Chem103
General, Organic and Biochemistry I
Fall 2007

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Lecture: Caputo 211
Mon/Wed 11:00-11:50

Lab: Caputo 328
A: Thu 9:30-11:20
B: Fri 11:00-12:50

Office Hours: Caputo 325
Mon 12:00-2:00
Tue 1:00-3:00
Fri 9:00-10:00
(Alternate times by appointment)

Course Description

Chem103 is the first semester course of General, Organic and Biochemistry (followed by Chem104) for non-science majors. It serves as a G2 general education course and satisfies the Lab requirement. Students in Chem103 will be introduced to the basic theories of general and organic chemistry, including nomenclature, reactions and problem solving.

Necessary Background

Chemistry: High school chemistry or Chem110 is required.
Math: Proficiency in algebra is essential.

Course Objectives

The main goal for this course is to gain a solid understanding of the basics of chemistry. After completing this course, you should be able to:

- Describe basic atomic components, use the periodic table and identify chemical compounds by name or formula.
- Take measurements and do calculations using appropriate units and significant figures.
- Describe the role of electrons in chemical bonding and draw Lewis structures for compounds.
- Write equations to describe chemical changes and do related calculations using mole and mass relationships.
- Describe acid-base and oxidation-reduction reactions, activation energy and equilibrium.
- Differentiate states of matter and their molecular interactions.

Required Materials and Supplies

- Text: *Essentials of General, Organic, and Biological Chemistry*, H.S. Stoker, Houghton Mifflin Co., 2003
- Laboratory Instructions: available via Blackboard
- Laboratory Notebook: Permanently-bound, approximately 7" x 9.5"
- Safety Eyewear (available from Chem Supply Room: Cap 330 for $7.50)
- Lab Drawer Lock (available from Chem Supply Room: Cap 330 for $5.00)
- Calculator: Scientific calculator capable of performing logarithmic (log, ln) and exponential (10^x, e^x, y^x) functions