 11:30 pm on 4/26 (Fri)

Week	Topics
1	Introduction of HCI
	Reading: Text Book Ch.1, assignment: project team building: due date - 1/29 (Mon)
2	Human Capabilities
	Reading: Text Book Ch.2
3	Task analysis
	Reading: Text Book Ch.4, assignment: Teacher's panel design, due date - $2/16$ (Fri)
4	Experiment Design
	Reading: Text Book Ch.5
5	Cognitive process & Usability Principles
	Reading: Text Book Ch.3, assignment: Design and Evaluation a simple interface, due date - $3/1$ (Fri)
6	User-centered Design
	Reading: Text Book Ch.3
7	Dialog Design
	Reading: Text Book Ch.7
8	Devices
	Reading: Text Book Ch.10, assignment: Design a diabetes moniroting system, due date - 3/29 (Fri)
9	Models
	Reading: Text Book Ch.4
10	Mid-term Review and Exam
11	Errors in HCI (1)
10	Reading: Text Book Ch.14
12	Paper Presentation (1)
13	Visualization (1)
14	Reading: Text Book Ch.16
14	Visualization (2)
	Reading: Text Book Ch.16
15	Paper Presentation (2)
16	Student project presentation

Course Description

This course introduces the theory and practice of human-computer interaction, with a focus on the graphical user interfaces that make up the modern human-centric computing experience. Topics include fundamental principles of human-computer interaction, interface design and analysis, human cognitive and perceptual capabilities and limitations, desktop/window systems, and social implications of computing. You will learn about current graphic user interface development tools and programming libraries, and complete a semesterlong team-oriented project that provides realistic experience with human-computer interaction from development, designer, and end-user perspectives.

Course Expectations and Policies

4.1 Class Home Page

This class will use Canvas software for our home page. The URL for the home page is https://canvas.ou.edu. Log in with your 4+4 using your standard OU password. If you have difficulty logging in, call 325-HELP. This software provides a number of useful features, including a list of assignments and announcements, an electronic mailing list, newsgroups, and grade book. I will use this web site for all updates. I may update the Canvas page several times a week. When I update the site in any significant way, I will post an announcement on Canvas telling you what has been added and where it is located. You are responsible for things posted on the site within 48 hours of the post.

Note that you can configure Canvas to send you email whenever a new piece of information is posted. You should check the site regularly.

4.2 Class Attendance

You are expected to attend all of the lectures in which you are enrolled. In this class, it means that you will participate in the activities of your team.

4.3 Class Email

Urgent announcements will be sent through Canvas email. It is your responsibility to:

- Regular read your university-supplied email or have it forwarded to a location where you do regularly read email. I will send out a test message during the first week of class. If you do not receive this message, it is your responsibility to get the problem resolved.
- Have your email program set up so that replying to your email will work correctly. You can send email to yourself and reply to yourself to test this. If you need assistance in accomplishing any of these tasks, contact 325-HELP. You are responsible for reading emails within 24 hours.

Please put CS4063/5063 as the first word in the subject line of your email.

Learning Activities and Assessment

5.1 Project

Student groups will develop their project idea. Regarding the project grade, the group project will be scaled by peer evaluation. The group assessment will be scaled for each individual based on their peer feedback.

Example: The grade for a group: 85%, Peer feedback (1-10): 7, The individual grade for a student: 59.5%.

5.2 Homework

There are three assignments: layout design, a simple interface with evaluation, and interface development.

5.3 Presentations

Each student group will present their project's final outcome and demonstrate their project during the Final Presentation.

5.4 Paper Presentation for CS 5063

Each student choose a paper published in the ACM CHI (https://dl.acm.org/conference/chi), and present a paper in class.

5.5 Final Examination

There is no final examination. In its place, we will have the Final Presentation.

5.6 Grading Questions

If there is a dispute about the grading of a homework problem, you may stay after class the day the tests are returned to discuss it. If you cannot stay at this time, return the paper to me and stop by during my office hours. Once homework has been removed from the classroom after it has been returned, the grade is final and will not be changed, even if it is found to be in error.

