

**NATURAL SCIENCES DEPARTMENT
HOSTOS COMMUNITY COLLEGE
of THE CITY UNIVERSITY OF NEW YORK
Semester/ Year**

CHE 210

GENERAL CHEMISTRY I

Meeting time: Room:		Course Modality: In person
Course Instructor		
Office Hours:		
Email: Phone:		
Contact Policy:	<ul style="list-style-type: none">○ When sending an e-mail, be sure to put key information in the Subject area. Make sure to include your full name and class section. Use your Hostos e-mail. I will answer your message in less than 48 hours.○ When requesting an appointment outside my office hours, speak to me before you come. Notify me immediately if you need to cancel or change an appointment.○ If you need to reach me by phone, please leave a brief message with your contact information. I will get back to you.	

CREDIT: 4.0 credits Weekly meeting: Lecture 3 hours: Laboratory 3 hrs and recitation 1hr

PRE/COREQUISITES: MAT 160

Course Description

A STUDENT IN THIS COURSE WILL ANALYZE DATA AND SOLVE PROBLEMS RELATED TO THE PRINCIPLES OF MODERN ATOMIC THEORY, STOICHIOMETRY, OXIDATION-REDUCTION REACTIONS, GAS LAWS, THERMOCHEMISTRY, ELECTROMAGNETIC RADIATION AND QUANTUM THEORY, CHEMICAL BONDING AND MOLECULAR STRUCTURE, AND PROPERTIES OF SOLUTIONS. THIS COURSE IS INTENDED FOR STUDENTS PREPARING FOR CAREERS IN SCIENCES AND ENGINEERING.

Student Learning Outcomes

A STUDENT IN THIS COURSE WILL:

- Know the basic principles and topics of Chemistry and their application to real problems.
- Solve problems ranging from simple to complex calculations based on the materials covered.
- Use chemical terminology to explain aspects ranging from engineering problems to every day life situation.
- Develop the capabilities to solve problems by combining several concepts in chemistry.
- Develop the techniques to think critically about a problem, devise a strategy for solving it, and assess whether the results make sense.
- Relate chemistry to all areas of science.

- Unify the diverse topics of chemistry.
- Manipulate basic laboratory equipment and apply proper procedures related to separation techniques, stoichiometry, chromatography, calorimetry, gravimetry, colorimetry, etc.

Pathways Learning Outcomes

A student in this course will:

1. **Identify and apply the fundamental concepts and methods of a life or physical science.**
PLO1 will be demonstrated by student performance in ALEKS specific assignments, specific questions on exams (partial and Final) and quizzes.
2. **Apply the scientific method to explore natural phenomena, including hypothesis development, observation, experimentation, measurement, data analysis, and data presentation.**
PLO2 will be demonstrated by student performance in lab reports.
3. **Use the tools of a scientific discipline to carry out collaborative laboratory investigations.**
PLO3 will be demonstrated by student performance in lab reports.
4. **Gather, analyze, and interpret data and present it in an effective written laboratory or fieldwork report.**
PLO4 will be demonstrated by student performance in lab reports
5. **Identify and apply research ethics and unbiased assessment in gathering and reporting scientific data.**
PLO5 will be demonstrated by student performance in lab reports, specific questions in lab quizzes and Final Exam

TEXTBOOK INFORMATION:

General Chemistry I (CHE210) course requires purchase of an access to an online learning platform which includes **ALEKS**, the required **ebook** and **Connect Virtual Lab** for Laboratory section. Please, use the following information in order to register in ALEKS:

ALEKS Class Code: Class access code will be provided by Instructor

Please choose **one of the two options** (18 weeks package or 52 weeks package) available for ALEKS 360 for *Silberberg Chemistry: The Molecular Nature of Matter and Change 9e*

Option 1 subscription (18 weeks) is for **General Chemistry I**

Option 2 (52 weeks) subscription will cover both **General Chemistry I and II.**

*Note, these package options include the **e-book** version of the book. Additionally, students can buy a loose-leaf hard copy version of the book if they prefer so. This optional purchasing of the book is not required and, in all cases, will be in addition of above required package, not instead of above requirement.*

Loose-leaf for Chemistry (Silberberg): ISBN: 9781260151749 (Optional)

[What is ALEKS Financial Aid Access Code?](#)

The Financial Aid Access Code (FAAC) is designed to assist students experiencing financial aid delays. With the FAAC, students can enroll in this course and have temporary access to ALEKS for up to a two-week period.

