

**\*\*Disclaimer\*\***

This syllabus is to be used as a guideline only. The information provided is a summary of topics to be covered in the class. Information contained in this document such as assignments, grading scales, due dates, office hours, required books and materials may be from a previous semester and are subject to change. Please refer to your instructor for the most recent version of the syllabus.

## EEE 539—Fall 2013

### Tentative Syllabus

This course covers the theoretical techniques used to determine the important parameters needed to utilize materials within electronic devices. It provides the basic understanding of band structure, phonon dispersion, the electron-phonon interaction, and an introduction to carrier transport.

1. Introduction
2. Electronics Structure (band theory of semiconductors)
3. Phonon Dynamics (phonon dispersion in semiconductors)
4. The Electron-Phonon Interaction
5. Carrier Transport

Prerequisites include EEE 352 and 434, or equivalents.