

**Chemistry 212**  
**Principles of Chemistry I – Summer 2007**

Course web-page: <http://course1.winona.msus.edu/rkopitzke/212/212%20Homepage.htm>

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Office Hours: I will be in my office each day after class until just before noon unless otherwise announced.

**Lecture:** MWF 8:00-10:20 a.m., TH 8:00-8:50 PA 307

**Lab:** TH 9:00-11:50 a.m. SLC 374

**Course Description:** An in-depth study of the principles of chemistry including nature of matter, stoichiometry, gases, thermochemistry, atomic structure, chemical bonding, and solutions. Laboratory work includes basic chemical analysis and techniques appropriate to the various topics covered in the course. Prerequisite: high school intermediate algebra or concurrent enrollment in MATH 120 or a higher-numbered mathematics course. This course satisfies the laboratory requirement in Natural Science general education and university studies courses.

**Text:** “Chemistry: The Central Science, 10<sup>th</sup> ed.”, T.L. Brown, H.E. LeMay, Jr., B.E. Bursten, Prentice Hall, 2006.

**Lab Manual:** Published on the course web page. You will need to download and print each lab prior to coming to lab. One carbonless laboratory notebook (available in the bookstore) will be needed per laboratory team of three students.

**Course Information:**

**Lecture:** The lecture portion of the class will consist of lecture (duh), in class problem solving, regular quizzes and four exams. You should come to class with a calculator that can do exponential functions. Recommended problems (found at the end of each chapter) will be given for each chapter. These will not be collected, **but** it is in your best interest to work as many problems as you can. If you have to miss class please let me know as soon as possible by E-Mail. For an absence to be excused you must submit an E-Mail within one day of the class missed with your name, the date(s) missed and the reason for the absence. Legitimate reasons include illness, family emergencies and school sponsored events, but what constitutes and excused absence is ultimately at the discretion of the instructor.

**Examinations:** The four examinations are scheduled for 6/13, 6/20, 6/27 and 7/6. These exams will consist of mostly multiple choice plus a few problems (mathematical or concept). Each exam will cover three chapters of material. There is **no** comprehensive final examination.

**Quizzes:** There will be daily quizzes given on M/W/F except on exam days. The topics of each quiz will be announced in advance. They will typically be on the material covered in the most recently completed chapter.

**Labs:** **Safety goggles are mandatory in the laboratory** (available from the Chemistry Club \$5 or \$10 and sold at the beginning of the first lab). No lab work will be allowed without them. Labs are inquiry based and will be done in teams of three or four students. One lab report

worth 25 pts will be collected from each team. Labs will be completed and turned in by each team before leaving lab for the day.

<b>Grading:</b>	<b><u>Grade Distribution</u></b>	<b><u>Tentative Grade Assignments</u></b>	
	Exams: 60% (15% each)	90-100	A
	Daily Quizzes: 15%	80-89	B
	<u>Laboratory Grade: 25%</u>	70-79	C
		60-69	D
	<b>Total</b>	< 60	F
		<b>100%</b>	

**Tentative** Daily Lecture/Lab Schedule

Monday	Tuesday	Wednesday	Thursday	Friday
June 4 Introduction to Course Chapter 1	June 5 Introduction to Lab Density Lab	June 6 Chapter 2	June 7 Popcorn Lab	June 8 Chapter 3
June 11 Chapters 4 & 5	June 12 Waste Lab	June 13 Exam 1 (1-3) Chapter 5	June 14 Specific Heat Lab	June 15 Chapters 5 & 6
June 18 Chapters 6 & 7	June 19 Hess's Law Lab	June 20 Exam 2 (4-6) Chapter 8	June 21 To be determined	June 22 Chapters 8 & 9
June 25 Chapter 9	June 26 Modeling Lab	June 27 Exam 3 (7-9) Chapter 10	June 28 Tums Lab	June 29 Chapter 10
July 2 Chapters 10 & 11	July 3 Chapters 11 & 13	July 4 Holiday	July 5 Colligative Properties Lab	July 6 Exam 4 (10, 11, 13)