

CHM 121 General Chemistry I Lab Spring 2015

Section 6351

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Office Hour: Mon. 2:30pm-3:30pm

Class Hour: Mon. 3:35pm-6:20pm
Location: 6s-247
Texts: *Chemistry 121 Custom Lab Manual, Cengage Learning*, ISBN: 978-1-305-01125-0
CSI Handout

Course description:

Experiments illustrate crucial chemical concepts discussed in lectures and highlight current interpretations of experimental data, based on modern lab techniques.

Learning Objectives:

- (1) The student will learn how to work safely in a chemical laboratory
- (2) The student will demonstrate knowledge of the use of chemical experimental setups
- (3) The student will be able to collect and analyze data
- (4) The student will communicate his or her findings by writing concise reports

Class Attendance:

You are required to attend each class **on time**. A discussion of each experiment will be provided before you start the experiments and the in-class quizzes will also be held at the beginning of your class. No make-up lab, quiz and exam will be arranged. Lateness is not acceptable.

You need to complete the experiments during the class hour in order to receive credit for the course.

If you miss **two or more** lab classes, you will receive an **F** grade regardless your final score of the course.

Lab Reports:

Lab report is very important for the lab course. Each lab report is 100 points (including 20 points of pre-lab quiz, 40 points of data sheet and calculations, 30 points of post-lab assignments and 10 points of experiment discussion).

You should be prepared before you attend the lab course. To understand the purpose and the procedure of the experiment, you need to read the lab manual, text book, take pre-lab notes and study pre-lab assignment before the class. **Weekly in-class quizzes will be given at the beginning of each lab.** Questions may come directly from the pre-lab questions in your lab manual. On the days of midterm exam, you will have a regular quiz and a midterm exam. No make-up quiz will be arranged.

Print your result directly on the data sheet on the day of your experiment. Your data sheet and calculations needs to be checked and signed by your instructor before you leave the lab of the day to earn the credit. To earn the full credit (40 points) of the data sheet, your data and results needs to be accurate with proper formulas, units and significant numbers. Calculation without showing your work receives no credit.

Answer all the assigned questions from post-lab questions section in your lab manual. Print your answers clearly on the lab manual.

Type your experiment discussion in one page (around 200-300 words and double spaced). The following information should be included: (a) title; (b) your name and your partner's name; (c) date of the experiment; (d) the purpose of the lab; (e) the fundamental principle or theory behind the experiment; (f) the brief procedure(s) or methods to reach the goal of the experiment; (g) your experimental results and finding and discussion about the possible experimental error(s). Do NOT give detailed procedures and detailed results in discussion.

Your post-lab is due on the day of the following week of class. Staple your post-lab in the order of experiment discussion sheet, data sheets/calculation and post-lab assignment. You must turn in your lab report at the beginning the class to earn the credit. If you are absent, no post-lab including data sheet, post-lab assignment and experiment discussion of the lab will be accepted and graded.

The lab report (pre-lab and post-lab) counts 60% of the lab grade. Late reports will be accepted but you will receive a penalty by losing 3 points per late day per assignment (9 points will be deducted if you turn in your post-lab packet one day late). Lab reports later than one week will not be accepted.

Safety and Cleanliness:

Safety is extremely important in chemistry laboratory. To be safe, you should be aware of the safety policies and practices in your laboratory manual safety section **Page 1-9**. You must sign the lab safety agreement on Page 9 and be checked by your instructor before you perform any experiment in the lab.

Safety goggle should be worn at any period of the class. You are not allowed to be in the laboratory without wearing the safety goggle. Gloves should be worn when you handle any chemicals.

You will be deducted 1 point for each violation from your final score.

Attitude:

Disruptive behavior is unacceptable in the lab, and will NOT be tolerated. Late arrival, noisy devices, inconsiderate behavior, and talking during lectures, will not be tolerated. Discussion of scientific issues is highly welcome to advance our knowledge, but emotional arguments and quarrels are prohibited.

Midterm Exam (10 %) and Final Exam (25%)

One midterm exam will be given in the middle of the semester in class. Midterm exam date will be announced in class. Midterm counts 10 % of your lab grade.

There will be a departmental final exam in the final week (May 17-22). Final exam counts 25 % of your lab grade.

No make-up labs, quizzes and exams will be arranged.

Academic Honesty:

All students are expected to follow the CUNY policies related to academic integrity. You will work with your lab partner during the experiment. You help with each other while doing the experiment. However, you must work independently on your pre-labs, data sheet/calculation and post-labs. You shouldn't copy any other person's work including any online resources as your own. Students must work independently on all quizzes and exams. Any forms of cheating or plagiarism in lab report or tests will result in a zero point for your assignment and may result an **F** grade of the course. Also, any academic dishonesty will be reported to the college authority.

Grading:

Lab reports – 60 %

Midterm Exam – 10 %

Final Exam – 25 %

Safety, Cleanliness and Attitude – 5%

Lab Schedule:

Date	Experiment	Lab material
	Check In and Lab Safety	
	Relating Mass and Volume	Lab manual
	Physical and Chemical Changes	Lab manual
	Separating and Identifying FD&C Dyes Using Paper Chromatography	Lab manual
	Determining the Empirical Formula of a Compound	Lab manual
	Properties and Reactions of Acids and Bases	Lab manual
	Observing Single Replacement Reactions	Lab manual
	Precipitating Calcium Carbonate	CSI Handout
	Determining the Molar Concentration of a Sodium Hydroxide Solution	Lab manual
	Charles's Law	Lab manual
	Evaluation of the Gas Law Constant	Lab manual
	Temperature Change, Heat of Reaction and Enthalpy Change of Neutralization Reactions	Lab manual
	Seeing is believing: Models of Molecular Structure	CSI Handout
	Review and Check out	

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Please read the laboratory syllabus and policy carefully. Sign and return this form to your instructor.

By signing this form, you agree the following rules:

- (1) I have thoroughly read the information above and I understand the policies of the laboratory.**
- (2) I agree that cheating, copying or plagiarism of any laboratory reports and tests will result in a failing grade**

Print your name: _____

Signature: _____

Date: _____