

CHEM 110 Spring 2005  
Section 3  
TENTATIVE LECTURE SCHEDULE

Meeting place: Faraday 143

14:00-15:15 Tu, Th

INSTRUCTOR: Dr. Petr Vanýsek; Office, Faraday West 418

TEXTBOOK: General, Organic and Biochemistry (sorry about the poor grammar of the title) Structures of Life. Special Edition for Northern Illinois University. ISBN: 0-536-83168-8 Publisher: Pearson Custom Publishing, Boston 2004. It is also possible to use the full version, from which this course uses the first half.

DATE	TOPIC	CHAPTER
18.01.05	Introduction to the course. Measurements	1
20.01.05	Measurements - Numerical side of chemistry	1
25.01.05	Atoms and elements	2
27.01.05	Atoms and elements	2
1.02.05	Test I	
3.02.05	Atoms - Electron structure	2
8.02.05	Nuclear Reactions	3
10.02.05	Nuclear Reactions	3
15.02.05	Compounds and their bonds	4
17.02.05	Test II	
22.02.05	Compounds and their bonds	4
24.02.05	Compounds and their bonds	4
1.03.05	Energy and states of matter	5
3.03.05	Energy and states of matter	5
8.03.05	Test III	
10.03.05	Chemical reactions (11 March 2005 - last day to withdraw)	6
	Spring break	
22.03.05	Chemical reactions	6
24.03.05	Chemical quantities	7
29.03.05	Chemical quantities	7
31.03.05	Chemical quantities	7
5.04.05	Test IV	
7.04.05	Gases	8
12.04.05	Gases	8

14.04.05	Solutions	9
19.04.05	Solutions	9
21.04.05	Solutions	9
26.04.05	Acids and Bases	10
28.04.05	Acids and Bases	10
3.05.05	Acids and Bases	10
5.05.05	Course review	all

(You may be taking concurrently CHEM 111, the laboratory to accompany 110. The instructor responsible for the laboratories is Dr. D. Ballantine, Jr., Faraday West 424. The lab and class grades are independent. Any issues regarding CHEM111 should be addressed to him or the laboratory teaching assistants.)

### Schedule of tests:

1 February Test I  
17 February Test II  
8 March Test III  
((11 March 2005 - last day to withdraw))  
5 April Test IV

Final - Tuesday, May 10, 14:00-15:50

OFFICE HOURS: 15:30-17:30 Tuesday and Thursday. Other times by appointment. I will help you with your problems, but come to see me with questions and problems already at least partially prepared. 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.

*Course withdrawal:* The last day to withdraw is 11 March 2005. There will be three tests given prior to this date so you will know the results before the drop date and you may elect to drop the course.

**CALCULATOR:** There is a required calculator for this course, Texas Instruments TI-30Xa. When we perform calculations in class or during practice, all will be explained using this calculator. Have a calculator and a paper pad for calculations ready for each class period. The lecture will be often interspersed with your active participation. For tests and quizzes it is assumed that everybody has the specified calculator, a pencil, a student ID, and adequate knowledge to answer correctly the questions.

The course relies on active knowledge of mathematical calculations and the ability to setup algebraic equations. Helpful for those insecure in mathematics are the following books: Miller, Lial, Schneider; Fundamentals of college algebra (MATH 110 book, or similar); Dorothy M. Goldish: Beginning mathematics for beginning chemistry, 4th Ed., Macmillan, New York, 1990. Walter J. Gleason: Is your math ready for chemistry?, W. C. Brown Publishers, Dubuque 1993.

**EXAMS AND GRADING:** Four (4) 75-minute tests worth each 100 points. The test with the lowest score will be dropped. Therefore the total possible score from tests is 300 points.

Note that dropping one test takes care of one absence. There will be no other forms of make-ups for tests for any reason.

Comprehensive final test 40% (200 points)

[TOTAL 100% = 500 points]

Date of the final:

Tuesday, May 10, 14:00-15:50

Your class percentage will be calculated as the sum of all the points earned (with the lowest test replacement rule), divided by 5. 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%

The tests will typically consist of the following groups of questions: 1/5 - straight (one equation) calculation, 1/5 - more involved mathematical concept, 2/5 - factual knowledge, based on the lecture and detailed in the textbook, 1/5 - factual knowledge based on information in the lecture.

**Using the Scantron forms:** Fill in the ovals using a pencil, either No. 2 or the equivalent HB hardness. Be sure that you fill in your last name (and fill in the corresponding ovals) and include your initials. If you have just one initial, leave the second field blank. If you change your name during the semester it may be more practical to keep using the old name/initials.

The block for the ID NUMBER has 9 spaces and it was originally intended for the social security number. The university may no longer use the social security number for identification. Instead you will use the "Z" number, issued to you as a computer logon and a general (e.g., library) identification number. It starts with the letter Z and is followed by 6 numbers, e.g., Z032673. Omit in the SCANTRON the letter Z and write the six numbers as your student ID starting at the leftmost column. It will leave three empty spaces at the end. Note that many of the numbers begin with "0" That is a valid number and you must include it. It is important to use the number as the computer grading system tracks you by the number first and by the name only second. In rare situations there is more than one person in the class with the same last name and identical initials. The number, though, is unique. To obtain the "Z" number you can call 752-7738. If there is a "form" for the test/quiz (A, B, C, D, E) indicated on the top of your problem sheet, it means that different forms are used in the class. Fill it on the Scantron form. Solve and answer the problems in correspondingly numbered lines.

Sign the form: On the back of the form is a place for you to sign your name. Please, sign after finishing the test, not before. By signing, you are affirming that you have neither received nor given an unauthorized assistance in completion of this

work and that you are the person whose ID is shown on the front page. For tests there will be a seating chart, with a seat number assigned to each student.

**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 with you within 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. You are allowed to use only the specified calculator. Any other type has to be put away. Any such use during graded in-class work 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) One fifth of the questions on test is based on information given in the class but not in the book. LATE ARRIVAL TO CLASS is discouraged. It disrupts the other students and the instructor and if repeated, 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 class and section 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 tutors available every day in Faraday Hall - Room 246. The schedule was not available at the time of this printing. Watch bulletin boards or the updated syllabus on the web:

[http://www.chembio.niu.edu/electrochem/chem\\_110\\_s05.htm](http://www.chembio.niu.edu/electrochem/chem_110_s05.htm)