Boyes Fall '08
Honors Chemistry

Review Chapters 13 and 14
Electrons and the periodic chart

Ch. 13 electron configuration.

wavelength	frequency
amplitude	electromagnetic spectrum
emission spectra	absorption spectra
Hund's Rule	Aufbau Principle
Pauli Exclusion Principle	DeBroglie and Planck's formula
Wave-Particle Duality theory	Quantum numbers (n, l, m, s)
orbitals (s, p, d, f)	c= speed of light= 3 x 10^{10}cm/sec
photoelectric effect	quanta
Heisenberg's Uncertainty Principle	orbital diagrams

Chapter 14: The periodic chart:

alkali	halogen
alkaline earth	noble gas
family/group	period/row
metals/nonmetals	actinides
stairstep line	Mendeleev
ionization energy	lanthanides
atomic vs. ionic size	transition metals
electronegativity	inner transition metals
Valence electrons p. 413 next chapter	Noble gas core configuration

II. Equations to know: **$\lambda = h/mv$** h= 6.63 x 10^{-34} Jsec or (kg m^2/s)
They will be given on the test so h= 6.63 x 10^{-34} kg..m2/sec

$E=h\upsilon$ **$c=\lambda\upsilon$** c= 3 x 10^{10} cm/sec

Chapter 13:

- Be able to give the complete electron configuration of any atom OR ION. Long and noble gas core style – my choice.
- Be able to tell the maximum number of electrons you can have in any given energy level **$2(n^2)$.**
- Know how many of each orbital there are: 1 s, 3 p, 5 d, 7 f .
- Be able to calcula