

## Chem 1211K Laboratory Spring 2014 Course Syllabus

**Instructor:** Dr. Elina Stroeva

**E-mail:** estroeva@gsu.edu

Email is the best way to communicate with the instructor. While sending an email, write the name of the course, and then the subject. For example, if you want to write about arranging an appointment, the subject should be "1211 Lab - appointment". Please send email from GSU email.

**Phone:** (404) 413 – 5899

**Office:** Courtland North 208

**Office Hours:** T 1:30 – 3:30 pm, R 2:00 – 3:30 pm

(Other times are available by appointment)

**Lab Times:** Thursday 10:00-10:45 AM NSC 218 pre-lab lecture  
Thursday 10:55-1:00 PM NSC 234 lab session (CRN: 11281)

**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.

### Comments on Lab:

1. Individualized project-type lab.
2. Lab notebooks should be kept up to date. **Bound notebook required.** Leave three pages blank at the front of the notebook for a Table of Contents. All pages must be numbered and dated. 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 desire2learn 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.**

**SCHEDULE:**

| Lab Date (Tuesdays) | Lab Session |
|---------------------|-------------|
| 01/23/2014          | Lab 1       |
| 01/30/2014          | Lab 2       |
| 02/06/2014          | Lab 3       |
| 02/13/2014          | Lab 4       |
| 02/20/2014          | Lab 5       |
| 02/27/2014          | Lab 6       |
| 03/06/2014          | Lab 7       |
| 03/13/2014          | Lab 8       |
| 03/27/2014          | Lab 9       |
| 04/03/2014          | Lab 10      |
| 04/10/2014          | Lab 11      |
| 04/17/2014          | Lab 12      |
| 04/24/2014          | Lab 13      |

Lab 1: Check-in, Safety Orientation.

Lab 2: Take Safety Exam and Density Experiment. Unknown: Density Unknown

Lab 3: **QUIZ 1.** "Density. Errors of Measurements". Recrystallization Experiment. Unknown: Recrystallization Unknown

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

Unknown: Organic Acid Unknown

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

Lab 10: **QUIZ 4. 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 online or to instructor ASAP (depending on experiments). Due dates will be posted on desire2learn. Late submission = zero 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.)
  - 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 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. No make-up lab till after March 4th. Each student may have up to 1 make-up lab sessions. Authorization is needed from instructors before making up lab.
13. 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.
14. **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.**