



College of Arts and Sciences
Department of Chemistry

**Chemistry 1121- General Chemistry
Lab**

Laboratory Manual: Mohseni, Wardeska, Huang, and Kopp, "Experiments in General Chemistry"

Laboratory Schedule

| <u>Date</u> | <u>Assignment</u> |
|-------------------|--|
| Week 1 | Lab Check in. Safety rules |
| Week 2 | Exp. 13: Gas Laws |
| Week 3 | Exp. 14: The Preparation and Properties of Colloidal Dispersions |
| Week 4 | Exp. 15: Freezing Point Depression |
| Week 5 | Exp. 16: The Determination of Water Hardness |
| Week 6 | Exp. 17: Rate of Reaction: A clock Reaction |
| Week 7 | Exp. 18: Qualitative Aspects of Equilibrium: LeChatelier's Principle |
| Week 8 | Lab Exam I |
| Week 9 | Exp. 19: Determination of Equilibrium Constant of a Complex |
| Week 10 | Exp. 20: Qualitative Analysis: Group I |
| Week 11 | Exp. 21: Qualitative Analysis: Group II |
| Week 12 | Exp. 22: Qualitative Analysis: Group III Cations |
| Week 13 | Exp. 23: Qualitative Analysis: Groups IV and V Cations; |
| Check out Week 14 | Lab Exam II at the testing center. |

The experiments are not considered complete until all parts of the report are turned in. The Data Sheet and the Exercises from the previous week must be turned in at the beginning of the lab period, with all data, calculations and questions completed. Failure to complete the lab assignments will result a grade of "F" for the course.

Experiments turned in after the prelab lecture will be penalized 5%. If the reports (Prelab, Data Sheet, and Exercises) are late by one week, there are 50% penalties; after one week, a grade of zero will be reported for that experiment.

You can make up an experiment within one week. A grade of zero will be reported if the experiment is not made up by then. For more information on lab make-up policy, please consult with Lab D2L site.

Grading Scale:

| | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|
| A 91-100% | B ⁺ 82-85% | C ⁺ 70-73% | D ⁺ 58-61% |
| A ⁻ 86-90% | B 78-81% | C 66-69% | D 54-57% |
| | B ⁻ 74-77% | C ⁻ 62-65% | F <54% |

1. Before lab starts you are required to watch a lab safety video and pass the associated quiz.
2. Lab Exams will be given at ETSU Testing Center. You can take the tests only during your lab schedule time. You are allowed to take a calculator, a pen/pencil with you to the testing center. A copy of the Periodic Table and a piece of scratch paper will be provided. You must turn in the copy of Periodic Table and scratch paper before leaving the testing center. Make sure you follow the following rules set by the testing center.

Information for Students

- ✓ The Center for Academic Achievement is located on the first floor of the Sherrod Library; call 439-6708 for directions.
 - ✓ *Tests in this course will be proctored in CFAA Testing Services on the 1st floor of Sherrod Library. Go to <http://www.registerblast.com/etsu/exam> and click on "Choose Exam" to find the tests associated with this class (e.g. BIOL 1110-001). Select an upcoming test; you will be given the opportunity to reserve a convenient time on the day or days that the test is available. The sooner you make your appointment, the more likely you are to get a seat on the day and time you prefer. Note: you must register and make your selection at least 12 hours prior to your preferred test time in order to save your reservation.*
 - ✓ Please go to our website <http://www.etsu.edu/uged/cfaa/testing/default.aspx> to review the center's policies and procedures.
 - ✓ **Academic misconduct will be subject to disciplinary action.**
(<http://catalog.etsu.edu/content.php?>)
1. Safety goggles must be worn at ALL times in the laboratory. Long hair must be tied back. Shoes which cover your entire foot from the soles of your feet to the ankles, not sandals, must be worn. No eating, drinking, or use of tobacco is allowed in the laboratory.
 2. You must be registered for BOTH lecture and lab. A common grade is given for both parts of the course, and failure to complete satisfactorily either part will result in a grade of F in both parts.

3. You must check out of your laboratory locker when you leave the course (See the stockroom). All students must check out of lab BEFORE taking the lab final. The lab final will not count towards the grade unless the student has checked out.
4. The laboratory will count as 25% of the combined course grade. Sixty percent of the lab grade is based on the lab exams; the other 40% includes lab work, participation and effectiveness, reports, unknowns, and evaluation by the lab instructor.
5. Your data sheet without the lab instructor's initial could result in zero for that particular experiment.
6. Lab exam **must** be taken at the designated date. NO make-up exam will be given after this time except for extreme circumstances.
7. You must remove your safety goggles and your lab coat (and any other personal belongings) from your locker the day you are scheduled to perform the last experiment of the semester. You will NOT have access to your locker beyond this day. Any personal belonging left in the lockers beyond this point will be discarded to prepare the lockers for the upcoming semester.
8. Students are only allowed to use the lockers to store their items, that there is no liability for these items.
9. The Chemistry Department requires that each Chemistry lab student has a long-sleeved, knee-length lab coats; any color. If this lab coat happens to be a nursing lab coat that meets the criteria, then that will suffice for the lab. You can purchase your lab coat from Best Uniform Center (intersection of Knob Creek and Sunset), SBX Bookstore (W. Walnut Street), ETSU Bookstore, or any outlet stores.
10. You must also provide your own chemical splash proof goggle