FALL 2009 - CHEMISTRY 210T (Section R09, C10, C11, C12)
Co-requisite: CHEM 212 - General Chemistry Laboratory I

Instructor – Tao Xu, Office at FW 412, Tel=753-6357 Email=txu@niu.edu (short e-mail questions)
Office Hours – Monday, Wednesday, Friday, 3:00 pm- 4:00pm

Recitation TA – Brendan Dutmer **TA Office Hours –** MWF, 1:00 pm- 2:00pm FW310
Supplemental Instruction TA – , office and hour to be announced

Lecture and Recitation Schedule:
Section R09 Lecture MWF, 2:00-2:50PM, DH 308; Recitation Wednesday, 11:00-11:50 FR205
Section R10 Lecture MWF, 2:00-2:50PM, DH 308; Recitation Wednesday, 17:00-17:50 FR205
Section R11 Lecture MWF, 2:00-2:50PM, DH 308; Recitation Wednesday, 15:00-15:50 FR205
Section R12 Lecture MWF, 2:00-2:50PM, DH 308; Recitation Wednesday, 16:00-16:50 FR205

Materials: *"Principles of General Chemistry"*, by M. Silberberg (McGraw Hill; 2010)

Tutors and Lab TA Office Hours: The Department of Chemistry and Biochemistry maintains a free Tutor Room for General Chemistry students. The Tutor Room is in Faraday 246 and is staffed Monday through Thursday from 8:30 AM to 3:30 PM with a lunch break. On Fridays, the Tutor Room closes at 2:30 PM. General Chemistry laboratory TA office hours are held in Faraday 211. The laboratory TA office hour schedule is posted outside Faraday 211, in the Tutor Room, and at the departmental stockroom window. Students are also encouraged to ask laboratory TAs for assistance in understanding the lecture material.

Paid Tutors - Names of tutors for hire are available from Linda Davis in Faraday 319.

Exams and Grading
Exams - Tentative dates for the three 100 point hour exams are indicated in the lecture schedule (see next page). For each exam, ~40% questions will be sample questions in lectures, ~30% from the problem sets after each chapters and ~30% from test bank. For Exam 1 and 2, there will be a practice test. The practice tests and keys will be posted on Blackboard (course document) on the Tuesdays prior to the exams. To assure the fairness to everyone, there will be no make-up exams after the general exam unless prior arrangements have been made with the instructor. Legitimate evidence(s) for the excuse of a delayed exam is required, such as a letter from your supervisor or hospital. The evidence(s) will be investigated. A missed exam will count as the dropped exam.

Recitation - The recitation grade (103 points) will be based on four 10-point quizzes, seven 5-point homework assignments, and attendance (2 points for each of 14 class meetings). Late assignments will not be accepted. There will be no make-up quizzes.

Final Exam - The 200 point final exam will be comprehensive and will be given on Monday. December 7, Mon. 2-3:50 p.m in DH308. Final Exam will cover ALL chapters.

Total points = 603 points (hourly exams = 300; recitation = 100; final exam = 200)

Grading scale: A > 90% (540 pts.), B > 80% (480 pts.), C > 70% (420 pts.), D > 60% (360 pts.), F < 60%
Any student who may need an accommodation due to a disability, please make an appointment to see me during my office hours, or when convenient. A letter from Disability Support Services authorizing your accommodations is usually needed before accommodations can be granted.

LECTURE SCHEDULE

WEEK (3 lectures/week)	CHAPTER/TOPIC	Quiz, Homework* Exam
1. August 24	Introduction / Ch. 1: Keys to the Study of Chemistry	
2. August 31	Ch. 1 (cont.) No lecture on Monday, September 1st - Labor Day Holiday.	
3. September 7	Ch. 2 The Components of Matter (no class on Setp.7 Labor Day)	**Homework #1(Wed)** **Quiz #1(Wed)**
4. September 14	Ch. 3: Stoichiometry of Formulas and Equations	
5. September 21	Ch. 3 (cont.); Ch. 4: Three Major Classes of Chemical Reactions	**Homework#2(Wed)** **Quiz #2 (Wed)** **Exam I (Fri)**
6. September 28	Ch. 5: Gases and Kinetic Molecular Theory	
7. October 5	Ch. 5 (cont.); Ch. 6: Thermochemistry	**Homework#3(Wed)**
8. October 12	Ch. 6 (cont.); Ch. 7: Quantum Theory and Atomic Structure	
9. October 19	Ch. 7.(cont);	**Homework#4(Wed)** **Quiz #3(Wed) Exam II (Fri)**
10. October 26	Ch. 8. Electron Configuration and Chemical Periodicity	
11. November 2	Ch. 8 (cont.)	**Homework#5(Wed)**
12. November 9	Ch. 9: Models of Chemical Bonding	**Quiz #4 (Wed)**
13. November 16	Ch. 10 The Shapes of Molecules	**Homework#6(Wed)** **Exam III (Fri)**
14. November 23	Ch. 11: Theories of Covalent Bonding (Thanksgiving Break, no lectures on Wednesday & Friday)	
15. Nov. 31	Ch.11 (cont) and review for all chapters	**Homework #7**

*Submit homework to your recitation TA on the Wednesdays' recitation hours of the listed week. Hour exam grades will be post on blackboard ASAP, and will be return to students in the following recitation hour. The original final exam will not be returned, but you can make a copy at your own cost after the grades are post.

CHEMISTRY 210T - GENERAL EDUCATION AND COURSE CONTENT OBJECTIVES

General Education Course Objectives

- γ Improve ability to think critically and logically
- γ Improve ability to reason quantitatively and to perform basic chemical computations
- γ Improve ability to interpret mathematical models
- γ Learn how to use the scientific method and theories to understand chemical phenomena
- γ Develop an appreciation for the importance of the role of chemistry in everyday life
- γ Develop an understanding of the historical development of the field of chemistry

Content Objectives of this Course

- γ Understand the components of atoms and ions
- γ Learn how to write chemical formulas, and how to name compounds
- γ Learn how to balance chemical equations and how to perform simple stoichiometry calculations
- γ Understand the behavior of gases, liquids, and solids
- γ Become familiar with the electronic structure of atoms and understand how chemical reactivity depends on electronic structure
- γ Predict the shapes of complex molecules and ions, and become familiar with the theories of chemical bonding.