CHEM 4000/6000 Lab Syllabus (Spring 2016)

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 in the lab course is to learn how to write a scientific paper following the American Chemical Society style while applying the critical thinking skills.

Instructor: Dr. Ning Fang (Wednesday session: 1:00 – 4:15 PM)
Office address: PSC 308
Email: nfang@gsu.edu
Tel.: 404 413-5513
Office Hour: Tuesday and Friday: 1:30 – 2:30 pm; other time by appointment.

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

Withdrawal Deadline: March 1st, 2016

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. Please arrive on time and keep cell phones OFF.

Lab Experiment Schedule:

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 real data obtained in each corresponding laboratory section. The papers will be graded and returned with comments and students will be allowed to re-write, revise and re-submit the paper within one week from the date of paper returned, together with earlier submitted version(s).

- Students will be able to **re-submit** paper #1 twice and papers #2, #3 and #4 once. The highest score is counted for each corresponding paper.

- Students are required to write each paper independently, analyzing their own data and discussing accordingly. IT IS NOT PERMITTED TO USE OTHER PEOPLE'S DATA/DISCUSSION IN THE PAPER WITHOUT MENTION. If that happens, it will be considered cheating and zero score will be given on this paper.

- A past-due penalty will be given, 5 pts off for each past-due day.

- Each paper counts **15%** of the final course score (total 100 pts), including the paper writing and notebook check. The total lab score counts **60%** of the final course score.
(No group work. No sharing data. You are responsible for the data acquisition independently.)

Due Date for Each Paper:

Wednesday Session: #1 (**Feb. 10**); #2 (**Mar. 2**); #3 (**Mar. 23**); #4 (**Apr. 20**).

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, March 1st, 2016**) 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.