Goals for Exam 3: ECE 305, Friday, March 27 2015
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The exam will be conducted in class and will consist of **three questions**. The first question is multiple choice and is about basic concepts and vocabulary. The second two questions are “workout” problems similar to the problems in the homework assignments.

You should bring a calculator. The **only calculator** permitted for exams in ECE undergraduate courses is the Texas Instruments TI-30X IIS scientific calculator.

A sheet of key equations will be provided.

This exam will test your understanding of and ability to work with three concepts/topics:

1) Energy band diagrams and electrostatics in the depletion approximation.

2) $IV$ and $CV$ characteristics of MS diodes and the small signal model.

3) An acquaintance with optoelectronic devices – photodetectors, avalanche photodetectors, LED’s, and especially solar cells.

This exam covers materials in Weeks 9-10. Homework assignments 9 and 10 are relevant for this exam.