

Chem 128
Chemistry of Life
Monday, Wednesday 3:55 – 5:15 PM
Loree 022
Revised 01/03/08

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Office hours: TBD in Loree Building, DC (Learning Center, Room 124); Special office hours on Wright Labs BC (by appointment) will also be available.

Textbook: *General, Organic, and Biochemistry*, 5th Edition, by Denniston, Topping, and Caret

Recommended: The corresponding Student Study Guide/Solution Manual

Grading:

The course grade (A, B+, B, C+, C, D, or F) will be based on the total number of points that a student accumulates. The maximum score is expected to be **500 points** distributed as follows:

Three Quizzes: **A total of 100 points (33.3 points each)**

Exam I: **100 points**

Exam II: **100 points**

Final Exam: **200 points.**

The conversion between point total and letter grade is not yet established.

Chapter coverage and assigned problems: Shown on pages 3 and 4. Answers (odd number questions) are available in your Solution Manual. Selected even-number questions will be posted on the website of this course. Quizzes and exams will contain questions very similar to the assigned and in-chapter problems.

Attendance: Lecture attendance will not be monitored but students are responsible for lecture material and announcements and for in-class unannounced quizzes. There will be no makeups for quizzes or hourly exams. Grades for any missed exams will be 0, or else prorated for documented and acceptable absences. Direct conflicts with university functions or religious holidays must be brought to my attention two weeks before the exam. Other absences must be documented as soon as circumstances allow.

Academic integrity: All university policies on academic integrity will be strictly enforced. See attached document on the web site of this course. During the exams and quiz periods, calculators must be cleared of all chemistry information relevant to the course. Any involvement with cheating or facilitating academic dishonesty of others will result in serious consequences ranging from reprimand to expulsion. Furthermore, the instructional staff has the right to re-test any student whose performance on a particular quiz or exam seems inconsistent with the student's

other work. The Rutgers New Brunswick Undergraduate Catalog contains the “Policy on Academic Integrity Summary”, and a copy of this will be posted on the web site.

Course Web Site: Some announcements and other material (for example, exam locations, changes in the syllabus, and changes in quiz and exam topics) will be posted on the course web site. You can go to the Chemistry Department home page <http://rutchem.rutgers.edu> and click on “Course Pages” and then on “Chemistry 128”. When you click on “Chemistry 128”, the computer will ask for a username and password. This information will be given to you in class. **You are responsible for checking and acting upon all posted announcements.** Be sure to check the web site before quizzes and exams. Username and password will be provided.

Students with Disabilities: If you have a disability, you must contact the course coordinator early in the semester to make the necessary arrangements to support a successful learning experience. Also, you must arrange for the course coordinator to receive a letter from your College’s Disability Concerns Coordinator verifying that you have a disability.

Additional Help: The Rutgers Learning Centers (<http://lrc.rutgers.edu>) and the Math and Science Learning Centers (<http://mslc.rutgers.edu>) offer sources of help, sometimes including formal tutoring.

Lecture	Date	Topic	Problem Assignments
1	01/23/08	1. Chemistry: Methods and Measurements (pp. 1-35)	1.45-1.49, 1.53, 1.57, 1.61, 1.65, 1.67, 1.79, 1.81-1.87, 1.93
2	01/28/08		
3	01/30/08	2. The structure of the Atom and the Periodic Table (pp. 37-75)	2.21-2.25, 2.29, 2.35, 2.43-2.47, 2.61, 2.65, 2.71, 2.75-2.79, 2.83, 2.85, 2.89-2.93, 2.97
4	02/04/08		
****Quiz I in class (02/06/08) on chapters 1 and 2; pp. 1-75			
5	02/06/08	3. Structure and Properties of Ionic and Covalent Compounds (pp. 77-116)	3.29, 3.31, 3.39-3.49, 3.57, 3.59, 3.77, 3.79-3.85, 3.89, 3.95, 3.97
6	02/11/08		
7	02/13/08	4. Calculations and the Chemical Equation (pp. 117-149)	4.29, 4.33, 4.37, 4.39, 4.43-4.47, 4.53, 4.57, 4.59-4.75, 4.79, 4.83, 4.87, 4.91, 4.95, 4.99, 4.103
8	02/18/08		
****Quiz II in class (02/20/08) on chapters 3 and 4; pp. 77-149			
9	02/20/08	5. States of Matter: Gases, Liquids, and Solids (pp. 151-176)	5.17-5.21, 5.27-5.30, 5.35-5.40, 5.45, 5.47, 5.53, 5.61, 5.62, 5.65, 5.69, 5.73, 5.75, 5.81, 5.89-5.92
10	02/25/08		
11	02/27/08	6. Solutions (pp. 178-205)	6.29, 6.31, 6.33, 6.35, 6.37, 6.39, 6.41, 6.43, 6.45, 6.47, 6.49, 6.51-6.59, 6.85-6.95
12	03/03/08		
	03/05/07	Catch-up and Review	
****EXAM I (in class) Monday March 10, 2008, 3:55-5:15 PM Exam I covers chapters 1-6; pp. 1-205			
13	03/12/07	8. Acids and Bases (sections 8.1-8.3, pp. 239-256)	8.27-8.30, 8.31, 8.32, 8.35-8.39, 8.45-8.48, 8.49, 8.51, 8.57, 8.59, 8.60, 8.61
****Spring Recess from Saturday 03/15/08 to Sunday 03/23/08			

