

Chemistry 100

Spring 2016
Chemistry in Everyday Life

Instructor: John G. Kodet

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Office Hours: TR 11:00 am - 12:00 pm, and by appointment

Lecture: TR 9:30-10:45 am; Faraday Hall 144

Required Text

- 1) Chemistry in Context, 8th Edition, 2015, Middlecamp, C. H. et al. , McGraw-Hill, with Connect Code

On-Line Course Information: Blackboard (<https://webcourses.niu.edu>)

It is important to sign up with Connect for Learnsmart and quizzes. It will be difficult to pass the class without work submitted in these sections it is slightly more than ¼ of the class points.

Class Format:

The course will be comprised of lectures, in class exams, in class quizzes and online learning tools and assessments. It is important that you attend class as **quizzes will be given out unannounced**. If you miss a class, it is your responsibility to obtain lecture notes. You should check blackboard each day for postings for new assignments.

Exams and Grades:

The course grade will be assigned based on your point totals for the exams, Learnsmart and online quizzes administered through Connect and in-class quizzes. If you are unable to make it to class on that day of an exam, make arrangements with me **PRIOR** to the exam. No make-up exams will be given if contact is made after the test is administered and only valid excuses will be granted a make-up. All exams will be multiple-choice and graded by scantron and are closed notes and book. The online material will be administered through Connect that can be accessed through NIU Blackboard. Textbooks, notes, electronic devices (including cell phones and laptop computers) are not permitted in the classroom during the exam, non-programmable calculators are allowed. Tests may be curved. There will be 4 tests and a final test. The fourth test will be given the same day as the final as the first of a two part test. The lowest score of 4 tests, not including the second part of the final will be dropped.

Point Total

Exams (100 points each) (4 exams with one drop)	300 points
LearnSmart (110 points total)	110 points
Quizzes (in class)	40 points
Quizzes (online)	50 points
Final (100 points)	<u>100 points</u>
Total	600 points

Extra Credit

There will be extra credit points available for the class in the exams, online homework, online quizzes and in the in class quizzes.

Approximate Grading Scale:

A (100-92%)	A- (91-90%)	B+ (89-88%)
B (86-82%)	B- (81-80%)	C+ (79-78%)
C (77-70%)	D (69-60%)	F (59-0 %)

This scale may be revised downward (not upward), but this is not guaranteed if overall class performance does not warrant it. **A student will likely not pass the course (a grade of D) with an average of less than 50% even with the curve.**

Optional Review Sessions

I will hold an optional study session to review the material and work through practice problems before each of the exams if review time is not provided during the normal class period. The time and location will be announced in class and on Blackboard.

Requests for Regrades

Submissions for regrade will be accepted for one week after the day the exams are distributed in class. The entire test will be regraded. The regraded exams will be returned after the end of the next class period. If the exam is altered in any way, the request for regrade will be denied.

Important Dates:

Consult your academic adviser and the NUI website.

Sunday January 24	Last day to drop course via self-service in MyNIU
Friday, January 29	Last day to drop/add course with approval of major college
Friday, February 5	Last day to change course from credit to audit or audit to credit
Friday, March 11	Last day to withdraw from course

Tentative Schedule

Topic begins	Tentative Topics	Reading
1/19	Chemistry for a Sustainable Future	Chapter 0
1/21	The Air We Breathe	Chapter 1
1/26	Protecting the Ozone Layer	Chapter 2
2/2	The Chemistry of Global Climate Change	Chapter 3
2/9	Review (Tuesday)	Ch. 1-3
2/11	EXAM 1 (Thursday) (Ch. 1-3, 100 pts)	Ch. 1-3
2/16	Energy from Combustion	Chapter 4
2/23	Water for Life	Chapter 5
3/1	Neutralizing the Threat of Acid Rain	Chapter 6
3/8	Review (Tuesday)	Ch. 4-6
3/10	EXAM 2 (Thursday) (Ch. 4-6, 100 pts)	Ch. 4-6
3/22	The Fires of Nuclear Fission	Chapter 7
3/29	Energy from Electron Transfer	Chapter 8
4/5	The World of Plastics and Polymers	Chapter 9
4/12	Review (Tuesday)	Ch. 7-9
4/14	EXAM 3 (Thursday) (Ch. 7-9, 100 pts)	Ch. 7-9
4/19	Manipulating Molecules and Designing Drugs	Chapter 10
4/26	Nutrition: Food for Thought	Chapter 11
4/28	Genetic Engineering and the Molecules of Life	Chapter 12
5/5	Review (Thursday)	Ch. 10-12
5/12 (Thurs)	Exam 4 (Ch. 10-12) FINAL EXAM (100 pts, cumulative)	Ch. 10-12, Review

Study Groups:

It is encouraged to study in groups. This will make the chemistry experience more enjoyable and you will learn the content better. Explaining to someone else the material will be a great benefit in your own learning as it will be provide different insights on how to tackle the material.

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.

Student Code of Conduct: <http://www.niu.edu/communitystandards/pdf/SCC.PDF>

Academic Dishonesty (cheating)

Academic dishonesty includes looking at another student's exam during a testing session, allowing another student to copy your work, use of unauthorized materials such as notes, crib sheets, textbooks, prohibited electronic devices such as smart phones, cell phones, I-pads or programmable calculators that contain stored equations, formulas or text during an exam. Violation of any of these will result in assignment of a score of zero for the exam, quiz or assignment in question. **Academic dishonesty in any form will not be tolerated and may result in failure of the entire course.**

Notification of Services for Students with Documented Disabilities

NIU abides by Section 504 of the Rehabilitation Act of 1973 which mandates reasonable accommodation by provide for qualified students with disabilities. If you have a disability and may require some type of instructional and/or examinations accommodation, you will need to register with the Center for Access-Ability Resources (CAAR), the designated office on campus to provide services and administer exams with accommodations for students with disabilities. The CAAR office is located on the 4th floor of the University Health Services building (815-753-1303). Accommodations are not retroactive. Please contact me early in the semester so that I can provide or facilitate in providing accommodations you may need. You must for each exam have a form filled out about 10 business days in advance to be sure to have a CAAR test time appointment.