

Massasoit Community College
Fall 2009
Survey of Chemistry, CHEM 131-02

Instructor: Kendra Twomey, PhD

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Class Time: T 6- 10 pm

Lecture: 6 - 8 pm

Lab: 8 - 10 pm

Course description: This is a survey course for non-science transfer students and involves lectures, demonstrations and laboratory experiments relating to the basic facts and principles of chemistry. Discussions of atomic theory, bonding, states of matter, chemical equilibrium, and applied chemistry are included. Lecture: 2 hours Laboratory: 2 hours.

Textbook: Hill, McCreary, & Kolb, *Chemistry for Changing Times*, 12th ed., 2010.

Twomey, *General Chemistry Lab Manual*.

A calculator will also be needed.

Course Objectives:

- Use scientific physical quantities in calculations and unit conversions
- Differentiate between elements, compounds, and mixtures
- Discuss the atom and how the atom's particles were discovered
- Explain the differences between ionic and covalent bonds
- Perform solution calculations and discuss solubility
- Balancing chemical reactions
- Distinguish between acids and bases and perform pH calculations
- Overview of organic chemistry; naming organic compounds, and functional groups

- Overview of biomolecule functions and structures
- Understand drug action, chemotherapy drugs, and nervous system drugs

Teaching Procedures:

- At the start of each lecture class, the previous class's homework will be checked and discussed. New material will then be presented with examples of calculations. At the end of each class, a homework assignment will be given and due at the beginning of the next class.
- For the lab, a brief discussion of the experiment and safety issues will be discussed at the beginning of each lab period. Students will work in groups of 2 (or 3 if necessary). Lab sheets will be handed at the end of class for grading.
- Before exams, a problem session will be done in place of a lab. Problems will be handed out for practice and worked on during the lab period. It will count as a lab and graded based upon participation.

Grading Policy

Quizzes (20 %): There will be a total of 4 quizzes. Quizzes will be given at the beginning of the class. The lowest quiz will be dropped **if none are missed**, and averaged for the quiz grade. If 1 or more is missed, they will be counted as zeroes in your average. **No make-ups will be permitted unless you have a valid reason.**

Homework (5 %): The homework assignment will be given at the end of class, and due at the beginning of the next class. Homework will be checked at the beginning class before we go over it. **No late homework will be accepted.** If work is required of a problem, the work must be shown to receive full credit for the homework.

Paper (10 %): A 3 - 4 page, double spaced, paper of an element will be due at the end of the semester. The elements will be drawn randomly in the second week of class. References are required and not counted as a page. The margins must be standard 1". The font should not be larger than 12.

Labs (20%): The lab data sheets from the lab manual will be due at the end of lab. Each person will hand in their own lab data sheets. Lab participation will also be included in the lab grade based upon my observations during lab. I want each person to be performing the lab. **No make-up labs will be permitted.**

Exams (45%): There will be a total of 3 exams (15 % each). The exams (1 & 2) will cover material from the previous exam. Exam 3 will contain new and old material from exam 1 & 2.

No make-ups will be permitted unless you have a valid reason.

Grading Policy

The final grade will be based upon quizzes, paper, exams, labs, and homework.

A	94-100
A-	90-93
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	less than 60

Attendance Policy: Students are expected to attend all classes. You are responsible for the material you missed. Contact a fellow student for the material as soon as possible. Lateness to lab will not be tolerated as safety issues and lab procedures will be discussed during the first minutes of lab. If you only attend the class lecture and miss the lab portion, you will receive a zero for the lab that day. You must also stay for all of the problem session. You will receive only partial credit for the lab that day if you leave early.

If you are feeling sick or have the flu, please try to stay at home as not to get others sick. Contact me by email (ktwomey@massasoit.mass.edu) and I will email you the homework and

material to read in the book. If I'm sick, I will email everyone with the homework assignment and material to read in the book.

Accommodations: Students with disabilities who believe that they may need accommodations in the classroom are encouraged to contact a disability counselor as soon as possible. Students at the Brockton Campus with learning disabilities should contact Andrea Henry, at extension 1805. Students with physical disabilities at the Brockton Campus should contact Mary Berg, at extension 1425. All students at the Canton Campus should contact Mary Berg at extension 2132.”

Additional Resources

The Academic Resource Center (ARC), in the Student Union lower level, offers a full range of tutoring and academic support services. Free help either Walk-ins or by appointment.

Additional Information:

NO TEXTING IS PERMITTED IN CLASS. If I observe anyone texting, I will ask you to leave the lecture. You will be allowed to come back for the lab portion. It is very distracting for me and the rest of the class. Please turn off cell phones or to vibrate. If I hear the phone, I will also ask you to leave and can return for the lab. Do not talk or text during lab either.

Please to courteous to your fellow classmates.