CHEMISTRY 110 - Section 4; Fall 2013

Time & Place: T/Th 6:00 - 7:15 p.m., Faraday Hall 143
Textbook: Denniston, Topping and Caret, General, Organic and Biochemistry, McGraw-Hill, 8th ed., 2013.
Instructor: Dr. Heike Hofstetter, Office: Faraday Hall 314, Phone: 753-6865, e-mail: hhofst@niu.edu
Course webpage: http://webcourses.niu.edu/
Office hours: T/W 10:50-11:50 a.m. or by appointment

TENTATIVE LECTURE SCHEDULE

WEEK	CHAPTER/TOPIC	EXAMS
1. Aug. 27/29	Introduction/Chapter 1 (Sections 1.1-1.2)	
2. Sept. 3/5	Chapter 1 (Sect. 1.3-1.5)	
3. Sept. 10/12	Chapter 2 (Sect. 2.1-2.5)	
4. Sept. 17/19	Chapter 2 (Sect. 2.6-2.7)	**Exam 1 (Sept. 19): Ch. 1,2**
5. Sept. 24/26	Chapter 3 (Sect. 3.1-3.2)	
6. Oct. 1/3	Chapter 3 (Sect. 3.3-3.5); Chapter 4 (Sect. 4.1)	
7. Oct. 8/10	Chapter 4 (Sect. 4.2-4.3)	
8. Oct. 15/17	Chapter 4 (Sect. 4.4-4.5)	**Exam 2 (Oct. 17): Ch. 3,4**
9. Oct. 22/24	Chapter 5 (Sections 5.1 -5.2)	
10. Oct. 29/31	Chapter 5 (Sect. 5.3); Chapter 6 (Sect. 6.1-6.4)	
11. Nov. 5/7	Chapter 6 (Sect. 6.5-6.6); Chapter 7 (Sect. 7.1-7.2)	
12. Nov. 12/14	Chapter 7 (Sect. 7.3-7.4)	**Exam 3 (Nov. 14): Ch. 5,6**
13. Nov. 19/21	Chapter 8 (Sect. 8.1-8.2)	
14. Nov. 26/28	Chapter 8 (Sect. 8.3-8.5)/Thanksgiving break	
15. Dec. 3/5	Chapter 9 (Section 9.1-9.7)	**Exam 4 (Dec. 5): Ch. 7,8,9**
FINAL EXAM (comprehensive): Tuesday, December 10th, 6.00 – 7.50 pm		

All exams are mandatory unless prior arrangements have been made with the instructor! There will be no make-up exams!

Grading:		
	Hourly Exams (Exams 1-4)	400 pts
	Cumulative Final Exam	100 pts.
	Web Homework (sum of all assignments)	100 pts.
	Total	600 pts.*

* There will be four hourly exams and a final exam worth 100 points each. No make up exams will be given. All exams will be multiple choice and graded by Scantron. Original Scantron sheets will not be returned to you. An additional 100 pts will be based on your performance on on-line homework assignments, which will be available through the University's Blackboard site at http://webcourses.niu.edu/
Your homework score will be based on the average of all web homework assignments, with 100 pts. being the maximum score. More information on the homework assignment is given below.
IMPORTANT: The lowest score from one of the five exams **or** your averaged homework score will be dropped; therefore, the **maximum number of points that will count towards the final letter grade is 500 points**. If you like the grade you have based on the 4 hourly exams and your averaged homework score, you do not have to take the final (it will be the test dropped). The grading will be as follows:

>93=A, 92-90=A-, 89-87=B+, 86-83=B, 82-80=B-, 79-77=C+, 76-70=C, 69-66=D, <59= F

This scale may be revised downward (not upward), but this is not guaranteed.

Calculators:
A standard calculator with scientific notation and logarithm function should be brought to all exams. The calculator may not contain any stored equations, structures, or any other information pertaining to the class.

Web Homework:
On-line homework assignments will only be available to students who have purchased a "Connect Access Code," either with their textbook, or separately.
In order to register for "Connect," go to the University's Blackboard site at http://webcourses.niu.edu/, and from there to this course's website (CHEM 110 – Section 4). There, you will find a link (Registration), which will lead to the textbook publisher's website. You will need to register at this website using the access code found in your textbook (or purchased separately).
Typically, there will be two homework sets per chapter. The total points for the semester will be normalized to 100, equivalent to those of one exam. Although the homework is not mandatory, it is strongly recommended that you complete it, as you can use the points (maximum 100) to substitute one exam. In addition, there are many useful tools at the website (such as ebook) to help you understand the course materials.
The main purpose of the on-line homework is to strengthen your understanding of the course materials, which will help you to do well on the exams. Note that each on-line homework assignment will be available only around the time the corresponding chapter is being taught, i.e., during the period from start of the chapter to one week after the chapter is finished. Check your Blackboard or Connect calendars! No makeup homework will be given.

