Administrivia

- Reminder: Video-quiz answers due by 11:59pm today (Wednesday).

- Reminder: Homework 1 due today (11:59pm).

- Homework 2 posted; due in a week. First programming assignment! Not meant to be an algorithmic challenge, but first program in a new language shouldn't be, right?

Slide 1

Administrivia

- Office hours still TBD; I did say you have until end of the week to fill out the Google Form with your preferences. If you want to talk to me this week, e-mail and let's negotiate a time.

- A great resource for this course is the ACM-sponsored peer tutoring. Details when I have them, but will likely be announced via CSMajors mailing list. (If you haven't subscribed, consider doing so.) I will forward this information to the class.

- Syllabus reviewed last time. Today, some clarifications and the rest of the "about the course".

Slide 2

Slide 3

The Pandemic and Trinity

- News from outside continues to be scary. But inside the Trinity bubble, we're safe? Maybe. Latest "Covid by the numbers" e-mail from the admimistration sounds good.

- Only three cases among faculty/staff! But one of those cases is — one of our visiting faculty! Somehow this makes it more real. Hers is a cautionary tale: She visited some family, all of them fully vaccinated except an 11-year-old. The 11-year-old is back in school in person, but had recently tested negative. They felt safe, took off their masks, and . . . all got sick. (The negative test result was misleading.) No one got *very* sick, but.

Slide 4

The Pandemic and Trinity, Continued

- Take-away message (my view!): Trinity insisting on masks in the classroom is more than hygiene theater.

- In fact in general caution is probably still a good idea. You may not be worried for yourself, but consider others, some of whom may be more vulnerable, some of whom are legitimately worried about exposing people they live with, etc.

- My two cents' worth!

E-Mail and Me

- You'll notice I often send from an address that's not (quite) my official address. Long story; short version: use whichever one is more convenient for you, but don't send to both.

- I may seem fanatical about Subject lines, but they really do matter to how I manage many things about my classes. (Short demo of how/why?)

  In particular, if you have a question or concern that's at all urgent, putting "question" or "urgent" in the Subject line improves your chances of getting a quick response.

Slide 5

Course Infrastructure

- Many instructors use some sort of "learning management system" such as TLEARN or Google Classroom.

- I don't — I have my own system, going back to before these were so popular, and partially automated using a collection of programs and scripts. Switching would be possible but painful.

Slide 6

Turning Work In

- Minute essays: E-mail ("minute essay" and course in Subject).

- Video lecture quizzes: E-mail ("video lecture" and group in Subject).

- Homework: In Google Drive "TurnIn" folder, or using "mail files" script. (I used to ask for this by e-mail too, but that didn't seem to turn out well, so I'm going to try it this way.)

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

Slide 9

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.

Slide 10

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

- 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 11

- In class and video lectures I 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.

- (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.)

A Little About Me

Slide 12

- 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 . . .)

Recap of Video Lectures for Today

Slide 13

- Topics:
  - (Briefly) how to write "hello world" in C.
  - A little about C — history, design goals.
  - How the code you write is executed.
  - Variables and expressions in C.
  - Simple I/O in C.

Minute Essay

Slide 14

- Did you have any trouble watching the video lectures? Apparently not many instructors use Echo360, though it's the University-supported platform for putting video content on the Web.

- Any questions, either about the video lectures or something in today's lecture?

- (You can ask questions about anything in these minute essays, and I'll try to answer!)