Summer 2014 – General Chemistry II (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) is also called Faraday West (FW)
Materials: *"Principles of Chemistry"3rd Edition*, by M. Silberberg (McGraw Hill; 2013)and access to the online HW system McGraw Hill Connect through purchase of a new book, ebook or separately. The ebook version of the textbook is available with ConnectPlus, which provides access to the textbook and online HW.
Optional Course Preparation: McGraw Hill has released a product, LearnSmart Prep, that is an online tool to review the background material that you are expected to be proficient in for CHEM 211 (math review and CHEM 210 review). LearnSmart Prep costs $30.
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 32 online homework assignments (2 points each). Connect assignments labeled "LearnSmart," "extra" or "tours" will not be counted for credit. They are optional assignments to help you master the material. Other material including the practice assignment and math review will also not be counted towards the final grade. Late assignments will lose points as noted in the online homework. 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 ≥ 93%, A- ≥ 90%, B+ ≥ 87% , B ≥ 83%, B- ≥ 80%, C+ ≥ 77%, C ≥ 70%, D ≥ 60%, 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.

TENTATIVE LECTURE SCHEDULE

WEEK	CHAPTER/TOPIC	Exam
1. June 16-19	**12:** Liquids, Solids, and Phase Changes	Quiz 1 June 19
2. June 23-26	**13:** Properties of Solutions / **16:** Kinetics	**Exam I June 26**
3. June 30-July 3	**16:** Continued / **17:** Equilibrium	Quiz 2 July 3
4. July 7-10	**17:** Continued / **18:** Acid Base Equilibria	**Exam II July 10**
5. July 14-17	**18:** Continued/**19:** Ionic Equilibria/	Quiz 3 July 17
6. July 21-24	**20:** Thermodynamics / **21:** Electrochemistry	**Exam III July 24**
7. July 28- 31	**21:** Continued / **23:** Nuclear Reactions	Quiz 4 July 31
8. August 4-7	**23:** Continued	**Exam IV August 6** **Final August 7**

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.

Northern Illinois University is committed to providing an accessible educational environment in collaboration with the Disability Resource Center (DRC). Any student requiring an academic accommodation due to a disability should let his or her faculty member know as soon as possible. Students who need academic accommodations based on the impact of a disability are encouraged to contact the DRC if they have not done so already. The DRC is located on the 4th floor of the Health Services Building, and can be reached at 815-753-1303 (V) or drc@niu.edu.