CHEMISTRY 1A Fall, 2008 INSTRUCTOR: Mary D. Cox: Phone 650 813-1716
email: coxmary@deanza.edu Be sure to put chemistry 1A or chem 1A into your subject line.
Office hours: 2:30 – 3:30 PM Monday, 10:25 – 11:25 Wednesday, Room S43

Lecture : Monday, Wednesday,: 9:30 – 10:20 AM Room SC2204
Laboratory lecture, Section 5, Cox MW 11:30 AM– 12:20 PM, Lab 12:20 – 2:00 in Room SC2202
Laboratory lecture, Section 6, Gray TTh 11:30 AM– 12:20 PM, Lab 12:20 – 2:00 in Room SC2202

REQUIRED MATERIALS AND EQUIPMENT:

General Chemistry, Principles & Modern Applications, 9th Ed., Petrucci, et.al., Pearson Prentice Hall, 2007
General Chemistry Laboratory Manual Experiments and Exercises 2006 Ed., Chemisty 1A-1B-1C , WILEY(2006)

Scientific calculator (need not have graphing capability but must have logarithms and exponents)

AT THE TIME OF THE FIRST MEETING OF LABORATORY YOU MUST HAVE A COMBINATION PADLOCK. A LOCK THAT REQUIRES A KEY WILL NOT BE ACCEPTED.
AT THE TIME OF THE SECOND MEETING OF LABORATORY YOU MUST HAVE SAFETY GOGGLES: spatter type, must not leave space between glasses and skin on top and sides.

ATTENDANCE REQUIREMENTS

1. More than **3 unjustified absences from lecture and/or laboratory** will result in your being dropped from the class, resulting in an F if you do not act quickly to make the drop official before the allowed drop date of June 1. During the first week, if other students are waiting for space in the class, then you may be dropped after only one absence unless you have made prior arrangement.

2. **Being late for class** will result in a failure on any quiz you miss, and you will not be allowed extra time to complete a quiz because of tardiness. If you have a continuing problem with on-time arrival, for example, because of work or family conflicts, please discuss this with me as soon as possible.

HOW TO STUDY CHEMISTRY

The important goal in learning chemistry is to gain understanding, not to memorize facts or methods. In science, the point is not to know a set of facts, but to be able to apply knowledge and understanding to gain further understanding. Consequently the methods of studying chemistry, as with all sciences must involve looking at why everything is done the way it is. You need to understand why every step is done in solving each problem, as well as in every laboratory experiment. You need to understand where every formula and equation come from and what every mathematical symbol stands for. You should understand:

Why do we teach the topics we do?
Why do we solve the problems we do?
Why do the methods we apply to each kind of problem work?

Another important thing to learn is to picture, in your mind or on paper, or as a model, how the things we are working with fit together and interact. This is usually the key to understanding how they work and how to solve problems.

You may then ask, "Isn't there any memory work involved? The answer is, not much in Chemistry 1A. **It is always a very serious mistake to learn mathematical formulas without first understanding where they came from.** There are too many variations in the situations where they apply and you must be prepared to apply them in many different contexts.

Generally you should study this material as you would a mathematics course. Don't spend time passively reading the textbook, highlighting it or outlining it. Start doing homework after a minimum of reading. Look at the "Key Terms" at the end of the chapter and see how many you already know. Try to visualize the meaning of the words, not memorize definitions. Read as much as you need to work each problem and to understand the new words in that section If you have trouble with the problem, look for another similar problem and try it. When you find that the next problem in line is always one you can work without getting help from anywhere, you are ready for the test on that section. The understanding must be in your own mind and it must be an understanding of how to apply principles, not just what those principles are.

HOMEWORK

On the schedule you can see that there will be a homework assignment due every class day unless an exam is scheduled on that day. The homework must be turned in by placing it on the lecture desk at the beginning of class. You will not be allowed to turn it in at the end of class and I will not ask you for it. Homework is the real heart of the course. It gives you practice in applying the principles and tells you, by how much difficulty you have in doing it, whether you would be ready to work a similar problem on a quiz or exam**. If you cannot do the homework except by getting help from a friend or from a book,** you obviously would be **in trouble** on a quiz or exam, so continue studying and working additional problems until you know that no extra help will be needed.

