

**CHEM 1211K Lab**  
Spring Semester 2018

Lab Lecture: Mondays 11:00 am – 11:50 am, 362 Petit Science Center  
Laboratory: Mondays 11:50 am - 2:00 pm, 355 Petit Science Center

Instructor: Dr. Danzhu Wang

Office: Room 202 in Courtland North Building

Email: [dwang19@gsu.edu](mailto:dwang19@gsu.edu) (Emails will be replied only through your GSU email)

Office Hours: Mondays and Wednesday 9:00 – 10:30 by appointment.

Text: GSU Lab manual (to be handed out at first lab lecture).

A course outline, schedule of activities, grading, etc., is included in the lab manual.

Comments on Lab:

Individualized project-type lab.

**Notebooks** should be kept up to date; bound notebook required. Notebooks must be signed by TA at the conclusion of each lab session.

Quizzes and final exam are closed-book.

**Safety glasses** required at all time.

Cleaning up is part of the lab session. Students should stop working and begin cleaning up their work area no later than 15 minutes before the conclusion of the lab session. Students must exit the lab by 2:00 pm

Students must turn in reports on density, recrystallization, melting point, molarity of NaOH and HCl, and Equivalent weight of unknown after the conclusion of each of these experiments.

Session 1 Jan 22: Introduction, safety video, check-in.

Session 2 Jan 29: Density experiment.

Sessions 3 Feb 5: Recrystallization experiment.

Sessions 4-12: Characterization of an unknown carboxylic acid.

Session 13 Apr 23: Final exam and check out. Final report and lab notebook due at this time. No Late submissions accept.

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.

SCHEDULE OF CHEMISTRY 1211K

Lab	DATE	WEEK	LAB EXPERIMENTS
1	Jan 22	1	Check-in, Safety Orientation (Page 70-72).
2	Jan 29	2	<b>Safety Exam</b> and Density Experiment (p13-17) -- Density Unknown
3	Feb 5	3	Recrystallization Experiment (p25-27) -- Recrystallization Unknown <b>Submit page 77-79</b>
4	Feb 12	4	Melting point (p27-29) -- Unknown Organic Acid <b>Submit page 83</b>
5	Feb 19	5	Make NaOH stock solution, KHP titration (p34-36) -- Unknown Organic Acid <b>Submit page 85</b>
6	Feb 26	6	HCl titration (p34-p35) -- Unknown Organic Acid Submit page
7	Mar 5	7	Determine equivalent weight (p36-p38) -- Unknown Organic Acid <b>Submit page 87</b>
8	Mar 19	8	Computer Search (p39-41) -- Unknown Organic Acid <b>QUIZ 1</b> <b>Submit page 89</b>
9	Mar 26	9	pKa trial 1 and prepare for sodium fusion (p42-49) -- Unknown Organic Acid <b>QUIZ 2</b>
10	Apr 2	10	pKa trials 2 and 3 / sodium fusion (p42-49) -- Unknown Organic Acid <b>QUIZ 3</b>
11	Apr 9	11	Make up lab section/check out
12	Apr 16	12	Check-out
12	Apr 23	13	<b>Final Exam (NO make-up) ☹</b> <b>Lab Report and Lab Notebook Due</b>