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Lecture	Date	Topic	Problem Assignments
14	03/24/08	8. Acids and Bases (sections 8.1-8.3, pp. 239-256), continue	
15	03/26/08	10. An Introduction to Organic Chemistry: The Saturated Hydrocarbons (pp. 303-337)	10.21-10.26, 10.37, 10.40, 10.49, 10.54, 10.58, 10.71, 10.73, 10.75, 10.95
16	03/31/08		
****Quiz III in class (04/02/08) on chapters 8.1-8.3 and 10			
17	04/02/08	11. The Unsaturated Hydrocarbons: Alkenes, Alkynes, and Aromatics (sections 11.1-11.2 and 11.6, pp. 339-346, 366-372)	11.29, 11.32, 11.35, 11.39, 11.46, 11.48, 11.87-11.90
18	04/07/08	12. <i>Alcohols, Phenols, Thiols, and Ethers</i> (sections 12.1-12.3, 12.7-12.9, pp. 381-389, 402-408)	12.37, 12.47-12.50, 12.85, 12.86, 12.91, 12.96, 12.99
		13. <i>Aldehydes and Ketones</i> (sections 13.1, 13.3, pp.415-419, and 424)	13.31-13.34, 13.36-13.38, 13.60-13.62
19	04/09/08	14. <i>Carboxylic Acids and Carboxylic Acid Derivatives</i> (sections 14.1, 14.2, 14.4, pp. 447-450; 461-470, 476)	14.31-14.35, 14.37, 14.59, 14.59, 14.61, 14.62, 14.67, 14.79, 14.83, 14.101
		15. <i>Amines and Amides</i> (sections 15.1, 15.3, 15.4 pp. 487-493, 504-507, 510)	15.16-15.23, 15.39, 15.41, 15.42, 15.46, 15.49, 15.63-15.66
20	04/14/08	16. Carbohydrates (p. 523-554)	16.19-16.22, 16.29-16.34, 16.39-16.41, 16.45, 16.79-16.84
****EXAM II (in class) Wednesday April 16, 2008, 3:55-5:15 PM Exam II covers chapters 8.1-8.3, 10, as well as selected sections from chapters 11, 12, 13, 14 and 15 (above)			

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21	04/21/08	16. Carbohydrates (p. 523-554), continue	
22	04/23/08	18. Protein Structure and Function Sections 18.118.8 (pp. 595-615)	18.17, 18.24, 18.26, 18.27, 18.33, 18.37, 18.39, 18.45, 18.53, 18.59, 18.61, 18.62, 18.68
23	04/28/08	20. Introduction to Molecular Genetics (pp. 667-709)	20.13-20.20, 20.25, 20.29, 20.33, 20.34, 20.45, 20.65, 20.66, 20.75, 20.78, 20.79, 20.84, 20.89
24	04/30/08		
05/05/08		Catch-up and Review	
****FINAL EXAM (in class) Wednesday May 14, 2008, 12:00 noon to 3:00 PM FINAL EXAM COVERS THE ENTIRE SEMESTER.			