

**INFORMATION ABOUT THE 2<sup>nd</sup> MIDTERM EXAM**

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

Kieran Peleaux	3-4 p.m. on Thursday, Nov. 14, in 212 Cory
Ali Ameri	10 a.m.-11:00 a.m. on Thursday, Nov. 14, in 299 Cory
Prof. Nguyen	12 noon -1 p.m. on Thursday, Nov. 14, in 574 Cory

**Review Session:**

Tuesday, Nov. 12, 6-8 p.m., in 400 Cory.

**Date of Exam:**

Friday, Nov. 15, 7-9 p.m. (sharp)

**Place:**

160 Kroeber Hall

**General Information:**

The exam will be closed book, but you can have two 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, labs, and homeworks. The exam is meant to include all material covered so far in the class, but has a sharper focus on more recent material. You might pay more attention to the following areas:

1. The concept of large and small signals and the need for small signal analysis. Large and small signal models for bipolar and MOS transistors and determination of small signal elements/parameters.
2. Biasing of BJT and MOS amplifiers: parameter independent biasing.
3. Frequency response calculations using open- and short-circuit time constants.
4. Analysis of transistor amplifiers, for such parameters as mid-band gain, mid-band small-signal resistances, and frequency response characteristics.
5. Design of the common emitter (or common source) amplifier. This entails choosing resistors and capacitors to satisfy a given specification.