

UTSA FALL SEMESTER 2010

CHE 1073 Section 901: Basic Chemistry

An introduction to descriptive inorganic chemistry and atomic-molecular structure.

TR 2:30- 3:45 PM Room BV 1.312

Course Objective: To establish a fundamental base in chemical vocabulary and problem-solving skills. This course may be taken to partially fulfill the Level I Core Curriculum requirement in Domain I, Science, Technology, and Mathematics.

Instructor: Dr. Bernard L. Powell
Office Hours: MWF 10:30 – 11:30 AM (Main Campus); **TR BEFORE & AFTER CLASS**
Office: 1.344 BSE
Phone: 458 - 5757

Prerequisite: None

Text: *"Basic Chemistry"* by Zumdahl & DeCoste, 7th Ed.

Exams: Four exams will be given during the semester. These exams will count 60% toward the final grade. The exams will consist of back page (essay and computational) questions, and multiple choice questions with answers to be recorded on Scan Tron machine-graded answer sheets to be provided by the student. No make-up exams will be given. Emergency situations will be handled on an individual basis. In addition, occasional quizzes will be administered during the first 30 minutes of class time. Anyone arriving late to class will not be permitted to take the quiz! These quizzes will be graded and counted as part of the homework grade.

Reading Assignments: You should read each chapter before it is discussed in class. The lectures will be presented assuming that you have already seen the material. Because the class material builds on itself, you cannot afford to get behind. In addition, from the beginning of the semester, you should begin committing to memory the symbols of the common elements and ions (including charge). By the end of the second week, you will be expected to know the most important ones!!! These appear in various tables throughout the text.

Problem Assignments: The syllabus lists suggested homework assignments which the student should consider mandatory if he/she wishes to pass the course. Selected chapter assignments will be collected and graded. These, combined with quiz grades, will count 10% toward the final grade. Failure to hand in two (2) of these assignments will result in an automatic deduction of 10% from the final grade!!! While the homework assignments are meant to be representative of the material to be presented on the exams, students should expect some questions which are considerably different.

FINAL EXAMINATION

A final, comprehensive examination will be given on **Thursday, December 9, 2010 from 10:30 – 1:00 PM**. The final contributes 30% toward the semester grade. The date and time for the final are absolutely inflexible. **NO OPPORTUNITY FOR MAKE-UP OF THE FINAL EXAM WILL BE GIVEN!!!**

Discretionary Exam Drop:

If a student takes all four(4) of the regular semester exams, I may drop the lowest grade of these four. Please note that dropping the final exam is **ABSOLUTELY NOT AN OPTION!**

Grades: Final grades will be assigned according to the following scale:

A	90 - 100
B	80 - 89
C	70 - 79
D	60 - 69
F	59 & below

****NOTE - IT IS THE RESPONSIBILITY OF THE STUDENT TO DROP THE COURSE IF HE/SHE WISHES TO DO SO!!!**

<u>DATE</u>	<u>SUBJECT</u>	<u>CHAP</u>	<u>HOMEWORK</u>
08/26	Introduction, Course Rules		
08/31	Chemistry - "The Central Science"	1	
09/02	Measurements in the Sciences Significant Figures "Those Troublesome Zeroes" The SI System of Units	2	3,4,7,8,9,11,37-40 46-52,55-65,76,74 75,83,85,87-90,92
09/07	Dimensional Analysis in Problem Solving Density, Calculator Functions	2	93,94,97,99,100, 102,105
09/09	More Problem Solving		
09/14	Classification of Matter Chemical & Physical Change	3	13,14,16,17,18,25 26,29,30,39,49,56
09/16	TEST I	1, 2, & 3	
09/21	"What's an Atom Anyway?" The Structure of the Atom	4	7,9,10,16,19,20,23 24,25,28,33,35-38
09/23	Atomic Number Atomic Mass Isotopes	4	42,45,47,49,52,62 64,66,70,72,73,74 77,78,83,84,93
09/28	Nomenclature	5	3,6,8,9,10,13,14 17-22,27-36 39-50,57-60,65,66
09/30	Chemical Reactions	6	13,17,18,23,26,28 37-44, 54,55,59,73-76
10/05	The Activity Series & Predicting Reactions	7	6,7,11,12,13,15,16 17,18,21,22,29,39
10/07	Reaction Types	7	40,44,45,46,49,50 53,54,59-66,91,92
10/12	Redox Reactions	7	
10/14	TEST 2	4, 5, 6 & 7	
10/19	How Many Atoms in a "Whole Bunch"? The Mole, Molar Mass	8	6,9-22,24,27-42,45 51,52,55-64,81,84

<u>DATE</u>	<u>SUBJECT</u>	<u>CHAP</u>	<u>HOMEWORK</u>
10/21	Problem Solving	8	85,90,93,99,100
	% Composition of Compounds	8	101,107,108,
	Empirical & Molecular Formulas		110-113,121,122
10/26	Stoichiometry	9	11-17,23-28,30,36
10/28	Limiting Reactants	9	45-48,51,53,58,62
	% Yield		64,65,68,90,91
11/02	Reactions in Solution	15.4 – 15.6	30-38,41-52,55,56
	Molarity		
11/04	TEST 3	8, 9 & 15	
11/09	Modern Atomic Theory	11	5,11-14,32-44,48
	Electromagnetic Radiation	11	51-53,56,63,64,67
	The Bohr Hydrogen Atom	11	80-83,87-97
11/11	Electron Levels, sublevels, & Orbitals	11	
11/16	Electron Configurations	11	
	The Periodic Table – An Elegant Tool		
	Periodic Properties		
11/18	Electronegativity	12	1-10
11/23	Ionic & Covalent Bonds	12	
11/25	THANKSGIVING DAY – NO CLASS		
11/30	TEST 4	11 & 12	
12/02	Review for Final Exam		
12/07	STUDENT STUDY DAY - NO CLASS		
12/09	FINAL EXAM 10:30 – 1:00 P.M. BV 1.312		

This syllabus is provided for informational purposes regarding the anticipated course content and schedule of this course. It is based upon the most recent information available on the date of its issuance and is as accurate as possible. I reserve the right to make any changes I deem necessary and/or appropriate. I will make my best efforts to communicate any changes in the syllabus in a timely manner. Students are responsible for being aware of these changes.