

CHEM 1212K Lab Dr. Xue, Fall Semester 2018

Instructor: Dr. Shenghui Xue
210 Courtland North
Tel: N/A, will be updated in the class
sxue1@gsu.edu (preferred)

Time & Location:

Thursday Session: 10:00 am – 1:00 PM

lab lecture 10:00 am-10:45 am **Thursday** Classroom South 327

lab 10:45 am-01:00 pm **Thursday** Classroom South 337

Friday Session: 11:00 am – 2:00 PM

lab lecture 11:00 am-11:45 am **Friday** Classroom South 327

lab 11:45 am-02:00 pm **Friday** Classroom South 237

Student should attend **ONLY** one session listed above.

Office Hours: Mondays 10:30 am – 12:00 pm, 1:30 pm-3:00 pm.
Wednesdays 4:00 pm – 5:00 pm, or by appointment.

STEM Tutoring: Sports Arena
125 Decatur St SE, First Floor
9 am – 6 pm M, T, W, R & 9 am – 4 pm F
<https://cas.gsu.edu/stem/student-resources/>

Required: (1) Chem. 1212 Lab Manual (available free during first lab, includes course outline, schedule of activities, grading)
(2) Stitched composition notebook
(3) Safety glasses/goggles
(4) Non-programmable calculator

Grading: see page 5 of 1212 Lab Manual. Graded final exams and final reports can be viewed at the instructor's office, but will not be returned to the students. No grades will be given via e-mail or by phone.

General Notes:

1. This is an individualized project-type lab.
2. It is very important to know that you should **NEVER** miss a lab. There are **NO** make-up labs, aside from the last lab of the semester. You should always be at prelab on time. Students **CANNOT** enter the lab without attending the whole prelab lecture. This is due to safety concerns. Any excuses for missing a lab must be made, in person, to Dr. Xue. Please bring the required documentation for allowable absences. Unfortunately, traffic is not considered an allowable excuse for an absence, so please make sure to allot enough time to arrive safely on campus in time for the prelab and lab.

3. Quizzes will be **closed book**. **Always** bring your non-programmable calculator with you for these quizzes.
4. A lab apron or coat and goggles are **required at all times**. **Students will NOT be allowed in the lab wearing shorts, sandals or open-toe shoes, or tops that expose shoulders**.
5. Cleaning up is part of the lab session. Students should stop working and begin cleaning up their work area, including their hood space, **20 minutes** before the conclusion of the lab session. Points will be taken off for lab benches or fume hoods not cleaned. **Students must exit the lab before or by the schedule ending time**.
6. No cell phones are to be used in the laboratory. **Points will be taken off if you use cell phone in the laboratory**. If you need to use your phone, you will wash your hands, and then go into the hallway. All cell phones must be on silent if they are in the lab.
7. Notebooks should be kept up to date; **bound notebook** is required.
8. Notebooks **MUST** be signed by TA's or lab instructor at the conclusion of each lab session.
9. **Students must turn in reports on all calculations following the conclusion of each experiment, otherwise the student will not receive credit for the experiment:** see pp 73-83 of lab manual.

To pass the lab: Students **MUST**

- (1) Take the lab final exam.
- (2) Turn in the lab report **before** taking final lab exam.
- (3) Turn in notebook before taking the final lab exam.

Failure to do any of these does not result in an incomplete, it results in a **F**.

Notes on Safety:

1. No food and drinks allowed in the lab. Failure to follow safety rules will result in expulsion from the lab with no make-up allowed.
2. The preparation/handling of concentrated acids or ammonia solutions must be carried out under the hood. Unused concentrated acids or ammonia solutions must be diluted by adding them to water, under the hood. The amount of water to be used in the dilution depends on the amount of reagent needed to be ACS diluted so it will not fume (about 1 in 10 dilution). The diluted solutions will be discarded in the waste drum located in the lab. Glassware used for the preparation/handling of concentrated acids or ammonia solutions must be rinsed with enough water, under the hood, and the combined rinses must then be placed in the waste drum. Safety video:

