

CHM 117 Principles of Chemistry II Lab (Section 19432) Spring 2023

Instructor

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Office hours: Wed 11:45 am – 12: 15 pm @ 6S-252 and by appointment only

Course Hours and Location

Tu 12:20 PM – 2:15 PM @ 6S-247

Mode of Instruction

In person

Course Website

CUNY Blackboard

Chairperson of Chemistry Department

Name: Dr. Qiao-Sheng Hu Email: QiaoSheng.Hu@csi.cuny.edu Telephone: 718-982-3901

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.

Course description

2 laboratory hours; 1 credit. Laboratory experiments concerned with the synthesis, isolation, and purification and analysis of a variety of organic and biochemical compounds of the types considered in CHM 116.

Prerequisite

CHM 110 and 111

Pre- or Corequisite

CHM 116

Required Textbook

Laboratory Experiments for Introduction to General, Organic, and Biochemistry, Frederick A. Bettelheim, and Joseph M. Landesberg, 8th Edition, Custom Edition, Cengage Learning, ISBN: 9781305010895

Please purchase the lab manual from the CSI bookstore. We will also use CSI handouts which will be posted on the blackboard. The experiments will be modified according to the addendum posted on blackboard.

Course Goals

Students will learn crucial chemical concepts and interpret experimental data in inorganic qualitative analysis.

Student Learning objectives

(1) The student knows how to work safely in a chemical laboratory; (2) The student demonstrates knowledge of the use of chemical experimental setups; (3) The student can collect and analyze data; (4) The student communicates his or her findings by writing concise reports.

Course Requirements and Grading Policy

10 % Pre-lab assignments

50 % Lab reports,

10 % Midterm exam

25 % Final exam

5 % Attendance (including not being late) and participation If you are consistently late or missing from the lab mid experiment you will not get credit for this part.

Note: Your final grade depends on your overall performance, NOT only on your reports or tests.

Your letter grade will be assigned according to the following guideline:

A: 93-100, A-: 90-92, B+: 87-89, B: 80-84, B-: 75-79, C+ 70-74, C 60-69, D 50-59, F below 49

The grading above is subject to change.

Attendance

*It is your responsibility to attend the class on time to be counted for attendance.

*No make-up labs and exams will be arranged.

*Missing **two or more labs** (for any reasons) will result in a **grade of F** for this course. You are allowed to miss only one lab (but not a report; see instructions below) if you have a legitimate reason, with supporting documents such as a doctor's note or court papers. Present the proof to your instructor; otherwise, a zero will be assigned to your lab report. You will need to upload your report (from the previous lab) before the next session if you are absent from a lab.

Pre-lab Assignments

Pre-lab assignments will be hand-written answers to pre-lab questions from the lab manual. Pre-lab assignments are due at the beginning of the class (on the day you perform the experiment). You will be uploading a single PDF file of the pre-lab assignment on Blackboard. No late pre-labs will be accepted.

Please read the experiment on the lab manual before coming to class.

You can get an extra credit by submitting hand-written procedure of the next experiment along with your pre-lab assignment on Blackboard.

Lab Reports

Your lab report is **due at the beginning of the next class**. The lab report should be scanned and submitted in a **single PDF** to the Blackboard. Late reports carry a **penalty of 20 points per day**. The lowest grade out of the reports will be dropped.

Grading is based on 100-point scale. Reports must include:

(1) Report sheet (hand-written): Write your name, your lab partner's name, and the date of experiment on top of your report sheet. Record your results directly on the report sheet on the day of experiment.

(2) Post-lab questions (hand-written): Answer questions from each lab experiment in the manual.

Exams

1. The midterm exam will be given at the regular class hours. No extra time will be given.
2. The departmental final exam will be comprehensive.
3. No makeup exams will be arranged.

