

FALL 2009 - CHEMISTRY 100 (Chemistry in Everyday Life)

Co-requisite: None; Section: 0001

Instructors – Prof. Narayan S. Hosmane, FR 305, 753-3556 hosmane@niu.edu (short e-mail questions)
Dr. Kyoung-Ho (Kevin) Park, FR 327, 757-1419 picoho@hanmail.net (Review Sessions)

Course Webpage: <http://webcourses.niu.edu/> **Instructor Webpage:** <http://www.niu.edu/hosmane/>

Lectures – 6:00 – 6:50 PM; Mon, Wed and Fri, **Room Faraday West 201**

Office Hours – Mon, Wed and Fri, 5:00 - 6:00 PM, or by appointment

Materials: “*Chemistry in Context*” by Eubanks, Middlecamp, Heltzel & Keller, 6th Ed. (McGraw-Hill:2009).

Paid Tutors - Names of tutors for hire: see Linda Davis in FR 319 (Chemistry Office).

Exams and Grading

Exams - Tentative dates for TWO 100 point hourly exams are indicated in the lecture schedule (see next page). Make-up exams will **NOT** be given **under any circumstances even with the documented proof of medical emergency**. Therefore, only best **TWO of THREE EXAMS** will be counted toward your FINAL GRADING. Missed exam (including Final) will be considered as dropped.

Surprise Quizzes (Pop Quizzes) – There will be many surprise quizzes (believe me you will be surprised!) of TOTAL 200 points (worth a grade of TWO exams). will be given during the lecture period. However, the best TEN quiz grades will be considered for final grading. There will be **ABSOLUTELY no** make-up quizzes.

Final Exam - The 200 point MANDATORY final exam will be comprehensive and will be given on Monday, December 7, 2009 from 6:00 – 7:50 PM in Faraday West 201

Total points = 600 points (best **two** hourly exams = 200; best **10** surprise quizzes = 200; 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.

TENTATIVE LECTURE SCHEDULE

<u>WEEK</u>	<u>CHAPTER/TOPIC</u>	<u>Exam Schedule*</u>
01. August 24	Ch. 0: Why the Spiderweb?; Ch 01: The Air We Breathe	
02. August 31	Ch. 01: Continued; Ch. 02: Protecting the Ozone Layer	
03. September 07	Monday: Labor Day	No Class
03. September 09	Ch. 02: Continued	
04. September 14	Ch. 03: The Chemistry of Global Warming	
05. September 21	Ch. 03: Continued.	Exam 1 (09/21)

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06. September 28	Ch. 04: Energy, Chemistry, and Society	
07. October 05	Ch. 05: The Water We Drink	
08. October 12	Ch. 06: Neutralizing the Threat of Acid Rain	
09. October 19	Ch. 07: The Fires of Nuclear Fission	Exam 2 (10/23)
10. October 26	Ch. 08: Energy from Electron Transfer	
11. November 02	Ch. 09: The World of Polymers and Plastics	
12. November 09	Ch. 10: Manipulating Molecules and Designing Drugs	
13. November 16	Ch. 11: Nutrition: Food for Thought	
14. November 23	No Lecture (Exam 3 Only)	Exam 3 (11/23)
15. November 25	THANKSGIVING HOLIDAY BEGINS	No Classes
16. November 30	Ch. 12: Genetic Engineering and the Molecules of Life	
17. December 7	FINAL EXAM (MONDAY), Faraday West 201	6 – 7:50 PM

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

HOMEWORK ASSIGNMENTS:

There is no specific homework assigned for this class. However, it is your responsibility to do as much end-of-chapter problems as possible in order to perform well in the surprise quizzes and exams. You can check your answers in the solution manual and the instructors will not evaluate and grade your homework problems.

CHEMISTRY 100 - 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

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

FINAL EXAM (MONDAY, DECEMBER 7, 2009) in Faraday West 201 from 6 – 7:50 PM