

Chem. 4000/6000 Lab Syllabus (Spring 2014)

General Goal: Chemistry 4000/6000 is one of the WAC (Writing across the Curriculum) and CTW (Critical Thinking through Writing) courses offered in the department of chemistry. The primary goal of the lab course is to develop the critical thinking skills and to write scientific reports about your analysis. The American Chemical Society style is required.

Instructor: Dr. Gangli Wang (Monday session: 1:00 – 4:15 pm)

Office address: Natural Science Center 420/421

Email: glwang@gsu.edu,

Tel.: 404 413-5507

Office Hour:

Monday: 4:30 – 5:30 PM.

Text: Laboratory Manual for Chem. 4000/6000 (distributed at the first lab meeting)

Withdraw Date: March 4, 2014

Required Laboratory Materials:

- 1) A stitched and bound notebook; *no spiral notebooks, no tear-out pages*
- 2) Safety goggles or glasses. You may purchase from the lab coordinator,

Attendance: Students are expected to attend each pre-lab lecture and lab session. Arrive on time. Keep cell phones OFF.

Lab Projects:

Unit 1: Error and statistic analysis;

Unit 2: Acid-base titration: standardization of prepared HCl and NaOH solution; determination of the acid mixture composition of HCl + HAc;

Unit 3: Titration of phosphoric acid w/ and w/o Mg^{2+} ; the effect of metal ion existence on acid titration (multiple-equilibrium);

Unit 4: EDTA standardization; metal-EDTA complex titration; determination of the metal ion mixture composition.

Grading/Requirements:

- Four papers will be written using your own data in each corresponding laboratory section. The papers will be returned with comments from your lab instructor. Students are allowed to re-write and revise based on the comments. The paper needs to be re-submitted within one week after you receive the comments, together with original submissions.

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- Students will be able to **resubmit** paper #1 twice and papers #2, #3 and #4 once. The highest score is counted for each corresponding paper.
- Students are required to perform their own measurements, analyzing their own data, and write reports independently. IT IS NOT PERMITTED TO USE OTHER PEOPLE'S DATA/DISCUSSION IN THE PAPER WITHOUT MENTION. A zero score will be given on the corresponding paper. Actions will be taken according to department/university policies regarding cheating and plagiarism.
- A past-due penalty will be given, 5 pts off for each past-due day.
- The total lab score counts **60%** of the final course score. The other 40% will be from your lecture course. Each paper accounts for **15%** of the final course score (total 100 pts). This will be evaluated by your paper/s and your notebook. Your lab notebook needs to be submitted by the end of the semester before a grade could be given.

(No group work. No data sharing. You are responsible for the data acquisition independently.)

Due Date for Each Paper: (Please refer to the specific session registered)

Monday Session: #1 (**Feb. 17**); #2 (**Mar. 10**); #3 (**Mar. 31**); #4 (**Apr. 28**);

Safety Requirement:

- **Safety glass** or **goggles** *must be worn at all times* inside the lab.
- **Dress appropriately:** no open-toe shoes (flip-flops, sandals, crocks, etc.); no very short shorts/skirts.
- **No food, drink, gum,** etc. in the lab.

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 (Tuesday, October 15, 2013) 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.