

Fall 2025

CS 109: Think Lab

From the Think Lab Team:

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What is Computer Science?

It's where you learn all about how a computer works, from the chip, to the operating system, to programming languages, to what is computable, both in theory, and in practice, including AI and ML.

-Peter Stone

How much computer science am I already supposed to know?

None.

What is UTCS?

A department at UT Austin

A collection of people studying computer science and the people collaborating with them

An amalgam of students, faculty, staff doing research, teaching, advising, events

A group of people leading the community in technical thought, technical capability, and in student support and engagement

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Who are the UTCS First Years?

People studying computer science

People in the CS Honors program: Turing Scholars

People in the CS and Business Honors program: CSB

People in the X+CS program: Linguistics + CS, History + CS, Neuroscience + CS

People taking CS 312, CS 314, CS 303E, CS 311

People who took CS in high school and those who did not

People who are from Texas (about 90%) and those who are not (the other 10%!)

How does UTCS relate to UT and the UT System?



Responsibilities: An Undergraduate Perspective

College (lots of power rests here):

- Sets number of faculty, TAs, and staff that may be hired, approves pay rates, salaries, and other benefits
- Approve changes to the curriculum
- Hires Academic Advisors

Provost (the ultimate power):

- Approves faculty hires
- Approves leave requests
- Approves curriculum changes

Department (power varies by dean):

- Filling approved roles for TAs, faculty, staff
- Course planning
- Proposes changes to the curriculum

Registrar:

- Assigns course rooms (and times)
- Determines registration times and slots



Who's Who?

Provost: head of academics for the university

Dean: head of the college

Chair: head of the department

Advisor: degree plan experts

Professor: teaches your classes, do research, do service

Professors of Instruction: teaches your classes, some do research, all do service

TA: graduate student who assists with your class

UGCA: undergraduate who assists with your class. (Lots of your faculty just call them TAs.)

What is a syllabus?

It's a set of expectations and policies your professor establishes for a particular class.

Including:

learning objectives

contact information for your professor and your TAs

grading information

what to do when something goes wrong



What are office hours?

Times each week that your professors set aside to talk to you

About what?

Whatever is on your mind! Class material, assignment questions, career goals

Where?

Their office, the lab, or somewhere else Where can you find that information?

When?

Where can you find that information?

Keep in mind...

You're not bothering your professors when you come to our office hours. We set aside this time **FOR YOU**.

Very few students visit office hours early in the semester, so we have even more time then to speak with you.

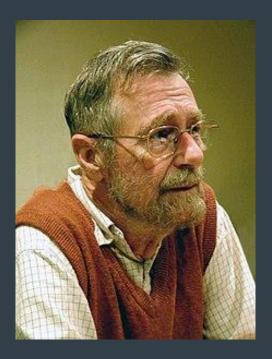
What are Collaborative Study Sessions?

Course-based study sessions for group study

Student-driven with TA assistance

Some courses may provide materials

Edsger W. Dijkstra (1930–2002)



Famous Computer Scientist

- Authored more than 7000 pages of technical essays and research papers
- Invented algorithm, operating systems techniques, designed multiprogramming systems
- Won Turing Award in 1972
- UT Austin Computer Science professor in 1984-2002

"Computer Science is no more about computers than astronomy is about telescopes"

"Your obligation is that of active participation. You should not act as knowledge-absorbing sponges, but as whetstones on which we can all sharpen our wits"

"The computing scientist's main challenge is not to get confused by the complexities of his own making."

— Edsger W. Dijkstra

"Simplicity is a great virtue but it requires hard work to achieve it and education to appreciate it. And to make matters worse: complexity sells better."

"Program testing can be used to show the presence of bugs, but never to show their absence!"

What about ChatGPT?





Join

What's the point of vibe coding if I still have to pay a dev to fix it?

what's the point of vibe coding if at the end of the day i still gotta pay a dev to look at the code anyway. sure it feels kinda cool while i'm typing, like i'm in some flow state or whatever, but when stuff breaks it's just dead weight. i cant vibe my way through debugging, i cant ship anything that actually matters, and then i'm back to square one pulling out my wallet for someone who actually knows what they're doing, makes me think vibe coding is just roleplay for guys who want to feel like hackers without doing the hard part. am i missing something here or is it really just useless once you step outside the fantasy

♦ 10









Bloom's Taxonomy



Produce new or original work

Design, assemble, construct, conjecture, develop, formulate, author, investigate

evaluate

Justify a stand or decision

appraise, argue, defend, judge, select, support, value, critique, weigh

analyze

Draw connections among ideas

differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

apply

Use information in new situations

execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

understand

Explain ideas or concepts

classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

remember

Recall facts and basic concepts define, duplicate, list, memorize, repeat, state



UTCS and You

We are glad you are here!

Here, we collaborate and cooperate.



UTCS Student Orgs











Thank you for coming!