GENERAL CHEMISTRY CHEM 1010-03 AUTUMN 2010

Instructor: Dr. Martin Margittai

SGM 253

Phone: 303-871-4135

Email: martin.margittai@du.edu

Text: Chemistry, 5th Edition, Silberberg

Lectures: 8-8:50 am, MWF, Olin 205 Discussion: 8-8:50 am, R, Olin 205 Office Hours: 2-3:00 pm, MF, SGM253

Exams: There are 3 1-hour midterm exams during the quarter, plus a 2-hour cumulative final exam. Each exam is worth 100 points. Exam questions will be similar to the problems worked in class.

If you miss a 1-hour midterm exam, then your final exam will be counted twice and replace the missed midterm exam. With one exception, **THERE WILL BE NO MAKEUP EXAMS**. The only exception to the no-makeup policy will be for members of a university team or group, e.g. athletic team or music group scheduled to be away from campus at the time of the exam. You must inform your instructor of this <u>prior</u> to the exam and make arrangements at that time for a makup exam.

If you take all 3 midterm exams and your grade on the final exam is better than one of your midterm exam grades, then your final exam will be counted twice and replace your lowest midterm exam grade.

There are 10 quizzes that will be administered during discussion periods. Your top 8 scores will count towards your grade, i.e. your 2 lowest quiz grades will be dropped. Clicker questions will be given during lecture starting from week 2. Points for those questions will be given based on participation (50%) and correctness (50%).

Grading: midterm exams 300 points

final exam 100 points quizzes 120 points clicker questions 80 points

The assignment of a letter grade to a given numerical grade will depend on the overall class performance. However, if everybody does well, grades will not be curved down. Also, note that points will be deducted from your final grade for disruptive behavior.

DATE		TOPIC	READING		
WEEK 1 Sep 13		Intro. to class	Ch1-3		
	15 16 17	Nature of light Discussion, quiz Wave-Particle/Quantum-Mechanical	Ch7.1-7.2 Ch7.3-7.4		
WEEK 2					
Sep	20 22 23	Periodic table Atomic properties Discussion, quiz	Ch8.1-8.2 Ch8.3-8.4		
	24	Chemical reactivity	Ch8.5		
WEEK 3					
Sep	27 29	Chemical Bonds Covalent bond	Ch9.1-9.2 Ch9.3-9.6		
0.1	30	Discussion, quiz	0110.0 0.0		
Oct	1	EXAM 1			
WEEK 4 Oct 4		Lewis structures	Ch10.1		
Oct	6	VSEPR	Ch10.2		
	7 8	Discussion, quiz Shape & polarity	Ch10.3		
WEEK					
Oct	11 13	Valence bond theory Molecular orbital theory	Ch11.1-11.2 Ch11.3		
	14 15	Discussion, quiz Water as a solvent	Ch4.1-4.2		
WEEK 6					
Oct	18 20	Precipitation reactions EXAM 2	Ch4.3-4.4		
	21 22	Discussion, quiz Oxidation-reduction reactions	Ch4.5-4.6		
WEEK 7					
Oct	25 27 28	Acids and bases in water Bronsted-Lowry Discussion, guiz	Ch18.1-18.2 Ch18.3-18.4		
	29	Discussion, quiz Weak bases/weak acids	Ch18.5		

WEEK 8						
Nov	1	Redox Reactions	Ch21.1			
	3	Voltaic cells	Ch21.2-21.3			
	4	Discussion, quiz				
	5	Forms of energy	Ch6.1-6.2			
WEEK 9						
Nov	8	Calorimetry	Ch6.3-6.4			
	10	Hess's Law	Ch6.5-6.6			
	11	Discussion, quiz				
	12	EXAM 3				
WEEK 10						
Nov	15	Entropy	Ch20.1-20.2			
	17	Calculating entropy change	Ch20.2-20.3			
	18	Discussion, quiz				
	19 FINAL EXAM (comprehensive), 8-9:50 am, Olin 2					