SD '03

CHAMINADE UNIVERSITY OF HONOLULU
CH 204 GENERAL AND ANALYTICAL CHEMISTRY II
Spring Semester 2003

Lecture: section 01 MWF 11:00 - 11:50 am Henry Hall 33
section 02 MWF 8:00 - 8:50 am Henry Hall 33

Instructor: Janet Jensen
Office: Henry Hall 24
Phone: 735-4858
email: jjensen@chaminade.edu
Office Hours: MWF 9:30-10:30 am, TuTh 12:00-1:00 pm
or by appointment

Required Text: *Chemistry*, Raymond Chang, 7th ed., McGraw-Hill, 2002.

Other Materials: Scientific calculator

Course Description and Objectives:

CH 204 is the second half of a two semester, college level general chemistry course. In class, we will discuss the basic concepts of chemistry with an emphasis on problem solving. Students should bring writing materials and a calculator to each class meeting.

Upon successful completion of this course, the student should be able to:

- draw electron dot structures and describe the molecular geometry of simple molecules
- determine orbital hybridization for simple molecules
- discuss the properties of solids, pure liquids and solutions
- calculate an equilibrium constant
- calculate an ionization constant
- calculate a solubility product constant
- perform pH calculations
- explain the relationship between free energy, entropy and enthalpy
- balance redox reactions
- explain the difference between voltaic and electrolytic cells
- calculate standard electrode potentials
- complete and balance nuclear equations

Homework: Homework problems from each chapter will be assigned in class. They will not be collected for credit, but students are strongly urged to work them to help grasp the concepts covered in lecture. A solutions manual will be available in the library and in my office.

Quizzes: Short, 5-point quizzes will be given at the end of almost every lecture. The total points will be scaled to a total of 80 at the end of the semester. Although there will be no make-up quizzes given, the three lowest quiz scores will be dropped when the grades are determined.

Midterm Exam: There will be three midterm exams given this semester. Each will be worth 100 points and students will be responsible for all lecture material covered up to the exam dates. These exams are tentatively set for February 12th, March 21st and April 23rd.

Final Exam: The final exam schedule is as follows:

section 01	Wednesday	May 7	10:30 to 12:30
section 02	Thursday	May 8	8:00 to 10:00

This exam will be cumulative, covering all of the material presented in class over the semester.

Attendance: At the end of the semester I will award attendance points based on the number of unexcused absences for each student. Excused absences due to illness or family emergency will not affect your attendance points. If you miss a lecture, please send me an email or leave a phone message explaining your absence. **If you miss a midterm exam, a written explanation should be turned in or you will receive a score of zero.** Any student who does not take the final exam will fail the course.

Course Grades: The course grades will be based on the following point total and scale: Any changes will be announced in class.

- Attendance 20
- Quizzes 80 (your total quiz points / total quiz points) x 80
- Midterm exams 300
- Final exam 200

600 total points

GRADE	TOTAL POINTS	PERCENTAGE
A	540-600	90-100 %
B	480-539	80-89 %
C	390-479	65-79 %
D	270-389	45-64 %
Fail	below 270	below 45 %

Any changes will be announced in class!

CH 204 Schedule

Date	Chapter		Date	Chapter
Jan 13	Pre-test, course information		Mar 10	13 continued
Jan 15	8: Periodic Relationships		Mar 12	14: Chemical Equilibrium
Jan 17	To be announced		Mar 14	14 continued
Jan 20	Holiday		Mar 17	14 continued
Jan 22	8 continued		Mar 19	14 continued
Jan 24	8 continued		Mar 21	Exam II
Jan 27	9: Chemical Bonding I: Basic Concepts			Mar 24 - 28 Spring Break!
Jan 29	9 continued			
Jan 31	9 continued		Mar 31	15: Acids and Bases
			April 2	15 continued
Feb 3	10: Chemical Bonding II: Molecular Geometry and Hybrid Orbitals		April 4	15 continued
Feb 5	10 continued			
Feb 7	10 continued		April 7	16: Acid-Base Equilibria and Solubility Equilibria
			April 9	16 continued
Feb 10	10 continued		April 11	16 continued
Feb 12	Exam I			
Feb 14	11: Intermolecular Forces, Liquids and Solids		April 14	16 continued
			April 16	18: Entropy, Free Energy and Equilibrium
Feb 17	Holiday		April 18	18 continued
Feb 19	11 continued			
Feb 21	11 continued		April 21	18 continued
			April 23	Exam III
Feb 24	12: Physical Properties of Solutions		April 25	19: Electrochemistry
Feb 26	12 continued			
Feb 28	12 continued		April 28	19 continued
			April 30	23: Nuclear Chemistry
Mar 3	13: Chemical Kinetics		May 2	Post-test
Mar 5	13 continued			
Mar 7	13 continued			Final Exam 01 May 7 10:30-12:30
				02 May 8 8:00-10:00