

Human-AI Interaction

Course number: INF 385T.13 (Unique ID: 28487)

Time: 3pm-6pm CT Mondays

Location: UTA 1.208

Office hours: To be updated later. It can also be scheduled upon request.

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Course Description

Advances in artificial intelligence (AI) have changed the way decisions are made in organizations, governments, and everyday life. This course will provide an introduction to combining human and machine intelligence to benefit people and society. Students will learn cutting-edge research on a number of topics related to human-AI interaction, including the psychological and societal impacts of AI, AI biases and fairness, transparency and explainability, human-in-the-loop decision-making/human-AI collaboration, robots and natural language based AI, and design guidelines and methods for AI user experiences. These topics will be explored in the context of real-world applications, including online social media and labor platforms, algorithmic management tools for worker hiring and evaluation, and decision-support tools for public administrative decisions on risk assessment and resource distribution. Students will form interdisciplinary teams and learn through projects how to critically analyze existing AI systems, study their human impact, and design new systems to be human-centered.

Note: This course is about human-centric theories and methods for envisioning AI systems. It will provide no technical insight on machine learning, data-mining, or statistical pattern recognition. Prior experience with social science research, programming, AI/machine learning, human-computer interaction or interaction design, or user research will be helpful. This class is interdisciplinary and you will be able to craft a project that best fits your background.

Learning Outcomes

You will learn principles and methods for designing human-centered AI

- Be aware of open challenges in the field
- Understand cutting-edge principles and methods that address the challenges
- Know how to adopt and advance the human-centered AI principles and methods
- Practice reflecting critically on the use of AI in society, identifying problems, and having a constructive stance

Prerequisite for the Course

There is no prerequisite for this course. This is a graduate-level, special topic course. In this class, you will not learn basic skills and methods in social science research, human-centered design, or data science/AI/machine learning. You will be expected to combine skills & methods that you already know with HAI principles and methods you will learn in the class in order to conduct your project.

How Will You Learn?

Statement of Learning Success

Your success in this class is important to me. We all learn differently, and everyone struggles sometimes. You are not, ever, the only one having difficulty. If there are aspects of this course that prevent you from learning or exclude you, please let me know as soon as possible. Together we will develop strategies to meet both your needs and the requirements of the course. I also encourage you to reach out to the student resources available through UT and I am happy to connect you with a person or Center if you would like. If immediate mental health assistance is needed, call the Counseling and Mental Health Center (CMHC) at 512-471-3515 or you may also contact Bryce Moffett, LCSW (iSchool CARE counselor) at 512-232-2983. Outside CMHC business hours (8a.m.-5p.m., Monday-Friday), contact the CMHC 24/7 Crisis Line at 512-471-2255.

Teaching Modality Information

The class will be done through synchronous in-person meetings. The main learning in this class happens through active discussion and in-class activities as well as projects. Thus, it is critical to attend the class 3-6 pm CT Mondays. The course will not be recorded, and there will be no alternative to synchronous attendance other than normal emergency accommodations.

Communication

The course Canvas site can be found at utexas.instructure.com. Please email me directly or through Canvas. You are responsible for ensuring that the primary email address you have recorded with the university is the one you will check for course communications because that is the email address that Canvas uses.

Asking for Help

You can ask questions to me or the TA and arrange individual meetings with us via Slack or Canvas.

Diversity, Equity, and Inclusion

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed, and that the diversity that students bring to this class can be comfortably expressed and be viewed as a resource, strength and benefit to all students. Please come to me at any time with any concerns.

Services for Students with Disabilities

The university is committed to creating an accessible and inclusive learning environment consistent with university policy and federal and state law. Please let me know if you experience any barriers to learning so I can work with you to ensure you have equal opportunity to participate fully in this course. If you are a student with a disability, or think you may have a disability, and need accommodations please contact Services for Students with Disabilities (SSD). Please refer to SSD's website for contact and more information: <http://diversity.utexas.edu/disability/>. If you are already registered with SSD, please deliver your

Accommodation Letter to me as early as possible in the semester so we can discuss your approved accommodations and needs in this course.

Course Requirements and Grading

- Required Materials: All course readings will be available via the course Canvas site.
- Required Devices: You need access to computers to download the readings and complete the assignments.
- Classroom expectations: Please make sure to be engaged and respectful, and to contribute to discussions.

Assignments

1. **Attendance & active participation.** Students are expected to attend every class. Every student should demonstrate ongoing engagement in class discussions. Absences will only be excused in situations following university policy (illness, religious holy days, participation in University activities at the request of university authorities, and compelling absences beyond your control) with proper documentation and timely notification (prior to class for non-emergencies).

