Department of Computer Science

Course Syllabus

Course Name: Human Computer Interaction	**Number:** CS3366	**Semester:** Fall 2024
Instructor: Dr. Maaz Amjad	**Office: EC** 211B	**Email:** maaz.amjad@ttu.edu
Office Hours: THR 10 – 12, FRI 10 – 11:30 or by appointment (M-F)	**Location: EC** 211B **Credit:** 3 Credits	**Link:** See Blackboard **Level:** Undergraduate
TA/Grader: Sai Sharanya Yellampalli		**Email:** syellamp@ttu.edu
TA/Grader Office Hours: MON 5 – 6, WED 4 – 6		**TA/Grader Office: EC** 204A/202A

If you write me an email for this class, please start the email subject with [CS3366].

Textbook: (PDF of Books will be provided on Blackboard, both books are *Recommended*)

1. Norman Donald, A. The design of everyday things. MIT Press, 2013
2. Dix, Alan, Janet Finlay, Gregory Abowd, and Russell Beale. Human-Computer Interaction, 3rd Ed. New York: Prentice Hall. 2004

Course Description: This course aims to introduce the student to the fundamentals of human-computer interaction (HCI), design thinking, and prototyping.

Course Objectives:

This course will cover fundamental concepts of human-computer interaction (HCI), history and importance of HCI including theories of HCI design, modeling of computer users and interfaces. This course aims to provide an overview of empirical techniques for analyzing systems and interfaces, interface design, and styles of interaction. This course will also cover how to design, prototype, and evaluate prototypes and provide hands-on experience on building interactive user interface for various real-world applications. This course requires extensive computer use, and the setting for this course is mobile/web applications.

Key Topics:

1. Fundamentals of HCI
2. Human Factors in Design
3. Ideation and User Problem Identification
4. Methods of Identifying User Needs
5. Conduct User Research
6. Design Principles and Process
7. Prototyping
8. Evaluation and Universal Design

Learning Outcomes: Through lectures and projects, students who have completed this course should have the ability to:

1. Analyze and understand the human factors that impact the design of user interfaces.
2. Understand the HCI design process and the ability to apply it in practice.
3. Conduct user research and identify user problems and needs.
4. Integrate HCI considerations into software development.
5. Design and evaluate interactive systems that are user-friendly, effective, engaging, and accessible.

Course Prerequisite: CS2413 (Data Structures)

Expected prior knowledge and skills: The prerequisite of this course is CS 2413, which focuses on the design, development, and evaluation of computer systems that interact with people. Topics included in the prerequisite course are interaction design models, interface components, and usability testing. Students are expected to have basic programming skills. This course takes a practical, applied, hands-on approach based on the application of established best practices, principles, and proven methods to ensure a quality user experience. Therefore, passion and interest in developing practical solutions that directly address user needs are very important for the successful completion of this course.

Methods of Assessment of Learning Outcomes: The expected learning outcomes for the course will be assessed through quizzes (including surprise quizzes), assignments (including surprise assignments), and projects. There is no final exam.

Assignment Submission: All assignments must be submitted via TTU Blackboard. No assignments should be submitted via email. Any assignment submitted via email will not be graded and will receive zero grade. In case you have any issues submitting assignments via TTU Blackboard, please contact tech support and resolve the problem.

Grading Policy: The final grade for this course will be based on the items described below:

- **Quizzes** **10%**
  - Quizzes are short tests given through Blackboard or during class lecture (in-class) over the subject matter covered in the course.
  - For these quizzes, you **may** use your notes, book, or other lecture materials.
  - All Quizzes must be done individually
- **Readings/Class Participation** **10%**
  - Class Participation means participating in class discussions about reading assignments and participation in online discussions on Blackboard. Class participation includes showing up, having an active role in class activities, presenting assigned materials in the classroom, and participating actively in classroom discussions.
  - You are responsible for completing the assigned readings from the textbook according to the course schedule.
  - The readings should be finished before each class, except for the first class.
  - You need to post at least one thoughtful discussion question about the weekly reading on the Blackboard discussion and respond to another student's question. Your questions should demonstrate a thorough understanding of the material and be neither too brief (less than 20 words) nor too lengthy (more than 250 words). Be prepared to discuss your questions in class.
  - One/two, or more students will be assigned to lead discussion in class or on Blackboard on the weekly readings. Specific details may also be provided on Blackboard or in class. The discussants are required to come prepared to take a leading role in class discussion.

