BOROUGH OF MANHATTAN COMMUNITY COLLEGE
The City University of New York
Department of Science

Title of Course: College Chemistry I
Class Hours: 4
Course Code: CHE 201
Laboratory Hours per Week: 3
Semester: Spring 2025
Instructor Information (Phone#, Office#, email): Daniel Torres Rangel; N699E; dtorresrangel@bmcc.cuny.edu
Credits: 4
Course Description: This is a two-semester course sequence that involves the study of chemical principles including atomic and molecular theories, molecular structure, and reactivity. The laboratory will include experiments illustrating the chemical principles. CHE 201-202 two terms required. Required in A.S. (Science), A.S. (Engineering Science), A.S. (Science for Forensics), and A.S. (Biotechnology Science). Fulfills science requirement for A.A. (Liberal Arts) Prerequisite for CHE 202 is CHE 201.
Basic Skills: ACR 094, ENG 088 or ESL 054, and MAT 056
Prerequisites:
Corequisites:

Course Student Learning Outcomes (Students will be able to?)	**Measurements (means of assessment for student learning outcomes listed in first column)**
1. Students will be able learn the concepts and principles of chemistry.	1. Examinations, Homework Assignments and Laboratory Experiments
2. Students will be able to recognize the importance of and develop a skill in problem solving.	2. Examinations, Homework Assignments and Laboratory Experiments
3. Students will be able to relate chemistry to other areas of science.	3. Examinations, Homework Assignments and Laboratory Experiments
4. Students will be able to unify the diverse topics of chemistry.	4. Examinations, Homework Assignments and Laboratory Experiments

Below are the college's general education learning outcomes, the outcomes that are checked in the left-hand column indicate goals that will be covered and assessed in this course. (Check at least one.)

General Education Learning Outcomes	Measurements (means of assessment for general education goals listed in first column)
☑ Communication Skills- Students will be able to write, read, listen and speak critically and effectively.	
☑ Quantitative Reasoning- Students will be able to use quantitative skills and the concepts and methods of mathematics to solve problems.	Examinations will assess student?s ability to mathematical analyze quantitative problems in chemistry.
☑ Scientific Reasoning- Students will be able to apply the concepts and methods of the natural sciences.	Examinations will assess student?s ability to interpret chemical properties based on chemical concepts and models.
☐ Social and Behavioral Sciences- Students will be able to apply the concepts and methods of the social sciences.	
☐ Arts & Humanities- Students will be able to develop knowledge and understanding of the arts and literature through critiques of works of art, music, theatre or literature.	
Information & Technology Literacy- Students will be able to collect, evaluate and interpret information and effectively use information technologies.	
☐ Values- Students will be able to make informed choices based on an understanding of personal values, human diversity, multicultural awareness and social responsibility.	

Required Text: The textbook for this class is available free online via web view and PDF. You may also it on iBooks or from OpenStax on Amazon.com. The web view version is recommended, as the design works seamlessly on any device. If you buy on Amazon, be sure you use the link on openstax.org to get the official OpenStax print version. (Simple printouts sold by third parties on Amazon are not verifiable and not as high-quality.) Chemistry from OpenStax, Print ISBN 194717262X, Digital ISBN 1947172611, https://openstax.org/details/books/chemistry-2e Lab Manual Experiments in General Chemistry Laboratory Manual, by Ebbing, 11th Ed. Brooks/Cole, (2016), ISBN 978-1-305-94498-5

Required Laboratory Goggles Appropriate chemical-resistant protective eyewear (goggles) must be purchased for use in the laboratory. The bookstore is carrying them ($7.00).

Other Resources Use of Technology (If Applicable): Scientific Calculator

Evaluation and Requirements of Students

Face2face quizzes: 35%

Face2Face Final examination: 25%

Laboratory: 20% (only if Face2face quizzes average ≥ 60)

HomeWork: 20% (only if Face2face quizzes average ≥ 60)

Class Participation

Participation in the academic activity of each course is a significant component of the learning process and plays a major role in determining overall student academic achievement. Academic activities may include, but are not limited to, attending class, submitting assignments, engaging in in-class or online activities, taking exams, and/or participating in group work. Each instructor has the right to establish their own class participation policy, and it is each student?s responsibility to be familiar with and follow the participation policies for each course.

BMCC Policy on Plagiarism and Academic Integrity Statement

Plagiarism is the presentation of someone else's ideas, words or artistic, scientific, or technical work as one's own creation. Using the idea or work of another is permissible only when the original author is identified. Paraphrasing and summarizing, as well as direct quotations, require citations to the original source. Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism. Students who are unsure how and when to provide documentation are advised to consult with their instructors. The library has

guides designed to help students to appropriately identify a cited work. The full policy can be found on BMCC's Web site, www.bmcc.cuny.edu. For further information on integrity and behavior, please consult the college bulletin (also available online).

Gender-Inclusivity

BMCC community members have the right to use and be referred to according to their preferred name, title, and/or personal pronouns. Everyone also has the right to use all spaces according to their self-identification, including restrooms and locker rooms. To learn more about how to change your preferred name and affirm your gender identity at CUNY (including requesting a new ID card and/or email address), go here: https://www.bmcc.cuny.edu/student-affairs/lgbtq/ Anyone who has experienced harassment related to gender or sexual identification, who needs assistance, or who wishes to file a complaint, can contact the Office of Compliance and Diversity: https://www.bmcc.cuny.edu/about-bmcc/compliance-diversity/.

