

ECE 3600 Exam 1 Study Guide

The 1st Exam will be on Tuesday 9/27/11.

The first part will be a **closed book, no calculator** questions, ~ 20 - 40 points

The second part will be a **open book, open notes, with calculator** problems.

The exam will cover

1. HW 1 Energy sources, plant efficiencies

2. HW 2 AC steady-state review, used extensively throughout class

3. HW 3 RMS & Single-phase AC power. P Q S $|S|$ pf correction of pf

4. HW 4&5 3-phase AC power.

$$\begin{array}{llllll} V_L & V_{LL} & V_{LN} & I_L & I_{LL} & I_Y \\ Z_Y = \frac{Z_{\Delta}}{3} & & & Z_{\Delta} = 3 \cdot Z_y & & \text{pf correction of pf} \end{array}$$

5. HW 6 Magnetic circuits

$$B = \mu \cdot H \quad H = \frac{N \cdot i}{l_c}$$

7. HW 7 - 8 (p1-p2) Ideal Transformers

8. Lab 1

9. Field trip to Gadsby power plant

You can download old exams from HW page on class web site.
But remember, they may cover more than we did in our class.

Possible closed-book questions

All

Basic relationships and units
What is "good"

Basic magnitude and
phase relationships

Flux density, Field intensity,
Permeability, B-H curve.

Electrocution Safety. Deadly
current, body resistance, etc.