- **Assignments: 20%**
  - Assignments will be programming or written assignments to be done outside of class.
  - Occasionally, in-class assignments will be assigned with minimal or no warning (surprise assignments) which is due before the end of the class it was assigned.
  - All assignments must be done individually.
- **Projects (two projects, each 30%) 60%**
  - Projects will be prototyping/long programming or written assignments to be done outside of class. They may also consist of giving presentations to the instructor or the class.
  - The presentations should be short (not more than ten slides) and to the point (5 to 7 minutes). For presentations, you should prepare slides and upload them to Blackboard 48 hours before the class meeting time. More information on each project will be provided on Blackboard.
  - A project can be done in groups (2-5 teammates will be assigned by the instructor) or individually.
  - The main course component is a team or an individual project. You will be asked to define, analyze, design, prototype, and evaluate an interactive solution for a real-world problem. The project aims to give you hands-on experience with the full development cycle of user interaction design.
  - The project grading will be done jointly or separately by the TA, grader, and/or instructor. Recognizing that each team's circumstances and project goals might differ, the grading will focus on the learning process rather than comparing final products between teams. The emphasis is on understanding and applying the development process, and your project deliverables will be evaluated based on those criteria.
  - Projects can be done individually or in teams. If a project is done by a team, each candidate should contribute equally.
  - In the case of presentations, each candidate must present part of the project that was assigned to the candidate
  - Projects may be done in teams upon approval by the instructor only
  - Project1 Grade distribution:
    - Design = *5%*
    - Prototype (wireframes + pilot test) = *9%*
    - Evaluation and reporting = *9%*
    - Presentation = *5%*
    - Peer Evaluation: *2%*
  - Project 2 Grade distribution:
    - Prototype Improvement: In case the prototype developed in Project 1 needs further improvement, it can be enhanced in Project 2 and will be considered Project 2 if substantial changes/improvements are made in the prototype developed in Project 1. Please note that it is the discretion of the instructor and will be considered from case to case.
    - *Peer Evaluation: 2%*
    - *Final Presentation = 18 %*
    - *Final Report = 10%*
- Other requirements: The initial part of the grading focuses on whether all the project requirements have been fulfilled. We will also be checking for things like correct formatting, labeling, grammar, spelling, and adherence to instructions. You will not get extra points for meeting these basic expectations, but we might deduct points if the project requirements are not fully met, done incorrectly, or are missing.
- Quality of all submissions: The challenging aspect of grading lies in evaluating the quality of your work, which is subjective. This subjective evaluation considers two factors: how well you fulfilled the requirements and how effectively you presented your work. Our judgment relies on our expertise and experience and is somewhat relative to the other projects in the class. The "how well you met requirements" part depends on our perception of your effort, thoroughness, and understanding of the course material and its application to your project. We will do our best to provide comments/suggestions on these qualitative aspects to help you identify areas for improvement.

Criteria for Grading: All assignments will be graded within two weeks of the due date unless unforeseen circumstances prevent timely grading. Table 1 shows the grading scale and breakdown of grade components.

Table 1: Scores are not rounded

letter grade	lower bound	upper bound
A	90%	100%
B	80%	89%
C	70%	79%
D	60%	69%
F	0%	59%

For example, if you receive an 89.9 score, it will be considered 89%, and you will still receive a B grade.

Additional Information:

- Late work will only be accepted within 72 hours of the due date/time with the following deductions unless prior arrangements have been made with the professor or otherwise stated in class:
  - 10% deduction for the first 24 hours
  - 25% deduction for the second 24 hours
  - 40% deduction for the third 24 hours
- Some assignments will not be accepted late and will be marked as such on Blackboard.
- Quizzes will never be accepted late, regardless of reason.
- Students may not make up or submit any item once it has been graded and returned to any student.
- All questions concerning graded material must be submitted **in writing** along with the graded material by the last day of classes as marked in the Academic Calendar.

