Summer 2012 - CHEMISTRY 211
Co-requisite: CHEM 213 - General Chemistry Laboratory II

Instructor–Dr. Lee Sunderlin, LaT327, 753-6870, sunder@niu.edu
Office Hours –MTWTh 10:00 – 10:50 or by appointment.
On-Line Course Information (Blackboard): https://webcourses.niu.edu

Lecture Schedule: MTWTh, 11:00 AM – 12:15 PM, LaT 201
(note that LaTourette Hall (LaT) was previously named Faraday West (FW)
Materials: *"Principles of Chemistry"2nd Edition*, by M. Silberberg (McGraw Hill; 2010)
Paid Tutors - Names of tutors for hire are available from Linda Davis in Faraday 319 (Dept. office).

Exams and Grading Dates for the five 100 point exams are indicated in the lecture schedule. The lowest exam grade can be dropped and replaced by the student's "recitation" score. ***There will be no make-up exams unless prior arrangements have been made with the instructor. A missed exam will count as the dropped exam.***
Recitation - The "recitation" grade (100 points possible) will be based on quizzes (10 points each) and nine homework assignments (7 points each). The practice assignment and math review will not be counted towards the final grade. Late assignments will not be accepted. There will be no make-up quizzes.
Total points = 500 points (hourly exams = 400; recitation = 100; final exam = 100, lowest score dropped)
Grading scale: A > 90% (450 pts.), B > 80% (400 pts.), C > 70% (350 pts.), D > 60% (300 pts.), F < 60%
Academic Misconduct: The penalty for cheating on a test, quiz or HW assignment may be receiving a zero on the item(s) involved.

Northern Illinois University is committed to providing an accessible educational environment in collaboration with the Center for Access-Ability Resources (CAAR). Any student requiring an academic accommodation due to a disability should contact me as soon as possible. Students who need academic accommodations based on the impact of a disability should contact the CAAR if they have not done so already. The CAAR is located on the 4th floor of the Health Services Building, and can be reached at 815-753-1303 (V) or caar@niu.edu.

TENTATIVE LECTURE SCHEDULE

WEEK	CHAPTER/TOPIC	Exam
1. June 18-21	**12:** Liquids, Solids, and Phase Changes	Quiz 1 June 21
2. June 25-28	**13:** Properties of Solutions / **16:** Kinetics	**Exam I June 28**
3. July 2, 3, 5	**16:** Continued / **17:** Equilibrium	Quiz 2 July 5
4. July 9-12	**17:** Continued / **18:** Acid Base Equilibria	**Exam II July 12**
5. July 16-19	**18:** Continued/**19:** Ionic Equilibria/	Quiz 3 July 19
6. July 23-26	**20:** Thermodynamics / **21:** Electrochemistry	**Exam III July 26**
7. July 30- Aug 2	**21:** Continued / **23:** Nuclear Reactions	Quiz 4 August 2
8. August 6-9	**14:** Main-Group Elements	**Exam IV August 8** **Final August 9**

CHEMISTRY 211 - GENERAL EDUCATION AND COURSE CONTENT OBJECTIVES

General Education Course Objectives

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

Content Objectives of this Course

- Become familiar with the properties of solutions and be able to calculate concentrations of species in solution
- Understand the concepts behind chemical kinetics and reactions rates
- Understand acid-base and ionic equilibria, and appreciate real-world applications of these equilibria
- Understand entropy, free energy, and the direction of chemical reactions
- Understand the difference between voltaic and electrolytic cells, and be able to calculate the cell potential of a voltaic cell
- Understand the nuclear properties of isotopes, including nuclear reactions, and the practical applications of nuclear chemistry.

Homework Instructions – online homework with Sapling Learning

1. Go to http://saplinglearning.com

2a. If you already have a Sapling Learning account, log in, click "View Available Courses", then skip to step 3.

2b. If you have a Facebook account, you can use it to quickly create a SaplingLearning account. Click "create account" located under the username box, then click "Login with Facebook". The form will auto-fill with information from your Facebook account (you may need to log into Facebook in the popup window first). Choose a password and timezone, accept the site policy agreement, and click "Create my new account". You can then skip to step 3.

2c. Otherwise, click "create account" located under the username box. Supply the requested information and click "Create my new account". Check your email (and spam filter) for a message from Sapling Learning and click on the link provided in that email.

3. Find your course in the list (listed by school, course, and instructor) and click the link.

4. Select a payment option and follow the remaining instructions.

Once you have registered and enrolled, you can log in at any time to complete or review your homework assignments. During sign up - and throughout the term - if you have any technical problems or grading issues, send an email to support@saplinglearning.com explaining the issue. The Sapling support team is almost always more able (and faster) to resolve issues than your instructor.