- Homework: Grading questions for projects, reports and homework that are graded by the TA should first be brought to the same TA. If this does not resolve your question, please see the instructor.
- Others: All other grading questions may be brought to the instructor.
- Please note that when a homework is brought with grading questions, we may examine the entire assignment and your final grade may end up lower. All disagreements about scores must be brought to our attention within one week of when the item is returned.

5.7 Final Grade

The course grade will be determined by the average of the individual homework, and group projects. The final letter grading for the course will be as follows: $A \ge 90\%$, B = 89-80%, C = 79-70%, D = 69-60%, F = < 60%. The instructor will round all averages to two significant figures (69.5 will round to 70 and 69.4 will round to 69) to determine the student's letter grade in the course (70 = C, 69 = D). There is no curve in this course. The instructor reserves the right to make linear adjustments to quiz and final exam grades in cases where a quiz or exam question was found to be in error or unreasonably difficult.

5.8 Canvas Grade Summary

Canvas has a grade book that is used to store the raw data that is used to calculate your course grade. It is the responsibility of each student in this class to check their grades on Canvas after each project or homework is returned. If an error is found, bring the grading document to me, and I will correct it.

5.9 Course Grade

There are four components to the course grade. They are weighted as follows:

Category	Percent of Final Grade
Homework	30% (20% for CS5063)
Term Project	45%
Project Proposal	(5%)
Progress presentation	(10%)
Code review	(5%)
Projects	(20%)
Final report + presentations	(15%)
Group Discussion participation	10%
Paper Presentation	10% (CS 5063 only)
Exam	15%
Total	100%

Course Coverage and Procedures

6.1 Teamwork Issues

The workloads of teams are expected to be evenly distributed among the members. One will risk losing all or part of the project grade if he does not make a fair contribution.

6.2 Backup Copies of Projects

It is the student responsibility to backup their files appropriately. No extensions to deadlines will be given as a result of lost files, unless there is a massive, network wide problem that affects the entire class. Do not rely on anyone else to backup your important files. Configure OneDrive that is a part of your Office365 to make backing up your work a routine part of computer usage. It is particularly important to save a backup copy of any project that is submitted. This backup version should not be opened or edited after submission in case something goes wrong with the submission system.

Course Policies

7.1 Make-up Policy

Although the Instructor does not expect a student to miss an assignment, if a student does miss an assignment for a legitimate, verifiable reason, the Instructor will work with the student to provide an opportunity for make-up work.

7.2 Absences

Attending every lecture is highly recommended and expected. Not attending class will have an indirect negative effect on your grade. If low attendance to lectures becomes problematic, the instructor reserves the right to use attendance as extra-credit. There will not be assigned seating in the lecture, but students are expected to sit next to their study group partners to facilitate communication during problem solving sessions in class.

7.3 Civility

All students are expected to follow proper classroom behavior and treat other students and the instructor with respect. If the instructor deems a student?s actions or behavior disruptive to the class, the students will be asked to leave the class for that day.

7.4 Emergency Contact

In case of family or medical emergencies, students should send an email (jpark@ou.edu). Once the emergency has passed, the student can meet will the instructor to discuss what material/assignments the student has missed and what steps would beneficial to aid the student in continued success in the course.

7.5 Changes in the Syllabus

As the course develops, it might be desirable/necessary to make appropriate changes in aspects of this syllabus. The Instructor reserves the right to make changes if desirable or necessary.

University Policies

8.1 Academic Integrity

Cheating is strictly prohibited at the University of Oklahoma, because it devalues the degree you are working hard to get. As a member of the OU community, it is your responsibility to protect your educational investment by knowing and following the rules. For specific definitions on what constitutes cheating, review the Student's Guide to Academic Integrity at http://integrity.ou.edu/students_guide.html. To be successful in this class, all work on exams and quizzes must be yours and yours alone. You may not receive outside help. Should you see someone else engaging in this behavior, I encourage you to report it to myself

or directly to the Office of Academic Integrity Programs. That student is devaluing not only their degree, but yours, too. Be aware that it is my professional obligation to report academic misconduct, which I will not hesitate to do. Sanctions for academic misconduct can include expulsion from the University and an F in this course, so don't cheat. It's simply not worth it.

