

## Chemistry 101 (3.3; 4cr) General Chemistry I

- Textbooks** :
1. Raymond Chang, Chemistry, 7<sup>th</sup> Ed., McGraw Hill, 2002.
  2. Student Solutions Manual to accompany Chang, 7<sup>th</sup> Ed., McGraw Hill, 2002  
Authors: Brandon J. Cruickshank and Raymond Chang.
  3. Laboratory Manual (Mimeographed Expts), can be purchased from Chemistry Office, Room 102

<b><u>Grading Scheme</u></b> :	Two 60-min quizzes	40% (25% for the better 15% for the lower)
	Final Exam (2 to 2½ hours)	35%
	Laboratory work (DQ, Reports, Final)	25%

**Exam dates**: (will be announced later)

### **General Guidelines**:

Students are expected to attend all lectures and recitations.

Attendance will be taken periodically.

Absence from quizzes and the final exam is not permitted. If a student is prevented from taking a quiz for reasons beyond his/her control, he/she should notify the professor as soon as possible. If the reason for the absence is acceptable to the professor, a new grading scheme will be worked out for the final grade calculation. A student, who for any reason misses the two 60-minute quizzes, will be asked to withdraw from the course with a grade of W. No make-up quizzes will be given.

In the case of absence from the final examination with valid reasons, the student will be entitled to a make-up final only after the approval of the professor and the Arts and Sciences Dean's office.

Periodic tables are provided during exams. The use of Scientific calculators is permitted but sharing of calculators is not allowed under any circumstance.

### **Topics**:

- Ch. 1 Chemistry: The Study of Change:  
Introduction, Measurement, Significant figures, Dimensional Analysis.  
Sections: 1.1, 1.7-1.9.
- Ch. 2 Atoms, Molecules, and Ions: Dalton's Atomic theory, the structure of the atom, the periodic table, molecules, ions, chemical formulas, nomenclature.
- Ch. 3 Mass Relationships in Chemical Reactions.
- Ch. 4 Reactions in Aqueous Solutions.  
Sections: 4.1-4.5.
- Ch. 5 Gases
- Ch. 7 Quantum Theory and the Electronic structure of Atoms (omit 7.2)
- Ch. 8 Periodic Relationships among the Elements.

- Sections: 8.1-8.5.
- Ch. 9 Chemical Bonding I: Basic Concepts  
Sections: 9.1, 9.2, 9.4-9.9.
- Ch. 10 Chemical Bonding II: Molecular Geometry: The VSEPR Model.  
Sections: 10.1, 10.2.
- Ch. 11 Intermolecular Forces in Liquids.  
Sections: 11.1, 11.2.

***GENERAL CHEMISTRY LABORATORY  
DIRECTIONS***

### **Absences and Make-ups**

Students are strongly advised to attend all lectures laboratory, sessions, and quizzes on the assigned days and on time. Students may be allowed to make up a missed laboratory experiment only upon presenting a valid excuse (an official medical report from the University Infirmary or a permission from the Dean's Office) to his/her instructor.

### **Directions**

During laboratory session.

#### **A) Students are required to have:**

- 1- The **lab manual** of the course,
- 2- A **white gown** or else he/she shall not be admitted into the laboratory,
- 3- **Soap, detergent, sponge, towel** (paper or cloth), and **matches**.
- 4- Desk-cabinet key,
- 5- Knowledge of the safety regulations,
- 6- Read the experiment and prepared for it,
- 7- A report written on the experiment of the day except for calculations and data handling,
- 8- Calculators.

#### **B) Students are asked to abstain from:**

- 1- Eating or chewing gum or smoking,
- 2- Having private and unnecessary conversation with colleagues of instructors,
- 3- Asking friends to come and visit them in the laboratory,
- 4- Throwing papers, matches, broken glassware and solid wastes into the sink,
- 5- Tasting chemicals, wasting chemical and especially wasting of distilled water.
- 6- **Using their cellular phones neither in the lecture nor in the lab.**