COURSE SPECIFIC POLICIES

Attendance Policy

Regular and punctual attendance is mandatory for this course. As a student, you are required to attend all scheduled lecture sessions. These sessions are pivotal to your learning and provide crucial instruction on the course material. Furthermore, all announcements, assignments, and lecture materials covered in each session will be your responsibility, regardless of whether or not you were present.

1. **Responsibility for Class Material**: If you miss a lecture, you are still responsible for all course content covered, including any announcements made, assignments given, and material discussed during the lecture. It is recommended that you collaborate with fellow students to receive any missing lecture materials or learn of any announcements covered during the lecture. Contact the instructor by email or approach the instructor during office hours to discuss any possible make-up opportunities, assuming you are in accordance with the rest of this policy.
2. **Notification of Absence**: If you must be absent from class for any reason, you are required to notify the instructor in writing either prior to the absence or within a 48-hour window following the missed lecture. This notification should include the reason for your absence and a plan for making up any missed coursework. If you need to be absent for more than one week, please check these guidelines.
3. **Make-Up Work**: In cases of notified absences, arrangements for make-up work will be made on a case-by-case basis. This may include but is not limited to the schedule of make-up assignments. Please note that it is at the discretion of the instructor to provide make-up work opportunities.
4. **Unexcused Absences**: Unexcused absences, i.e., those without prior notification or a valid reason, will not be taken lightly. Please not that *only two absences with prior notification will be accepted*. Starting from third absence, a penalty of a minimum of 10% will be applied to any assignments, labs, or exams

missed due to an unexcused absence. In certain cases, the student may not be allowed to make up for the missed coursework at all. Please note that it is at the discretion of the instructor to provide make-up work opportunities.

This attendance policy aims to foster a disciplined academic environment and ensure that each student can make the most of this learning opportunity. Your presence and active participation in every lecture are integral to your understanding of the course content, and any absence, excused or otherwise, will potentially have a significant impact on your academic performance.

Extra Credit and Grading Curves

This policy outlines the guidelines for the allocation of extra credit opportunities and the application of grading curves in this course. It is designed to foster consistent attendance active class participation and preserve the standards of our academic community as described in the Attendance and Expanded Academic Integrity policies.

1. **Eligibility for Extra Credit and Grading Curves**
   - *a. Course Attendance*
     Regular attendance is essential for academic success. Students must attend at least 70% of the course lectures to qualify for extra credit assignments and to benefit from any grading curves implemented in this course. Attendance will be strictly monitored for each class session using in-class attendance sheet or/and using other platforms (e.g., TopHat). This requirement is waived for Distance Learning students taking courses specifically marked as for Distance Learning.
   - *b. Academic Integrity*
     Students who are involved in an academic integrity investigation may not be eligible for extra credit or grading curves. If a student is found to be in violation of the academic integrity policy, their eligibility for extra credit or grading curve advantages will be revoked for the duration of the academic term.
   - *c. Class Participation*
     Students who are actively involved in class discussions and actively participate in discussing the assigned reading materials and take part in class questions answer sessions may be eligible for extra credit or grading curves.
2. **Extra Credit**
   - *d.* Extra credit assignments are intended to provide students with an opportunity to improve their grades by demonstrating a deeper understanding of the course material. However, these opportunities are contingent upon meeting the attendance and academic integrity requirements stated above.
3. **Grading Curves**
   - *e.* When deemed appropriate, grading curves will be employed to more accurately reflect the student's comprehension of the course material. However, the advantage of grading curves will only be accessible to those students who meet the previously mentioned attendance and academic integrity requirements.

Expanded Academic Integrity Policy

This course strongly advocates for an atmosphere of academic integrity and intellectual honesty. All students are encouraged to discuss ideas and problem-solving strategies with the Teaching Assistant, Instructor, and other students, but any form of academic dishonesty will not be tolerated. All submitted prototypes, code, and assignments are subject to random checks for plagiarism.

