CHM 1045 College Chemistry I

# Syllabus-Fall 2022 CRN 21002

# Instructor

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Office hours: Mon: 8:30am-10:00am; Tues: 8:30am-10:00am, 1:00pm-3:00pm; Wed: 8:30am-10:00am; Thurs: 8:30am-10:00am; Fri: Friday Office hours use Zoom 2:00-4:00pm. The meeting invitation is posted in Canvas (Announcements tab). Other times are available by appointment.

# Text/Required Materials

**Text:** *Chemistry*, *2e*, by Openstax.orgWe will cover Chapters 1-9. Available as a free PDF download: <https://openstax.org/details/books/chemistry-2e> . You can purchase a [hard copy from Amazon](https://www.amazon.com/s?k=chemistry+2e+by+openstax&i=stripbooks&crid=2HADCNWBTPA1C&sprefix=chemistry+2e%2Cstripbooks%2C81&ref=nb_sb_ss_ts-doa-p_2_12). It’s the first one, not the Atoms First text listed second. The hard cover is $55, paperback is $44.50.

**Lab manual:** The lab manual is also a free download, available from the Canvas homepage for the class in the Laboratory Module. Also required: a scientific calculator and a full-length lab coat (available at the bookstore).

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# Grading

| Assignment | Points |
| --- | --- |
| Ch 1-9 class quizzes (8x10) | 80 |
| In-class activities (9x10) | 90 |
| 13 Lab reports (25x13) | 325 |
| 13 Pre-Lab quizzes (5x13) | 65 |
| 3 tests (100x3) | 300 |
| Final exam (100) | 100 |
| Discussions (5x7) | 35 |
| Total points | 995 |

| Score (percentage) | Letter Grade |
| --- | --- |
| 88-100 | A |
| 77-88 | B |
| 65-77 | C |
| 50-65 | D |
| <50 | F |

# Class Schedule

| In-class Exercise (points) | Date (Monday) |
| --- | --- |
| Ch 1 Activity (10) | Jan. 9 |
| MLK Day, no class | Jan. 16 |
| Ch 1 Activity (10) Ch 1 Quiz (10) | Jan. 23 |
| Ch 2 Activity (10) Ch 2 Quiz (10) | Jan. 30 |
| Test 1 (Chapters 1,2) (100) | Feb. 6 |
| Ch 3 Activity (10) Ch 3 Quiz (10) | Feb. 13 |
| Ch 4 Activity (10) Ch 4 Quiz (10) | Feb. 20 |
| Ch 5 Activity (10) Ch 5 Quiz (10) | Feb. 27 |
| Test 2 (Chapters 3,4,5) (100) | Mar. 6 |
| Spring Break, no class | Mar. 13 |
| Ch 6 Activity (10) Ch 6 Quiz (10) | Mar. 20 |
| Ch 7 Activity (10) Ch 7 Quiz (10) | Mar. 27 |
| Ch 8 Activity (10) Ch 8 Quiz (10) | Apr. 3 |
| Test 3 (Chapters 6,7,8) (100) | Apr. 10 |
| Ch 9 Activity (10) Ch 9 Quiz (10) | Apr. 17 |
| Final Exam (100) | Monday, Apr. 24, 10:00am-12:30pm, AHS 210 |

# Lab Schedule

| Lab Exercise (Points incl. prelab quiz) | Date (Wednesday) |
| --- | --- |
| 1. Lab Intro/Safety (30) | Jan. 11 |
| 1. Exp 1: Mass, Vol., Density Parts A,B (30) | Jan. 18 |
| 1. Exp 1: Mass, Vol., Density Part C (30) | Jan. 25 |
| 1. Exp 2: Empirical Formulas (30) | Feb. 1 |
| 1. Exp 3: Electrolytes and Nonelectro. (30) | Feb. 8 |
| 1. Exp. 4: Limiting Reactant (30) | Feb. 15 |
| 1. Exp 5: Observe & Classify Reactions (30) | Feb. 22 |
| 1. Exp 6A: Aspirin Analysis Part A (30) | Mar. 1 |
| 1. Exp 6A: Aspirin Analysis Part B (30) | Mar. 8 |
| 1. Spring Break, no lab | Mar. 15 |
| 1. Exp 8: Calorimetry (30) | Mar. 22 |
| 1. Exp 10: Dye Concentration, UV/Vis (30) | Mar. 29 |
| 1. Exp 11: Molecular Modeling (30) | Apr. 5 |
| 1. Exp 7: Analysis of a Gas Product (30) | Apr. 12 |
| 1. Exp 12: Lab Practical (30) | Apr. 19 |

