

CHEMISTRY 100 (Summer 2013) – 3 cr. hrs.
Chemistry in Everyday Life

Time & Place: Online only, 6/17 to 8/2.
Textbook: Chemistry in Context, 7th Edition, 2012, Middlecamp et al., McGraw-Hill, Connect Code req-d.
Instructor: Dr. Victor Ryzhov, Office: Faraday West (now LaTourette Hall) 425, Phone: 753-6955 (office) 815-501-5537 (cell), e-mail: ryzhov@niu.edu
Office hours: Th 9:30 A.M. - 11:00 A.M., or by appointment, e-mail any time.
Course website: <http://webcourses.niu.edu> (Blackboard)

Course structure and grading:

There will be three exams worth 100 points each. There will be twelve (one per chapter) on-line quizzes worth total of 60 pts and homeworks worth total of 120 pts. They will be administered via Connect (linked through Blackboard). There will be up to 120 pts assigned for the on-line discussion board (initiating discussion topics and posting comments/replies to the existing threads) and web-related assignments. The overall course grading will be as follows:

Out of 600 pts: > 90% = A; 81-90% = B; 71-80% = C; 61-70% = D; < 60% = F

Topic begins	Tentative Topics	Discussion forum	Quiz, HW and Forum Due	Reading
6/17	Introduction	Everyone	6/24	Chapter 0
6/24	The Air We Breathe	A-K	6/28	Chapter 1
6/24	Protecting the Ozone Layer	L-Z	6/28	Chapter 2
7/1	The Chemistry of Global Warming	A-K	7/5	Chapter 3
7/1	Energy, Chemistry, and Society	L-Z	7/5	Chapter 4
7/5	EXAM 1 (Ch. 1-4, 100 pts)		7/5	Ch. 1-4
7/8	The Water We Drink	A-K	7/12	Chapter 5
7/8	Neutralizing the Threat of Acid Rain	L-Z	7/12	Chapter 6
7/15	The Fires of Nuclear Fission	A-K	7/19	Chapter 7
7/15	Energy from Electron Transfer	L-Z	7/19	Chapter 8
7/19	EXAM 2 (Ch. 5-8, 100 pts)		7/19	Ch. 5-8
7/22	The World of Plastics and Polymers	A-K	7/26	Chapter 9
7/22	Manipulating Molecules and Designing Drugs	L-Z	7/26	Chapter 10
7/29	Nutrition: Food for Thought	A-K	8/2	Chapter 11
7/29	Genetic Engineering and the Molecules of Life	L-Z	8/2	Chapter 12
8/3	EXAM 3 (Ch. 9-12, 100 pts)		8/2	Ch. 9-12

Exams:

There are three online exams scheduled for 7/5, 7/19, and 8/2. You can take them via Blackboard at any time from 8 a.m. to 9 p.m. CST, and you will have 50 min per test, one continuous attempt. You will need a good, uninterrupted internet connection for that time. If you are unable to take the test on that day, make arrangements with me **PRIOR** to the exam so I can release it to you at a different time. No make-up exams will be given after the test date. All exams will be multiple-choice (right or wrong, no partial credit) and graded by Blackboard.

Online quizzes:

There is one quiz per each chapter, administered via Connect (connects through Assignments in Blackboard). Each quiz (worth 5 pts) has 10 multiple-choice questions similar to those you will have on the exams. You have two attempts at the quiz, the second attempt will lower your score by 20%. You may take quizzes earlier but **NOT LATER** than the deadline indicated above. The late penalty is 20% for each day. The total for all 12 quizzes is 60 pts max.

Online homeworks:

There is one HW per each chapter, administered via Blackboard/Connect. Each HW consists of 10 conceptual, multi-step, or algorithmic questions with hints and feedback. The total for each HW is 10 pts max, with 120 pts available for all course. Each HW can be attempted three times with no penalty. The deadline is the date indicated in the Table above at 11.00 p.m. CST. The late penalty is 20% for each day.

Discussion Forum:

Twenty percent of your grade (up to 120 pts total) will be based upon your postings to the discussion forum. For six out of twelve chapters you will be expected to do assignments in the discussion forum. If your last

name starts with A-K, you will be participating in the forums for odd-numbered chapters (1, 3, 5, etc.). If your last name starts with L-Z, you will be participating in the forums for even-numbered chapters (2, 4, 6, etc.). In some assignments you will be asked to initiate a post and then respond to at least two of your classmates' posts. First, make your post to the appropriate chapter (half of the credit for each chapter). Your post (at least ten sentences long) will serve as evidence that you have read the book, studied the web resources, and worked on it. After that, examine other students' submissions and respond (via reply, at least five sentences long) to two or more of them (the other half of the credit for each chapter). Please, consult Blackboard for that chapter's specific instructions. Some of the assignments will ask you to do a chapter-related internet search, and you will report your answers in the discussion forum as well.

I will be monitoring the discussions, reading all the submissions and responses, evaluating them, informing you from time to time of those evaluations, and occasionally making helpful suggestions for improving submissions and, if necessary, correcting errors. More detailed instructions will be posted on the Blackboard. The discussion forum is graded on participation (not on content), but posts/replies that fail to meet the course standards (length, appropriateness of topic, respect for other classmates' viewpoints) may receive zero points.

Textbook and Connect Code:

Textbook is required for successful completion of the class. You may attempt to go through the class without it (lecture powerpoints provide about 80% of information) but it is not recommended. Sharing a textbook between two or more people is possible. The text is Chemistry in Context, 7th Edition, 2012, Middlecamp et al., McGraw-Hill, ISBN 978-0-07-337566-3. You can purchase it or rent it together with the Connect Code from NIU bookstore. Alternatively, you can buy an e-book and Connect Code (the bundle is called Connect Plus) from the publisher directly, ISBN 978-0-07-7334437. Or you can purchase the Connect Code from the publisher (when you access Blackboard HW or quiz) and the book elsewhere, e.g.: http://www.amazon.com/Chemistry-Context-American-Chemical-Society/dp/0073375667/ref=sr_1_1?s=books&ie=UTF8&qid=1338838783&sr=1-1

Office Hours:

For this online class, I will be checking my e-mails regularly (several times a day) and responding promptly. If you need to see me in person, I will be available Thurs. 9:30 A.M. - 11:00 A.M. During these times you can find me in my office (FW 425). You are welcome to come by for help during office hours without an appointment. If you are unable to come during these times, you can make an appointment with me for another time that is convenient for both of us. You can also leave a text message and a call-back number on my cell phone and I will call you back.

Other resources:

The course website (<http://webcourses.niu.edu>) will feature important announcements, suggested discussion topics, practice exams, current exams and keys, and lecture powerpoint slides (from the regular face-to-face course) for downloading. Check the site periodically. You will need your student Z-ID to log in.

For further help, names of personal tutors are available from Linda Davis in FR 319 (the department office).

Your success as a student is of utmost importance to me. If you have a disability or any other special circumstance that may have some impact on your work in this class, and for which you may require exam and/or other types of accommodations, please contact me as soon as possible so that appropriate accommodations can be made. Please feel free to contact me by phone or to schedule an appointment.

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.

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;
- Develop an understanding of the historical development of the field of chemistry.

Content Objectives of This Course

- Distinguish between chemical, physical, and nuclear processes and properties of matter;
- Understand the acid/base properties of chemical compounds and the role of acids/bases in industrial, environmental, and health/nutritional applications;
- Identify the advantages and disadvantages of alternative energy sources vs. fossil fuels;
- Understand the role of chemistry in health care, pharmaceuticals, and nutrition;
- Become knowledgeable about the application of modern materials.