

Chem 1211 Lab Dr. Ahuja -Spring 2017

Instructors: Dr. Tarushee Ahuja – Chem 1211 Lab
Lab hours: Tuesdays 3:00pm-6:00pm
Office: 208 Courtland North, email: tahuja1@gsu.edu
Office Hours: Thursday 9.30am-10:30pm, or by appointment

Location: PSC 362

Text: GSU Lab manual (will be handed out at first lab lecture). A course outline, schedule of activities, grading, etc., is included in the lab manual.

Online

Material: i-college

Comments on Lab:

1. Individualized project-type lab.
2. Lab notebooks should be kept up to date. **Bound notebook required.** All data must be recorded in this notebook **in ink.**
3. A second note-taking book during lab lecture is also required. During lab lectures, students take notes to prepare for labs/quizzes.
4. Before lab each week, students are responsible to read and write in their lab notebooks about each experiment beforehand (refer to schedule on syllabus). Students should check on icollege for documents pertaining to the experiments. **A summary in your own words (numbered/bullet points) about the experiment including purpose, materials, and experimental methods must be written in the notebook before beginning experiment.**

TAs will check the notebooks before entering lab, and students without written notes in their notebook will not be allowed to enter. 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. At the end of lab, notebooks must be checked and signed by TAs at the conclusion of each lab session. **NO SIGNATURE, NO CREDIT.**

5. Students who miss lab lecture are not allowed to conduct experiments for the lab session.
6. Safety glasses required at all times in the lab.
7. Dress appropriately. Students will not be allowed in the lab without appropriate clothing.
 - a. No open-toe shoes (flip-flops, sandals, crocs, etc.)

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- b. No shorts/ short skirts
8. No food and drinks allowed in the lab. THIS INCLUDES CHEWING GUM!
9. Failure to follow safety rules will result in expulsion from the lab with no make-up lab is allowed.
10. Cleaning up is part of the lab session. Students should stop working and begin cleaning up their work area, including their hood space, 25 minutes before the conclusion of the lab session.
11. When cleaning glassware: Step 1: Pour out chemicals from glassware into appropriate waste bin. Step 2: Rinse the glassware and pour the rinse into appropriate waste bin, NOT THE SINK. Failure to obey this rule will result in lab technique point deduction.
12. Preliminary reports of data/results, must be submitted ONLINE at the time of the completion of each experiment (due dates are announced on icollege every week), and they must be included in the appendix section of the final lab report.
13. Each student may have up to 1 make-up lab sessions. Authorization is needed from instructors before making up lab.
14. To pass the lab, students MUST take the lab final and turn in the lab report. Grading point distribution is on page 4 in lab manual. Lab report is due on Week 13 Lab at the beginning of lab lecture, but may be turned in earlier (Week 12 Lab Lecture) for extra credit. It is important that students work on the lab report as experiments progress during the semester. Lab report instructions/samples are on page 5 in the manual. There will be a document on icollege pertaining to lab report. Students are responsible for downloading it as guidance for writing lab reports.
15. Department Student Integrity Policy is on Pages 4 and 5 of lab manual.

Graded lab notebooks may be picked up from the lab instructor within one semester following the completion of the lab after which time they may be discarded. 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.

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Lab Schedule

Lab 1: Check-in, Safety Orientation.

Lab 2: Take Safety Exam and Density Experiment.

Lab 3: Recrystallization Experiment. Unknown.

Lab 4: Begin Term Project: Identification of Unknown Organic Acid.

I. Check Melting Point of Organic Acid Unknown

Lab 5: Continue Term Project. Make NaOH stock solution, KHP titration.

Lab 6: Continue Term Project. HCl titration

Lab 7: Continue Term Project. Organic Acid Titration to determine equivalent weight of unknown.

Lab 8: QUIZ 1. Continue Term Project. Finish equivalent weight titration. Computer Search is done either before, during or after lab. Print 3 copies of computer search results. Turn one in to instructor, one in notebook, one in lab report.

Lab 9: QUIZ 2. Continue Term Project. pKa trial 1 and prepare for sodium fusion* (if conducting sodium fusion – depending on computer search results).

Lab 10: QUIZ 3. Continue Term Project. Two choices: (depending on computer search results) pKa trials 2 and 3, OR sodium fusion

Labs 11 & 12: Make-up lab sessions. Check-out of lab as soon as experiments are completed. Extra credit for lab report turned in on Lab 12.

Lab 13: Final Exam. Lab Report and Lab Notebook Due.

**At the end of every experiment, calculations are done and results are submitted to instructor ASAP (depending on experiments). Due dates will be told in lab lecture. Late submission = zero credit.