

## Chemistry 102 Laboratory

- ◆ **Text**            - Lecture notes, handouts  
                         - R. Chang, "Chemistry," 6<sup>th</sup> Edition, McGraw Hill, 1998.
  
- ◆ **Grading Scheme**: Laboratory work constitutes **25%** of the course grade.

Lab Reports:            **10%**  
Drop Quizzes:        **5 %**  
Lab Final:              **10%**

- ◆ **Schedule of Experiments**:

<b>Exp #</b>	<b>Experiment</b>
<b>1</b>	<i>Check in</i> Conductivity of Aqueous Solutions
<b>2</b>	Chemical Equilibrium
<b>3</b>	pH of aqueous solutions
<b>4</b>	Analysis of Vinegar and Antacids
<b>5</b>	Qualitative Analysis of Cations
<b>6</b>	Qualitative Analysis of Anions
<b>7</b>	Determination of the Solubility Product
<b>8</b>	Electrochemistry
<b>9</b>	Oxygen and Hydrogen Peroxide
<b>10</b>	Some Reactions of Carbon and Nitrogen Compounds
	<i>Make up , Check out</i>

- ◆ **Absences and Make-ups**:

1. Students must attend all lab lectures and lab sessions.
2. Experiments will only be done on the assigned days.
3. Missed labs can be made up only on scheduled make-up days and only with a valid excuse (medical report from AUB infirmary). If 2 lab sessions are missed , the student will be asked to withdraw from the course
4. Students will be held responsible for all the missed work.
5. No make up quizzes will be given.

## General Instructions

### Lab sessions: Students are required to:

1. Have their lab manual and calculators.
2. Come on time, drop quizzes are given at the beginning of each lab session
3. **Wear a white gown**, otherwise they will not be admitted into the lab
4. Bring **soap, detergent, sponge, towel** (paper or cloth), and **matches**
5. Know the safety rules and regulations, and abide by them
6. Come prepared to the lab, having read the experiment and prepared an outline of the procedure to be followed
7. Answer any assigned pre-lab questions before coming to the lab

### *At the end each lab session, students are required to:*

1. Hand in their report.
2. Clean any used equipment thoroughly.
3. Return to the storeroom all items borrowed on that day.
4. Clean their bench top, and the sink next to them.
5. Make sure that the water and gas are turned off.
6. Lock their desk.

### General comments:

1. Eating, drinking, and smoking are strictly forbidden in the lab
2. All chemicals and water spilled on the benches should be wiped immediately
3. Side benches should be kept clean at all times, and reagent bottles should be kept closed when not in use.
4. Matches, paper, and any other solid wastes should be disposed off in the proper waste jars, and not in the sink!
5. To prevent contamination of reagent bottles, do not insert any droppers into them pour a sufficient quantity (no more) into a graduated cylinder and then insert your dropper into the cylinder.

### Safety Rules and Precautions in the Chemical Laboratory:

1. Learn the location of the fire extinguishers, emergency showers and fire blankets.
2. Always wear a lab coat, no open-toed shoes or sandals, tie your hair back.
3. Always wear glasses or safety goggles, no contact lenses in the lab.
4. Handle hazardous and fuming chemicals under the hood.
5. Keep flasks and tubes containing chemicals away from your faces.
6. If any acid or base comes in contact with the skin wash immediately with water.

**In case of an accident such as cuts, burns, etc.... Notify your lab instructor immediately!**

**Cleanliness, tidiness and safe working in the lab are regarded as an essential part of a student's training in practical chemistry**