Welcome to EE 105
Microelectronic Devices & Circuits
Prof. Clark Nguyen

Lecture 1: Admin & Overview

- Announcements:
  - Welcome to EE105: Microelectronic Devices & Circuits
  - Instructor: Prof. Clark T.-C. Nguyen
  - All lectures will be recorded by both ETS and myself
  - Lecture pdfs and video will post on the course website in the “Lecture” link
    - Pdfs nearly immediately
    - Videos maybe 2 days later (post processing)
    - If you miss a lecture ... can watch the video, if successfully recorded
    - People who think they will watch the videos, often don’t get time to do so
  - Your first HW comes next lecture
  - Discussions start next week (announced to those in the Wednesday discussion section)
  - Labs start the week after next
    - The first lab section will be Monday, Sept. 9
    - Must do the pre-lab before your section
  - Have already let in concurrent enrollments

- Lecture Topics:
  - A Bit About Me
  - Course Syllabus (information sheet)
  - Course Schedule
  - Grading Information and Policy
  - Review of Signal Types
  - Motivation: Digital Communications
• About Me:
  • Education: Ph.D., University of California at Berkeley, 1994
  • 1995: joined the faculty of the Dept. of EECS at the University of Michigan
  • 2006: (came back) joined the faculty of the Dept. of EECS at UC Berkeley
  • Research: microelectromechanical systems (MEMS) that employ transistor-level circuit design
  • Teaching: (at the UofM) mainly transistor circuit design courses; (UC Berkeley) 140, 143, 240A, W240A, 243, 245, 247B, W247B
  • 2001: founded Discera, the first company to commercialize vibrating RF MEMS technology
  • Mid-2002 to 2005: DARPA MEMS program manager
    § ran 10 different MEMS-based programs
    § topics: power generation, chip-scale atomic clock, gas analyzers, nuclear power sources, navigation-grade gyros, on-chip cooling, micro environmental control

• Go thru Course Syllabus (information sheet)
• Go thru Course Schedule
• Go thru Grading Information and Policy
• All of these are online in the course homepage
• The course website is at
  § https://inst.eecs.berkeley.edu/~ee105/fa19/
  § (just google ee105)