Goals for Exam 1: ECE 305, Friday, January 30, 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. A sheet of key equations will be provided.

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

1) A basic understanding of crystal structure and an ability to use and understand Miller indices.

2) A basic understanding of energy bands and charge carriers in semiconductors.

3) An understanding of doping, carrier concentrations, and Fermi levels.

This exam covers materials in Weeks 1, 2, and the first half of Week 3 (through page 67 in the assigned reading). Homework assignments 1, 2, and 3 are relevant for this exam.