I. Course Overview

A. Basic Information

Department: Chemistry
Course Prefixes: CHM104, Section 41453
Course Title: Introduction to Chemical Principles
Credit Hours: 4

B. Instructor’s Information

Name: Ghassan M. Saed, Ph.D.
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C. Catalog Course Description

Study principles of general chemistry. Prepares students for CHM201. Recommended preparation: high school algebra and chemistry. Satisfies the university general education requirement in natural science and technology. Prerequisite: MTH011 with minimum grade of 2.0 or placement in MTH012 or higher MTH course; or CHM090.

D. Required Text

Fundamentals of General, Organic, and Biological Chemistry by McMurry and Castellion, Fourth Edition or later edition. You also need to purchase an access code which will allow you to browse the course pack materials and quizzes. The book and the access code are available at OU bookstore.
II. Course Goals and Objectives

CHM104 satisfies the university general education requirement in natural science and technology (NST). The learning outcomes for NST courses states that the student will demonstrate:

- knowledge of major concepts from natural science or technology, including developing and testing of hypotheses; drawing conclusions; and reporting of findings through some laboratory experience or an effective substitute (*Laboratory experiences are met by either a limited number of interactive experiences, collecting and interpreting raw data, or other effective experiences such as a virtual laboratory*)
- how to evaluate sources of information in science or technology

You will also be able to perform the following:
1. Balance various chemical equations.
2. Solve problems related to all Gas Law.
3. Solve problems related to molar ratios.
4. Determine the correct electron configuration of an atomic species.
5. Draw the Lewis electron-dot formula of a molecule.
6. Name various ionic and covalent compounds
7. Identify the various types of the chemical reactions.

III. Course Policies and Procedures

A. Web site

You are required to log-in to the WEB-CT regularly. You are responsible for all the information posted for this course. Please use the discussion board for all your questions. Discussion board can be viewed by all students and is a very useful communication tool. I check the discussion board almost daily. If you have a private matter you need to discuss with me please use the course web-ct e-mail. Do not use my Oakland e-mail.

B. Course materials

The course will be divided into two sections.
Section I, which include the following chapters:

Chapter 1   Matter, Energy, and Life
Chapter 2   Measurements in chemistry
Chapter 3   Atoms and the periodic table
Chapter 4   Ionic compounds
Chapter 5   Molecular compounds
Chapter 6   Chemical reactions: Mass relationships and classification

Section II, which include the following chapters:

Chapter 7   Chemical reactions: Energy, rates, and equilibrium
Chapter 8   Gases, Liquids, and Solids
Chapter 9   Solutions
Chapter 10  Acids, Bases, and Salts
Chapter 11  Nuclear chemistry

C. Homework assignments

At the end of each chapter there is a section labeled as “Additional problems” which is divided into two types of problems; red and black. The red problems are answered in the back of the book. The black problems are answered in the study guide. You are requested to do all red problems for each chapter listed in sections I and II. This should help you understand the chapter. Make sure that you understand how to solve each problem and I will guarantee you an A in this class. Section I homework assignment is due on the day of the mid-term exam. Section II homework assignment is due on the day of the final exam.

D. Grading and Examinations

There will be a mid-term and a final multiple-choice exams (No comprehensive final exam will be given), and homework assignments.

The graded work will be:

Exam I 200 points
Exam I homework assignment 36 points (6 points/chapter)
Final Exam 200 points
Final exam homework assignment 30 points (6 points/chapter)

Examinations are based on material covered in the textbook. Exams will consist of multiple-choice questions.

No Make-up exams are given. Should you miss an exam for non-legitimate reasons, you will receive a grade of zero on the missed examination. If you missed an exam for a legitimate reason, we can negotiate.

The maximum number of points that any student can accumulate is 466 points. Final numeric grades will be based on parameter H. A score of H or higher will be assigned a 4.0 grade. About half of the score will be assigned a 1.0 grade, with a linear grade scale in between. Students with total points less than about H/2 will receive a 0.0 grade. Personal grades are not available by e-mail but are available on the WebCT site.

E. Laboratory Experiences

There will be NO laboratory experiences.

F. Office hours

Office hours are tentatively scheduled every Saturday from 9:00 to 10:00 AM throughout the course. You are requested to log-in to the chat forum during those hours for questions. Office hours time and duration might change dependent on our need.

IV Timetable

Mid-term Exam: is scheduled for Saturday 10/21/06 from 10:00 to 1:00 AM in room (to be announced)

Final Exam: is scheduled for Saturday 12/09/06 from 10:00 AM to 1:00 PM in room (to be announced)