1. **Code and Answers Sharing**
   Unless explicitly stated otherwise by the instructor, you are strictly prohibited from sharing, using, or looking at code or answers obtained from online sources, classmates, or friends. This also includes sharing, using, or viewing unauthorized solutions from previous iterations of the course or utilizing ChatGPT or other AI software to write code or devise pseudocode for you.

2. **Understanding Academic Dishonesty**
   It is your responsibility to educate yourself about what constitutes academic dishonesty. This extends beyond plagiarism and may include unauthorized collaboration, falsification, multiple submissions, and facilitating academic dishonesty.
3. **Clarifying Doubts**
   If you are unsure about the legitimacy of a specific action or behavior, it is essential to discuss it with the instructor before proceeding. This proactive approach can help avoid any unintentional violations of this policy.
4. **Penalties for Violation**
   a. *Graduate Students*:
      This course has a zero-tolerance policy towards academic dishonesty for Graduate Students. Any Graduate Student found guilty of academic dishonesty will receive an 'F' for the course, and their actions will be reported to the Office of Student Conduct.
   b. *Undergraduate Students*
      Penalties for academic dishonesty will depend on the severity and frequency of the violations.
      - For a first-time violation on an assignment, the student will receive a score of '0' on the assignment in question.
      - Any student caught (1) violating this rule on an assignment or project, (2) committing multiple violations, or (3) committing a severe enough violation as deemed by the professor will receive a grade of 'F' for the course and their actions will be reported to the Office of Student Conduct.

TEXAS TECH UNIVERSITY POLICIES / STATEMENTS

Academic Integrity and Plagiarism Statements

Academic integrity is taking responsibility for one's own class and/or course work, being individually accountable, and demonstrating intellectual honesty and ethical behavior. Academic integrity is a personal choice to abide by the standards of intellectual honesty and responsibility. Because education is a shared effort to achieve learning through the exchange of ideas, students, faculty, and staff have the collective responsibility to build mutual trust and respect. Ethical behavior and independent thought are essential for the highest level of academic achievement, which then must be measured. Academic achievement includes scholarship, teaching, and learning, all of which are shared endeavors. Grades are a device used to quantify the successful accumulation of knowledge through learning. Adhering to the standards of academic integrity ensures grades are earned honestly. Academic integrity is the foundation upon which students, faculty, and staff build their educational and professional careers. [Texas Tech University ("University") Quality Enhancement Plan, Academic Integrity Task Force, 2010].

Texas Tech University expects students to "understand the principles of academic integrity and abide by them in all class and/or course work at the University" (OP 34.12.5). Plagiarism is a form of academic misconduct that involves (1) the representation of words, ideas, illustrations, structure, computer code, other expression, or media of another as one's own and/or failing to properly cite direct, paraphrased, or summarized materials; or (2) self-plagiarism, which involves the submission of the same academic work more than once without the prior permission of the instructor and/or failure to correctly cite previous work written by the same student. This video, retrieved from the University of Kansas Libraries website, provides an example of a plagiarism definition as well as examples of plagiarism and how to avoid it. Please review Section B of the TTU Student Handbook for more information related to other forms of academic misconduct, and contact your instructor if you have questions about plagiarism or other academic concerns in your courses. To learn more about the importance of academic integrity and practical tips for avoiding plagiarism, explore the resources provided by the TTU Library and the School of Law.

Although students are encouraged to discuss ideas and problems with the instructor, assistant, and other students, academic dishonesty will not be tolerated. You are not allowed to share code or answers, use or even look at code or answers obtained from online sources, friends, or classmates. Posting, publishing, or otherwise sharing

questions or answers to quizzes, assignments, tests, projects, or other assignments without the explicit permission of the instructor is a serious violation of the code of conduct and will result in serious repercussions.

