

**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**
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- **Lecture Topics:**
  - ↳ A Bit About Me
  - ↳ Course Syllabus (information sheet)
  - ↳ Course Schedule
  - ↳ Grading Information and Policy
  - ↳ Review of Signal Types
  - ↳ Motivation: Digital Communications
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- **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
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- **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)