Slide 1

Administrivia

- Reminder: Homework 9 due May 12 (a week from today).
- Not-accepted-past deadlines for all homeworks posted on "schedule" part of course Web site. One for graduating seniors, one for everyone else. These are all about as late as I can accept homework and have much hope of turning in grades on time.
- Yes, I'm way behind on grading, but, well, I'm hoping to catch up starting this week. Homework 4 is a start?
- I just posted (to those Google Drive folders) reports on attendance (not counting today) and video quizzes (not including group 12) and a summary of grades based on what I have. I'll update those as I get more information.

  There seem to be unusually many people doing very badly. If that's you: if we've communicated recently, okay; otherwise please let me hear from you.

Slide 2

More Administrivia

- ACM tutoring continues through last day of class, then ends (though you may be able to arrange a time with an individual tutor — I say give it a try?)
- I'm planning to do office hours through the end of finals. Times likely to be 6pm or later. TBA by e-mail soon. Likely first day Friday.
- Also keep in mind that while Zoom meetings can be problematical for me, I'm generally very willing to try to help by e-mail! Do keep in mind that if you have a question about code, it helps a great deal to send me what you have.

Slide 3

More Administrivia

- I really apologize for my poor record both on class and office hours. I plead chronic health problems exacerbated by stress — for what that's worth.
- *Note*, however, that in my thinking, most learning in this course takes place as you work through assignments. With the "flipped" style, important material is presented in a way that wasn't different this semester. And the live meetings that didn't happen? I sometimes struggle with using that time effectively even in normal times.

Slide 4

Homework 9

- Homework 9 asks you to complete an implementation of binary search trees, as discussed (in part!) in this week's video lectures. (My hope is that many of you have seen this recently in CS2, though that may well not be true this semester.) Not easy, *but* I think very doable. My intent is that you can use my sorted-linked-list example as something of a model, since a lot about the interface is similar (for example, the "print" function).
- Part of the goal of the assignment is to give you more practice working with pointers, which I think is a key take-away for those continuing into Data Abstraction. Something to consider if it seems tempting to just skip the assignment?

Slide 5

Quotes of the Day/Week/?

- From a key figure in the early days of computing:

  "As soon as we started programming, we found to our surprise that it wasn't as easy to get programs right as we had thought. Debugging had to be discovered. I can remember the exact instant when I realized that a large part of my life from then on was going to be spent finding mistakes in my own programs." (Maurice Wilkes: 1948)

- From someone in a discussion group for the Java programming language:

  "Compilers aren't friendly to anybody. They are heartless nitpickers that enjoy telling you about all your mistakes. The best one can do is to satisfy their pedantry to keep them quiet :)"

Slide 6

Course Topics — Recap

- Basic C programming, for people who already know how to write programs in some other language. Especially useful (I think!) for those who start in a very abstract/high-level language.
- Review of the Linux/UNIX command-line environment and command-line development tools.
- Review of basics of computer arithmetic and data representation. A little more about floating-point representation.

Slide 7

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

- Scala and Python (and Java, 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. (Performance *may* also be better, though "measure and be sure".)

Slide 8

Course Evaluations

- Used for two purposes:

  By those up the chain of command as one measure of my performance.

  By me as I reflect on this semester and plan for future semesters.
- I find the numbers less useful than the prose, so please do more than just the numbers if you can!
- (URL and password to be sent by e-mail.)

Slide 9

Minute Essay

- Does evening (starting 7pm) work for you for office hours? Any particular days? Some other time?
- Best of luck finishing the semester, and best wishes for a pleasant (and safe!) summer break!