

CHM 127 General Chemistry II Laboratory Section 2079 Syllabus

INTRODUCTION TO COURSE AND INSTRUCTOR

Semester Summer 2022	Program/Department Chemistry
Course Name General Chemistry II Laboratory	Instructor Name Leah Cohen
Credits and Hours 1 credit	Office Location 6S-226
Time Mon.-Th. 1:00 PM - 3:40 PM	E-Mail Leah.Cohen@csi.cuny.edu
Location 6S-247	Telephone 718-982-3902 (Office)
Website CUNY Blackboard	Faculty Office Hours By appointment
<i>If there are questions or concerns that you have about this course that you and I are not able to resolve, please feel free to contact the Chair of the department to discuss the matter.</i>	
CHAIR/PROGRAM DIRECTOR'S NAME	Qiao-Sheng Hu
DEPARTMENT NAME	Chemistry
CHAIR/PROGRAM DIRECTOR'S EMAIL	Qiaosheng.Hu@csi.cuny.edu
DEPARTMENT/PROGRAM PHONE NUMBER	718-982-3900

COURSE DESCRIPTION AND PRE/COREQUISITES

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

Pre-requisites: Prerequisite: CHM 121. Pre- or corequisite: CHM 142

REQUIRED COURSE MATERIALS

- College of Staten Island Laboratory Manual for CHM 127 (Cengage Learning Custom Publishing, Mason, Ohio; ISBN: 0-495-83822-5) and online materials that will be posted on Blackboard.
- CUNY Blackboard Access
- Scientific calculator with logarithm function

COURSE GOALS

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

COURSE REQUIREMENTS/ASSIGNMENTS

Lab report: Your lab report is due at the time you enter the lab the following class. Any late report, without legitimate reason, will NOT be graded. Prepare a cover sheet to include the course, the title of the experiment, your name, date, and the name(s) of your partner(s).

Grade is based on 100-point scale including 20 points for each pre-lab (quiz). The general rule is as follows.

Pre-lab: (20 points) The prelab reports will be replaced with weekly in-class quizzes prepared by your instructors. Questions may directly come from the prelab questions in your lab manual. On the days of midterm exam, you will have a regular quiz and a midterm exam. Skipping the pre-lab quiz is equivalent to missing a lab.

Data (25 points; no pencil is allowed): Print your result directly on the data sheet on the day of your experiment. Have your instructor initialed your data before leaving the lab or the report is unacceptable.

Calculations (20 points): Print the formula and number, including units, clearly in a separate sheet. The final numerical work can be done on a calculator. Indicate the appropriate significant figures.

For example, Mass = Density x Volume

$$\text{Mass} = 0.987 \text{ g/mL} \times 0.1523 \text{ mL} = 0.150 \text{ g}$$

Post lab questions (27 points): Answer all the assigned questions from both pre-lab and post-lab questions in each experimental of your lab manual. Print your answers clearly on the lab manual.

Discussion (8 points): Type the summary of the experiment in one page (around 200-300 words and double spaced) by the following order: (a) the purpose of the lab; (b) the fundamental principle or theory behind the experiment; (c) the brief procedure(s) or methods to reach the goal of the experiment; (d) discussion about the possible experimental error(s). Do not give detailed procedures and detailed results in discussion.

GRADING POLICY AND EVALUATION

55 % Lab reports, prelabs, and in-class quizzes

15 % Midterm exam (20-30 min)

10 % Lab techniques and attitude

20 % Final

Note: Your final grade depends on your overall performance, NOT only on your reports or tests. The grading above is subject to change.

Notes:

(a) It is your responsibility to keep your lab reports tidy and readable. A significant penalty will be imposed on your grade if your lab reports are disorganized and/or unreadable.

(b) No reports will be re-graded except grading errors.

(c) Lab reports will NOT be graded without the calculations

(d) Any forms of cheating (such as copying or plagiarism) in report writing or tests will result in a zero point for your assignment. Also, any academic dishonesty will be reported to the college authority

(e) Arrange your time in advance. Do not wait for the last minute. If you have any questions, contact your instructor BEFORE the lab report is due.

(f) The format of lab reports and the point distribution would vary based on the content of each experiment.

Attendance:

- * It is your responsibility to attend the class on time. No excuses for being late. The in-class quizzes will be held in the beginning of your class.
- * No make-up labs, quizzes and exams will be arranged.
- * Missing two or more labs (for any reasons) will result in F for this course. You are allowed to miss only one lab if you have a legitimate reason. Present the proof to your instructor; otherwise, a zero point will be assigned to your prelab/lab report.
- * For any missing lab, it is recommended to obtain the data from other lab members and complete the lab report in a timely manner.
- * You will need to hand in your lab report (from the previous week) in the next school day if you are absent from a lab.
- * Cell phones cannot be used in lab for a timer and/or calculator. Make sure that you have a watch with a second hand and a calculator.

Safety: You need to follow the safety rules and regulations all the time while you are in lab. After your instructor completes the lecture, you will need to wear safety goggles at any time during the lab session. You will be expelled from the lab if you do NOT comply with this safety rule. Reading the procedures carefully before you enter the lab is extremely important for you to prevent any unnecessary accidents and property damages. Attending the lecture is mandatory because the lab instructor will provide important safety issues for each lab.

Shirts should cover your torso. Shorts and short skirts are not allowed. Long pants are preferable. No loose clothing or scarves. Shoes must completely cover your feet. No flip-flops, sandals, crocs, etc. Sneakers are the best footwear for lab.

No eating, drinking, chewing or applying lip balm in the lab.

Attitude: Disruptive behavior is unacceptable in the lab, and will NOT be tolerated, such as latecomers, noisy devices, inconsiderate behavior, and talking during lectures, etc. Dispute of scientific issues is highly welcome to advance our knowledge, but emotional arguments and quarrels are highly prohibited.