It is your responsibility to educate yourself about actions that constitute academic dishonesty. If you are not sure whether a specific action is allowed, talk to the instructor. All submitted codes and assignments will be checked for plagiarism. Students may be asked to explain the work they have submitted. Academic dishonesty of any kind, if discovered, will result in one or more of the following sanctions: a grade of 0 for the corresponding graded item, a grade of "F" in the course, and further action according to the TTU operating procedures: http://www.depts.ttu.edu/opmanual/OP34.12.pdf.

AI Use Policy
The use of generative AI tools (such as ChatGPT) for any purpose is strictly prohibited in this course. Information gathered from AI cannot be used even with appropriate citations. Submission of AI-generated content (i.e., information, text, or images) as your own work is a violation of academic integrity and may result in referral to the Office of Student Conduct. Please contact me if you have questions regarding this course policy.

Ethical Conduct
Students are expected to comply with the Texas Tech Code of Student Conduct in all aspects of this class. The Code of Student Conduct may be found in the Student Handbook and/or Office of Student Conduct (https://www.depts.ttu.edu/dos/Studenthandbook2022forward/Student-Handbook-2023-2024.pdf).
In order to assure that all students have the opportunity to gain from time spent in class, unless otherwise approved by the instructor, students are prohibited from engaging in any other form of distraction, such as working on other classes, taking cell phone calls, text messaging, and working on laptop computers. Inappropriate behavior in the classroom shall result, minimally, in a request to leave class. Violations of conduct, including academic dishonesty, foul language, and classroom citizenship, are eligible to be reported to the Student Conduct Office.

ADA Statement
The University is committed to creating an accessible and inclusive learning environment consistent with university policy and federal and state law. Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in Weeks Hall or call 806-742-2405.

Religious Holy Days
"Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused under section 2 may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily. Please check the university policy on excused absences for religious holidays.

Absence due to Officially Approved Trips
Students planning an approved absence must notify the instructor of their departure and return dates prior to the trip to obtain advance permission; please check these guidelines.

Accommodation for Pregnant Students
To support the academic success of pregnant and parenting students and students with pregnancy-related conditions, the University offers reasonable modifications based on the student's particular needs. Any student

who is pregnant or parenting a child up to age 18 or has conditions related to pregnancy may contact Alex Faris, the Texas Tech University designated Pregnancy and Parenting Liaison, to discuss support available through the University. The Liaison can be reached by emailing alfaris@ttu.edu. Should a student communicate with the instructor that they are pregnant or have a pregnancy-related condition or may need additional resources related to pregnancy or parenting, the instructor will communicate that student's information to the Title IX Coordinator, who will work with the student and others, as needed, to ensure equal access to the University's education program or activity. For more information regarding supportive measures, please contact pregnancy and parenting liaison Alex Faris (alfaris@ttu.edu | 806.834.3420) or visit https://www.depts.ttu.edu/titleix/PregnacnyandParenting/index.php to submit a request to Alex Faris for assistance.

Late Arrival, Late Return, and Early Departure Policy

The Computer Science department strictly follows the official academic calendars and requires students who are enrolled in face-to-face sections to be on campus by the first class day of each semester and leave campus no earlier than the last day with scheduled course activities. The only exception we make is for incoming new international students who often need more time to obtain the necessary paperwork, including a study visa, and in such cases, we accommodate late arrival for up to the 12th class day of their first semester. No exceptions will be made for late return or early departure requests from current students in general. If it is because of an unforeseen and uncontrollable situation, a student needs early departure or late return; then the student must obtain in-advance approval from the academic advisors and instructors of all enrolled courses for an excused absence of four (4) or fewer weekdays and an additional in-advance approved Extended Absence Verification* from the Office of the Dean of Students for an extended absence of five (5) or more weekdays. If a student has unexcused absences, then the student must take full responsibility for any missed classes, missed academic work, or any financial issues caused.

