ECE 312 1st Exam study guide

The one hour exam is scheduled at the beginning of the Monday, Feb 13th class. The exam is closed-book/closed-note. No calculators (or any other electronic devices) can be used during the exam.

You will be allowed one sheet (8.5 x 11 inch) of notes. Both sides of the paper may be used.

You will not need paper; all answers must be written on the exam sheets.

The exam will cover all material we've covered in class up to (but *not* including) convergence of the CTFS.

The exam will have a mixture of calculations and concepts. The calculations will be simple enough so that calculators won't be needed. You also will not need a table of integrals or a table of Fourier transforms.

So, what should you put on your sheet of notes?

You might want to put a couple of example homework problems so you understand the calculations involved. But don't forget concepts. For example.

1. When should you use a DFT instead of a CTFS?
2. A periodic function has a DTFS, which consists of a summation of weighted sinusoids at different frequencies. Maybe you can calculate the series, but what important information does a DTFS tell you that signal?
3. Do you know the difference between power and energy?
4. How is a function altered when it is time scaled? Time shifted?
5. What are eigenfunctions and why are they important?
6. What is the relationship between Fourier Transforms, convolution and LTI systems?