# Discussion Schedule

| Discussion exercise (Points) | Due date in Canvas |
| --- | --- |
| 1. Introduction (5) | Saturday, Jan. 28 |
| 1. Milligrams to grams (5) | Saturday, Feb. 4 |
| 1. Formula and formula mass (5) | Saturday, Feb. 11 |
| 1. Moles of reactant (5) | Saturday, Feb. 18 |
| 1. Stoichiometry (5) | Saturday, Feb. 25 |
| 1. Molar concentration (5) | Saturday, Mar. 4 |
| 1. Reflection (5) | Saturday, Mar. 11 |

# Labs, tests, scoring, and makeups

You will participate in 14 laboratories, 10 in-class chapter activities, 9 chapter quizzes, 7 discussions, three tests, and a final exam. The lowest chapter quiz grade, lab+lab quiz grade, and in-class activity score will be dropped. No makeup labs, quizzes or tests will be given. If you miss a lab, quiz, or test, your score will be zero. If your final score is higher than your lowest test score, the final score will replace the score for that test. However, no zeroes assigned for cheating are dropped. The final exam will be cumulative. All labs will be preceded by a 5-point quiz. Penalty for late work is 15% per week. For some labs, students can complete the lab and calculations and turn in the lab on the same day. However, if you work until near the end of the laboratory period and are not ready to turn in the lab, it is due at the start of the next lab period. If you have not cleaned up and exited the lab by the end of the period, 3 points will be deducted. Do not use cell phones during quizzes and tests. The lecture portion uses a free OpenStax textbook and lab portion uses a free lab manual, both available online. Please see the Textbook and Required Materials section of the Canvas site for the class. Homework for each chapter will be assigned but not collected. Suggested exercises (homework assignments) for each chapter are found in the Text Module. Quiz and Test questions will be very much like, if not exactly like homework exercises and are representative of the level of proficiency expected on quizzes and tests. Old tests can be viewed at the faculty [FrontDoor link](https://frontdoor.valenciacollege.edu/?tmellone) at the Valencia College website and in the Course Objectives and Additional Resources Module in the Canvas website for the class.

# Attendance/ Withdrawal

Attending classes and labs is not required, but most exercises for points cannot be performed at other times. If you miss two unexcused weeks of class (two lectures or two lab periods), you may be withdrawn from the class. Please speak with me concerning your expected and unexpected absences as soon as possible. If you know you will be absent, it is usually possible to take any test early or make up a lab in another section. Please notify me as soon as possible as the available time might be before your normal period.

The Drop/Refund deadline is Jan. 17, 2023. Students may withdraw at any time before the Withdrawal Deadline of Mar. 24, 2023 and receive a grade of “W”. If you do not withdraw from the class before the Withdrawal Deadline, you will receive a letter grade at the end of the semester.

# General suggestions

Chemistry involves learning skills. The material is cumulative, and if you get behind, catching up is difficult. Memorization will be held to a minimum. What you learn you will learn by working problems. It cannot be overemphasized: **do the work**. You must have or develop regular study habits to pass chemistry. The terms of this syllabus are subject to change, usually from correcting typos.

# Honesty/Plagiarism

It is cheating to show someone your quiz, test, homework, or lab work so that they may copy the work instead of doing it themselves. The primary penalty for cheating is lower grades due to not learning the material. However, additional penalties, from a score of zero for an assignment to a failing grade in the class will be assigned, depending on the situation.  
  
Core Competencies   
Think. You will analyze data and ideas, employ formulas and procedures, and draw and revise supported conclusions.  
Value. You will recognize relevant information and manage work time.  
Communicate. You will exchange ideas and information with others.  
Act. You will responsibly set goals and reflectively solve problems, individually and in groups

# Office for Students with Disabilities

Students with disabilities who qualify for academic accommodations must provide a letter from the Office for Students With Disabilities (OSD: West Campus, SSB, 103, 407.582.1523) and discuss specific needs with the professor, preferably during the first two weeks of class. Here is a link to the OSD website: <https://valenciacollege.edu/students/office-for-students-with-disabilities/> .

# Class recording

You may not record the voices or images of your classmates in class or lab. You may record the instructor’s voice and image. Such recordings are for personal use only; you cannot share these recordings with anyone except in a legal proceeding.