Chang 11ᵗʰ ed.

ASSIGNED PROBLEMS
Remember You Have the Option to do the On-line <u>Connect</u> Homework Instead.

TO BE DONE IN DETAIL IN YOUR HOMEWORK NOTEBOOK (<u>**see previous details**</u>).

Chapter 1: Chemistry: The Study of Change. (all problems are to be done in your homework notebook)

<u>**The METHODS we use to solve these problems are more important than the problems themselves. Concentrate**</u> <u>**on the units and how they cancel.**</u> Example: 454 mg = ? g , Method: since m = 10^{-3} $\dfrac{454\,\text{mg}}{} \Big| \dfrac{10^{-3}}{\text{m}} = 0.454g$ note:

the "m's" cancel leaving just grams as the unit.

Look over Tables 1.2, and 1.3,

<u>**Assigned Problems (Chapt 1 page 29)**</u>: Be Sure to read the chapter (learning to read science is a very important part of your overall education). Look aover *Key Equations* and *Summary of Facts and Concepts* (pages 28-29).
1.6, 1.7,1.8, 1.12, 1.16, 1.22, 1.24, 1.26, 1.29, 1.32, 1.34, 1.36, 1.40, 1.42, 1.44, 1.46, 1.48, 1.50, 1.52, 1.56, 1.60, 1.64, 1.78 (use the percent as a conversion factor as on the PowerPoint example in class), 1.90

 Do extra conversions and problems if necessary.

Chapter 2: Atoms, Molecules, and Ions (all problems are to be done in your homework notebook)

Be sure to READ the chapter! Note the tables of Common Ions and Polyatomic Ions page 58. Read through the periodic table twice.

Naming compounds (nomenclature) will be covered in lab, but you will be held responsible in lecture. Study the rules in the lab manual and in this book. If you are not in lab, <u>you may want to find a laboratory class to attend as a "guest when this topic is being covered.</u>

Balancing equations will also be covered in lab.

<u>**Assigned Problems (Chapt 2 page 68)**</u>: Be sure to look over *Summary of Facts and Concepts* (page 67)
2.7, 2.10, 2.11, 2.14, 2.16, 2.21, 2. 24, 26, 32, 34, 36, 44, 46, 48, 50, 58, 60, 64, 74, 76, 83, 102,

Chapter 3:Mass Relationships in Chemical Reactions. (all problems are to be done in your homework notebook).

This chapter may well be the most important chapter in CHM 151. A thorough understanding and <u>mastery of this material is imperative if one is to be successful in CHM 152</u>. Many problems are assigned and they will require a considerable amount of time. Work on a regular and consistent basis. ***The <u>methods we use to solve these problems are more important than the problems themselves</u>. Concentrate on the units and how they cancel.

Balancing equations hint: If any element is found in more than one place on the same side, leave it for last. Balance the others first and then that (or those) element(s).**.**

<u>Assigned Problems (Chapt 3 page 107)</u>: **8, 13, 14, 16, 20, 24, 26, 28, 30, 40, 44, 46** start with a balanced equation**, 48, 50, 52 , 54, 60, 64, 66, 68, 72, 74, 78, 86, 90, 92** (One of your major lab quizzes has similar problem), **94, 102, 106, 126,**

<u>Chapter 4 assigned problems (Chang page 178-)</u>:

This may well be the most important chapter regarding your success in CHM152. Be sure to read the chapter and do even more problems if necessary.
 1, 2, 3, 8,10, 11, 12, 14, 18, 20, 22, 26, 27, 32, 34, 46, 48, 50, 54, 56, 64,66, 68 ab&c, 74, 76, 78, 90, 92, 96, 106, 110, 112, 116, 144, 154, 160,

<u>Chapter 5 assigned problems</u> : **14, 18, 20, 22, 24, 26, 32, 34, 40, 42, 44, 48, 54, 56, 62, 68a, 70, 88, 94, 96,**

<u>Chapter 6: (Thermochemistry)</u> Note: You will need to refer to appendix 3 page A-8 for thermodynamic data. Assigned Problems **7, 11 , 12 , 26, 31, 32, 34, 36, 38, 46, 48, 54, 56, 58, 62, 63, 64, 71, 74, 78, 84, 88, 98, 104.**

<u>Chapter 7 assigned problems:</u> 8, 10, 16, 18, 20, 28, 30 relates to lab, **32, 34, 58, 70, 76, 78, 88, 90, 120, 130**

<u>Chapter 8 assigned problems (Chang):</u> 20, 22, 24, 26, 28, 30, 32, 38, 40, 42, 44, 46, 52, 54, 56, 72, 76, 82, 94, 120, 124, 130.

<u>Chapter 9 Assigned Problems (Chang):</u> 16, 18, 20, 26, 36, 38, 40, 44, 46, 48, 52, 54, 56, 64, 72, 74, 76, 80, 86, 90, 92, 98, 106, 124.

<u>Chapter 10 Assigned Problems</u>: 8, 10, 12, 14, 20, 22, 24, 32, 34, 36, 40, 42, 56, 66, 76, 88

<u>Chapter 11 assigned problems:</u> 10, 12, 14, 16, 18, 52, 54, 56, 76, 82, 86, 92, 94, 106, 108, 112.

<u>Chapter 12 assigned Problems:</u> 10, 12, 16, 18, 22, 62, 72, 82, 92, 104, 126.