

## Course Information: CS 395T Continuous Algorithms (Spring 2025)

**Time and location:** 3:30 to 5:00 PM, Tuesdays and Thursdays (GDC 6.202).

**Instructor:** Kevin Tian, [kjtian@cs.utexas.edu](mailto:kjtian@cs.utexas.edu).

Office hours: 3:30 to 5:00 PM, Mondays (GDC 4.720).

**TA:** Chutong Yang, [cyang98@utexas.edu](mailto:cyang98@utexas.edu).

Office hours: 1:00 to 2:00 PM, Tuesdays and Thursdays (Station 1, GDC 1.302).

**Philosophy:** In general, the lecture notes will be (sometimes, significantly) more detailed than what we have time to go over in class. This is in line with my aim to provide comprehensive resources for your convenient reference when revisiting this material in future research and otherwise. The class will aim to be as self-contained as possible, but this may sometimes (infrequently) mean it requires students to do a small amount of reading the notes before coming to class — I will state any such cases clearly. Notes will always be available at least one class in advance, so please feel free to take a look beforehand and let me know if anything is particularly confusing. In order to account for this class being somewhat heavier on reading, it will be lighter on other aspects of the course load, and there are no exams or projects.

**Syllabus:** The syllabus and all suggested external references are on the course [website](#).

**Prerequisites:** There are no formal prerequisites, but please note that this is a relatively advanced theory class aimed primarily at graduate students. In particular, mathematical maturity in analysis, linear algebra, and probability is highly encouraged. If you are able to independently follow Part I (Section 2) and Part V (Sections 1, 2.1) of the lecture notes, you should be fine.

**Grading:** 5 equally-weighted homeworks, each containing 5 equally-weighted problems.

**Collaboration policy:** Collaboration is encouraged, but all submissions should be independent and in your own words. Please state your collaborators on your homework.

**Feedback:** This is a relatively new class, so any feedback on notes or lectures is strongly appreciated. There will be opportunities to do so at the end of every class, as well as forms on the website. As extra credit, if you are close (say, within 1 point) to the boundary of a grade cutoff (taking into granularity pluses and minuses) and have participated significantly in giving feedback of any form throughout the course, I will move you beyond the boundary.

**Names and pronouns:** Class rosters provide instructors with legal names. Please let us know as early as possible if you prefer an alternate name or gender pronoun, we are happy to do so.

**Accommodations:** If you are in need of any disability-related accommodations please contact Disability and Access (D&A); refer to D&A's [website](#) for contact details and more information. If you are already registered with D&A, please deliver your Accommodation Letter to me as early

as possible in the semester so we can discuss your approved accommodations. For any absences or missed assignments due to observance of religious holy days, UT requires you notify instructors fourteen days prior, or the first day of the semester if within the first two weeks.

**Academic integrity:** Plagiarism is taken very seriously at UT Austin. You are responsible for understanding UT's Standards of Conduct and the University Honor Code, see [here](#). Students who violate these rules are subject to disciplinary penalties, so let us please avoid this (talk to me instead). For more information, see the Student Conduct and Academic Integrity [website](#).

**University resources:** Here are some links of possible interest for supporting your learning.

- Sanger Learning and Career Center: <https://undergradcollege.utexas.edu/slc/>
- University Writing Center: <https://uwc.utexas.edu/>
- ITS: <https://its.utexas.edu/>
- Counseling and Mental Health Center: <https://www.cmhc.utexas.edu/individualcounseling.html>
- Student Emergency Services: <https://deanofstudents.utexas.edu/emergency/>
- Libraries: <https://www.lib.utexas.edu/>
- Canvas: <https://utexas.instructure.com/courses/633028/pages/student-tutorials>

**Senate Bill 212 and Title IX:** Instructors for this course are required to report any information pertaining to sexual harassment, assault, dating violence, and stalking committed against UT students or employees, as well as sex and gender-based discrimination and misconduct (i.e. Title IX incidents). If you need to talk to someone who can maintain confidentiality, please contact University Health Services at (512)-471-4955 or the UT Counseling and Mental Health Center at (512)-471-3515. For reporting Title IX incidents, please contact the [Title IX Office](#).

**Health and safety:** For personal crises, please contact the Counseling and Mental Health Center Crisis Line at (512)-471-2255. For any concerns about safety or behavior at UT, please contact the Behavior Concerns Advice Line at (512)-232-5050. Your call can be anonymous.