

Slide 1

Administrivia

- As we head into the home stretch, I've been trying to focus on important "learning outcomes", and there really are only two that haven't been fully addressed:
Operation of the single-cycle implementation (most recent videos, reading quiz, homework).
A little about pipelining and exceptions (two videos, a reading quiz, a homework).
- That doesn't sound very good, *but* remember that there's no final in this course, and I'm cautiously optimistic that I can get my part of this done by sometime Friday. And is this really so different in terms of last-minute stress from a course with a final?

Slide 2

More Administrivia

- 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 as soon as I finish the content part.
So, no, you don't really know where you stand in the course, but I'm hoping that will start to change soon, and in time for you to do something about it if there's a problem.

Slide 3

More Administrivia

- I'm planning to do office hours through the end of finals. Times likely to be 6pm or (probably) later. TBA by e-mail soon. Likely first day Friday.
- Also keep in mind that while even Zoom meetings can be a bit problematical for me, I'm generally very willing to try to help by e-mail!
- 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.

Slide 4

Course Recap — Topics

- A little about performance. (It's not simple!)
- MIPS assembler language; translating C to MIPS assembler language.
- Compiling, assembling, and linking.
- Binary representation of instructions.
- Binary representation of data (integers, ASCII, floating-point numbers); basics of computer arithmetic.
- (Continued ...)

Slide 5

Course Recap — Topics, Continued

- Gate-level logic design.
- Design of a processor — ALU, datapath, control; a little about pipelining.
- Other schools spread this material over two or even three courses (though they presumably cover more in all). So, we have done a lot?

Slide 6

Course Recap, Continued

- Some topics — representation of data, computer arithmetic — are review, or small extension of what you know.
- Others, though — assembler language, gate-level logic, designing a processor in terms of AND/OR/NOT and how it works — are not familiar to most, and involve a new perspective, or mindset, or “mental model”. My observation — some students take to it, others struggle.
- I do hope, however, that all of you have come away with more understanding of how things work “under the hood” than you had! (“More” being relative here.)

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!

Slide 7