

# CHEMISTRY 4000/6000 Lab Syllabus, Spring Semester 2014

## Objective of the course

Chemistry 4000/6000 is a WAC (Writing Across the Curriculum) and CTW (Critical Thinking Through Writing) course offering of the Department of Chemistry. The primary goal of the lab course is to develop critical thinking skills and to write scientific reports on the experimental analyses performed in this lab.

**Instructor** Dr. C-N Ho                      **Office:** 234 Kell                      **E-mail Address:** cho@gsu.edu

**Office Hours** W 10:00-11.00 am and by appointment

## **Communicating with instructor**

Via email (preferred)

Please use your GSU email address.

Include in subject line, the topic of the email, the course you are in, Tuesday or Wednesday Section, and your name. Failure to do so may result in message placed in The junk folder and does not catch my attention and thus unread.

Via phone            404-413-5889

**Required Text**            "Laboratory Manual and Course Materials for chemistry 4000/6000",  
by Georgia State University, Department of Chemistry Faculty.  
Distributed free to you at check-in time

**Lab hours**                      Please come to the lab on time as I start the prelab on schedule.

**Tuesday lab** starts at 1.30 pm (ends at 4.45 pm).

**Wednesday lab** starts at 1.00 pm (ends at 4.15 pm).

**Withdraw Date**            March 4, 2014

## **Required for lab work**

A stitched and bound notebook (not the spiral notebooks kind)

Safety goggles must be worn at all time in the lab.

Proper footwear and attire must be worn in the lab. No shorts, open shoes (flip-flop, sandals, etc)

Please do not drink or chew gum inside the lab.

## **Lab Projects and reports**

Project/Report 1:

Error and Statistical Analysis of Absorbance Measurements on Unknown Dye Solutions

Project/Report 2:

Understanding Acid-Base Titration Analysis and the Determination of the Composition of an Unknown Acid Mixture Containing HCl and CH<sub>3</sub>COOH Using Standardized HCl and NaOH Solutions

Project/Report 3:

The Effects of Added Mg<sup>2+</sup> Ion on the Behavior of Equilibria in Phosphoric Acid Using Sodium Hydroxide in Titration Analysis.

Project/Report 4:

Complexation Titration Involving EDTA, Its Application in Determining the Composition of an Unknown Mixture Containing Ni<sup>2+</sup> and Mg<sup>2+</sup> Ions.

## **Due Date for Reports**

**Tuesday Section:** #1 (2/11), #2 (3/ 4), #3 (3/ 25), #4 (4/ 22)

**Wednesday Section:** #1 (2/ 12), #2 (3/ 5), #3 (3/ 26), #4 (4/ 23)

## **Reports submission and grading methodology**

Each report is to be written using data obtained from each of the experiment performed. The reports will be returned with comments. The reports are allowed to be revised based on the comments. The corrected report must be returned to the instructor within one week after the comments. The original first submission must be included with the revised report. The revised report cannot be graded without the inclusion of the original submissions. All the submitted reports will be taken back by the instructor after the students are given the opportunity to look them over. The students may question, and make any clarification comments on the remarks and score made by the instructor.

## **Reports submission and revision scheme**

#1, 2 times for a total of 3 submissions

#2, #3, and #4 can be revised only once, 2 submissions for each of them

The final highest score of each report is reported to the lecture instructor of the course.

## Lab Course Policy

Students are required to perform the experiments, analyze the data obtained, and write the reports independently. **USE OF DATA, PLOTS, AND DISCUSSION FROM ANOTHER PERSON IN THE SUBMITTED PAPER WITHOUT MENTIONING OR REFERENCING IS ABSOLUTELY NOT PERMITTED.** A zero score will be given for the offending paper. Actions will be taken according to department/university policies regarding cheating and plagiarism.

**There is to be no group work, sharing of data, and copying of report. Each student is responsible for the data acquisition, analyses, and the writing of the report independently.**

**A past-due penalty will be given, 5 points off for each day past-due date**

## Lab course grade

The total lab score (4 reports) is **60%** of the final course score. The other 40% is from the lecture course. Each report is **15%** of the final course score.

The report is evaluated by the quality of the written product and the experimental results obtained.

Your notebook counts for some points also. Your lab notebook must be submitted at the end of the semester along with the last submission of the last report. The lab notebook must be submitted before a grade can be given.

## Chemistry Department Student Integrity Policy

The Department of Chemistry follows the university policy on academic honesty published in the "Faculty Affairs Handbook" and the "[On Campus: The Undergraduate Co-Curricular Affairs Handbook](#)." All tests and quizzes taken and reports submitted must represent the student's individual unaided effort. To receive or offer information during an examination will be considered cheating. Any suspected offenses may be referred to the Department Chair for appropriate action. Classes will never be canceled unless an official from the Chemistry Department gives the class personal notification. Don't assume a note to be enough without checking with the Department office (404-413-5500, PSC 383). The University requires that faculty members must, on a date after the mid-point of the course to be set by the Provost (or his designee):

1. Give a WF to all those students who are on their rolls but no longer taking the class
2. Report the last day the student attended or turned in an assignment.

Students who are withdrawn may petition the Department Chair for reinstatement into their classes.