

# CHM 142 General Chemistry II (Section 19424 Spring 2023)

## Description

Students enrolled in this course should have good background from General Chemistry I or equivalent course. The course will follow the outline of the given textbook. We will cover chapters 11-19. At the end of this course you should have a representative understanding of some of the fundamental concepts in the chemical sciences. Based on the course objectives, the student will comprehend how chemistry is important and relevant in daily life. The student will demonstrate an understanding of how intermolecular forces influence the different states of matter, including solutions properties. The student will learn and apply the kinetics and thermodynamics principles, including entropy and free energy. The student will learn the electrochemistry. The student will demonstrate analytical and problem solving skills. Since this course is part of the flexible core of General Education, the students are expected to reach the following General Education goals:

1. Gather, interpret, and assess information from a variety of sources and points of view.
2. Evaluate evidence and arguments critically or analytically.
3. Produce well-reasoned written or oral arguments using evidence to support conclusions.
4. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the scientific world, including, but not limited to: computer science, history of science, life and physical sciences, linguistics, logic, mathematics, psychology, statistics, and technology-related studies.
5. Demonstrate how tools of science, mathematics, technology, or formal analysis can be used to analyze problems and develop solutions.
6. Articulate and evaluate the empirical evidence supporting a scientific or formal theory.

## Instructor

Dr. Chwen-Yang Shew Email: [chwenyang.shew@csi.cuny.edu](mailto:chwenyang.shew@csi.cuny.edu) Office: 6S-242 Office hours: Mon and Wed 12:05-12:50 (in-person)

## Text Books

1. Primary: Chemistry & Chemical Reactivity by John C. Kotz, Paul M. Treichel, John R. Townsend, and David Treichel 10<sup>th</sup> Edition (ISBN-10: 1337791164 | ISBN-13: 9781337791168)
2. Recommended: Cengage OWLv2 of the course.

## Course Hours

Lecture: Mon and Wed 10:00 AM – 12:05 PM in 3S-112.

## Grading

Homework* (Blackboard)	5 points
Quizzes (in class)	20 points
Midterm Exams (2 Exams)	40 points (25(higher)+15 (lower))

Final Examination	33 points (May 18 Thursday)
Attendance/Attitude/Participation	2 points

\* Each homework assignment takes about 10-20 minutes to complete on Blackboard. **No extension will be given after the due time.** The due date and due time will be announced on Blackboard. Do not wait till the last minute to start your homework assignment.

## Letter Grade

Your letter grade will be assigned roughly according to the following possible cutlines:

90+ A; 85-89 A-; 80-84 B+; 75-79 B; 70-74 B-; 65-69 C+;  
60-64 C; 55-59 D; **0-54 F**

## Policies

1. Classroom: 3S-112 is our designated classroom. We will follow the updated CUNY Covid-19 policy regarding vaccination status and indoor safety rules. No recordings are available for in-person lectures.
2. Snow days/instructor quarantine: Lecture will be moved to Zoom online platform.
3. Homework: Blackboard will be our platform for homework test. All the tests will have only one attempt and need to be done within the limited time frame. Automatic submission will be applied at the end of the testing time. Use Chrome on your laptop or personal computer to avoid technical disruption during the test. After Chapter 11, some questions in the chapter question may cover the materials from previous chapters.
4. Late submission of online homework test: They will be counted as zero point.
5. Quizzes: In-person quizzes will be conducted in the end of the class hours. The dates will be announced during lecture.
6. Owl end-of-the-chapter questions: Strongly recommended.
7. Midterm and Final Exams: All are in-person and closed book/note. No notes, books, and electronic devices are allowed during in-person examinations.
8. No flexible grading policy: Flexible grading policy introduced by CUNY in Spring 2020 has ended. Your course grade is final and will appear in your transcript. Do not ask for extra work to boost your grade since such a practice is unfair to other students.
9. Syllabus: This syllabus is subjected to be changed depending to the course status and university regulations.
10. Communication: Please allow 24 hours for any of your question (course materials, tests or technical issues) to be answered. Also check your email or Blackboard announcement regularly for any new updates.
11. File types of uploaded files: For grading of your uploaded assignment, if there is any, in Blackboard, the appropriate file formats include PDF, GIF, Word, JPEG and PNG. The file type HEIC is not readable in Blackboard.

## Attendance Policy

A student who is absent in an excess of 15% of the class hour (4 classes for CHM 142) in the semester is assigned a grade of WU (withdraw unofficially).

## Academic Honesty

You must work independently on your in-person quizzes or exams. Students who receive or give any help during a quiz or examination are considered cheating and will automatically receive a grade of F for the course. The following exam rules apply in CHM 142:

1. Open-ended questions in your assignments or tests must be answered in a legible manner, using a graphite pencil and a pen with blue or black ink. Your first and last name should be PRINTED.
2. All students must submit the signature page in the end of this syllabus through Blackboard, with their names printed, signed and dated to the instructor to initiate your grading system.
3. Plagiarism in any form, such as copying the answers of homework, quizzes and exams from other students or from any other electronic and non-electronic sources, will result in a failing grade.
4. **No cell phone, including smartwatch, or any electronic devices with a communication component, such as emails, text messages, and/or image exchanges, etc, is allowed in any in-person quizzes or in-person exams. Violating this policy will result in a failing course grade.**
5. **Use your own scientific calculator during a test. Borrowing a calculator from any other during the test is ABSOLUTELY forbidden.**
6. We will impose the most severe penalty to whom cheats in our assignments and tests. Particularly, those use online (paid or unpaid) tutors to help them answer questions.
7. Exchanging answers during tests in any forms including electronic communication is a severe cheating act and those who commit cheating will receive the maximum penalty allowed by the college.
8. Copying test answers from others has disrupted the integrity and fairness of this course over these years. Remember again that when you copy the answers from others or you allow others to copy answers, both parties will be treated as cheating since there is no way to find out who initiates cheating.
9. Many students had chosen anonymous emails to report cheating cases. Such action never helped to stop any cheating. It is important that you stand up and testify the case in front of our department committee so that those who involve in cheating can be held accountable for their action.
10. Cheating itself is a form of bullying that harms academic integrity as well as causes unfairness to those honest students. Before you commit such action, consider the consequences and penalties to be imposed on you.

## Course outlines

Unit 1: Chapter 11 Intermolecular Forces and Liquids

Unit 2: Chapter 12 The Chemistry of Solids

Unit 3: Chapter 13 Solutions and Their Behavior

Unit 4: Chapter 14 Chemical Kinetics: The Rate of Chemical Reactions

Unit 5: Chapter 15 Principle of Reactivity: Chemical Equilibria

Unit 6: Chapter 16 The Chemistry of Acids and Bases

Unit 7: Chapter 17 Principle of Reactivity: Other Aspects of Aqueous Equilibria

Unit 8: Chapter 18 Principles of Reactivity: Entropy and Free Energy

Unit 9: Chapter 19 Principle of Reactivity: Electron Transfer Reactions

Departmental Final Examination schedule: **May 18 (Thursday)**; time and room will be announced when it becomes available.

## **Student agreement**

Student agreement form will be available in our Blackboard course site. Please download it, sign the agreement, and upload your signed agreement to Blackboard by February 03, 2023. Do not email me your agreement as an attachment.