

CHEM 2115: General Chemistry I Laboratory – Spring 2014

Lab Manual: Experiments for Chem I Lab, Richard Stockton College - Available online on the course-wide website
Updated for Spring 2014

Course Websites:

The course-wide website can be found at <http://blogs.stockton.edu/chem1>. This site contains the common files for all Chem I Lab sections: safety information, background and procedures for all labs, report forms, videos, and other documents. Throughout the semester you will also find video clips that will help you to visualize the set up for the labs, review important concepts and safety features.

Data and files specific for your section can be found on Blackboard, available through the goStockton portal. Here you will be able to communicate with your instructor, find class data for analysis, and other section-specific files. There is a link to the course blog from Blackboard as well.

Required Equipment:

All students are required by the College to wear protective goggles. Only College-approved goggles can be used in the lab. These can be purchased from the Stockton bookstore and other scientific suppliers. Woodworking goggles are not appropriate eye protection.

You will also be required to have a laboratory notebook. Any notebook with a *sewn binding* will be sufficient. Read the section in the laboratory text on how to keep a notebook before coming to lab. It is important to keep a complete notebook because your notebook will be your only available resource during the final exam.

Chem 2115 is a co-requisite of Chem 2110. Students will perform experiments in measurement, stoichiometry, solutions, chemical equilibrium, and acids & bases; demonstrating principles learned in Chem 2110.

Course Policies

The following policies have been adopted by the Chemistry Program and apply to all sections of Chem I Laboratory.

1. **Make-up Policy:** You are expected to attend all lab sessions. Students will receive a grade of zero for all missed labs. Students who have valid college excuses for being absent are permitted to make up a single missed Chem 2115 laboratory experiment. Missing two labs will drop your final grade one letter grade and if you miss three or more sessions you will fail the course. Students who have missed work and have an **excused** absence should report on to the laboratory on **Friday, April 18 at 2:10** for the make-up lab. This is the only available time for completing the make-up lab. Students are only allowed to attend the lab section they are registered for and are not permitted to attend other lab sections.
2. **Academic Honesty:** Collaboration is important part of learning, especially in the sciences. All work in the laboratory will be done independently. Working in groups to discuss lab exercises outside of class is encouraged. When appropriate, assistance from other students or outside sources must be acknowledged. **However, your written work must be your own. Handing in someone else's work as your own is cheating. All instances of academic dishonesty will be reported to the Provost as required by college policy and result in a failing grade for the course.** Please review the college's academic honesty policy available on the Academic Affairs website.
3. **Laboratory Reports:** Laboratory reports are due on the date indicated by your instructor. Late reports will not be accepted under any circumstances. It is your responsibility to turn in reports on time.
4. **Laboratory Notebook and the Final Exam:** The final exam will consist of a written and lab practical component. You will be permitted to use only your lab notebook during both portions of the final. You will **NOT** be able to reference the laboratory manual or any graded materials during the final. It is your responsibility to keep a complete notebook.
5. **Pre-lab requirement:** Beginning with Experiment #3, all students are required to complete a pre-lab write-up in their laboratory notebook BEFORE coming to the lab. A pre-lab consists of a short paragraph detailing the

goals of the experiment, an outline of the procedure (not copied from the manual), and date tables. The outline can be in the form of bulleted lists or numbered steps, but regardless of format should contain a sufficient level of detail. Several examples of pre-labs are available on the course blog. **Students who do not have a pre-lab prepared will not be allowed to work in the laboratory until the pre-lab is completed in their notebook.** Failure to complete a laboratory experiment due to a lack of a complete pre-lab is **NOT** considered an excused absence under the course make-up policy (see #1 above).

Lab Schedule

Monday	Tuesday	Wednesday	Thursday
<i>Week of 1/27</i> Check-in, Safety, Experiment 1: Introduction to the Lab; Mass, Volume and Density			
<i>Week of 2/3</i> Experiment 2: Using Excel for Calculations and Graphing (computer lab, see room assignments below)			
<i>Week of 2/10</i> Experiment 3: Chemical Changes: The Copper Cycle			
<i>Week of 2/17</i> Experiment 4: Synthesis and Analysis of Magnesium Oxide			
<i>Week of 2/24</i> Experiment 5: Limiting Reactants			
<i>Week of 3/3</i> Experiment 6: Periodic Relationships			
<i>Week of 3/10</i> NO LAB – SPRING BREAK			
<i>Week of 3/17</i> Experiment 7: Volumetric Analysis & Consumer Chemistry			
3/24 NO LAB	3/25 NO LAB - Advising	3/26 Experiment 8: Ideal Gas Constant	3/27 NO LAB
3/31 Experiment 8: Ideal Gas Constant	4/1 Experiment 8: Ideal Gas Constant	4/2 NO LAB - Advising	4/3 Experiment 8: Ideal Gas Constant
<i>Week of 4/7</i> Experiment 9: Iron Content of Vitamins			
<i>Week of 4/14</i> Experiment 10: Acids, Bases, & Buffers			
<i>Week of 4/21</i> Final Exam: Practical & Written			

Friday, April 18, 2:10 PM – Make-up Lab (For those students who have missed a lab and have an excused absence.)

Computer Room Assignments for Experiment 2

Section	Day & Time	Room
003	M 2:10	USC 245
004	M 5:30	USC 345
005	T 8:30	USC 345
006	T 11:20	USC 345
007	T 2:25	USC 345
008	T 5:30	USC 345
009	W 11:20	USC 345
010	W 2:10	F210
011	W 5:30	USC 345
012	R 8:30	USC 345
013	R 2:25	F210
014	R 5:30	USC 345