*Extended Absence Verification Request to be verified by Office of the Dean of Students: https://cm.maxient.com/reportingform.php?TexasTechUniv&layout_id=6

FOOD INSECURITY

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. The important thing is that all of the programs are now housed under the umbrella of The Raider Relief – Advocacy and Resource Center. It was developed to support student needs and connect them with essential resources necessary for academic success as a Texas Tech student. Furthermore, please notify the professor if you are comfortable in doing so. Raider Red's Food Pantry (located in Doak 117) supplies personal care items and a selection of nonperishable food to students. The Raider Relief Advocacy and Resource Center (RR- ARC) is a centralized hub of resources and support for students facing hardships with their basic needs. Through a comprehensive network of campus and community partnerships, we strive to alleviate the burden of financial, physical, and emotional hardships and promote the well-being and academic success of all students. Please check these outreach initiatives: Raider Relief Fund, Raider Red's Food Pantry, and Red to Black Peer Financial Coaching, and fill out our form to get connected: https://www.depts.ttu.edu/raiderrelief/.

DISCRIMINATION, HARASSMENT, AND SEXUAL VIOLENCE

Beginning January 1, 2020, Texas Education Code, Section 51.252 (formerly known as Senate Bill 212) requires all employees of Texas universities, including faculty, to report to the Title IX Office any information regarding incidents of sexual harassment, sexual assault, dating violence, or stalking that is disclosed to them. Texas law requires that all employees who witness or receive information about incidents of this type (including, but not limited to, written forms, applications, one-on-one conversations, class assignments, class discussions, or third-party reports) must report it to the Title IX Coordinator. Before talking with me or with any faculty or staff member about a Title IX-related incident, please remember that I will be required to report this information.

Texas Tech University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from gender and/or sex discrimination of any kind. Sexual assault, discrimination, harassment, and other Title IX violations are not tolerated by the University. Report any incidents to the Office for Student Rights & Resolution (806)-742-SAFE (7233) or file a report online at titleix.ttu.edu/students. Faculty and staff members at TTU are committed to connecting you to resources on campus. Some of these available resources are TTU Student Counseling Center, 806- 742-3674, https://www.depts.ttu.edu/scc/(Provides confidential support on campus.) TTU 24-hour Crisis Helpline, 806-742-5555, (Assists students who are experiencing a mental health or interpersonal violence crisis. If you call the helpline, you will speak with a mental health counselor.) Voice of Hope Lubbock Rape Crisis Center, 806-763-7273, voiceofhopelubbock.org (24-hour hotline that provides support for survivors of sexual violence.) The Risk, Intervention, Safety and Education (RISE) Office, 806-742-2110, https://www.depts.ttu.edu/rise/ (Provides a range of resources and support options focused on prevention education and student wellness.) Texas Tech Police Department, 806-742- 3931, http://www.depts.ttu.edu/ttpd/ (To report criminal activity that occurs on or near Texas Tech campus.). If you would like to have more information about reporting options and resources, I encourage you to visit the TTU website for more information or to contact the professional staff: https://www.depts.ttu.edu/titleix/students/Report_an_Incident.php.

Civility in the Classroom

Texas Tech University is a community of faculty, students, and staff that enjoys an expectation of cooperation, professionalism, and civility during the conduct of all forms of university business, including the conduct of student-student and student-faculty interactions in and out of the classroom. Further, the classroom is a setting in which an exchange of ideas and creative thinking should be encouraged and where intellectual growth and development are fostered. Students who disrupt this classroom mission with rude, sarcastic, threatening, abusive, or obscene language and/or behavior will be subject to appropriate sanctions according to university policy. Likewise, faculty members are expected to maintain the highest standards of professionalism in all interactions with all constituents of the University (www.depts.ttu.edu/ethics/matadorchallenge/ethicalprinciples.php). If you exhibit distractive or inappropriate behavior (without explicit consent of the instructor), you may be asked to leave the class session and be subject to attendance-related penalties.

COVID-19 Statement

The University will continue to monitor CDC, State, and TTU System guidelines concerning COVID-19. Any changes affecting class policies or temporary changes to delivery modality will be in accordance with those guidelines and announced as soon as possible. Students will not be required to purchase specialized technology to support a temporary course modality change, though students are expected to have access to a computer to access course content and course-specific messaging as needed. If you test positive for COVID-19, report your positive test through TTU's reporting system: https://www.depts.ttu.edu/communications/emergency/coronavirus/. Once you report a positive test, the portal will automatically generate a letter that you can distribute to your professors and instructors.