All work submitted for an individual grade, such as quizzes, should be the work of that single individual: not their friends or tutor. Please ask me if you are in doubt before you collaborate with others. You have to work individually unless it is stated that a collaboration is allowed.

- Do not show another student a copy of your homework or individual projects before the submission deadline. The penalties for permitting your work to be copied are the same as the penalties for copying someone else work.
- If you choose to do your work on your computer, make sure that your computer account is properly protected. Use a good password, and do not give your friends access to your account or your computer system. Do not leave printouts, or thumb drives around a laboratory where others might access them.
- Upon the first documented occurrence of collaborative work, I will report the academic misconduct to the Campus Judicial Coordinator. The procedure to be followed is documented in the University of Oklahoma Academic Misconduct Code (http://integrity.ou.edu/summary_of_the_process.html). In the unlikely event that I elect to admonish the student, the appeals process is described in http://www.ou.edu/provost/integrity-rights/.
- If you work with anyone else in completing an assignment, you must include that person's name on the submitted work. Failure to list a student you worked with on the assignment is a violation of academic integrity. If I find that the submitted work appears to be plagiarized, all students involved will be invited to my office individually to explain the work and/or perform similar work. The instructor will determine whether plagiarism occurred based on the match between the depth of understanding of the material displayed in the assignment and the individual interviews.

[See http://integrity.ou.edu/faculty_guide.html]

- Programming projects may be checked by software designed to detect collaboration. This software is extremely effective and has withstood repeated reviews by the campus judicial processes.
- Tutors can be an excellent source of support for students who are having difficulty in the class, but only if the tutor is aware of the distinction between teaching students the material so that they can do their own work, and doing work for students. Tutors who do work for students are not only failing to help the students learn, they are abetting academic misconduct. Examples of misconduct include: If your tutor is sitting behind you while you are typing and methodically telling you what to enter, he or she is abetting academic misconduct. If your tutor is emailing files containing partial or complete programming projects to you, you will commit academic misconduct if you use those lines in your program. More effective use of tutoring services is to do problems that are similar to the assigned work, instead of doing assigned work. For example, it would be fine to work unassigned problems from the textbook with a tutor. This requires significant discipline, both on the part of the tutor and the part of the student. Copying from a tutor is as unacceptable as copying from another student. If your tutor doesn't know how to teach properly, please ask them to call or visit me and I will provide training and guidance. If you are tutoring someone else in the class, you can be accused of academic misconduct if this person copies your work.
- Cheating is strictly prohibited at the University of Oklahoma, because it devalues the degree you are working hard to get. As a member of the OU community it is your responsibility to protect your educational investment by knowing and following the rules. For specific definitions on what constitutes cheating, review the Student's Guide to Academic Integrity at http://integrity.ou.edu/students_guide.html.

To be successful in this class, all work on exams and quizzes must be yours and yours alone. You may not receive outside help. On examinations and quizzes you will be informed about permissible study aids. Should you see someone else engaging in this behavior, I encourage you to report it to myself. That student is devaluing not only their degree, but yours, too. Be aware that it is my professional obligation to report academic misconduct, which I will not hesitate to do. Sanctions for academic misconduct can include expulsion from the University and an F in this course, so don't cheat. It's simply not worth it.

- Feel free to discuss all assignments with the instructor or the TAs. However, do not discuss, look at, or copy another student's solution to a Zyante or lab assignment. Doing so is considered cheating. For group projects, communication is expected between group members. However, communication about the solution to a project between groups is disallowed. Doing so is considered cheating.
- You may make use of the net as a reference as you are working on assignments. For projects, these references must be explicitly documented in your code. However, downloading or deriving specific solutions from the net is considered cheating.

8.2 Code Sharing for Group Projects

If you are keeping your code on GitHub, you have to keep your code in private repositories.

8.3 Religious Observance

It is the policy of the University to excuse the absences of students that result from religious observances and to reschedule examinations and additional required classwork that may fall on religious holidays, without penalty. [See Faculty Handbook 3.15.2 (https://apps.hr.ou.edu/FacultyHandbook#3.15.2).]

8.4 Reasonable Accommodation Policy

There is not specific language for the Reasonable Accommodation policy to be included in the syllabus. It is good to become familiar with the policy and describe it in your own words. Including the link to Disability Resources Center is encourage, http://ou.edu/adrc.