2. **In-class activities.** Some weeks will involve in-class activities. In-class activities include discussion activities as well as worksheet activities prepared by the instructor and the TA. Some activities will be expected to be finished in the class time while others will be expected to be taken home and completed after the class. Once students complete the activities, the results will be reviewed by a set of other students or shared with the entire class. The incompleteness of the activities will result in a partial or zero score.

3. **Reading questions.** You will be assigned readings per week ([Reading list](#)). The readings are carefully chosen to provide knowledge of both foundational work in the field and up-to-date, cutting edge trends, methods, and studies. The weekly lectures will not cover the content of the readings, so it is very important that you take the time to read these materials and reflect on them.

As you read the materials, note down your thoughts and discussion questions. Discussion questions can cover a range of topics, including useful take-aways and implications in terms of the methods and findings of the paper, observations about trends in the field, doubts or concerns about the findings and/or trends, next steps for researchers and practitioners, and how to apply take-aways and implications in the real world.

Submission. Before 6 pm CT on Thursdays, you will submit three discussion questions about the assigned readings on Canvas. You will then read all the questions submitted by your classmates and vote for the questions that you'd like to discuss in the class by 1 CT pm on Fridays. The instructors will include the questions with the most votes in the class discussion. The TA will keep track of questions that you submit each week. Submitting three thoughtful discussion questions for all weeks will result in a full score on the reading reflection assignment.

4. **Weekly reflections.** You will submit a short reflection of what you learned in class at the end of each week. The reflection should include how it has affected your viewpoints on designing technology, and how you can apply what you learned into your research and/or design process. Tracking the record of your progress will help you see what you have learned during the semester. The reflection will be due on Friday at 11:59 pm CT before next class.

5. **Term Project.** You will work on a term project. Detailed guidelines are documented in the [Project Guidelines](#) document.

6. **Teamwork peer evaluation.** We will conduct two teamwork peer evaluation surveys, one during the midterm period and the other at the final. In the survey, you will be asked to evaluate your teammates, including yourself, and your collaboration experiences. The survey results will be factored into the team project grade, which may result in different team project grades for different students. For example, if a student has not contributed to the team project consistently, the student will get a lower team project grade than their teammates.

Assignments	Percent of Total Grade / Points Possible
1. Attendance & active participation	10%
2. In-class activities	15%
3. Reading reflection questions	15%
4. Weekly reflections	15%
5 & 6. Term project & peer evaluation	45%

Late Work and Extensions

We will use a limited extension method on our assignment deadlines (i.e., reading reflection questions, weekly reflections, in-class activities, and projects), which we call Extra Hours. This is to provide you with some flexibility for the times of heavy workload, minor illness, job interviews, conference travels, and other exceptional, yet often predictable circumstances. You will have a total of 120 Extra Hours for the entire semester, and you may apply Extra Hours to most assignments. The Extra Hours will be deducted in one hour increments. This means that, if you upload your assignment 122 minutes late, it will use up 3 Extra hours. You can use at most 36 Extra hours (1.5 days) for a given assignment. Assignments more than 36 hours late will not be accepted. If a team assignment is using Extra Hours, every member's hour will be deducted. Extra Hours cannot be applied to the proposal, midterm and final presentations.

When you use Extra Hours, please send an email to the TA after you submit the assignment, indicating how many hours you used for which assignment and how many Extra Hours are left up to that point. The TA will check the submission and update the record.

Extra Hours are not to support procrastination. Late submissions should only occur in exceptional circumstances. If you use up your Extra Hours and seek further extensions, you will first need to provide acceptable justifications for all Extra Hours that you used. Late submission after you use up the Extra Hours, or late submission of the presentations will have points deducted.

Absences

Absences will result in the reduction of the attendance and active participation grade. Absences will only be excused in situations following university policy (illness, religious holy days, participation in University activities at the request of university authorities, and compelling absences beyond your control) with proper documentation and timely notification (prior to class for non-emergencies).

Equitable Accommodation and Extra Credit

The semester-long project is a pivotal element of your learning experience. Each project will involve a series of milestones that you will build off for the next milestone. If you improve your submission based on our feedback, we will update the grade assigned to the milestone. We encourage iteration, which is a foundation of any great work!

+/- Grading Policy and Grade Breaks

+/- grades will be used for the final class grade.