The answers on your homework will not be checked for correctness. The number of problems showing significant effort will determine the score on each assignment. Homework assignments will be accepted one day late for half-credit. After that they are awarded zeros unless a valid acceptable excuse is given. However, all homework must be turned in if you want the two lowest scores to be dropped in determining the final grades.

QUIZZES

Quizzes will be given at the beginning of class time, except that you may ask questions on the material being tested first, and you should expect a quiz on any day except if an exam is scheduled. They will cover material from the day before or earlier. We will skip days at my discretion. The quizzes are intended to be short and easy and to use no more than ten minutes of the class period. Their purpose is to help you keep up to date so that you will be ready for the material being presented and will not have to learn it later on your own because you can't follow the lecture.

EXAMINATIONS

There will be three one-hour-examinations and a two-hour final as shown on the course schedule. You must take all 3 hour-examinations, showing serious effort on each, except with a valid, documented excuse. If you miss an examination **or appear not to have taken one seriously**, no exam score will be dropped. If you fulfill these requirements, then the lowest score of the three examinations will be dropped. You must also take the final examination on time or receive a grade of F or incomplete for the course. **Note that incomplete can only be awarded by written arrangement with the instructor.**

LABORATORY

See instructions from your particular laboratory instructor. You must pass the laboratory to pass the course.

GRADING

Exams: The lowest score of the three hour-exams will be dropped if all three have been taken seriously as described above.

Homework: The homework will be worth a total equal to one exam and the two lowest will be dropped if all are submitted. This means that each will be worth about 6 points.

Quizzes will also be adjusted to total the same as one hour-exam. Assume there will be about 10 quizzes at 10 points each.

COURSE GRADE BREAKDOWN

HOUR-EXAMINATIONS	**200 PTS**
FINAL EXAMINATION	**200 PTS**
QUIZZES	**100 PTS**
HOMEWORK	**100 PTS**
LABORATORY	**300 PTS**
TOTAL	**900 PTS**

LETTER GRADES (APPROXIMATE) The percentage required for each letter grade will not be greater than that listed here but may be lower.

A	**855 pts and above**	**95% and above**
A-	**810 pts**	**90%**
B+	**765 pts**	**85%**
B	**720 pts**	**80%**
B-	**700 pts**	**78%**
C+	**675 pts**	**75%**
C	**610 pts**	**68%**
D	**540 pts**	**60 %**
F	**Less than 540 pts.**	**Less than 60%**

ACADEMIC INTEGRITY

Giving or receiving unauthorized aid in any form is not tolerated and will result in dismissal from the course with a grade of F. Academic dishonesty (cheating) includes, but is not limited to, the following:

1. **looking at another student's test during an exam**

2. **allowing another student to copy from your test during an exam**

3. **copying from another student's test**

4. **talking to another student inside or near the classroom during an exam**

5. **using any paper not provided by the instructor during an exam – this includes periodic tables and extra scratch paper. Any scratch paper besides that stapled into the exam will not be allowed during an exam and only the provided periodic table will be allowed. The periodic table cannot be used as scratch paper.**

6. **using data or formulas stored in a calculator, on a palm pilot or obtained from any communications device.**

7. **working with another person in laboratory without express permission from the instructor. This does not mean that you cannot talk with or get help from other people, but your work generally must be done at your desk by yourself, unless you have been assigned a laboratory partner for that particular experiment.**

8. **copying of laboratory data or data analysis from another student, including from a lab partner, without prior permission of the instructor and written credit to the other student.**

9. **copying homework from any source, for example, from another student, from an answer book, from students of previous quarters. Granted that this may be hard to detect, it will, nonetheless, be counted as cheating whenever it is detected.**

Philosophy of punishment for cheating.

I'm sure that many students assume that the purpose of penalties for cheating is to punish the students involved**. In fact, the intent is to prevent cheating so that honest students can be fairly evaluated.** It is true that most cheating will eventually result in trouble for the perpetrator, but it is even more true that grades, since they must be awarded, should reflect a true evaluation of each student's preparation to use the material of the course in the future