Students requiring academic accommodation should contact the Disability Resource Center for assistance at (405) 325-3852 or TDD: (405) 325-4173. For more information please see the Disability Resource Center website http://www.ou.edu/drc/home.html Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

8.5 Title IX Resources and Reporting Requirement

For any concerns regarding gender-based discrimination, sexual harassment, sexual assault, dating/domestic violence, or stalking, the University offers a variety of resources. To learn more or to report an incident, please contact the Sexual Misconduct Office at 405/325-2215 (8 to 5, M-F) or smo@ou.edu. Incidents can also be reported confidentially to OU Advocates at 405/615-0013 (phones are answered 24 hours a day, 7 days a week). Also, please be advised that a professor/GA/TA is required to report instances of sexual harassment, sexual assault, or discrimination to the Sexual Misconduct Office. Inquiries regarding non-discrimination policies may be directed to: Bobby J. Mason, University Equal Opportunity Officer and Title IX Coordinator at 405/325-3546 or bjm@ou.edu. For more information, visit http://www.ou.edu/eco.html.

8.6 Adjustments for Pregnancy/Childbirth Related Issues

Should you need modifications or adjustments to your course requirements because of documented pregnancyrelated or childbirth-related issues, please contact your professor or the Disability Resource Center at 405/325-3852 as soon as possible. Also, see http://www.ou.edu/eoo/faqs/pregnancy-faqs.html for answers to commonly asked questions.

8.7 Mental Health Support Services

If you are experiencing any mental health issues that are impacting your academic performance, counseling is available at the University Counseling Center (UCC). The Center is located on the second floor of the Goddard Health Center, at 620 Elm Rm. 201, Norman, OK 73019. To schedule an appointment call (405) 325-2911. For more information, please visit https://www.ou.edu/ucc.

8.8 Final Exam Preparation Period

Pre-finals week will be defined as the seven calendar days before the first day of finals. Please refer to OU's Final Exam Preparation Period policy (https://apps.hr.ou.edu/FacultyHandbook#4.10).

Emergency Protocol

During an emergency, there are official university procedures that will maximize your safety. http://www.ou.edu/emergencypreparedness/procedures

9.1 Severe Weather

If you receive an OU Alert to seek refuge or hear a tornado siren that signals severe weather:

- 1. LOOK for severe weather refuge location maps located inside most OU buildings near the entrances
- 2. SEEK refuge inside a building. Do not leave one building to seek shelter in another building that you deem safer. If outside, get into the nearest building.
- 3. GO to the building's severe weather refuge location. If you do not know where that is, go to the lowest level possible and seek refuge in an innermost room. Avoid outside doors and windows.
- 4. GET IN, GET DOWN, COVER UP.
- 5. WAIT for official notice to resume normal activities.

Link to Severe Weather Preparedness - Video: https://vimeo.com/237922159

9.2 Fire Alarm/General Emergency

If you receive an OU Alert that there is a danger inside or near the building, or the fire alarm inside the building activates:

- 1. LEAVE the building. Do not use the elevators.
- 2. KNOW at least two building exits
- 3. ASSIST those that may need help
- 4. PROCEED to the emergency assembly area

- 5. ONCE safely outside, NOTIFY first responders of anyone that may still be inside building due to mobility issues.
- 6. WAIT for official notice before attempting to re-enter the building.

Link to OU Fire Safety on Campus - https://vimeo.com/125093634

9.3 Armed Subject/Campus Intruder

If you receive an OU Alert to shelter-in-place due to an active shooter or armed intruder situation or you hear what you perceive to be gunshots:

- 1. GET OUT: If you believe you can get out of the area WITHOUT encountering the armed individual, move quickly towards the nearest building exit, move away from the building, and call 911.
- 2. HIDE OUT: If you cannot flee, move to an area that can be locked or barricaded, turn off lights, silence devices, spread out, and formulate a plan of attack if the shooter enters the room.
- 3. TAKE OUT: As a last resort fight to defend yourself.

Link to OU Fire Safety on Campus - http://www.ou.edu/emergencypreparedness/procedures/active-shooter