Assignment 1
Due Wednesday, September 15, 2010

Announcements:

- Labs will **NOT** meet this week! Labs will start meeting the week of September 13th, when we will have Check-in and an introductory experiment. You will receive a laboratory manual and notebook in your discussion section on Monday, Sept. 13th (do NOT buy a lab notebook!).

- Discussions will meet today at 1:00, 2:00, and 3:00 pm. Check your schedule for your discussion session time and location.

- Future assignments will not be handed out in class. They will be available on the course website (https://www.amherst.edu/academiclife/departments/courses/1011F/CHEM/CHEM-11-1011F) under "Assignments" for you to download.

- Solutions will be posted on the website on the Friday following the due date of the assignment.

Overview: We know that matter is composed of atoms and molecules, but how do we know this? There was a time when the concepts we take for granted were mysteries. This week we will discuss many of the fundamental laws of chemistry and how they were developed. We will use these laws to understand the structure of the atom and the composition of simple molecules. We will then begin to develop the tools we need to understand chemical reactions on a macroscopic scale.

Reading & Problems: Zumdahl, 6th edition. After today, record a question on the reading before lecture to bring to class and turn in with the lecture summary at the end of class. Worked out answers (you must show your work to get credit!) for all problems are due at the beginning of class on Wednesday, September 16. Assignments will be graded and returned as soon as possible (normally in discussion 10 days after being turned in). You are encouraged to discuss these problems with your classmates, but the work you hand in must be yours.

Date	Lecture	Reading	Problems
Wednesday, 9/8	Fundamental Laws	Section 2.9, Appendices 1.5 and 1.6 on error analysis and significant figures.	Chapter 2: #**48,** (follow ClO_3 naming for IO_3), **#50** (part (i) should read Gallium (III) arsenide; part (j) should read cadmium (II) selenide),# **53** (write the formula for each acid as well)
Friday 9/10	Fund. Laws, Avogadro's Hypothesis	Sections 2.1-2.4	Chapter 2: #**20,22,**
Monday 9/13	Atomic structure,	Sections 2.5-2.8,	Chapter 2: #**25,36**,
Wed. 9/15	Mass Spec	Section 3.1	(In Assignment 2)