A: 94 - 100%, A-: 90 - <94%, B+: 87 - <90%, B: 84 - <87%, B-: 80 - <84%, C+: 77 - <80%, C: 74 - <77%

For detailed information about what grade is required for you to receive credit for this class, please refer to UT's Graduate Catalog. For example, students in the School of Information are required to receive a grade of B or higher in order to include this course in their program of work toward graduation. In addition, the UT Graduate School requires a minimum grade of C or higher to count a course for credit.

Course Outline

The detailed, up to date course outline is [here](#) and also posted on canvas. Changes to the schedule may be made at my discretion if circumstances require. I will announce any such changes in class and will also communicate them via a Canvas announcement and Slack. It is your responsibility to note these changes when announced, and I will do my best to ensure that you are notified of changes with as much advance notice as possible.

Week	Date	Topic
Week 1	1/9	Introduction
Week 2	1/16	Martin Luther King Day

Week 3	1/23	Human experiences with AI in platforms, workplaces, and cities
Week 4	1/30	Designing AI user experiences
Week 5	2/6	Transparent and explainable AI
Week 6	2/13	Fair and responsible AI
Week 7	2/20	Designing AI with stakeholders
Week 8	2/27	Human-in-the-loop systems and human-AI collaboration
Week 9	3/6	Mid-term presentations
Week 10	3/13	Spring break
Week 11	3/20	Data ethics and transparency
Week 12	3/27	Embodied AI: Robots and self-driving cars
Week 13	4/3	NLP-based AI: Chatbots and voice agents
Week 14	4/10	Work session
Week 15	4/17	Final presentations
Week 16	4/24	Final reflection & report due

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COVID-19 Updates: Spring 2023 Semester

Classroom Safety and COVID-19

To help preserve our in-person learning environment, the university recommends the following.

- For any illness, students should stay home if they are sick or contagious, not only to stop the spread, but also to promote their personal wellness.
- The university will continue to provide rapid antigen self-test kits at [distribution sites](#) throughout campus. Students can receive up to four tests at a time.
- The university will provide [symptomatic COVID-19 testing](#) on campus for all students, faculty and staff.
- UHS maintains up-to-date resources on COVID, which can be found here:
 - [COVID-19 Information and Resources](#)
 - [COVID-19 Exposure Action Chart](#)
- If you develop COVID-19 symptoms or feel sick, stay home and contact the [University Health Services](#)' Nurse Advice Line at 512-475-6877. If you need to be absent from class, contact [Student Emergency Services](#) and they will notify your professors. In addition, to help understand what to do if you have had close contact with someone who tested positive for COVID-19, see this [University Health Services link](#).
- [Behavior Concerns and COVID-19 Advice Line](#) (BCCAL) remains available as the primary tool to address questions or concerns from the university community about COVID-19.
- Students who test positive should contact [BCCAL](#) or self-report (if tested off campus) to [University Health Services](#).
- Visit [Protect Texas Together](#) for more information.

Sharing of Course Materials is Prohibited

No materials used in this class, including, but not limited to, lecture hand-outs, videos, assessments (quizzes, exams, papers, projects, homework assignments), in-class materials, review sheets, and additional problem sets, may be shared online or with anyone outside of the class without explicit, written permission of the instructor. Unauthorized sharing of materials promotes cheating. It is a violation of the University's Student Honor Code and an act of academic dishonesty. The University is well aware of the sites used for sharing materials, and any materials found on such sites that are associated with a specific student, or any suspected unauthorized sharing of materials, will be reported to [Student Conduct and Academic Integrity](#) in the [Office of the Dean of Students](#). These reports can result in sanctions, including failure of the course.

Class Recordings

Class recordings are reserved only for students in this class for educational purposes and are protected under FERPA. The recordings should not be shared outside the class in any form. Violation of this restriction by a student could lead to Student Misconduct proceedings.

Online Instruction

All students must use a UT Zoom account in order to participate in classes, office hours, and any UT affiliated events.

Classroom Policies

Statement on Learning Success

Your success in this class is important to me. We will all need accommodations because we all learn differently. If there are aspects of this course that prevent you from learning or exclude you, please let me know as soon as possible. Together we'll develop strategies to meet both your needs and the requirements of the course. I also encourage you to reach out to the student resources available through UT. Many are listed on this syllabus, but I am happy to connect you with a person or Center if you would like.

Absences

Excused Absence: The only absences that will be considered excused are for religious holidays or extenuating circumstances due to an emergency. If you plan to miss class due to observance of a religious holiday, please let me know at least two weeks in advance. You will not be penalized for this absence, although you will still be responsible for any work you will miss on that day if applicable. Check with us for details or arrangements.

