## CHEM 1211K – Laboratory Syllabus

## Spring Semester 2015

CRN 10224

**Instructor:** Dr. Nilmi Fernando **Office:** 434D Kell Hall

**Email & Phone:** nfernando1@gsu.edu, 404-413-5490

**Office Hours:** Tuesdays 1:00-2:00 pm

Wednesdays 1:00-2:00 pm

**Pre-Lab Lecture:** Tuesdays 2:00 pm - 2:45 pm in 218 NSC **Lab:** Tuesdays 2:45 pm - 5:00 pm in 234 NSC

### I DO NOT CURVE. YOU WILL BE ASSIGNED THE GRADE YOU EARN.

#### **Comments on Lab:**

- 1) Goggles/safety glasses and a lab apron must be worn all time during lab.
- 2) Bound stitched composition notebook

Notebooks should be kept up to date; bound composition notebook required. Leave the first two pages of the notebook blank for Table of Contents. All pages must be numbered, dated and initialed at the top right corner. All data must be recorded in ink directly in the notebook during lab. Do not write on other pieces of paper and transfer data to the notebook. Do not tear out pages, or whiteout/markout data. Instead cross-out the incorrect data and present corrected data on another blank page.

Notebooks must be signed by TA's or lab instructor at the beginning and conclusion of each lab session.

- 3) There will be a quiz on every lab day before the pre-lab lecture starts. Quizzes and final exam are closed-book.
- 4) Cleaning up is part of the lab session. Students should stop working and begin cleaning up their work area no later than 20 minutes before the conclusion of the lab session. Students must exit the lab by 1:00 pm
- 5) Students must turn in reports on density, melting point, molarity of NaOH and HCl, and Equivalent Weight of unknown after the conclusion of each of these experiments.

**Session 1** Introduction, safety video, check-in.

Session 2 Density experiment

**Sessions 3-12** Purification and characterization of an unknown carboxylic acid.

**Session 13** Final exam and check out.

Final report and lab notebook due at this time.

Date	Week	Experiment
01/20/15	1	Introduction, safety video, check-in, check-out the density
		unknown
01//27/15	2	Safety quiz, density experiment
02/03/15	3	<b><u>Density data sheet due</u></b> , recrystallization of an unknown
		compound, check-out the unknown organic acid
02/10/15	4	Weigh and record % yield of the recrystallized product,
		measure solubility and melting point of the unknown
		carboxylic acid, prepare ~ 1M NaOH solution
02/17/15	5	Unknown carboxylic acid melting point data sheet due,
		start KHP titration
02/24/15	6	Finish KHP titrations and start HCl titration
03/03/15	7	Finish HCl titration, NaOH and HCl molarity data sheet
		<u>due</u>
03/10/15	8	Start equivalent weight titration
03/17/15		Spring Break
03/24/15	9	Finish equivalent weight titration, equivalent weight data
		sheet due, start computer search
03/31/15	10	<b>Submit copy of computer search</b> , start pKa titrations, submit
		a test tube for Na fusion, start writing the lab report
04/07/15	11	Finish pKa titrations and Na fusion, submit copies of pKa
		<u>titration plots</u> , continue working on the lab report, check-out
		from lab
04/14/15	12	Finish pKa titrations and sodium fusion, continue working on
		the report, check-out from lab
04/21/15	13	Submit the lab report and the notebook, final exam check-
		out from lab

# March $3^{rd}$ , 2015 is the semester mid-point and the last day to drop a course with a 'W'.

Graded data sheets, quizzes, final exam and lab reports can be viewed at the instructor's office but **WILL NOT** be returned to the students.

<sup>\*\*</sup>No grades will be discussed or provided by e-mail or phone.

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 quizzes or final exam will be given. If a student misses a quiz or the final exam it will count as a zero.
- 2. Late and electronic copies of reports will not be accepted.
- 3. Students need to show their GSU Panther I.D. card when taking final the final exaam.
- 4. The instructor reserves the right to assign seating during quizzes and final test.
- 5. Cell-phone calculators and programmable calculators are not allowed.
- 6. Cell-phones need to be kept either in purses or book-bags during exams or quizzes and should be turned off at all times. In addition, usage of all electronic devices while in the lab is not allowed.
- 7. If late for class, please enter through the back door.
- 8. Hats and hoods that partially cover the face will not be allowed during tests/quizzes.
- 9. There are no make-up labs unless students have a legitimate excuse for having missed a lab session and only one make-up session will be allowed. The make-up lab session will not take place until after 03/03/2014. An authorization by the instructor is required.
- 10. Students will not be allowed in the lab without safety goggles, nor will they be allowed to wear shorts, sandals or open-toe shoes. A lab apron or coat and goggles are required at all times while in the lab.

### 11. **Notebooks**:

- A. The student must bring to lab the write-up for the experiment to be performed on each session; this must includes "bullets" of the procedure(s) to be carried out and data tables to be fill out.
- B. The student must have the lab notebook signed by the TA or instructor at the beginning and conclusion of the lab. No other option of record keeping will be accepted.

Name (print in ink):	
Signature (in ink):	
Date:	