

**Goals for Exam 4: ECE 656 Week 12, Friday, November 8, 2013**

Mark Lundstrom  
Purdue University

The exam will be conducted in class and will consist of three questions. You should bring a calculator. A sheet of key equations will be provided.

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

- 1) A general understanding of the Boltzmann Transport Equation (BTE), the collision integral, and the relaxation time approximation.
- 2) An ability to solve the BTE under near-equilibrium conditions and an understanding of the general features of the solution with and without a magnetic field.
- 3) An understanding of basic, near-equilibrium measurement techniques and analysis.