

Chemistry 210 – General Chemistry II

Summer 2005

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SL Basement

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Office hours:

M & W 12-2pm, F 9-11am
Other times may be arranged if necessary.

Required Material: “Chemistry: Structure and Dynamics” 2nd Ed., Spencer, Bodner, Rickard
Laboratory notebook with carbon-copy pages (MSUM bookstore)
Experiments for General Chemistry Lab II (Chem Dept)
Safety Goggles (Chem Dept)

CHEM 210 General Chemistry II [B1] (4)

General chemistry principles: kinetics, chemical equilibrium, acid-base chemistry, solubility equilibrium, thermodynamics, oxidation-reduction, electrochemistry, coordination chemistry, and nuclear chemistry. Lab included. Prerequisite: CHEM 200

Class E-Mail List:

chem210jb@mnstate.edu

An email listserv has been created for this class. It will be used for class announcements and is where I will respond to all email questions. If you have questions, you can either email them to the list or to me directly. *All course-content questions emailed to me will be answered to the list with the questioner's identity removed.* To subscribe to the list, send an email to “majordomo@mnstate.edu” with “subscribe chem210jb” in the body. This should be done as soon as practical from the email account you are most likely to check on a regular basis.

Class Web Site:

<http://www.mnstate.edu/bodwin/>

A website for this course is being developed/constructed which contains information relevant to the class including all handouts. Any feedback regarding additional content or links that would be useful on the Chem 210 website is welcome.

Course Format:

This course will blend lecture and small group work. Topics will be introduced during the first half (approximately) of each day's class in a lecture format. The remainder of class will be devoted to working through problems in small groups (3-4 per group). At the end of each group work period, each group will submit their answers to selected problems for grading.

Grading:

Group assignments	100pts
Exams	4 x 150pts = 600pts
Lab	300pts
<u>Final Exam</u>	<u>200pts</u>
Total	1200pts

Tentative grade assignments are: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69% (+/- grades may be used.) These cutoffs *may* be lowered at the instructor's discretion, but they will not be raised.

Regular and punctual attendance is expected and will be recorded. Late arrival on exam days is not acceptable as it disturbs those who arrive on time; therefore, no exams will be distributed after the test period has begun. If you anticipate that this will be a problem, let me know BEFORE the exam. There will be no make-up exams. Exams will be closed book and a calculator may be required. The Final Exam will be cumulative.

Lab Grading: Notebook carbons must be turned in BEFORE you leave lab each day. If you do not turn in your carbons, you will not receive credit for the material covered in lab. You will be working with a partner in the lab, and you are welcome to work together on data analysis, but each student will be required to submit individual lab reports. Lab reports are due at the beginning of the lab period 1 week after completion of the experiment (you may hand them in sooner if you prefer). Hand-In assignments will be distributed at the end of the lab period and are due at the beginning of the following lab period. Late lab reports or hand-ins will not be accepted.

Data Collection and Error Analysis	25pts
Pre-Lab Exercises	8 x 5pts = 40pts
Notebook carbons	8 x 5pts = 40pts
Lab Reports/Hand-Ins	8 x 15pts = 120pts
<u>Practicum</u>	<u>75pts</u>
Total	300pts

Academic Honesty

Cheating will not be tolerated and will be reported to the Dean of your College and the Vice President for Academic Affairs. It may also be reported to the Student Conduct Committee for further disciplinary action. For a full description of the MSUM Academic Honesty Policy, please see the Student Handbook. {<http://www.mnstate.edu/sthandbook/POLICY/index.htm>}

Disability Access Statement: Students with disabilities who believe they may need an accommodation in this class are encouraged to contact Greg Toutges, Coordinator of Disability Services at 477-2652 (phone) or 477-2047 (TTY), CMU 222 as soon as possible to ensure that accommodations are implemented in a timely fashion.

Tentative Course Schedule

Day, Date	Topic	Text Book	Experiment
T, July 5	Kinetics	Ch. 10 & 14	Data Collection and Error Analysis
W, July 6	Kinetics	Ch. 10 & 14	
R, July 7	Kinetics	Ch. 10 & 14	Rate and Activation Energy of the Iodination of Acetone
M, July 11	Exam #1, Equilibrium	Ch. 10	
T, July 12	Equilibrium	Ch. 10	Calcium Iodate
W, July 13	Equilibrium	Ch. 10	
R, July 14	Equilibrium	Ch. 10	Iron(III) Nitrate and Potassium Thiocyanate
M, July 18	Exam #2, Acids & Bases	Ch. 11	
T, July 19	Acids & Bases	Ch. 11	Acetic Acid in Water
W, July 20	Acids & Bases	Ch. 11	
R, July 21	Acids & Bases	Ch. 11	Acid-Base Titrations, Indicators and Buffers
M, July 25	Exam #3, Chemical Thermodynamics	Ch. 13	
T, July 26	Chemical Thermodynamics	Ch. 13	Qualitative Analysis
W, July 27	Chemical Thermodynamics	Ch. 13	
R, July 28	Chemical Thermodynamics	Ch. 13	To Be Announced
M, Aug 1	Exam #4, Oxidation-Reduction Reactions	Ch. 12	
T, Aug 2	Oxidation-Reduction Reactions	Ch. 12	Redox Reactions and Voltaic Cells
W, Aug 3	Oxidation-Reduction Reactions	Ch. 12	
R, Aug 4	Final Exam		Practicum