ONCE STUDENTS ENROLL IN THE COURSE USING THE FAAC, IT IS HIGHLY RECOMMENDED THAT THEY PURCHASE A REGULAR STUDENT ACCESS CODE BEFORE THE TWO-WEEK PERIOD ENDS TO EXTEND THEIR ACCOUNT AND MAXIMIZE THEIR ACCESS TO ALEKS. THE START DATE OF THE STUDENT'S ACCOUNT IS THE DATE THE STUDENT ACTIVATED THE FAAC AND NOT THE DATE WHEN THE ACCOUNT WAS EXTENDED WITH A PURCHASED STUDENT ACCESS CODE.

THE FINANCIAL AID ACCESS CODE DOES NOT ADD AN ADDITIONAL TWO WEEKS TO A STUDENT'S ACCOUNT.

[What is ALEKS and Why is it incorporated in the course?](#)

ALEKS stands for **A**ssessment and **L**earning in **K**nowledge **S**paces. It is a Web-based, artificially intelligent assessment and learning system.

This online platform is incorporated in the course to help you master and learn the course content through practice problems offered for each topic covered in the class and will complement the lecture portion. The online platform - ALEKS 360, which we will be using in our course includes ALEKS, the required ebook and Connect Virtual Lab for your Lab Portion of the course.

Please, refer to the Folder named "ALEKS" in Course Content in Blackboard to find the document with instructions on how to **register in ALEKS**. Please, remember that it is extremely important **to register as soon as possible (on the first day of the class)** in order to complete the assignments timely.

[Exams](#)

There will be 4 partial Exams in total. Each exam will be based on several chapters covered in the class. Please, see the schedule below.

[Final Exam](#)

The Final Exam is a cumulative exam, which means it will be based on all chapters covered in the course and will be given during the Final Exam Week. The exact date will be shared closer to the Final Exam Week once it will be available.

[Homework Tests](#)

Homework Tests are the short and frequent quizzes based on the material covered. These will be given every week. The Homework Test will help you keep up with the material and prepare you better for the Exams.

[Laboratory class Information](#)

All laboratory experiments are in person and hands on. In addition to the hands on experiments, Mc Graw Hill Connect virtual lab will be used as a supplement pre-lab assignment. The laboratory schedule is provided below. Detail of the laboratory course will be provided during laboratory sessions.

[What is Recitation?](#)

Recitation class is the time allocated for students to apply the knowledge learned in lecture through solving problems. This is usually a portion of the course that is offered with science and math classes. This is usually an interactive class, where we will work in groups, or individually to practice problems and discuss different strategies to solve the problems and better understand the chemistry concepts. The goal of recitation is to use team work and peer discussion to improve your problem-solving skills, as this will lead you to an enhanced comprehension of basic chemical principles. The recitation exercises you will do are intended to help you develop the analytical skills needed to engage in successful problem solving. Thus, in this course we will be solving chemistry problems based on the material that has been covered in lecture time.

Grading Policy:

The Final grade will be determined as follows:

GRADE DISTRIBUTION

The Final grade will be determined by the grades on lecture and lab combined as follows:	
GRADE DISTRIBUTION -----	100%
Lecture -----	70%
- 4 Partial in class-Exams (the lowest grade will be dropped)	35%
- Final Cumulative Exam-	15%
- Homework Tests	5%
- ALEKS Assignment-	15%
Laboratory	30%

NO STUDENT UNDER ANY CIRCUMSTANCES WILL BE GIVEN A PASSING GRADE IN THIS CHEMISTRY COURSE WITHOUT TAKING AND PASSING THE LABORATORY. **FOUR (4) UNEXCUSED ABSENCES TO LAB ARE EQUIVALENT TO AN F.**

Grade distribution within ALEKS is as following:

Pie Progress --- 50%

Objectives ----- 50%

Total ----- 100%

The ALEKS grade contributes to the Final Total Grade as 15%

Grade distribution for the Lab is as following:

Lab Reports --- 70%

Quiz --- 10%

Final Exam --- 20%

Total ---- 100%

The Lab grade contributes to the Final Total Grade as **30%**

Grade distribution for Homework Tests:

Each Homework Test will consist of at least 4 questions and will be graded in ALEKS.