Opportunity for Extra Credit:
The textbook publisher offers a web-based adaptive learning system, LearnSmart, which is "designed to help students learn faster, study more efficiently, and retain more knowledge for greater success." LearnSmart will also be available through this course's website (CHEM 110 – Section 4) at the University's Blackboard site at http://webcourses.niu.edu/ once you have registered for "Connect" (Note, you will only have to register once to access both, the homework site AND LearnSmart).
Based on your performance on LearnSmart, you may earn up to a maximum of 18 bonus points for LearnSmart modules to be completed before lecture and another 45 points for LearnSmart modules to be completed after lecture. These points will be added to your maximum of 500 points earned on exams/homework (see above).

Optional studying materials:
If you are unsure of your math background, the book *Math Survival Guide* by Jeffery R. Appling (John Wiley & Sons, Inc.), or *Basic Mathematics for Beginning Chemistry* by D. M. Goldish (Fourth edition, Macmillan, New York, © 1990) is recommended. There is also a "Student Study Guide" accompanying the textbook available, and many students will find it useful.

Other resources:
The course website (under http://webcourses.niu.edu/) will feature important announcements, links to homework assignments and LearnSmart, practice exams, quizzes and lecture Powerpoint slides for downloading. Check the site regularly, especially if you miss a class period.

For further help, the Chemistry help room (Faraday Hall 247) is typically open from 8:00 a.m.-5:00 p.m. (with a lunch break), Monday through Thursday, and on Friday mornings until noon. It is strongly recommended that you visit the help room at times other than right before an exam. Names of personal tutors are available from Linda Davis in FR 319 (the department office). Students in CHEM 111 can also ask their TAs for assistance in understanding the lecture material.
Supplemental Instruction (SI) is available for all students in the class. From past experience, students who attend the SI session can usually improve their grades by one letter.

NIU abides by Section 504 of the Rehabilitation Act of 1973 which mandates reasonable accommodations be provided for qualified students with disabilities. If you have a disability and may require some type of instructional and/or examination accommodation, please contact me early in the semester so that I can provide or facilitate in providing accommodations you may need. If you have not already done so, you will need to register with the Disability Resource Center (DRC; formerly Center for Access-Ability Resources), the designated office on campus to provide services and administer exams with accommodations for students with disabilities. The DRC office is located

on the 4th floor of the University Health Services building (815-753-1303).

NIU promotes academic integrity (http://www.niu.edu/stat/courses/pdfs/Policy-Academic-Integrity-Attendance-Accommodations-for-Students-with-Disabilities-Fall2012.pdf). "Good academic work must be based on honesty. The attempt of any student to present as his or her own work that which he or she has not produced is regarded by the faculty and administration as a serious offense. Students are considered to have cheated if they copy the work of another during an examination or turn in a paper or an assignment written, in whole or in part, by someone else. Students are responsible for plagiarism, intentional or not, if they copy material from books, magazines, or other sources without identifying and acknowledging those sources or if they paraphrase ideas from such sources without acknowledging them. Students responsible for, or assisting others in, either cheating or plagiarism on an assignment, quiz, or examination may receive a grade of F for the course involved and may be suspended or dismissed from the university."

General Education Course Objectives

- Improve ability to think critically and logically;
- Improve ability to reason quantitatively and to perform basic chemical computations;
- 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; and
- Develop an understanding of the historical development of the field of chemistry.

Content Objectives of This Course

- Understand the concepts of matter and energy and become acquainted with metric and SI units of measurement;
- Understand the electronic arrangement in atoms and the periodic properties of elements;
- Learn how to write chemical formulas, name compounds, and to perform simple chemical calculations;
- Familiarity with the behavior of gases, liquids, and solids;
- Become knowledgeable about the properties of aqueous solutions;
- Learn how to work safely in the chemistry laboratory (Chem 111 students only); and
- Learn how to manipulate scientific equipment and carry out simple laboratory experiments (Chem 111 students only).