# CHM 142 General Chemistry II Section 1722 Syllabus

## INTRODUCTION TO COURSE AND INSTRUCTOR

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| ***Semester*** Summer 2022 | ***Program/Department*** Chemistry |
| ***Course Name*** General Chemistry II | ***Instructor Name*** Leah Cohen |
| ***Credits and Hours*** *3 credits* | ***Office Location*** 6S-226 |
| ***Time*** Mon.-Th. 9:00 AM – 12:30 PM | ***E-Mail*** Leah.Cohen@csi.cuny.edu |
| ***Location*** 6S-138 | ***Telephone*** 718-982-3902 (Office) |
| ***Website*** CUNY Blackboard | ***Faculty Office Hours*** By appointment |
| *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.* | |
| ***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*

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:

## *REQUIRED COURSE MATERIALS*

- Primary: Chemistry & Chemical Reactivity by John C. Kotz, Paul M. Treichel, John R. Townsend, and David Treichel 10th Edition (ISBN-10: 1337791164 | ISBN-13: 9781337791168)
- Online homework: OWLv2 access (see homework section)
- CUNY Blackboard Access
- Scientific calculator with logarithm function

## *COURSE 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.

## *COURSE REQUIREMENTS/ASSIGNMENTS*

## *GRADING POLICY AND EVALUATION*

Exams 90%
Homework 10%

There will be four exams throughout the semester. The lowest exam grade will be dropped.

## *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

Your true final course grade will be determined by the curve of the class.

## *HOMEWORK*

**How to access your OWLv2 course**

**General Chemistry II**

**Instructor(s):**Leah Cohen

**Start Date:**06/28/2022

**What is OWLv2?**

OWLv2 is the most trusted online learning solution for chemistry, proven to help you get a better grade.

**Registration**

1. Connect to https://www.cengage.com/dashboard/#/course-confirmation/E-XT9W6ZMTNXRXB/initial-course-confirmation
2. Follow the prompts to register your OWLv2 course.

### Payment

After registering for your course, you will need to pay for access using one of the options below

**Online:** You can pay online using a credit or debit card, or PayPal.

**Bookstore:** You may be able to purchase access to OWLv2 at your bookstore. Check with the bookstore to find out what they offer for your course.

**Free Trial:** If you are unable to pay at the start of the semester you may choose to access OWLv2 during your free trial. After the free trial ends you will be required to pay for access.

Please note: At the end of the free trial period, your course access will be suspended until your payment has been made. All your scores and course activity will be saved and will be available to you after you pay for access.

If you already registered an access code or bought OWLv2 online, connect to https://www.cengage.com/dashboard/#/course-confirmation/E-XT9W6ZMTNXRXB/initial-course-confirmation to access your course.

## *ATTENDANCE*

Attending every class is one of your learning commitments as a college student. If you miss 15% (two days of summer class) or more of class hours, you will automatically receive a WU (Withdraw Unofficially) grade. Attendance will be taken each class. If you believe that you have a disability requiring an accommodation, please contact the Center for Student Accessibility at 718-982-2510 or visit the Center in 1P-101. You can also check out their Website at www.csi.cuny.edu/csa/.

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

## *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

**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

## 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.

## *TENTATIVE COURSE CALENDAR/SCHEDULE*

The following is a tentative outline of the lecture schedule for CHM 142. Students are strongly advised to read the corresponding chapter in the textbook before attending the lecture. Students cannot learn chemistry only by watching their instructor do it. Practice is very helpful to understand the principle. It is very important to get a good start and not fall behind.

| Lesson | | Topic | Reading |
|---|---|---|---|
| 6/28 | Lesson 1: | Syllabus, Intermolecular Forces and Liquids | Chapter 11 |
| | Lesson 2: | Chapter 11 continued | |
| 6/29 | Lesson 3: | The Chemistry of Solids | Chapter 12 |
| | Lesson 4: | Chapter 12 continued | |
| 6/30 | Lesson 5: | Solutions and Their Behavior | Chapter 13 |
| | Lesson 6: | Chapter 13 continued | |
| 7/5 | **Exam 1** | **Chapters 11 and 12** | |
| | Lesson 7: | Chapter 13 continued | |
| 7/6 | Lesson 8: | Chemical Kinetics: The Rate of Chemical Reactions | Chapter 14 |
| | Lesson 9: | Chapter 14 continued | |
| 7/7 | Lesson 10: | Chapter 14 continued | |
| | Lesson 11: | Principle of Reactivity: Chemical Equilibria | Chapter 15 |
| 7/11 | **Exam 2** | **Chapters 13 and 14** | |
| | Lesson 12: | Chapter 15 continued | |
| 7/12 | Lesson 13: | Chapter 15 continued | |
| 7/13 | Lesson 14: | The Chemistry of Acids and Bases | Chapter 16 |
| | Lesson 15: | Chapter 16 continued | |
| 7/14 | Lesson 16: | Chapter 16 continued | |
| | Lesson 17: | Principle of Reactivity: Other Aspects of Aqueous Equilibria | Chapter 17 |
| 7/18 | **Exam 3** | **Chapters 15 and 16** | |
| | Lesson 18: | Chapter 17 continued | |
| 7/19 | Lesson 19: | Chapter 17 continued | |
| | Lesson 20: | Principles of Reactivity: Entropy and Free Energy | Chapter 18 |
| 7/20 | Lesson 21: | Chapter 18 continued | |
| | Lesson 22: | Chapter 18 continued | |
| 7/21 | Lesson 23: | Principle of Reactivity: Electron Transfer Reactions | Chapter 19 |
| | Lesson 24: | Chapter 19 continued | |
| 7/25 | **Exam 4** | **Chapters 17, 18, and 19** | |

## *SUBJECT TO CHANGE STATEMENT*

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