If you have to be absent, use your resources wisely. Ask your team and other classmates to get a run-down and notes on any lessons you miss. If you find there are topics that we covered while you were gone that raise questions, you may come by during office hours or schedule a meeting to discuss. Email specific questions you have in advance so that we can make the most of our time. "What did I miss?" is not specific enough.

Religious Holidays

By UT Austin policy, you must notify me of your pending absence as far in advance as possible to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

Student Rights & Responsibilities

- You have a right to a learning environment that supports mental and physical wellness.
- You have a right to respect.
- You have a right to be assessed and graded fairly.
- You have a right to freedom of opinion and expression.
- You have a right to privacy and confidentiality.

- You have a right to meaningful and equal participation, to self-organize groups to improve your learning environment.
- You have a right to learn in an environment that is welcoming to all people. No student shall be isolated, excluded or diminished in any way.

With these rights come responsibilities:

- You are responsible for taking care of yourself, managing your time, and communicating with the teaching team and with others if things start to feel out of control or overwhelming.
- You are responsible for acting in a way that is worthy of respect and always respectful of others. Your experience with this course is directly related to the quality of the energy that you bring to it, and your energy shapes the quality of your peers' experiences.
- You are responsible for creating an inclusive environment and for speaking up when someone is excluded.
- You are responsible for holding yourself accountable to these standards, holding each other to these standards, and holding the teaching team accountable as well.

Personal Pronoun Preference

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender identity & expression, and nationalities. Class rosters are provided to the instructor with the student's legal name, unless they have added a "chosen name" with the registrar's office, which you can do so here: https://utdirect.utexas.edu/apps/ais/chosen_name/. I will gladly honor your request to address you by a name that is different from what appears on the official roster, and by the pronouns you use (she/he/they/ze, etc). Please advise me of any changes early in the semester so that I may make appropriate updates to my records. For instructions on how to add your pronouns to Canvas, visit <https://utexas.instructure.com/courses/633028/pages/profile-pronouns>. More resources available on the Gender and Sexuality Center's website, www.utgsc.org.

University Resources for Students

COVID-19 Update: "Keep Learning" Resources

This course may be offered in a format to which you are unaccustomed. If you are looking for ideas and strategies to help you feel more comfortable participating in our class, please explore the resources available here: <https://onestop.utexas.edu/keep-learning/>

Services for Students with Disabilities

The university is committed to creating an accessible and inclusive learning environment consistent with university policy and federal and state law. Please let me know if you experience any barriers to learning so I can work with you to ensure you have equal opportunity to participate fully in this course. If you are a student with a disability, or think you may have a disability, and need accommodations please contact Services for Students with Disabilities

(SSD). Please refer to SSD's website for contact and more information: <http://diversity.utexas.edu/disability/>. If you are already registered with SSD, please deliver your Accommodation Letter to me as early as possible in the semester so we can discuss your approved accommodations and needs in this course.

Counseling and Mental Health Center

Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. The Counseling and Mental Health Center serves UT's diverse campus community by providing high quality, innovative and culturally informed mental health programs and services that enhance and support students' well-being, academic and life goals. I urge students who are struggling for any reason and who believe that it might impact their performance in the course to reach out to me if they feel comfortable. This will allow me to provide any resources or accommodations that I can. If immediate mental health assistance is needed, call the Counseling and Mental Health Center (CMHC) at 512-471-3515 or you may also contact Bryce Moffett, LCSW (iSchool CARE counselor) at 512-232-2983. Outside CMHC business hours (8a.m.-5p.m., Monday-Friday), contact the CMHC 24/7 Crisis Line at 512-471-2255.

The Sanger Learning Center

Did you know that more than one-third of UT undergraduate students use the Sanger Learning Center each year to improve their academic performance? All students are welcome to take advantage of Sanger Center's classes and workshops, private learning specialist appointments, peer academic coaching, and tutoring for more than 70 courses in 15 different subject areas. For more information, please visit [Sanger Learning Center](#) or call 512-471-3614 (JES A332).

Undergraduate Writing Center: <http://uwc.utexas.edu/>

Libraries: <http://www.lib.utexas.edu/> ITS: <http://www.utexas.edu/its/>

Student Emergency Services

UT's [Student Emergency Services](#) provides assistance, intervention, and referrals to support students navigating challenging or unexpected issues that impact their well-being and academic success. If you need to be absent from class due to a family emergency, medical or mental health concern, or academic difficulty due to crisis or an emergency situation, please register with [Student Emergency Services](#). SES will verify your situation and notify your professors.