RECOVERY SERVICES

The Center for Students in Addiction Recovery offers students in recovery a nurturing and supportive community. The Center provides students in recovery with an abstinence-based program where students can flourish in recovery as they attain educational goals, including advanced degrees. The services provided through the CSAR increase the continuum of care for students in recovery, enhancing the quality of life for students in recovery at Texas Tech University. The CSAR supports students in recovery from alcohol, drugs, and behavioral addictions. By providing recovery support through relationships with staff, academic advising, scholarships/fellowships, recovery housing, study abroad opportunities, and more, students can flourish in recovery and in life.

Safety and Wellness

The Texas Tech University (TTU) and Edward E. Whitacre Jr. College of Engineering are committed to the safety and wellness of our students by providing various services and resources.

Make sure you register with Tech Alert to get emergency notifications by phone call, text, or email. You are encouraged to review the Emergency Action Plans (EAPs) and watch the videos of Know What To Do In Emergency Events and Surviving an Active Shooter Event Training to be prepared for those emergency situations. Additionally, due to the nature of laboratory or design courses, it is mandatory for you to follow the university safety policies and any additional safety protocols required by the course instructor(s).

For your well-being, various services are available at Student Counseling Center and Student Health Services. The Student Wellness Center provides convenient walk-in services M-F from 8 AM to 5 PM. Furthermore, the Texas Tech Crisis HelpLine (806-742-5555) provides 24/7/365 assistance for students experiencing a crisis or distress.

Emergency/Crisis Phone Number

TTU Police (UPD) Emergency	911
TTU Police (UPD) Non-Emergency	806.742.3931
TTU Emergency Maintenance	806.742.4677
TTU EHS (M-F, 8 am – 5 pm)	806.742.3876
SafeRide	806.742.7433
TTU Crisis HelpLine	806.742.5555
Student Wellness Center (From Urgent Care to a Full-Service Pharmacy on site)	806.742.2848
Title IX Reporting	806.742.7233
The Dean of Students	806.742.2984

Important Note: The topics (below table), the order in which they are presented, and the information presented in this complete syllabus are subject to change, expansion, and contraction or stasis during the semester at the instructor's discretion because of scheduling issues, developments in the discipline, or other contingencies. Please note that more readings will also be added later in the course. The copy of syllabus on Blackboard takes precedence in case of conflict between different versions of syllabus. This schedule is also tentative and subject to change.

	Date	Topics	Readings
Week 1: 8/19 - 8/23	08-19-2024	X	
	08-21-2024	X	
	08-23-2024	Syllabus Overview and Introduction to HCI	Dix Ch 1.1 Article: What Is HCI? & A Beginner's Guide to Human-Computer Interaction.
Week 2: 8/26 - 8/30	08-26-2024	Introduction to HCI	Norman Ch 1 Article: 3 Key Elements for Great UX Design: Affordances, Signifiers, and Feedback
	08-28-2024	Fundamental Design Principles	Article: Interaction Design: 6 Fundamental Principles & 10 Usability Heuristics for User Interface Design
	08-30-2024	Introduction to Figma	Tutorial: Intro to Figma - Beginners Guide to Figma Basics Article: The secret sauce of why Figma wins!
Week 3:	09-02-2024	School Holiday	

