ECE 3600 Exam 1 Study Guide

The 1st Exam will be on Wednesday 9/25/24 In WEB L102 (most likely) from 3:00 - 5:50

First part may be questions with simple answers and/or word answers. **Closed book, No notes, No Calculator.**

When you hand in the first part, you will get the second part, which will be problems worked out with your calculator. **Closed book,** except for the **"Exam 1 Information"** sheet handed out in class (you may add to this single sheet). **Calculator is allowed**.

The exam will cover	Possible questions
1. HW 1 Energy sources, plant efficiencies	All
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	Basic relationships and units What is "good"
4. HW 4&5 3-phase AC power. V_L V_{LL} V_{LN} I_L I_{LL} I_Y $S_{3\phi}$ $S_{1\phi}$ $Z_Y = \frac{Z_\Delta}{3}$ $Z_\Delta = 3 \cdot Z_y$ pf correction of pf Basic one-Line diagrams	Basic magnitude and phase relationships
5. HW 6 Magnetic circuits $B = \mu \cdot H$ $H = \frac{N \cdot i}{l_c}$	Flux density, Field intensity, Permeability, B-H curve.
7. HW 7 Ideal transformers	Transformer basics, including ratings and impedance transformation.
8. HW 8 Non-ideal transformer model Open-Circuit and Short-Circuit tests Calculations %VR η	
9. Lab 1	Electrocution Safety. Deadly current, body resistance, etc. Basic concepts
10. Field trip to Gadsby power plant	

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