

Dr. Rajaseelan
CAPUTO-213; Ext. 3784 Course Syllabus & Class Schedule
Office Hours:

CHEM 112

Spring 2008

M : 11 -12 pm, W : 8-9 am & 11-12 pm

TH: 9 - 11 am

INTRODUCTION

Chemistry 112 is a continuation of Chemistry 111. It is much more problem oriented than CHEM 111. Diligent and responsible attention to the course requirements and regular completion of all assignments are essential in order to get a passing grade in the course.

Get into good study habits early by keeping up with the reading assignment and homework. It is best to allocate a certain number of problems each day so as to keep up with the homework. The practice gained by doing the problems will be most beneficial for the exams and quizzes. **KEEP UP WITH THE MATERIAL IN THE COURSE ON A DAY-BY-DAY BASIS, RATHER THAN PUT IT OFF UNTIL JUST BEFORE THE EXAM.** Please take advantage of my availability during my office hours or by appointment.

COURSE MATERIALS REQUIRED

1. Text: Chemistry, 7th ed., Zumdahl, Houghton Mifflin Co., 2007.
2. A calculator that has log, ln, 10x (antilog), and ex functions.
3. Lab Manual: Experiments in General Chemistry, 9th ed., G. S. Weiss, T. G. Greco, L. H. Rickard, Prentice Hall., 2007.
4. Lab Notebook: Must be bound (no ring binders) approximate size 7 x 9.5", quadrille ruled. Carefully follow the instructions for the laboratory notebook on pages 8 through 10 of the laboratory manual.
5. Lab Safety Goggles: Available in the bookstore. You must wear goggles whenever you are in laboratory, even if just visiting.

Recommended: Student Solutions Guide, Chemistry, 7th ed., Hummel, Zumdahl & Zumdahl, Houghton Mifflin Co., 2007.

Problems will be assigned in class.

COURSE SCHEDULE

<u>Chapter</u>	<u>Topics</u>
12	Chemical Kinetics
13	Chemical Equilibrium
16	Thermodynamics(Spontaneity, Entropy, and Free Energy)
EXAM I	Chapters 12, 13, & 16.
14	Acids & Bases
15	Applications of Aqueous Equilibria
EXAM II	Chapters 14 & 15.
17	Electrochemistry
18 & 19	Descriptive Chemistry
20	Coordination Chemistry
21	Nuclear Chemistry
EXAM III	Chapters 17-21
FINAL EXAM	COMPREHENSIVE (CHEM.111 & 112) TUESDAY, MAY 6, 8-10 am

LAB SCHEDULE

<u>Date</u>	<u>Experiment</u>	<u>Topic</u>
1/16-17	15	Check-in, Safety, Kinetic Study—Part A
1/23-24	15	Kinetic Study—Part B
1/30-31	14	Lechateliers Principle in Equilibrium
2/6-7	33-35	Qualitative Analysis Unknown I
2/13-14	33-35	Qualitative Analysis I (continued)
2/20-21	36-37	Complete Qual. I & Begin Qual. II Unknown
2/27-28	36-37	Continue Qual.II
3/5-6	36-38	Complete Qual II and begin Qual III.
3/19-20	19	Titration curve & Ka of a weak acid.
3/26-27	38	Continue Qual III
4/2-3	24	Electrolysis
4/10&4/16	28	Penny's worth of chemistry.
4/17&4/23	38	Complete Qual. III
4/24& 4/30		check out

GRADING SYSTEM

3 Mid-term Exams	300 pts	8 Pre-labs	40 pts
Quizzes	200 pts	5 Post-labs(15,14.,19,24&28)	30 pts
Final Exam	200 pts	5 Lab Reports(same as above)	60 pts
Laboratory	<u>200</u> pts	3 Unknowns(Qual I,II & III) <u>70</u>	
<u>pts(20,25,25)</u>		TOTAL LAB POINTS	200 pts.

Total Points **900 pts**

Letter Grade Percentage

A 90 - 100%

*** You need to obtain 300/500 in the**

midterm and quizzes

A- 87 - 90%

AND must have completed all

the labs to pass the course.

B+ 84 - 87%

B 80 - 84%.

B- 77 - 80%

C+ 74 - 77%

C 70 - 74%

C- 67 - 70%

D+ 64 - 67%

D 60 - 64%

D- 57 - 60%

F below 57%

COURSE POLICIES

1. There will be lecture quizzes given every Friday during class time.
2. Prelab quizzes will be given prior to each lab experiment. Carefully read and understand the experimental procedure and plan your lab work before the lab period.
3. Lab reports should be neat and written legibly in ink. They are due the lab period after the data taking procedure is complete. Credit will be deducted for "late" reports. Instructions for writing lab reports are in the introduction section of the laboratory manual. All lab reports should be submitted (even if they are late) in order to pass the course.
4. All students will take the examinations and quizzes as schedule. Other than health problems (**that require a written, signed excuse from a doctor**), excused absences will only be considered **before** the scheduled exam. A make-up exam will be scheduled at a mutually agreeable time within three days in these circumstances.
5. Plagiarism and copying are expressly prohibited. If you secure information from another person and do not acknowledge it in writing in your laboratory report, you will receive a grade of zero for that work.

6. **Class attendance is required.** It should be recognized that missing more than one to two days of a chemistry course is most unwise due to the pace of the course and the amount of material covered. It will be considered for “borderline” students when giving the final grade for the course.

