

CHEM 4000/6000 Lab Syllabus (Fall 2018)

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. Jie Jiang (Tuesday: 9:00am – 12:15pm)

Lab location: Science Annex 462

Office: 829, Langdale Hall

Email: jjiang2@gsu.edu

Office Hour: Mondays 10:40 am – 11:40pm

Tuesday 1:20pm – 2:20 pm (Other times are available by appointment)

Text: Laboratory Manual of Chem.4000/6000.

Withdraw Deadline: October 9th, 2018

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 in the lab.

Lab Experimental Schedule:

Unit 1: Error and statistical analysis; (**Full report; three submissions)

Unit 2: Acid-base titration: standardization of prepared HCl NaOH solution; determination of the acid mixture composition of HCl + HAc; (**Full report; two submissions)

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

Unit 4: EDTA standardization; metal-EDTA complex titration; determination of the metal ion mixture composition. (**Full report; one submission)

****Full report includes an “Introduction”, “Experimental (methods and materials)”, “Data/Results”, “Discussion” “Conclusions” and “References”.**

Grading/Requirements:

- Four papers will be written using real data obtained in each corresponding laboratory section. The papers (report #1 and #2) 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)**. The highest score is counted for each corresponding paper. Report #3 will be data only and no resubmission.
- **Report #4** will be a full paper but only one submission. All papers should be kept by the instructor based on the department policy.
- 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.
- Grammarly check is required for the first submission of all papers (except report #3)
- **A past-due penalty will be given, 5pts off for each past-due day.**
- The total lab score counts 60% of the final course score.
- Each paper is 100 points, including the data analysis and paper writing.
- Notebook is 100 points. The requirement for notebook:
 - 1) Table of content.
 - 2) Prelab lecture from the instructor.
 - 3) Experimental data record.

(You are responsible for the data acquisition independently.)

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.
- **Follow the instructor's directions** for experiment involved certain chemicals, such as acid or base (some experiment must be done in the **fume hood**).
- **Inform the instructor at the beginning of the class for any special/medical need.**
- **No food, drinks, 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 the class personal notification.

The University requires that faculty members must, on a date after the mid-point of the course (Tuesday, Oct.9th, 2018) 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 assignment.

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