Chemistry 222
Syllabus
Winter 2005

Instructor: Dr. Gwen Shusterman
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Office Hours: M 12-1, W 11:30-1, R 10:30-11:30

Text: Chemistry 4th Edition, McMurry and Fay, Pearson/Prentice Hall, 2004.

Exams: There will be two one-hour midterms, two short quizzes and a two-hour final (see schedule). The final exam will be cumulative. The material to be covered during each exam is shown on the schedule.

Homework: There will be regular problem assignments. These will *not* be turned in for grading. Some quiz and midterm problems may be taken from these problem sets. The answers to these problems are provided in the back of the text and in the solutions manual. Feel free to work additional problems to practice your problem solving skills**. Success in this course is strongly correlated with time spent working problems.**

General Info: You are responsible for all information given during class times. This includes homework assignments and any special announcements or schedule changes. Deadlines and course information will frequently be posted on the class WEBCT calendar page or on the bulletin board.

Participation Points: Participation points will be given for being present and participating in the in-class activity and problem sessions and completing the class web assignments/quizzes. In addition, you may choose to *either* enroll in workshops, CH 299, complete the virtual lab exercises assigned from the software, "Building the Connection to Lab" available at the bookstore or complete the self quiz at the text book website (www.prenhall.com/mcmurry4) Bridging to the Lab credit will be given for completing the paper report in the book. Self quiz points will be given for printed completed quizzes. Exercises/activities not received on time will be given 1/2 credit if received by the beginning of the next lecture meeting.

Grading: Grades will be based on the cumulative scores of exams and quizzes, plus participation points (approximately 15% of the grade). The following scores guarantee the grade shown; however, the instructor may choose to revise these percentiles downwards if class performance warrants it.

Grade	A	B	C	D	F
Score	≥ 90%	≥ 80%	≥ 65%	≥ 55%	< 55%

Extra Credit:

This quarter there will be an opportunity to earn extra credit. You may choose to complete a "Chemistry in the Community" volunteer project paper *or* a "Product Research Report" and poster.

For the volunteer project you should complete 4-5 hours of community service and write 2-3 page paper discussing the chemistry you observed during the volunteer service. You should also turn in a sheet signed by the volunteer supervisor. The paper should include chemical names, how the properties of the chemicals are important, and any other interesting facts about the chemistry.

For the product research report, you should pick a product and look into the manufacturing of the product. You should focus on the chemistry and look into the environmental impact of production or use of the product. To receive credit for the project you should turn in a paper copy of the report and put together a science fair type poster to be viewed by your fellow students the last day of classes.

Both projects must be completed by the last day of classes. No late work will be accepted.

Chemistry 222

Lecture and Exam Schedule
(Coverage may vary slightly from schedule)

Week 1

Date	Meeting/Day	Activity	Chapter	Material
Jan 3	1 / M	Lecture	8	Introduction/Energy
Jan 5	2 / W	Lecture	8	Calorimetry
Jan 7	3 / F	Lecture	8	Enthalpy

Week 2

Date	Meeting/Day	Activity	Chapter	Material
Jan 10	4 / M	Lecture	8	Thermochem
Jan 12	5 / W	Lecture	8	Hess's Law
Jan 14	6 / F	Lecture/**Quiz**	9**/8**	Gases **/ Thermo**

Week 3

Date	Meeting/Day	Activity	Chapter	Material
Jan 17	7 / M	**Holiday**		Gases
Jan 19	8 / W	Lecture	9	Gas Laws / Dalton's Law
Jan 21	9 / F	Lecture	9	Kinetic Molecular Theory

Week 4

Date	Meeting/Day	Activity	Chapter	Material
Jan 24	10 / M	Review	8/9	
Jan 26	11 / W	**Midterm**	8/9	
Jan 28	12 / F	Lecture	10	Liquids/Phase Changes

Week 5

Date	Meeting/Day	Activity	Chapter	Material
Jan 31	13 / M	Lecture	10	Intermolecular Forces /Props of Solids
Feb 2	14 / W	Lecture/prob	10	Solid Structure
Feb 4	15 / F	Lecture	11	Solutions

Week 6

Date	Meeting/Day	Activity	Chapter	Material
Feb 7	16 / M	**Quiz/**Lecture	**10/**11	Concentration
Feb 9	17 / W	Lecture	11	Solubility
Feb 11	18 / F	Lecture	11	Colligative Properties

Week 7

Date	Meeting/Day	Activity	Chapter	Material
Feb 14	19 / M	Review	10/11	
Feb 16	20 /W	**Midterm**	10/11	
Feb 18	21 / F	Lecture	12	Kinetics

Week 8

Date	Meeting/Day	Activity	Chapter	Material
Feb 21	22 / M	Lecture	12	Kinetics
Feb 23	23 / W	Lecture	12	Kinetics
Feb 25	24 / F	Lecture/Prob	12	

Week 9

Date	Meeting/Day	Activity	Chapter	Material
Feb 28	25 / M	Lecture	13	Equilibrium
Mar 2	26 / W	Lecture	13	Equilibrium
Mar 4	27 / F	Lecture	13	Equilibrium Constants

Week 10

Date	Meeting/Day	Activity	Chapter	Material
Mar 7	28 / M	Lecture	13	Le Chatlier's
Mar 9	29 / W	Lecture	13	Equilibrium Applications
Mar 11	30 / F	Review	8-13	All

Final Exam

Date	Day	Time	Activity	Material
Mar 16	W	10:15-12:05	Exam	Chap 8-13