

CHENERAL CHEMISTRY II -- CHEM 211T Fall 2006
Sections A1, A2, A3, A4
TENTATIVE LECTURE SCHEDULE

INSTRUCTOR: Dr. Petr Vanýsek; Office, Faraday West 418 (Check FW416 as well.)

Meeting place for the lecture: Faraday West 200 at 8:00-8:50 Mo, We, Fri

Additional recitations are on Mondays in Faraday 238 and are divided by a section:

R001 10:00 – 10:50

R002 11:00 – 11:50

R003 13:00 – 13:50

R004 14:00 – 14:50

(All the recitations are lead by teaching assistant Ms. Megan Murtaugh.)

OFFICE HOURS: 9:00 – 9:50 Monday, Wednesday, Friday. Other times by appointment only. I will help you with your problems, but when you come to see me, have your questions and problems already at least partially prepared. Bring your class notes along; I will want to see what you write down. Do not expect the instructor to give you your own private make-up class. When coming to the office hours, be prepared to share the office or the time with other students.

TEXTBOOK: M. S. Silberberg, Principles of Chemistry, McGraw Hill, Boston 2007), ISBN-0-07-326291-0. Chapters 12-21 [CHEM210 covered the first eleven chapters from the book.]. Please note that this is the last semester when the Department will be using this particular edition (2007). CHEM210 is now using 2009 edition.

About the Author: Martin S. Silberberg received his B.S. in chemistry from the City University of New York in 1966 and his Ph.D. in chemistry from the University of Oklahoma, in 1971. He then accepted a research position at the Albert Einstein College of Medicine, where he studied the chemical nature of neurotransmission and Parkinson's disease. In 1977, Dr. Silberberg joined the faculty of Simon's Rock College of Bard (Massachusetts), a liberal arts college known for its excellence in teaching small classes of highly motivated students. As Head of the Natural Sciences Major and Director of Premedical Studies, he taught courses in general chemistry, organic chemistry, biochemistry, and nonmajors chemistry. The close student contact afforded him insights into how students learn chemistry, where they have difficulties, and what strategies can help them succeed. In 1983, Dr. Silberberg decided to apply these insights in a broader context and established a text writing and editing company. Before writing his own text, he worked on chemistry, biochemistry, and physics texts for several major college publishers. He resides with his wife and child in Massachusetts. For relaxation, he cooks, sings, and walks in the woods.

| DATE dd.mm.yy | TOPIC | CHAPTER |
|------------------|--------------------------------------|---------|
| 24.08.09 | Liquid, solids and phase changes | 12 |
| 26.08.09 | Intermolecular forces | 12 |
| 28.08.09 | Liquid state and properties of water | 12 |
| 31.08.09 | The solid state | 12 |
| 02.09.09 | Solutions, solubility | 13 |
| 04.09.09 | Concentrations | 13 |
| 07.09.09 | No class – Labor Day | |
| 09.09.09 | Colligative properties | 13 |
| 11.09.09 | Main group of elements | 14 |

| | | |
|----------|---|--------|
| 14.09.09 | Main group of elements | 14 |
| 16.09.09 | Main group of elements | 14 |
| 18.09.09 | Test I | 12-14 |
| 21.09.09 | Main group of elements | 14 |
| 23.09.09 | Organic Compounds | 15 |
| 25.09.09 | Organic Compounds, Properties of Carbon | 15 |
| 28.09.09 | Organic Compounds, Properties of Carbon | 15 |
| 30.09.09 | Organic Compounds, Properties of Carbon | 15 |
| 02.10.09 | Organic Compounds, Properties of Carbon | 15 |
| 05.10.09 | Kinetics | 16 |
| 07.10.09 | Kinetics | 16 |
| 09.10.09 | Kinetics | 16 |
| 12.10.09 | No class, only recitations | |
| 14.10.09 | Kinetics | 16 |
| 16.10.09 | Test II, Last day to withdraw | 15-16 |
| 19.10.09 | Equilibria | 17 |
| 21.10.09 | Equilibria | 17 |
| 23.10.09 | Equilibria in water | 17, 18 |
| 26.10.09 | Acid-base Equilibria | 18 |
| 28.10.09 | Acid-base Equilibria | 18 |
| 30.10.09 | Aqueous Ionic Equilibria | 19 |
| 02.11.09 | Aqueous Ionic Equilibria | 19 |
| 04.11.09 | Test III | 17-19 |
| 06.11.09 | Thermodynamics | 20 |
| 09.11.09 | Thermodynamics | 20 |
| 11.11.09 | Thermodynamics | 20 |
| 13.11.09 | Thermodynamics | 20 |
| 16.11.09 | Thermodynamics | 20 |
| 18.11.09 | Electrochemistry | 21 |
| 20.11.09 | Test IV | 20 |
| 23.11.09 | Electrochemistry | 21 |
| 25.11.09 | No class THANKSGIVING BREAK | |
| 27.11.09 | No class THANKSGIVING BREAK | |
| 30.12.09 | Electrochemistry | 21 |
| 02.12.09 | Electrochemistry | 21 |
| 04.12.09 | Course review | 12-20 |

