The 1st Exam will be on ___________________

First part will 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

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.  $P \ Q \ S \ |S| \ \phi \ \text{pf} \ \text{correction of pf}$
4. HW 4&5 3-phase AC power.
   
   $V_L \ V_{LL} \ V_{LN} \ I_L \ I_{LL} \ I_Y \ S_{3\phi} \ S_{I\phi}$

   $Z_Y = \frac{Z_A}{3}$
   $Z_A = 3 \cdot Z_Y \ \phi \ \text{pf} \ \text{correction of pf}$

   Basic one-Line diagrams

5. HW 6 Magnetic circuits
   
   $B = \mu \cdot H \quad H = \frac{N \cdot i}{l_c}$

6. HW 7 - 8 Transformers, including nonideal

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8. Non-ideal transformer model
   
   Calculations $\%VR \ \eta$

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.