ECE 3600    Exam 1 Study Guide

The exam will be a Closed book, except for the "Exam 1 Information" sheet (you may add to this single sheet). Calculator is allowed.

First part will be questions with simple answers and/or word answers.
Second part will be problems worked out with your calculator.

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. $P \quad Q \quad S \quad |S| \quad pf$ correction of $pf$

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

$$V_L \quad V_{LL} \quad V_{LN} \quad I_L \quad I_{LL} \quad I_Y \quad S_3 \quad S_{I\phi}$$

$$Z_Y = \frac{Z_{\Delta}}{3} \quad Z_{\Delta} = 3 \cdot Z_Y \quad pf \quad correction \ of \ pf$$

Basic one-Line diagrams

5. HW 6 Magnetic circuits

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

6. HW 7 - 8 Transformers, including nonideal

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8. Non-ideal transformer model

Calculations $\%VR \quad \eta$

9. HW 9 Auto-transformers

10. Lab 1

11. 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.