INFORMATION ABOUT THE 1st MIDTERM EXAM

Additional Office Hours: (in addition to regular office hours, of which there are plenty)

Kieran Peleaux	3-4 p.m. on Thursday, Oct. 10, in 212 Cory
Ali Ameri	10 a.m.-11:00 a.m. on Thursday, Oct. 10, in 299 Cory
Prof. Nguyen	11-12 noon on Thursday, Oct. 10, in 574 Cory

Note also that Ali Ameri's regular Thursday office hours from 2-3 p.m. on Thursday will not be in 212 Cory, but rather in 299 Cory, just for the week of this midterm exam.

Review Session:

Tuesday, Oct. 8, 6-8 p.m., in 293 Cory.

Date of Exam:

Friday, Oct. 11, 7-9 p.m. (sharp)

Place:

160 Kroeber Hall

General Information:

The exam will be closed book, but you can have one 8.5″×11″ sheet on which you can write anything you would like on both sides of the paper. Bring a calculator to the exam. The exam will contain enough space to put all your work on its sheets. Show and include all your work on the exam sheets. The exam will consist of a few problems, each with a number of parts.

During the exam, make appropriate engineering decisions and approximations in order to simplify your analyses so that you can do the problems quickly and with fewer errors.

Material to be Covered:

Reading in Sedra & Smith, class lecture notes, handouts, and homework. The exam is meant to include all material covered so far in the class. You might pay more attention to the following areas:

1. Frequency response calculation and determination. Be familiar with Bode plots (both gain and phase) and know how to determine the frequency response of circuits containing reactive components (e.g., capacitors).
2. Op-amp circuits. Know how to analyze various op-amp circuits that utilize feedback. Specifically, know the characteristics and operation of inverting and non-inverting amplifiers, and be prepared to analyze other (possibly unfamiliar) op-amp circuits. Make sure you understand the differences between open-loop and closed-loop op-amp circuit performance.

3. Ideal and non-ideal op-amp operation and characteristics. Know the various op-amp nonidealities and be prepared to predict how they influence circuit performance. Understand their effect on feedback amplifier performance.
4. Semiconductor physical concepts and device operation for pn-junction diodes and transistors, particularly MOS. Be able to determine regions of operation and the DC operating points for transistors in specified bias configurations. Also, be prepared to handle op amp circuits using transistors in their feedback loops, such as in Lab#3.
5. Interpretation of devices as nonlinear elements and methods for modeling physical devices using nonlinear models.