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.

A Few Words about Public Health Matters

- Things got strange in spring 2020, and I doubt they'll ever be like they were in the Before Times. The CDC is still recommending that people wear masks indoors. My impression is that many people are so ready to be done with this whole thing that they're getting their shots and taking their chances unmasked. Not me! I'm vaccinated and boosted, but I'm also old and anxious. (Really, to me the situation is getting worse not better — variants that are not only more contagious than ever but also infect even the vaccinated.) So I'm planning to mask indoors and keep my distance where possible. You can humor me by doing likewise.

Course Web Site

- "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!

Slide 3

Syllabus

- (Review syllabus.)

Slide 4

A Little About Me

Slide 5

- 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 . . .)

About Minute Essays

Slide 6

- Most lectures will end with a "minute essay" — as a quick check on your understanding, a way for me to get some information, etc. I also want to encourage you to use this as a way to ask me any questions about the course, computer science, or really anything. I'm sure there are some questions I won't want to answer, but you never know!

- Send me your answer by e-mail (no word-processor attachments please). And *please* put "minute essay" and the course in the Subject line.

3

Why Take This Course?

- (It was required in a previous departmental curriculum. Now it's not, though in a perfect world maybe it would be. Then again, we'd also require a course in compilers, and one in networks, and . . .)

- "ACM says so" (i.e., curriculum recommendations include course on operating systems). Why? Well . . .

- To be a "computer scientist", need to have a broad understanding of computer systems — and operating system is a key part of a computer system.

- Knowing something about how operating systems work helps you write efficient code.

- Many of our courses "demystify" parts of computer systems (e.g., CS1/CS2 and Computer Design); so does this course.

- It might even be interesting . . . (I hope so!)

What Is An Operating System?

- Definition by example?

- Definition from operating systems textbook?

What Is An Operating System? Continued

- Definition by example:
  - Recent: Windows, Linux, UNIX, OS X (Mac), iOS, ChromeOS, Android . . .
  - Older: MULTICS, VMS, MVS, VM/370, . . . (In the mainframe days, typically each hardware company had its own operating system(s).)
  - Special-purpose O/S's for special-purpose hardware.
- Definition from previous textbook:
  - Something that provides "virtual machine" for application programs and users ("top down").
  - Something that manages computer's resources ("bottom up").
- Another view — key part of bridging gap between what hardware can do (not much, but very fast) and what users want.

Slide 9

Minute Essay

- What are your goals for this course? Are there specific topics you're interested in?
- Anything else you want to tell me? about the course, what you did this summer, . . . ?

Slide 10