Office Hours: Tuesday thru Thurs, 12:30 - 2:30 p.m. Just walk in! See Pamela Long in Room 508. Also by appointment. Call 487-3100.

WEEK 1  Introduction, Safety, Check In

WEEK 2  Techniques of Measurement and Observation

WEEK 3  Determination of an Empirical Formula by Titration

WEEK 4  ** Winter Carnival **  (no labs are held this week)

WEEK 5  A Sequence of Copper Reactions

WEEK 6  Spectrophotometric Analysis of Food Dyes

WEEK 7  Laboratory Practical Exam I

WEEK 8  Valence Electrons and Lewis Structures

WEEK 9  Qualitative Analysis, Part I

WEEK 10  Qualitative Analysis, Part II

WEEK 11  Calorimetry

WEEK 12  $\text{H}_2\text{O}_2$ Decomposition and the Determination of $R$: The Gas Law Constant

WEEK 13  Phase Diagram of t-Butyl Alcohol

WEEK 14  Laboratory Practical Exam II

WEEK 15  Evaluations, Clean Up, Check Out*

*Failure to check-out will result in a $25.00 fine in addition to charges for missing/broken equipment.
**FIRST YEAR CHEMISTRY DRAWER EQUIPMENT LIST**

(You may wish to keep this sheet in your drawer)

Check the equipment carefully to make sure that all items are present and in acceptable condition. If an item is broken or missing, list it on the equipment replacement form. When you have finished checking all of the equipment, take the replacement form to your instructor and wait for your replacement glassware. **No replacements will be made after the first day.** Sign and return the check-in card when you have all the equipment.

You are responsible for this equipment until the end of the semester and will be charged for any breakage or loss. You must check-out of your drawer at the end of the semester or if you drop the course. At that time, every item on the list must be in the drawer. Failure to check-out will result in a $25.00 fine in addition to charges for missing or broken equipment.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Stock #</th>
<th>Cost</th>
<th>IN</th>
<th>OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beakers, Pyrex, of the following sizes:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) 50mL</td>
<td>00537</td>
<td>$2.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) 100mL</td>
<td>00538</td>
<td>$2.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) 150mL</td>
<td>00539</td>
<td>$2.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) 250mL OR 400mL</td>
<td>00540</td>
<td>$2.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) of any size listed above</td>
<td>00541</td>
<td>$2.44</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

You need a total of 6 beakers

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**PRICES SHOWN ARE ILLUSTRATIVE ONLY. ACTUAL REPLACEMENT COSTS ARE SUBJECT TO CHANGE WITHOUT NOTICE.**

Replacement supplies can be purchased in the Chemistry Storeroom, Room B-002 of the Chem Sci Bldg. Window Hours: Monday - Thursday 8 am to 5 pm, Friday 7:00 am - 3:30 pm
In CH1111 the lab is a separate, 1 credit course so you will get a grade in CH1110 for the lecture and recitation portion of your University Chemistry course and a separate grade in CH1111 for the laboratory portion of the course. You will fail the lab by getting less than 60% of the points associated with it or by missing more than 2 experiments or 1 exam that are not made up.

One of the goals of the General Chemistry lab is to give you confidence in your ability to obtain quality data, to make thorough observations, and to interpret the results and draw conclusions. Your performance on each experiment will be assessed mainly on the effort you put into completing it, not on correct answers. It is felt that this will reduce competitiveness in the lab and encourage interaction with your classmates as well as provide an atmosphere conducive to learning.

Emphasis is placed on your understanding of the course material and mastery of basic laboratory techniques. These are evaluated by your correct answer scores on two laboratory practical exams. You should use your lab sessions to concentrate on your understanding of the material and seek answers to your questions as they arise.

Your performance in CH1111 lab will be evaluated in two areas (180 points total) as follows:

1. **Experimental (108 points total, 60% of your lab grade)**

   Each of the nine (9) experiments has 12 points associated with it.

   a) Three or four (3-4) of those points are based on your lab preparation effort (coming to lab on time, properly dressed, with safety goggles, and prelab questions completed); your effort during lab (understanding of the procedure and chemistry involved; organization and the ability to budget time, proper use of equipment, etc.); and following safety rules (wearing goggles at required times, proper waste disposal, clean work areas, clean labware at completion of experiment).

   b) The other 8-9 points will be based on: your effort in completing the report sheet (numerical data and observations recorded correctly and comprehensively, one example of each calculation performed shown in detail, appropriate graphs, inclusions of units and labels on data, data recorded in ink, one single line through mistakes) and your effort in completing the postlab questions (clear, concise and comprehensive answers). Feel free to discuss your answers with your classmates, your lab instructor, and/or your lab supervisor if you have any questions regarding the correctness of your answers.

   You will be graded on your effort in completing the report sheet and postlab questions, not on the correctness of your answers. The answer key will be posted the following session when your work is returned. You will need to compare your answers to those on the key and identify any errors you may have made. Ask your instructor any questions you may have during the lab session while the material is still fresh in your mind. You may also talk with your instructor or lab supervisor during the scheduled office hours for the course.

   c) If more than two experiments or one scheduled test is missed and not made up, you will **automatically fail CH1111**.
2. **Lab Practical Exams (72 points total, 40% of your lab grade)**

Two lab practical exams are scheduled during the semester as indicated on your experiment schedule. They will assess your proficiency in using laboratory techniques and procedures you have encountered in the experiments. An observer may evaluate your performance. The practical exams are also designed to assess your ability to make thorough observations and to communicate your findings, your understanding of significant figures and the factor-label method of problem solving, and your knowledge of safety procedures.

**ABSENCES**

If in doubt about whether an experiment can be made up, see the lab supervisor. You may be allowed to make up your work for excused absences only. These absences include those due to university-sponsored field or athletic trips, or illness. In the event of a university-sponsored activity, the student is responsible for contacting the lab supervisor before the missed lab session. In case of illness, the student should contact the lab supervisor as soon as he or she knows the lab session will be missed. The student may be required to present written confirmation of the reason for the absence. Again, you must notify the lab supervisor as soon as you know you will miss a lab. Failure to do this may result in your absence being regarded as unexcused and may result in you failing CH1111.

In case of absence:

1. **To report an absence,** see, phone, or e-mail your lab supervisor. Phone numbers, office locations, and e-mail addresses are included on your experiment schedule and in the front of this manual.

2. **To arrange a make up session,** you will need to discuss the arrangements with your supervisor. This means that you should phone or visit her (rather than using e-mail) at your earliest opportunity. If contacted in ample time, the lab supervisor will reschedule you into another lab session the same week.

3. If more than two experiments or one scheduled test is missed and not made up, you will automatically fail CH1111.

**NOTE:** You will be held responsible for understanding the material contained in the missed experiment for the laboratory practical exams. See your Lab Supervisor for help if needed.