

CHEMISTRY 110 (Fall 2013)

Time & Place: Tu, Th 2:00 P.M.- 3:15 P.M., Faraday Hall 143.

Textbook: Denniston, Topping and Caret, *General, Organic and Biochemistry*, McGraw-Hill, 8th Ed., 2013.

Instructor: Prof. James Horn, Office: La Tourette Hall 432, Phone: 753-8654, e-mail: jrhorn@niu.edu

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Office hours: Mon: 11AM-noon, Wed: 11AM-noon or by appointment.

TENTATIVE LECTURE SCHEDULE

<u>WEEK</u>	<u>CHAPTER/TOPIC</u>	<u>EXAMS</u>
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 (No class)*	
15. Dec. 3/5	Chapter 9 (Section 9.1-9.7)	Exam 4 (Dec. 5): Ch. 7,8,9
FINAL EXAM (Comprehensive Ch. 1-9, 100 pts): Tues, 2-3:50PM FR143		

Grading:

(The highest 4 grades from Exam #1, #2, #3, #4, and online HW) + (Comprehensive final) = **500 total points**

Example

Exam#1: 70 pts

Exam #2: 90 pts + HW:100 pts + Final Exam: 85 pts = 430 points (87%)

Exam #3:40 pts (*dropped exam*)

Exam #4: 90 pts

- There will be four 100 point exams based on chapter materials, 100 points of homework, and a 100 point comprehensive final exam. **All exams are mandatory unless prior arrangements have been made with the instructor. No make up exams will be given** as the lowest chapter exam or homework (see below) will be dropped. The final exam will NOT be dropped. All exams will be multiple choices and graded by scantron. Original scantron sheets will not be returned to you.
- The grades will be determined according to the percentage of points out the total possible 500 points:
>93=A, 90-92=A-, 87-89=B+, 83-86=B, 80-82=B-, 77-79=C+, 70-76=C, 60-69=D, <59= F.

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

Academic Integrity:

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.

Web Homework:

On-line homework assignments will only be available to students who have purchased a "Connect Access Code," either as part of a new textbook or purchased separately. The on-line homework is available from the text book publisher, through NIU's Blackboard website <http://webcourses.niu.edu/>. To register: 1. Sign into Blackboard. 2. Go to Chemistry 110. 3. Go to the "Tools" menu. 4. Click on the "McGraw-Hill Higher Education" link. 5. Below "My Connect Section", click Go to My Connect Section. 6. Follow the on-screen instructions to register using the access code found in your new textbook (or the access code purchased separately). The total homework points for the semester will be normalized to 100, equivalent to that of an exam. Although the homework is not mandatory, it is **strongly** recommended. You will be able to use the HW points (maximum 100) to substitute your lowest chapter 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. You will not only earn points to replace your lowest exam score, but will find the HW helpful in studying the relevant material, which can help improve exam scores. Thus, the on-line homework of each chapter will only be available while the relevant chapter is being taught. Under no circumstances a makeup of the on-line homework will be given, nor will an extension of the time period be made.

Calculators:

A calculator with scientific notation and logarithms should be brought to all exams.

Helpful resources:

The Department of Chemistry and Biochemistry maintains a free Tutor Room for General Chemistry students. The Tutor Room is in **Faraday 247** and the schedule will be posted online (http://www.chembio.niu.edu/chembio/aboutus/help_room.shtml) and outside the help room door. 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 (Dept. office).

The Supplemental Instruction (SI) program is available for those students who are interested. From our past experience, students who attend the SI session can usually improve their grades by one letter.

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. Prentice Hall and Burns also publish a Math Toolkit tied directly into the text. You can find this by searching at www.prenhall.com. There is also a "Student Study Guide" accompanying the textbook available, and many students will find it useful.

Accessibility Statement

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 will be 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.

I look forward to talking with you to learn how I may be helpful in enhancing your academic success in this course.

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).