There is no perfect way to study for this course.   Each of you has a recipe for success in classes and you should do what you feel is necessary for you.   I recommend skimming the chapter before lecture, come to class and take notes, read the book thoroughly and then do the problems. I do not collect or grade homework.

If you have time you should recopy all your notes. Many people do not have that kind of time. If you do not recopy all your notes, please reread them before you go to bed that night. You may find that you can remember things that you need to add. Fifteen minutes before class please skim your notes again. You may find that this lets your mind "boot up" into chemistry mode. It will also remind you to ask about anything that was unclear about the last material covered.

South Campus Science Learning Center: G-200/G301 Hours: M-R: 8 a.m.–8 p.m; F: 8 a.m.–1 p.m., Sat 10 a.m.- 1 p.m.

Names and symbols of the elements.
For test 1 you will be required to know the names and symbols of the 1st 18 elements.

The homework problems in this book are labeled in a decimal notation where the number to the left of the decimal is the chapter and the number to the right is the problem number. Problem number 23 in chapter 1 is therefore problem **1.23.**

Homework for test 1
Chapter 1
Ch 1: 35, 39, 41, 45-47, 51-59 odd, 65, 69, 69, 71, 73, 81, 83, 91, 99

Extra Problems:

1. Energy can take many different forms. There is radiant energy, electrical energy, chemical energy, thermal energy and mechanical energy. Please discuss energy conversions in these everyday situations:
   a) Running a hair dryer from an electrical outlet.
   b) Heating water on a gas stove.
   c) Eating a pasta meal and then running 11 miles.
   Be sure to describe the types of energy that are being converted and whether the energy is potential or kinetic energy.

2. 725 mg is the same mass as _____g.
3. How many significant figures are in the number 0.02008?
4. How many centimeters (cm) are there in 1 foot? (report your answer to 3 significant figures.)
5. There were 24 students in my laboratory class. Is that an exact number or a measurement?
6. Acetone has a density of 0.82g/ml. What is the volume (in ml) of 56 g of acetone?
7. What is your weight in kg? What is your height in meters?

Chapter 2
Problems: 34, 35, 39, 41, 43, 45, 53, 55, 57, 59, 63, 65, 66, 67a, 68a, 75, 79,85
Extra Problems:

1. A molecule has 26 electrons, 28 protons and 30 neutrons. What is the element ?
How would you write it? (Use the form described in class with the chemical symbol, atomic number, charge and mass number.)
2. How many electrons are permitted in a d subshell?
3. How many electrons are permitted in a d orbital?
4. The maximum number of electrons that may occupy the second electron shell is __?
5. Please describe the physical significances of the quantum numbers n (principle quantum number), l (angular momentum quantum number), and m (magnetic quantum number) and s (spin).
   (Please use complete sentences.)
6. Write the shell-subshell notation for Na, Mg, C, Si, S, Se, Fe, Ag, Sn

Chapter 10.
Problems: 23, 25, 27,31-41 odd, 45, 55, 59, 60, 63