<https://www.youtube.com/watch?v=MARP5Ti33II>

Notes on Notebook:

Lab notebooks should be kept up to date. Before each meeting, a summary in your own words about the experiment including purpose, and experimental methods must be written in the notebook before beginning the experiment. Students without written notes in their notebook will not be allowed to enter the lab area. During lab, students are expected to record data in ink into the notebook. Data must **NEVER** be recorded in pencil/or on other books/papers, and later transferred to the notebook. After the experiment is completed, calculations must be presented in your notebook. I should be able to find amount of material you added, volumes to titrate, etc. in your notebook in order for you to earn the maximum amount of points for those experiments.

Failure to have work on the lab notebook can result in loss of notebook participation and experiment points.

For each experiment, the following **MUST** be done.

1. Only write in black or blue INK in your notebook
2. Write the DATE, title, purpose, equipment, and procedure for the experiment BEFORE the prelab.
3. Always write down all results and observations during the lab in your notebook in ink.
4. You are required to circle the final results of your calculations you have done for each experiment. If they cannot be found, they will not be graded.
5. You should write a conclusion to each experiment after you have finished it.
6. Dr. Xue (only) will look at your notebook after your experiments to make sure you have done the calculations properly. Do these IMMEDIATELY after each lab you finish. You will lose points for not having the calculations done the following week.

Notebook should...

1. Number all pages (only on the top right of each right-hand page)
2. The 1st page is your TABLE OF CONTENTS
3. The 2nd page is the schedule cut from the syllabus (My syllabus, if another instructor's material is in your notebook it's as if it was not there.) and TAPED onto the page.
4. The 3rd page is the experimental crucible page taped in.
5. The 4th page is crucible mass page taped in

Notebooks without this set up by week 2 will result in severe point loss.

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I have read the entire syllabus and understood the grading system and all the additional information provided in it, including the following:

1. No make-up tests or quizzes will be given.
2. Students need to show their GSU Panther I.D. card when taking exams and quizzes.
3. The instructor reserves the right to assign seating during exams and quizzes.
4. Cell-phone calculators and programmable calculators are not allowed.
5. Cell-phones need to be kept either in purses or book-bags during exams or quizzes; of course, they should be turned off at all times.
6. **The preparation/handling of concentrated acids or ammonia solutions must be carried out under the hood. Unused concentrated acids or ammonia solutions must be diluted by adding them to water, under the hood. The amount of water to be used in the dilution depends on the amount of reagent needed to be diluted so it will not fume (about 1 in 10 dilution). The diluted solutions will be discarded in the waste drum located in the lab. Glassware used for the preparation/handling of concentrated acids or ammonia solutions must be rinsed with enough water, under the hood, and the combined rinses must then be placed in the waste drum.**
7. Preliminary reports on all calculations, **in ink**, must be submitted at the time of the completion of each experiment, and they must be included in the appendix section of the final report; otherwise, you will be assigned the minimum amount of points for those experiments not submitted (if you have supporting data in your lab notebook). Preliminary report forms are found in the last pages of the lab manual, one for each experiment needing calculations.
8. The clock schedule for the lab must be followed. Students are not to enter occupied labs before the scheduled start time of the lab itself. For each scheduled lab section, clean-up must be completed by the end time of the lab so as not to disrupt the next class.
9. It is very important to know that you should NEVER miss a lab. There are NO make-up labs, aside from the last lab of the semester. You should always be at prelab on time. Students **CANNOT** enter the lab without attending the whole prelab lecture.
10. **A lab apron or coat and goggles are required at all times.** Students will not be allowed in the lab wearing shorts, sandals or open-toe shoes, or tops that expose shoulders.
11. **Notebooks:**
 - A. The student must bring to lab the write-up for the experiment to be performed on each session; this must include "bullets" of the procedure(s) to be carried out and data tables to be filled out.
 - B. The student must have the lab notebook signed by the TA or instructor at the conclusion of the lab. We do not accept any other options of records keeping.

Name (print in ink): _____

Panther ID (in ink): _____

Signature (in ink): _____

Date (in ink): _____