CHEM 161 - GENERAL CHEMISTRY I

SPRING QUARTER, 2008

Instructor: Ed Thorne
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Office Hours: One hour before class each week or by appointment

A. COURSE OBJECTIVE/DESCRIPTION

This is a 3 credit course that is the first of three introductory courses illustrating the fundamental principles of chemistry with applications to everyday systems. In this first course the primary areas of emphasis will be atomic structure, balancing equations, chemical formulas, stoichiometry, gas properties, thermochemistry, chemical bonding, and chemical periodicity.

B. PREREQUISITES

(MATH 001 and MATH 002) or MATH 003 (or equivalent)

C. REQUIRED TEXTBOOK

Chemistry, Fifth Edition by John McMurry and Robert C. Fay - Prentice Hall (2008)

D. CLASS MEETINGS

Thursday Evening from 6:00 P.M. to 8:40 P.M. in Randell Hall, Room 238B

E. COURSE LEARNER OBJECTIVES

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

- perform calculations based on the factor dimensional method of problem solving
- understand fundamental atomic structure leading to the modern quantum mechanical model of the atom
- write balanced equations representing chemical transformations
- perform stoichiometric calculations relating the amounts of reactants and/or products involved in chemical reactions
- understand and apply fundamental laws governing gas behavior
- understand and determine the energies involved for chemical reactions
- understand how atoms combine to form molecules by making chemical bonds and the different types of bonds involved
- predict the geometry of a wide variety of chemical compounds based on the number and types of bonds involved

F. EXAMS

Exam I - April 24, 2008	After Recitation
Exam II - May 22, 2008	6:00 to 8:00
Final Exam - June 12, 2008	6:00 to 8:00

G. GRADE BREAKDOWN

25% of your grade will come from Exam I on April 24, 2008
35% of your grade will come from Exam II on May 22, 2008
40% of your grade will come from the Final Exam on June 12

NOTE: NO EXAMS WILL BE GRADED OR RETURNED TO ANY STUDENT NOT OFFICIALLY ENROLLED IN THE CLASS. ALL GRADES WILL BE DETERMINED FROM EXAMINATIONS ONLY--EXTRA CREDIT ASSIGNMENTS ARE NOT AVAILABLE.

NOTE: ALL GRADUATING SENIORS ARE RESPONSIBLE FOR ALL WORK WITH THE POSSIBLE EXCEPTION OF THE FINAL EXAM. GRADUATING SENIORS WILL BE EXEMPT FROM A FINAL EXAM ONLY IF THEY HAVE AN AVERAGE OF 75 OR BETTER ON THE FIRST TWO EXAMS. ANY SENIOR FINAL EXAMS WILL BE GIVEN AT A TIME TO BE DETERMINED (WHICH WILL MOST LIKELY BE MONDAY JUNE 9)

H. ACADEMIC HONESTY POLICY

Drexel University is committed to a learning environment that embraces academic honesty. In order to protect members of our community from results of dishonest conduct, the University has adopted policies to deal with cases of academic dishonesty. Please read, understand, and follow the "Academic Honesty Policy" as written in the official student handbook. Instances of academic dishonesty, such as cheating and plagiarism will be dealt with appropriately.

I. MAKING UP MISSED EXAMS

A single make-up exam will be given to replace either Exam I or Exam II. This exam will be given after the second exam and will cover material from both exams. This means that if you miss either Exam I or Exam II the make-up exam you take will cover material from both exams. The make-up exam will replace one exam only, so that if you miss both exams you will forfeit 25% of your grade. To do this, you first have to make an appointment with Marge Fritsche (215-895-2164) at the College of Evening and Professional Studies, located at One Drexel Plaza at 30th and Market Streets. All make-up exams will be administered through the College of Evening and Professional Studies. **If you do not complete the make-up exam by Wednesday May 28, your grade for the missed exam will be zero. No make-up exams will be permitted after May 28. THE MAKE-UP EXAM IS TO REPLACE A MISSED EXAM, NOT TO REPLACE A POOR GRADE. THERE IS A TWO-HOUR TIME LIMIT ON THE MAKE-UP EXAM SO YOU WILL HAVE TO ARRIVE EARLY ENOUGH TO RECEIVE THE FULL TIME ALLOWED. THE OFFICE WILL NOT REMAIN OPEN PAST THEIR REGULAR HOURS FOR YOU TO COMPLETE THE EXAM IF YOU ARRIVE LATE. IT IS YOUR RESPONSIBILITY TO MAKE A SUITABLE APPOINTMENT TO TAKE THE EXAM.**

J. ATTENDANCE POLICY

Considering the needs of part time students occasionally having to miss class because of employment commitments, attendance will not affect your grade. If you miss a class for any reason, it is your responsibility to call me to determine what work you missed.

CHEM 161 RECITATION PROBLEMS ASSIGNMENTS

WEEK	DATE	LECTURE TOPICS	CHAPTER	HOMEWORK ASSIGNMENTS
1	4-3	Measurements, The Atom, The Mole	1-3	Introduction To Course
2	4-10	Nomenclature Empirical Formulas Balancing Equations	2 3 3	1.72, 1.86, 1.88, 2.54a-c, 2.56a,b, 2.58, 3.44, 3.50, 3.56, 3.58
3	4-17	Stoichiometry	3	3.94, 3.96, 3.100, 3.102, 3.103, 3.42a-c, 2.82, 2.85, 2.89a-e, 2.90
4	4-24	***EXAM I (ONE HOUR)***		3.62, 3.64, 3.70, 3.72, 3.76
5	5-1	Gas Laws	9	*No Recitation - Lecture starts at 9:00*
6	5-8	Thermochemistry Electrons in Atoms	8 5	9.46, 9.48, 9.50, 9.62, 9.64, 9.66, 9.70, 9.76
7	5-15	Electrons In Atoms Chemical Bonding	5 6, 7	8.60, 8.68, 8.70, 8.72, 5.32, 5.34, 5.36, 5.38
8	5-22		***EXAM II (6:00 TO 8:00)***	
9	5-29	Chemical Bonding	6, 7	5.46, 5.49, 5.42, 5.44, 5.72, 5.80, 5.81, 7.42a-e
10	6-5	Chemical Periodicity	5	7.48, 7.52, 7.58, 7.70

FINAL EXAM: COVERAGE WILL BE COMPREHENSIVE BUT WITH EMPHASIS ON MATERIAL NOT PREVIOUSLY TESTED

NOTE: THIS SCHEDULE IS TENTATIVE AND SUBJECT TO CHANGE AS THE TERM PROGRESSES