Basic Needs Security

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. UT maintains the UT Outpost (<https://deanofstudents.utexas.edu/emergency/utoutpost.php>) which is a free on-campus food pantry and career closet. Furthermore, please notify the professor if you are comfortable in doing so. This will enable her to provide any resources that she may possess.

BeVocal

BeVocal is a university-wide initiative to promote the idea that individual Longhorns have the power to prevent high-risk behavior and harm. At UT Austin all Longhorns have the power to intervene and reduce harm. To learn more about BeVocal and how you can help to build a culture of care on campus, go to: <https://wellnessnetwork.utexas.edu/BeVocal/>

Land Acknowledgment

As the flagship institution in our state university system, it is important that The University of Texas at Austin demonstrate respect for the historic and contemporary presence of Indigenous Peoples in Texas and, particularly, in the greater Austin area. To that end, it is incumbent upon The University of Texas at Austin to recognize that our campus resides on what were historically the traditional territories of Indigenous Peoples who were dispossessed of their homelands. Land Acknowledgements are an expression of gratitude and appreciation to the Indigenous Peoples, the traditional caretakers of the land, for the use of their lands on which we work, study, and learn.

Land Acknowledgment. I would like to acknowledge that we are meeting on Indigenous land. Moreover, I would like to acknowledge and pay our respects to the Carrizo & Comecrudo, Coahuiltecan, Caddo, Tonkawa, Comanche, Lipan Apache, Alabama-Coushatta, Kickapoo, Tigua Pueblo, and all the American Indian and Indigenous Peoples and communities who have been or have become a part of these lands and territories in Texas, here on Turtle Island.

Land Engagements and/or Commitments. In recognition of the ongoing and cumulative challenges faced by Indigenous Peoples in Central Texas and globally, we call upon The University of Texas at Austin:

- To repatriate the ancestral remains held by the Texas Archeological Research Laboratory to their Indigenous descendant communities and Native lands.
- To commit to the active recruitment and material support of Native American and Indigenous students, who currently comprise fewer than 0.2% of UT Austin's student body.
- To support the transition of the Program in Native American and Indigenous Studies into a Center.
- To establish a protocol of research and study on Tribal or Native lands, and to foster an ethics and practice of engaged scholarship, with and for Indigenous peoples and communities, locally and internationally.

Title IX Reporting

Title IX is a federal law that protects against sex and gender-based discrimination, sexual harassment, sexual assault, sexual misconduct, dating/domestic violence and stalking at federally funded educational institutions. UT Austin is committed to fostering a learning and working environment free from discrimination in all its forms. When sexual misconduct occurs in our community, the university can:

1. Intervene to prevent harmful behavior from continuing or escalating.
2. Provide support and remedies to students and employees who have experienced harm or have become involved in a Title IX investigation.
3. Investigate and discipline violations of the university's relevant policies.

Faculty members and certain staff members are considered "Responsible Employees" or "Mandatory Reporters," which means that they are required to report violations of Title IX to the Title IX Coordinator. I am a Responsible Employee and must report any Title IX-related incidents that are disclosed in writing, discussion, or one-on-one. Before talking with me or with any faculty or staff member about a Title IX-related incident, be sure to ask whether they are a responsible employee. If you want to speak with someone for support or remedies without making an official report to the university, email advocate@austin.utexas.edu For more information about reporting options and resources, visit the Title IX Office or email titleix@austin.utexas.edu.

Campus Safety

The following are recommendations regarding emergency evacuation from the [Office of Campus Safety and Security](#), 512-471-5767.

- Occupants of buildings on The University of Texas at Austin campus must evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.
- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors. Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.
- For more information, please visit [emergency preparedness](#).

University Policies

Academic Integrity

Each student in the course is expected to abide by the University of Texas Honor Code: "As a student of The University of Texas at Austin, I shall abide by the core values of the University and uphold academic integrity." **Plagiarism is taken very seriously at UT.** Therefore, if you use words or ideas that are not your own (or that you have used in previous class), you must

cite your sources. Otherwise you will be guilty of plagiarism and subject to academic disciplinary action, including failure of the course. You are responsible for understanding UT's Academic Honesty and the University Honor Code which can be found at the following web address:

<https://deanofstudents.utexas.edu/conduct/academicintegrity.php>

Q Drop Policy

If you want to drop a class after the 12th class day, you'll need to execute a Q drop before the Q-drop deadline, which typically occurs near the middle of the semester. Under Texas law, you are only allowed six Q drops while you are in college at any public Texas institution. For more information, see: <http://www.utexas.edu/ugs/csacc/academic/adddrop/qdrop>