

Introduction to Computer Engineering – EECS 203

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Outline

1. Administrative stuff
2. Reading assignment

Administrative stuff

- How to get lab supplies
- Course structure
- Grading policies
- Office hours
- Course overview

How to get lab supplies

- Each student is required to pay \$20 for lab supplies
 - Integrated circuits, wires, capacitors, resistors, etc.
- Make check out to Northwestern University
- Take the check to Carol Surma in Tech L359
- Take the receipt to Albert Lyerla in CG24 to pick up lab kits

Blackboard

- We will be using Blackboard to serve as central repository for all things EECS203 related.

References

- **Primary reference:** M. Morris Mano and Charles R. Kime. *Logic and Computer Design Fundamentals*. Prentice-Hall, NJ, fourth edition, 2008

Grading scheme

- 25% homeworks
- 25% labs
- 25% midterm exam
- 25% final exam

Late homework assignments

- After the class, on the due date: -5%
- After that, 10% per day penalty
- Three or more working days late: No credit
 - I'll hand out solutions

Late lab assignments

- Late lab verifications will be done at the discretion of the TAs
- In other words, although this will sometimes be possible, I'm not going to force the TA to skip their classes, research work, or meals to hold extra lab verification hours
- Late lab checks (without prior approval): -20%
- Three or more working days late: No credit

When to start labs

- The TAs spend a huge amount of time checking labs
- Having them do lab checks outside of the scheduled hours makes it difficult to keep up in their own classes and research
- Start labs early to see if you have questions
- The TAs and I will be happy to help
- Will need time to finish after pointed in right direction

Labs

- Open labs
- Tech CG24
- The TAs and I may leave a note and go from our offices to CG24 during office hours to answer lab questions
- You will need to sign up for a lab time slot

Lab check times

- New labs will normally be assigned on Mondays
- Lab checks will normally be on Wednesdays (tentatively)
- First lab much quicker than others
- Need to get go to get kit ASAP

Office hours options

- 1 I will have office hours Mondays 1-3pm
- 2 Hopefully this works for most people
- 3 E-mail me to set up alternative meeting times
- 4 TA office hours will be Wednesdays 1-6pm

Course overview

- What is computer?
- What is computer engineering?
- Why is it important to study computer engineering?
- Which future courses may be interesting?
- How to design simple computer systems from given elements?
- How to think effectively and efficiently?

What is computer?

What is computer?

Apple Dictionary

- 1 an electronic device for storing and processing data, typically in binary form, according to instructions given to it in a variable program.
- 2 a person who makes calculations, esp. with a calculating machine.

What is computer?

Apple Dictionary

- 1 an electronic device for storing and processing data, typically in binary form, according to instructions given to it in a variable program.
- 2 a person who makes calculations, esp. with a calculating machine.

Mine...

A mechanism that calculates via mechanical symbol manipulation.

What is computer engineering?

What is computer engineering?

Mine...

Engineering: design and implementation of a mechanism based on physical elements.

What is computer engineering?

Mine...

Engineering: design and implementation of a mechanism based on physical elements.

- Computer Engineering: design and implementation of computing mechanisms
- Including hardware, software, and even more...
- Related to electrical engineering and computer science
- Knowing fundamentals helps in fields where computers are used

Future courses

- Advanced digital logic design
- Computer architecture
- Design and analysis of algorithms
- Fundamentals of computer system software
- Introduction to computer networks

Future courses

- Introduction to VLSI CAD
- Microprocessor system design
- Programming for computer engineers
- VLSI systems design

Outline

1. Administrative stuff
2. Reading assignment

Reading assignment (for next class or so)

- M. Morris Mano and Charles R. Kime. *Logic and Computer Design Fundamentals*. Prentice-Hall, NJ, third edition, 2004
- Sections 1.1, 2.1, and 2.2