FREE BMCC STUDENT SUPPORT SERVICES

BMCC is committed to the health and well?being of all students. It is common for everyone to seek assistance at some point in their life, and there are free and confidential services on campus that can help.

Advocacy and Resource Center (ARC) https://www.bmcc.cuny.edu/student-affairs/arc/ room S230, 212,220,8195, arc@bmcc.cuny.edu. If you are having problems with food or housing insecurity, finances, health insurance or anything else that might get in the way of your studies at BMCC, contact the Advocacy and Resource Center (formerly Single Stop) for assistance. Please contact us at arc@bmcc.cuny.edu, call 212-220-8195, or come by the office at room S230. You may also contact the Office of Student Affairs, S350, 212-220-8130, studentaffairs@bmcc.cuny.edu, for assistance.

Counseling Center www.bmcc.cuny.edu/counseling, room S343, 212?220?8140, counselingcenter@bmcc.cuny.edu. Counselors assist students in addressing psychological and adjustment issues (i.e., depression, anxiety, and relationships) and can help with stress, time management and more. Counselors are available for walk?in visits.

Office of Compliance and Diversity https://www.bmcc.cuny.edu/about-bmcc/compliance-diversity, room S701, 212-220-1236. BMCC is committed to promoting a diverse and inclusive learning environment free of unlawful discrimination/harassment, including sexual harassment, where all students are treated fairly. For information about BMCC's policies and resources, or to request additional assistance in this area, please visit or call the office, or email olevy@bmcc.cuny.edu, or twade@bmcc.cuny.edu. If you need immediate assistance, please contact BMCC Public safety at 212-220-8080.

Office of Accessibility www.bmcc.cuny.edu/accessibility, Students who need academic accommodations in connection with a disability must initiate the request with BMCC?s Office of Accessibility (OA). Students need to register with the Office of Accessibility in order to officially disclose their disability status to the College and to determine eligibility for appropriate reasonable accommodations (including any prior IEPs or 504s). Please contact the OA at the start of the semester (or as soon as possible) to coordinate any accommodation request/s: www.bmcc.cuny.edu/accessibility, Room N360 (accessible entrance: 77 Harrison Street), 212-220-8180, accessibility@bmcc.cuny.edu.

Lab policies

1. You will not be allowed to carry any work in the lab unless you submit all two pages of the lab release form, back and front, via BB.
2. You will not be allowed in the lab unless you bring your safety goggles. Safety glasses will not be permitted.
3. If you are seen once without safety goggles during lab work, the instructor will invite you to leave for 15 minutes. If you are seen twice, you will have to go home.
4. You will not be allowed in the lab unless you bring a printed copy of the corresponding lab experiment to be carried out.
5. In the lab, foods or drinks are not allowed.
6. If you come to the lab with a printed lab experiment which contains missing pages you will be penalized with 5 points.
7. Pre-lab should be carried out at home and presented to the instructor at the beginning of the experiment. An empty pre-lab page will be collected with your name in case the work is not done.
8. If you are done with the lab work, the instructor will evaluate and signs your work. Lab work without a signature are non gradable.
9. Lab work will be submitted via BB as a single PDF during the lab session, never later than that. Late submissions will be penalized with 5 points a day.
10. If you finish the lab work late, after the lab ending time, you will be penalized with 5 point.
11. There are no make-ups for missed lab sessions. However, I will allow a single absence without penalty.
12. E-books are not allowed, you need a paper copy of the experiment.
13. If you miss a lab session you miss the grade of the corresponding work carried out during that session.
14. If you arrive late to the lab, after one hour, your lab will not be graded.

Name	Signature	Date

Lecture policies

1. If you signed up to class late and start the semester later than regular students, you have 5 days from when you are officially listed to class to hand out any missing HW, lab work (pre and post lab), and take any quiz. After that period you will not receive any points for missing work.
2. Lab and HW components of the grade will only be taken into account if you quiz average is above 60.
3. If you miss the final quiz your final grade will be commputed using a zero for the final quiz.
4. There are no make-ups for missed quizzes or HW.
5. If you submit any HW late you will substracted 5 points a day.
6. You need to bring a scientific calculator to class and your phone does not count as one.
7. For level 2 classes (CHEM 202) you need a graphing calculator (Casio is a good brand)
8. Class work can only be done during class, hence your attendance is critical for this grade component.
9. If you miss a class with a classwork component you miss the corresponding grade.
10. You may bring a cheat sheet on 8.5x11 paper to the exam written on both sides. No more than a single sheet will be allowed under any circumstance. If you are seen in a quiz with more than a single page, the instructor has the right to reduce your quiz grade by 20 points.
11. Assignments in which you had tech issues during submission will waived unless you reach out on the day of the deadline.

Name	Signature	Date

Topics

Ch 1 Measurements Ch 2 The periodic table: atoms and Elements Ch 3 Chemical naming Ch 4 The Mole and Chemical Reactions Ch 5 Reactions in solution Ch 6 Gases Ch 7 Thermochemistry Ch 8 Electronic structure of atoms Ch 9 Electronic structure of molecules Ch 10 Solids and liquids