(Most will be taking concurrently CHEM 213, the laboratory to accompany CHEM 211. This is a course separate from CHEM 211. The laboratory (213) and the class (211) grading are independent of each other. The instructor who is responsible for CHEM 213 is Dr. D. Ballantine, Jr., Faraday West 424. See him for any question regarding the laboratory course.)

SEATING CHART: Sit for the lectures anywhere where you find it comfortable and convenient. For the tests there will be a seating chart, with a seat number assigned to each student.

CALCULATOR: Although there is no particular calculator specified for this course, you will want to have one for the tests as well as for the lectures. You should bring one that is reliable and you know how to use it. You cannot use a calculator/computer that is capable of storing large amount of data, or a device that can retrieve data from elsewhere. Therefore, you cannot use PDA's or telephones as calculators. Calculators are often left behind – write your name on them.

COURSE PREREQUISITE: The catalog requires CHEM210. This does not just mean that you have taken it; it also means that you still know the material from the course. Most chapters require numerical calculations. You have to be comfortable with performing equation manipulations and doing some math in your head.

Schedule of tests:

| | |
|------------------|---|
| 18 September | Test I |
| 16 October | Test II |
| 4 November | Test III |
| 20 November | Test IV |
| 7 December (Mon) | Final 8:00 – 9:50 (all in Faraday West 200) |

GRADING: There are four tests given during the semester, each worth 100 points. One test with the lowest score will be dropped. Note that the rule of dropping the lowest score is your insurance against missing a test. Missed test = 0 = lowest score is dropped. There will be no make-up for tests for any reason. Use a pen when writing your test.

Tests: **50%** (300 points, i.e., 3 tests are counted)

Comprehensive final test **33%** (200 points)

NOTE: TAKING THE FINAL TEST IS REQUIRED and the score of the final cannot be dropped.

Recitation **17%** (100 points) [The teaching assistant in charge of the recitations and she will set the rules for grading.]

[TOTAL 100% = 600 points]

Your class percentage will be calculated as the sum of all the points earned (with the lowest test score dropped), divided by 6. The grades will be as follows (verbal meaning

as per the NIU catalog):

- A Outstanding competence 85% and more
- B Above satisfactory competence 70% to 84.99%
- C Satisfactory level of competence 55% to 69.99%
- D Marginally satisfactory competence 40% to 54.99%
- F Unsatisfactory level of competence < 40%

ACADEMIC DISHONESTY: In general, cheating means presenting or using work that was not done entirely by you and, in the case of in-class examination, it includes also presenting or using your work that was written outside the classroom. You may not talk or pass notes to each other on any subject. Having other materials than those allowed for the work within your reach during test or sharing calculators is cheating as well. During tests you must put away any devices that would allow you to communicate with others or access databases. Violation of these rules will result in zero on your work.

Other issues:

- No smoking in the building, no food or drink in the class.
- TAPING/RECORDING OF THE LECTURE: You are encouraged to take good notes, reflecting your interpretation and understanding of the lecture. However, you are not permitted to make verbatim recording or transcription of the lecture.
- ATTENDANCE: Attendance at the lectures is not monitored but it is in your best interest to be there. Consider the following: (1) The tests are based on the textbook material covered in the class as well as the class material, which is not in the textbook, (2) Office hour cannot be used to catch up on material missed by a class absence. (3) Some questions on the tests are based on information given in the class but not available in the book. LATE ARRIVAL TO CLASS is discouraged. It disrupts the other students and the instructor, and if repeated, it may be basis for barring from the class. If you absolutely must arrive late, enter quietly from the back and sit in the back. Only the persons enrolled in that can attend the lecture.
- CELL PHONES AND THE LIKE: Cell phones are great technology and it is great to have one with you for emergency. (Campus police: 815-753-1212). However, please, turn off your phones and other noise-making devices as a courtesy to others, and do not distract yourself by reading and sending text messages.

Chemistry tutor schedule:

There are likely tutors available in Faraday Hall - Room 246. The schedule was not available at the time of this printing. Watch bulletin boards at the Chemistry hallways. The typical times are 8:30-15:30, with a break from 11:15-11:45.

Additional syllabus material and class updated information can be found on the web:
<http://www.vanysek.com/electrochem/teaching.htm>

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