EE105 – Fall 2015
Microelectronic Devices and Circuits

Prof. Ming C. Wu
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511 Sutardja Dai Hall (SDH)

Course Information

• Lecture
  – 3:40 to 5:00 pm Tuesday, Thursday
  – Room: 3106 ETCHEVERRY

• Instructor:
  – Professor Ming C. Wu
  – 511 Sutardja Dai Hall (SDH), wu@eecs.berkeley.edu
  – Office hours: Monday 2-3 pm; Thursday 5-6 pm
  – Best way to communicate: Email

• GSIs:
  – Seth Fortuna, fortuna@eecs.berkeley.edu (20 hr GSI)
  – Kevin Messer, kmesser@eecs.berkeley.edu (10 hr GSI)
Textbook

  - Oxford University Press
- Minimum reading
  - Assigned sections in syllabus
- Best to read the relevant sections before lecture
  - Enables meaningful in-class discussions

Course Web Sites

- Open website
  - General course info, lecture notes, Labs, HW problems
  - [http://www-inst.eecs.berkeley.edu/~ee105/fa15/](http://www-inst.eecs.berkeley.edu/~ee105/fa15/)
- bcourses
  - [https://bcourses.berkeley.edu/](https://bcourses.berkeley.edu/)
  - Grades (check frequently, and inform your GSI if you find any discrepancy)
  - HW solutions
  - Exam solutions
- Piazza
  - Discussions
Homeworks

- Posted Monday
- Due the following Monday at 5 pm in EE105 Drop Box in Cory (near TI Lab)
  - Late homework will not be accepted
  - Solution will be posted
- Be prepared to spend 6 - 10 hours to complete
  - Reading, Problem solving
- You can discuss homework problems with other students in the class, the GSIs, or the instructor.
- The work you submit for grading must be your own

Labs (@125 Cory)

- Lab is an integral part of this course
- You must complete all labs to pass the course!
- 3 hour lab sessions
  - Plenty of time if you do your Prelab in advance
  - Not enough time if you are trying to figure out what to do on the spot
  - Allow 5 to 10 hours for your Prelab. You may need to read ahead
- Prelab is due at the beginning of your lab session
  - GSI will check off your Prelab
- Lab reports are due at the beginning of the following Lab
  - Late report will be discounted by 50%.
- Work in groups of two (find your partner now)
- Each student must individually turn in his/her own Prelab and Lab reports
Grades

• Homework: 10%
  – Lowest score will be dropped from grade calculation
  – (You can miss one HW without impacting your grade)

• Lab: 30%
  – You must complete all labs to pass the course!

• Midterms: 15% x 2 = 30%

• Final Exam: 30%

• Cheating will result in automatic Fail

Midterm & Final Dates

• Midterm 1:
  – 9/29/2015 (Tue) in class

• Midterm 2:
  – 11/3/2015 (Tue) in class

• Final Exam:
  – 12/18/2015 (Friday) 7-10 pm
  – Final Exam Group: 20

• General rule: no early or late exams
  – Rare exceptions, e.g., presenting a paper in a conference
  – Need to inform instructor well in advance
Circuit Simulation

• SPICE (Simulation Program with Integrated Circuit Emphasis)
  – Developed at UC Berkeley!
  – Outgrowth of CANCER (Computer Analysis of Nonlinear Circuits, Excluding Radiation)

• HSPICE tutorial available on course website

• Many other versions of SPICE
  – LTSPICE free download from Linear Technology
    http://www.linear.com/designtools/software/#LTspice

• GSIs will inform the class later which version of SPICE they will support