

Administrivia

- One purpose of the syllabus is to spell out policies (review today).
- Most information will be on the Web, on either [my home page](#) (office hours) or the [course Web site](#).

Slide 1

A Few Words about Remote Teaching and Learning

- (If you filled out my two forms asking about your access to technology and about tools other instructors use — thank you! Only about a third of students did, and the information was interesting and helpful.)
- Last spring's abrupt switch to remote teaching and learning was difficult. We all learned a lot about its pluses and minuses. Two lessons I took away:
Trinity students are great! Almost without exceptions my students made sincere efforts to make the best of a non-ideal situation.
Student access to resources varies. Some "check your privilege" moments for me!

Slide 2

A Few Words about Remote Teaching and Learning, Continued

Slide 3

- After a summer of trying to prepare for remote classes, there's still a lot I have to figure out / learn. Possibly true for you as well. Zoom meetings — there's a tendency to zone out. I'll try to reduce the temptation; please do your part too.
- No one knows how the pandemic will evolve and what further actions Trinity might need to take. Also, many people are really struggling. These are stressful times for (almost?) everyone!
- So I say let's all try to be kind and tolerant with each other. Guiding principles:
Start from the premise that we're all reasonable people trying to do the right thing.
Even if we're not sure how something is going to work, odds are that something reasonable will happen.

Course Web Site

Slide 4

- "[Course Web site](#)" is meant to point you to pretty much all information for the course — readings, assignments, etc.
- You can find it via TLearn, or via the link from my home page (should be findable from the page about me in TU's Web site, or by doing a Web search on my name).
- A request: If you spot something wrong with course material on the Web, please let me know!

Syllabus

- (Review syllabus.)
- Syllabus mentions “ACM tutoring”. It will start September 7 and be done via Discord. I'll send you a link to the Discord server in e-mail soon.

Slide 5

A Little About Me

- (We didn't have time for this this week. Next week!)
- Short version of biography: Undergrad degrees from UT Austin, math and Plan II. More than ten years in what we now call IT. Back to school for master's and PhD in computer science. Two years as a postdoc, then at Trinity since Fall 1999.
- I teach a variety of courses, but currently focusing more on courses “close to the machine”. My research area (sadly neglected for some years) is parallel computing.
- (What do I do for fun? well . . .)
- (And this summer I did some domestic decluttering. Amazing how much much money one can spend on things to organize other things!)

Slide 6

Slide 7

What Is This Course About?

- Back story: Primary goal of our traditional first course (CSCI 1320) is to introduce students to programming and algorithmic problem-solving. Another goal of the course as taught some years ago, however, was to expose students to certain low-level concepts that contribute to a well-rounded education in computer science. Students coming into the major via other routes often did not get this exposure and struggled in later courses.
- CSCI 1120 was added to the curriculum as a way to address this problem — i.e. to cover the parts of CSCI 1320 that might not be covered by alternative introductory courses. A few years ago we switched to a more-abstract language for CSCI 1320, and at that point this course became required for all students.

Slide 8

Course Topics

- Basic C programming, for people who already know how to write programs in some other language.
- (Review of) the Linux/UNIX command-line environment and command-line development tools.
- (Review of) basics of computer arithmetic and data representation.
- More-advanced topics as time permits.

Why Learn C? (For Scala/Java/Python Programmers)

Slide 9

- Scala and Python (and Java, though less so) provide a programming environment that's nice in many ways — lots of safety checks, nice features, extensive standard library. But they hide a lot about how hardware actually works.
- C, in contrast, has been called “high-level assembly language” — so it seems primitive in some ways compared to many other languages. What you get (we think!) in return for the annoyances is more understanding of hardware — and if you do low-level work (e.g., operating systems, embedded systems), it may well be in C.

First Things First(?) — Text Editors

Slide 10

- In class I will use `vim` to write programs. I don't insist that you use it too, but it's a good tool for this job, and if you aren't very good with it, there's no time like the present to get better with it.
To encourage you, see the first homework. Note that it requires access to a UNIX-like environment. At least for this assignment I encourage you to just use the department machines, remotely if necessary. I'm still working on recommendations for what to install on your own machine.
- (Indeed, I think this class is a good time to get more practice with the command line in general; it's in keeping with the spirit of the course, and you have an instructor who knows it pretty well.)

About Minute Essays

- Most lectures will end with a “minute essay” — as a quick check on your understanding, a way for me to get some information, etc., and also to track attendance.
- Send me your answer by e-mail (no word-processor attachments please).
And *please* put “minute essay” and the course in the Subject line.

Slide 11

Minute Essay

- Where are you located now?
- If you took CSCI 1320 or CSCI 1311, who was your instructor? (Yes this question originally asked about 1120 rather than 1320. My mistake!)
- What programming languages do you know, at least at a beginner level?
- What are your goals for this course?
- Anything else you want to tell me? about the course, what you did this summer, ... ?
- If you didn't already fill out those two questionnaires, take a few minutes to do it as soon as you send me your answers.

Slide 12