

Preliminary Syllabus - Chemistry 11A, General Chemistry, Summer 2008

PLEASE READ THIS SYLLABUS CAREFULLY.

It contains a great deal of useful information that you will be expected to be familiar with. Please note that portions of this syllabus are taken directly from Professor Irving Epstein's online syllabus. This summer offering of Chemistry 11A is designed specifically to model (as closely as possible) the expectations and standards of Brandeis University.

Instructor: Dr. Michael Vela

Telephone: (603-801-1331)

Email: mvela@colonial.net

Office hours: Tuesday 11:00-12:00, Thursday 11:00-12:00

Meeting times:

Lectures: Mon. 9:10-12:00, Tue., Thurs., Fri., 9:10-11:00 AM, Volen 105

Hour Exams, Mon., July 21st, Mon., July 28th, Mon., August 4th

Final Exam: August 8th (Time: TBA)

Course objectives: The primary goal of this course is to introduce you to the subject matter: atoms and molecules, the periodic table, the history of the atom, bonding theories, structure, and states of matter. Upon the successful completion of this course you should be well prepared for the second semester of general chemistry, here at Brandeis, or elsewhere. In addition to the content knowledge, you should also leave this course with a greater ability to think critically and solve problems.

Books:

The text for the course is *Chemistry: A Molecular Approach* by Nivaldo J. Tro. It is available in the bookstore. There are many general chemistry textbooks available, each with its slightly different style. Depending on your learning style, you may benefit from consulting one or more of these textbooks. The Gerstenzang Science Library has a large selection of these texts under call number QD31.2. If Tro's approach doesn't appeal to you, one of the others might. I recommend *Chemistry* by Chang, *Chemistry* by Zumdahl and *General Chemistry* by Hill, Petrucci, McCreary, and Perry. Since they all cover the same topics we do, though perhaps in a different order, if you find one you like better than Tro, feel free to use it.

Attendance:

Attendance at lectures is optional, but **strongly** encouraged. The final exam will be outside of class time at a mutually agreed time. While the occasional student may be able to succeed in the course without attending regularly, experience suggests that such students are rare. Please be courteous to your fellow students by taking your seat promptly and concluding your conversations in time for class to start.

Problem Sets:

Problems will be assigned to go along with the readings for each chapter of the book (see "Class Schedule and Assignments"). The assigned problems are meant to give you a good overview of the material covered. You do not need to hand them in, but **it would be a serious mistake not to do them**. Solving problems is the way you learn the material and the way you find out if you *really* understand what you've read and heard in class. There will be a lot of problems assigned – typically 30-45 per week. Feel free to consult with your classmates (see next item) and to look at the problems that are not assigned (the book typically has about 100 per chapter), but whatever else you do, **do lots of problems**.

Study groups:

The vast majority of modern scientific research is done by groups of individuals working together. While mastering general chemistry requires a great deal of individual effort, it need not be a strictly solo endeavor, and many students find it helpful to work with others on problem sets and exam preparation, and in trying to understand difficult concepts. I encourage you to get together with your classmates and form study groups.

Exams

The “hour” exams are scheduled in class on Mondays so that you can have somewhat more than 60 minutes to complete them. The 3-hour final will be held at a time to be announced shortly. **Please avoid making any travel plans that might conflict with this time.** You should bring a calculator and may also bring one 8 1/2” x 11” sheet of notes (you may write on both sides) to the hour exams. For the final, you may bring two sheets of notes (and your calculator). Please make sure your calculator is charged before the exam. I generally do not have spares to provide. **No collaboration** is permitted on exams.

Make-ups:

Make-ups for hour exams and finals will be given only for documented medical or other compelling reasons. Make-ups are generally harder than the regular exams.

Grading:

Grades in the course will be based on the following components.

3-hour exams (each will count as 20% of final grade)

Final exam 40% of final grade

Students with disabilities:

If you are a student with a documented disability, please see the instructor immediately so that all appropriate accommodations can be made. No accommodations can be made retroactively.