

CHEMISTRY 151LL LAB SCHEDULE and POLICIES (GCC North)**Fall 2008**

Requirements: You will need the following materials, available in the Campus Bookstore: approved Safety Goggles, pen, pencil, notebook, and calculator.

There is no lab manual for this course. You will **download** each experiment from the Course Folder before each lab, **beginning with the second week of lab.** Various lab techniques and photos of new equipment are also included in each folder for that week's experiment. You will be given downloading instructions in your first lab class.

Preparation for lab: **Before** coming to lab, download, read and study the experiment and any background information in your text necessary to understand the experiment. Read through the techniques and look at the photos in the folder for the experiment. Some labs require that you record specific information before lab. Your instructor will review major concepts and techniques at the beginning of lab, so mark the experiment with questions to ask. You may not be able to complete the lab in the allotted time if you do not prepare!

Schedule: The following is a tentative schedule. Some experiments are performed individually, and others in groups. **All reports need to be completed individually and questions answered in your own words.** You may benefit from discussing the experiment with other members of the class, however. Lab reports are worksheets at the end of each lab handout that you will turn in to your instructor at the beginning of the next lab period. The exception to this is the "Limiting Reagent" Lab that will require a formal lab report. Your instructor will discuss the format for the lab report and how it will be graded.

Week	Date	Related Pages in Text	Experiment or Activity
1	Aug 28		Introduction to Lab; Background Assessment; Computer network sign-in; DVD (Bill Nye)
2	Sept 4		MCCCD Assumption of Risk and Release of Liability Forms due; Laboratory Safety & Safety Video; MSDS
3	Sept 11	16-17	Density: Accuracy and Precision
4	Sept 18	7-10, 353	States of Matter
5	Sept 25	147-158	Atomic Theory
6	Oct 2	149-154, 84-87	Introduction to Spectroscopy: Analysis of Copper Ore
7	Oct 9	226-256	Geometry of Covalent Compounds
8	Oct 16	353-365	* Intermolecular Forces
9	Oct 23	69-72, 107-124	Chemical Reactions: Introduction to Reaction Types
10	Oct 30	107-124	The Copper Cycle
11	Nov 6	108-116	* Solubility of Ionic Compounds
12	Nov 13	77-84	* ^ Limiting Reagent
13	Nov 20	84-90	§ Ascorbic Acid Titration
14	Nov 27	No Labs	Thanksgiving
15	Dec 4	273-294	Thermochemistry: The Heat of Neutralization
	Dec 11		Final Exam – Practical and Written

* Graded pre-lab work required.

^ Formal report required. Details will be provided during the prelab discussion.

§ Individual Lab Experiment or Activity

October 3rd is the last day for withdrawal without instructor's signature. **December 1st** is the last day for student-initiated withdrawal (instructor's signature required).

Equipment and Unknowns: The equipment required for each experiment will be placed in plastic boxes stored on the shelves by the instructor's station. Some experiments also require unknowns. When you check out unknowns, sign your name opposite the appropriate number. Be sure to record the unknown number on your data sheet. Before leaving lab, properly dispose of waste (see lab write-up), and clean and return all equipment to the place you obtained it! Your instructor may check the condition of equipment as you return it. Dispose of any extra unknown and return the container to tray (instructor's station).

Grading: Each lab will be graded out of **100 points**. Each lab period will begin with a 5-minute, 5-point pre-lab quiz over the upcoming lab. The lab final will consist of two components: a practical and a written portion. Your instructor will cover the percentages that lab reports and the final exam will count toward your final grade. Final grades will be determined by your instructor.

Data and Calculations: You will not use scientific notebooks in this course. Since you are not recording data in a scientific notebook and space is limited for data collection, you may use pencil. If you choose to use ink, changes should be made by drawing a single line through the data, placing your initials near the cross-out, and then writing the correct data, e.g., 0.1503 g 0.1603 g.

Any calculations or questions answered can be done in pencil. Significant figures in data and calculations will be graded, so be sure to record data correctly (5 mL versus 5.0 mL versus 5.00 mL, depending on the precision of the measuring device). Also use the rules for determining the correct number of significant figures in the answer to a calculation.

Behavior: Behavior interfering with instruction or good safety practice will result in ejection from lab. Repeated offenses will result in expulsion from lab.

CHM Safety Rules:

- 1) Wear approved goggles at ALL TIMES in the laboratory. Do not open the goggle vents.
- 2) Do not perform unauthorized experiments. Only your laboratory instructor may authorize special experiments.
- 3) Wash any spilled chemicals off your person with water as quickly as possible.
- 4) Do not touch any chemicals without receiving specific instructions to do so from your instructor.
- 5) Do not taste any chemicals.
- 6) Smell chemicals only when directed and then with caution.
- 7) Ensure that any heated glass or metal equipment has cooled adequately before handling.
- 8) Use caution in handling all glassware. If a cut occurs, rinse the wound with cold running water until you are sure there are no small pieces of glass in the cut.
- 9) Before you plug in electrical equipment, make sure that the cords are not damaged. Keep cords away from all hot surfaces.
- 10) Know your laboratory's location for the fire extinguisher, eye bath, and shower.
- 11) Wear closed-toe shoes and appropriate clothing that covers the student from neck to knees.
- 12) Keep long hair tied back at all times.
- 13) Consult the lab procedure for handling waste chemicals.
- 14) You are responsible for cleaning the equipment you use as well as your lab workstation.
- 15) Report any personal injury, no matter how slight, to your laboratory instructor.
- 16) Always read your laboratory exercise completely prior to actual lab time. Be aware that an unprepared worker is an unsafe worker.
- 17) Upon request, we can provide a list of chemicals used for the semester, as well as the MSDS reports.

CHM Department Policy:

- 1) All students who miss the first lab meeting will be **dropped** from the roster.
- 2) All lab students must complete their safety training **before** performing any experiments.
- 3) You are expected to **be on time** for lab. You will not be allowed to work in lab if you miss any part of the pre-lab vital safety information and/or demonstrations of techniques.
- 4) Student lab **grades will be reduced** by 10% **each** for (a) not having a copy of the lab procedure, (b) wearing inappropriate shoes, and (c) wearing inappropriate clothing.
- 5) Students will not be allowed to perform the lab without **approved** goggles. These students must make up the lab. It is the student's responsibility to arrange a make-up lab at another time. A locked drawer will be provided for each lab session to store goggles for the semester.
- 6) **Lab make-up** is at the discretion of the instructor and depends on available space. Make-up is allowed during regularly scheduled lab sections and only during the days that it shows on your schedule. The lab schedule is posted on the chemistry web site and on the door to the stockroom. No more than **two labs** may be made up during the semester.
- 7) If you **miss more than 2 labs (excused or unexcused):** October 31st you will receive a grade of **W**; after October 31st you will receive a grade of **F** (by default) or **W** (by request).
- 8) Students who **withdraw from the lecture** within the first 10 weeks (on or before October 31st) must also withdraw from the lab.
- 9) If you do not turn in the lab report before you leave, obtain the **instructor's initials on your data** sheet before leaving the lab.
- 10) Students must always turn in **individual lab reports** even when working in pairs on a lab procedure.
- 11) During the semester you will be charged if you break any of the **special equipment**. Your instructor will inform you of the replacement costs and the procedure to follow for payment.