

EE105 – Fall 2015

Microelectronic Devices and Circuits

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



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Course Information

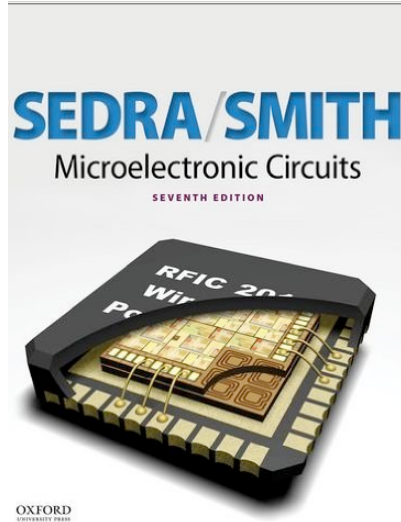
- **Lecture**
 - 3:40 to 5:00 pm Tuesday, Thursday
 - Room: 3106 ETCHEVERRY
- **Instructor:**
 - Professor Ming C. Wu
 - 511 Sutardja Dai Hall (SDH), wu@eecs.berkeley.edu
 - Office hours: Monday 2-3 pm; Thursday 5-6 pm
 - Best way to communicate: Email
- **GSIs:**
 - Seth Fortuna, fortuna@eecs.berkeley.edu (20 hr GSI)
 - Kevin Messer, kmesser@eecs.berkeley.edu (10 hr GSI)



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Textbook



- Sedra/Smith, *Microelectronic Circuits*, 7th edition
 - Oxford University Press
- Minimum reading
 - Assigned sections in syllabus
- Best to read the relevant sections before lecture
 - Enables meaningful in class discussions



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Course Web Sites

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



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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**



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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



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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**



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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



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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**