After labs: Each lab has some links with the concepts presented in the current or future lectures of the General Chemistry courses. To master your knowledge, it is important for you to conduct critical thinking for understanding the quality and meaning of your experimental data. This is a great opportunity for you to review what you have learned or will learn in CHM 142, by making the links. Also, it is a crucial practice for you to repeat the experimental procedures during the lab hours to make sure you know how to operate each instrument and obtain the most precise measurements. This lab will be the first step for you to build up your scientific career.

Cheating, copying or plagiarism will result in a failing grade.

TENTATIVE COURSE CALENDAR/SCHEDULE

The following is a tentative outline of the laboratory schedule for CHM127.

Lesson	Topic	Reading
6/28	Check-in; Safety Orientation Safety Practices in the Chemistry Laboratory Introducing Graphing Techniques	CSI Handout TECH 0380 MISC 0371
6/29	Synthesizing a Coordination Compound of Nickel II Ion, Ammonia, and Chloride Ion Part I Synthesis	REVISED PROCEDURE SYNT 0433 CSI Handout
6/30	Determining the Mass Percent NH_3 in $\text{Ni}(\text{NH}_3)_n\text{Cl}_2$ by Titration - Part II	REVISED PROCEDURE SYNT 0433 CSI Handout
7/5	Determining the Mass Percent Ni^{2+} Ion in $\text{Ni}(\text{NH}_3)_n\text{Cl}_2$ by Spectrophotometry- Part III	REVISED PROCEDURE SYNT 0433 CSI Handout
7/6	Determining Molar Mass by Freezing-Point Depression in Naphthalene	REVISED PROCEDURE PROP 0507 CSI Handout
7/7	The Chemistry and Qualitative Analysis of Cations: Group Separations and Separations of Group I Cations. PART II & PART III – Known & Unknown	ADDENDUM ANAL 0364 CSI Handout
7/11	The Chemistry and Qualitative Analysis of Cations: Group II – Known	ADDENDUM ANAL 0365 CSI Handout
7/12	The Chemistry and Qualitative Analysis of Cations: Group II – Unknown	ANAL 0365
7/13	The Chemistry and Qualitative Analysis of Cations: Group III – Known & Unknown	ADDENDUM ANAL 0366 CSI Handout
7/14	Studying the Rate of the Reaction of Potassium Permanganate and Oxalic Acid	REVISED PROCEDURE KINE 0505 CSI Handout
7/18	Determination of pKa & Equivalent Weight of a Weak Acid (Monoprotic Acid) – Part I	CSI Handout
7/19	Acid Base Titration (Polyprotic Acid/Base) – Part II	CSI Handout
7/20	Equilibrium	EQUIL 0392
7/21	Check-Out	
7/25	Final Exam	

SUBJECT TO CHANGE STATEMENT

This syllabus and course calendar/schedule are subject to change in the event of extenuating circumstances.

CUNY POLICY ON ACADEMIC INTEGRITY

Academic dishonesty is prohibited in The City University of New York. Penalties for academic dishonesty include academic sanctions, such as failing or otherwise reduced grades, and/or disciplinary sanctions, including suspension or expulsion. This policy also defines example of academic dishonesty: cheating, plagiarism, obtaining unfair advantage, and falsification of records and official documents. Please visit the following website to read the full policy: https://www.csi.cuny.edu/sites/default/files/pdf/privacy/cuny_academic_integrity.pdf

Although exams will be administered online, you must work independently on all graded exams. All exams are timed with no back track function and will be submitted automatically when the terminal time is reached. If you finish early, you can submit early. You should not consult with any other person nor use the internet to search answers or similar problems.

Specific examples of academic dishonesty in this course include, but are not limited to:

- Allowing another person to represent you or representing yourself to be another
- Having someone take an exam for you
- Communicating with someone else during an exam
- Receiving information from any person during an exam
- Sharing information about exam questions with other students who have not taken
- Providing a false excuse for missed or exams

REASONABLE ACCOMODATIONS AND ACADEMIC ADJUSTMENTS

The City University of New York, in compliance with Section 504 of the Federal Rehabilitation Act of 1973 ("Rehabilitation Act"), the Americans with Disabilities Act of 1990 ("ADA"), New York State Executive Law §296, and New York City Human Rights Law, provides qualified individuals with disabilities the opportunity to participate in programs, activities, or employment. For more information and access to the full policy please visit: <https://www.csi.cuny.edu/about-csi/diversity-csi/office-diversity-compliance/reasonable-accommodations-and-academic-adjustments>

STUDENTS WITH DISABILITIES

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe that you have a disability requiring an accommodation, please contact the Center for Student Accessibility at 718.982.2510/ CSA@csi.cuny.edu. For more information please visit: www.csi.cuny.edu/csa/.

TUTORING AND ACADEMIC ASSISTANCE

The College offers tutoring to students, free of charge. For a complete list of the Tutoring Centers please visit <https://www.csi.cuny.edu/students/academic-assistance/tutoring>

COURSE POLICIES

According to CSI Academic Calendar, the last day to withdraw with the grade of "W" is July 24, 2022.

CAMPUS (CIX) EMAIL

Students are expected to check campus (cix) email regularly. Students must recognize that certain communications, may be time-sensitive, and they may be required to monitor email on a more frequent basis than determined by instructional needs. If students have issues accessing their campus (cix) email please email the helpdesk@csi.cuny.edu or visit the [Virtual Computer Lab](#).

Lecture notes and general announcements will be posted on Blackboard. If you are from another school, make sure your email address on Blackboard is up to date. All announcements will be either announced in class or emailed through Blackboard.