	Date	Topics	Readings
9/02 - 9/06	09-04-2024	Fundamental Design Principles	Dix Ch 1.2, 1.3, 1.4, 1.7 Article: Perception Design & Learn the Role of Perception and Memory in HCI and UX
	09-06-2024	Introduction to Figma	Article: Figma vs. Sketch: Which Design Tool is best?
Week 4: 9/09 - 9/13	09-09-2024	Input Devices	Dix Ch 2.2, 2.3 Research paper: Interaction Styles and Input/Output Devices
	09-11-2024	Input Devices	Dix Ch 2.4, 2.6, 2.7
	09-13-2024	Introduction to Figma	Tutorial: Free Figma Crash Course for Beginners 2024 | UI/UX Design
Week 5: 9/16 - 9/20	09-16-2024	Ergonomics Career and Resume Discussion	Dix Ch 3.1 Article: What is Ergonomics in Human-Computer Interaction? Research Paper: The Role of Cognitive Ergonomics in Interaction Design, Addressing Advances in HCI
	09-18-2024	Engineering Job Fair	
	09-20-2024	Workshop/Guest Lecture	Dix Ch 3.2, 3.4
Week 6: 9/23 - 09/27	09-23-2024	The Interaction	Dix 3.5, 3.7, 3.9
	09-25-2024	Interaction Styles	Article: A Brief History of Human-Computer Interaction Technology
	09-27-2024	Workshop/Figma Hands-on Practice	
Week 7: 9/30 - 10/04	09-30-2024	HCI Paradigms	Dix Ch 4.1 Research paper: The Three Paradigms of HCI
	10-02-2024	Direct Manipulation	Dix Ch 4.2 Article: Direct Manipulation: A Fundamental Element of Graphical User Interfaces
	10-04-2024	Workshop/Figma Hands-on Practice	
Week 8: 10/07 - 10/11	10-07-2024	Project 1 Presentation	
	10-09-2024	Project 1 Presentation	
	10-11-2024	Project 1 Presentations	Dix Ch 5.1, 5.3 Norman Ch 5
Week 9: 10/14 -10/18	10-14-2024	Design Thinking	Dix Ch 5.4, 5.7 Norman Ch 6

	Date	Topics	Readings
	10-16-2024	Design Thinking	Article: 10 Insightful Design Thinking Frameworks: A Quick Overview
	10-18-2024	Design Thinking	Case Study: How Design Thinking Transformed Airbnb from a Failing Startup to a Billion-Dollar Business
Week 10: 10/21 - 10/25	10-21-2024	Software Lifecycle	Dix Ch 6.1, 6.2 Article: Software life cycle model in HCI
	10-23-2024	Software Lifecycle	Dix Ch 6.3, 6.4
	10-25-2024	Usability Engineering	Article: What is Usability Engineering?
Week 11: 10/28 - 11/01	10-28-2024	Design Principles	Dix Ch 7.1, 7.2 Article: Design rules for interactive systems
	10-30-2024	Workshop/Guest Lecture	Dix Ch 7.3 - 7.6
	11-01-2024	Design Principles	Article: Human-Computer Interaction — Principles, Evaluation, and Universal Design Principle
Week 12: 11/04 - 11/08	11-04-2024	Software Implementation	Dix Ch 8.1- 8.3
	11-06-2024	Software Implementation	Dix Ch 8.4
	11-08-2024	Software Implementation	Dix Ch 8.5
Week 13: 11/11 - 11/15	11-11-2024	Evaluation techniques	Dix Ch 9.1 - 9.3 Article: Factors distinguishing evaluation techniques in HCI
	11-13-2024	Workshop/Guest Lecture	Dix Ch 9.4, 9.5
	11-15-2024	Evaluation techniques	Dix Ch 10.1-10.3 The UX researcher's toolkit: 11 UX research methods and when to use them
Week 14: 11/18 - 11/22	11-18-2024	Universal Design	Dix Ch 10.4, 10.5 Article: The 7 Principles
	11-20-2024	Universal Design	Dix Ch 11.2-11.5 Article: 8 Goals of Universal Design
	11-22-2024	Speech Recognition Problems	Research paper: Human-Computer Interaction Using Speech Recognition Technology
Week 15: 11/25 - 11/29	11-25-2024	Course Review	
	11-27-2024	School Holiday	
	11-29-2024	School Holiday	
Week 16: 12/02 - 12/06	12-02-2024	X	
	12-04-2024	X	

	Date	Topics	Readings
	12-06-2024	Project 2 Presentation	

Course Resources/ Tools

			
Dr. Maaz Amjad	Learning Management System	Figma	Adobe XD

Note: More software/tools will be added later in the course.