Safety and Cleanliness

You should be aware of the safety policies and practices posted with the handouts. You need to understand the safety protocols for each lab that we do. You have to follow all safety rules and regulations at all times while you are in lab. **After your instructor completes the lecture, you will be required to wear safety goggles at all times during the lab session.** You will be expelled from the lab if you do NOT comply with this safety rule. It is extremely important for you to read the procedures carefully before you enter the lab 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

Every student is entitled to full participation in class without interruption. Disruptive behavior is unacceptable in the lab, and will NOT be tolerated, such as latecomers, noisy devices, inconsiderate behavior, and talking during lectures, etc. Discussions related to scientific issues are welcome as they advance our knowledge, but emotional arguments and quarrels are prohibited. Repeated violations will be penalized and may result in expulsion from class.

Withdrawal Policy

The last day to drop a class with a grade of W is May 16, 2023.

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. To read the full policy, please visit the following website:

https://www.csi.cuny.edu/sites/default/files/pdf/privacy/cuny_academic_integrity.pdf

All students are expected to follow the CUNY policies related to academic integrity. You must work independently on your pre-lab assignments, reports and exams. Students who receive or give any help during an examination are considered cheating. Any forms of cheating or plagiarism in lab reports or tests will result in a zero point for your assignment and may result in a **grade of F** for the course. Also, any academic dishonesty will be reported to the college authority.

Reasonable Accommodations 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/ . You must notify your instructor about the accommodation at the beginning of the semester.

Campus (Cix) Email

Students are expected to check their 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](#).

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>. The Chemistry Department also provides free tutoring (TBA).

Technical Help for Blackboard

If you need help with Blackboard and other technology required for the course, please contact Office of Information Technology Services HelpDesk by email: Helpdesk@csi.cuny.edu, phone: 1-718-982-HELP (4357) or website: Help Support and Resources

Subject to Change Statement

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

Lab Schedule

Lab	Date	Experiment	Read	Pre-lab	Exam	Report
1	1/31	Check-in and Safety orientation, Lab procedures, Molecular model experiment	CSI Handout			Report 1
2	2/7	Classification and identification of hydrocarbons	Exp. 1 (pp.1-12) Addendum	Pre-lab 2		Report 2
3	2/14	Quantitative analysis of vitamin C contained in foods	Exp. 2 (pp.13-22) Addendum	Pre-lab 3		Report 3
4	2/28	Classification and identification of alcohols & phenols	Exp. 3 (pp.23-34) Addendum	Pre-lab 4		Report 4
5	3/7	Classification and identification of aldehydes & ketones	Exp. 4 (pp.35-50) Addendum	Pre-lab 5		Report 5
6	3/14	Properties of carboxylic acid and esters	Exp. 5 (pp.50-62) Addendum	Pre-lab 6		Report 6
7	3/21	Preparation of acetylsalicylic acid (Aspirin)	Exp. 6 (pp.63-74) Addendum	Pre-lab 7	Midterm exam	Report 7
8	3/28	Properties of amines and amides	Exp. 7 (pp.75-86) Addendum	Pre-lab 8		Report 8
9	4/4	Analgesic drug analysis by TLC	CSI Handout	Pre-lab 9		Report 9
10	4/18	Carbohydrates	Exp. 8 (pp.87-98) Addendum	Pre-lab 10		Report 10
11	4/25	Analysis of lipids	Exp. 9 (pp.99-108) Addendum	Pre-lab 11		Report 11
12	5/2	Isolation and identification of casein	Exp. 10 (pp.109-120) Addendum	Pre-lab 12		Report 12
13	5/9	Factors affecting enzymatic activity	CSI Handout	Pre-lab 13		Report 13
14	5/16	Check-out and Review				
May 18					Final exam	

Student agreement

By signing below, I agree with the following statements:

(1) I have thoroughly read and understood the information and policy stated in the CHM 117 syllabus.

(2) I agree that cheating, copying or plagiarism of any laboratory reports and tests will result in a failing grade.

Print Name: _____

Student ID#: _____

Signature : _____

Date : _____