The lowest grade out of all Homework Tests will be dropped.

The Homework Test grade contribute to the Final Total Grade as **5%**.

Grade distribution for Exams:

Each exam will consist of at least 20 questions.

The lowest grade out of 4 will be dropped.

The Exams grade contribute to the Final Total Grade as **35%**.

Grade Distribution for Final Exam:

The Final Exam will consist of more questions than in a partial exam.

The Final Exam grade contributes to the Final Total Grade as **15%**.

Grading Policy

Grade Letter	Grade %	GPA Value
A	93-100%	4.0
A-	90-92%	3.7
B+	87-89%	3.3
B	83-86%	3
B-	80-82%	2.7
C+	77-79%	2.3
C	70-76%	2
D	60-69%	1
F	Below 60%	0

There is no R grade in this course.

The grade of **Incomplete (I)** is given in regular courses upon request of the student for personal emergencies that are verifiable. The faculty member has the responsibility to provide Inc grade only to

those students who are passing the course. The student has the responsibility to take the initiative in completing the work and is expected to make up the incomplete during the first semester in residence after receiving the grade of Incomplete. If the student does not make up the incomplete during the following semester after receiving it, the faculty member may give an F grade without further consultation with the student. If after the end of the first semester the Inc remains on the record it will be designated as an F and will be computed in the student's GPA.

Students with disabilities:

If any student has a disability that requires course accommodations, please contact me by phone or email as soon as possible to discuss your situation. I will be pleased to meet with you to discuss the matter as well. If you have not already done so, you should register with the college's office of Services for Students with Disabilities located in the Savoy building in Room D101P; telephone: 718-518-4454. The office will assess your eligibility for services and / or accommodations and will work with you to plan and implement appropriate accommodations to assist you to complete requirements for this and other courses. SSWD website is <http://www.hostos.cuny.edu/sswd/>

Services for Students with Disabilities

Location: 120 E. 149th Street (Walton Avenue), Rm. D-101L

Contact info: (718) 518-4454 (voice/TTY): e-mail: sswd@hostos.cuny.edu.

For more information go to <http://www.hostos.cuny.edu/>

COUNSELING CENTER

Counseling center is a great resource for ALL students: time saving techniques, stress reduction, study skills, personal problems, and much, much more The Counseling Center provides ongoing personal and academic counseling for students on an individual and group basis.

Location: 450 Grand Concourse, Rm. C330

TEL. (718) 518-4319 INFOCOUNSELING@HOSTOS.CUNY.EDU

Mentoring program: <http://www.hostos.cuny.edu/oa/mentoring.html>

CHE 210 Course Schedule: (include semester/year)

The course schedule is subject to change

WEEK/DAY	CHAPTERS # Sections	Homework/Assignment: It will be weekly updated.
	Class Introduction/Chapter 1. Keys to studying Chemistry: Definitions, Units and Problem Solving	ALEKS assignment and Reading Text Book
	Chapter 1. Keys to studying Chemistry: Definitions, Units and Problem Solving	ALEKS assignment and Reading Text Book

	Chapter 1. Keys to studying Chemistry: Definitions, Units and Problem Solving	ALEKS assignment and Reading Text Book
	Chapter 2. The Components of Matter	ALEKS assignment and Reading Text Book
	Chapter 2. The Components of Matter	ALEKS assignment and Reading Text Book
	Chapter 2. The Components of Matter	ALEKS assignment and Reading Text Book
	Chapter 2. The Components of Matter	ALEKS assignment and Reading Text Book
	Exam I: Chapters 1 and 2	
	Chapter 3: Stoichiometry of Formulas and Equations	ALEKS assignment and Reading Text Book
	Chapter 3: Stoichiometry of Formulas and Equations	ALEKS assignment and Reading Text Book
	Chapter 4: Three Major Classes of Chemical Reactions	ALEKS assignment and Reading Text Book
	Chapter 4: Three Major Classes of Chemical Reactions	ALEKS assignment and Reading Text Book
	Exam II: Chapters 3 and 4	
	Chapter 13: The Properties of Mixtures: Solutions and Colloids	ALEKS assignment and Reading Text Book
	Chapter 5: Gases and The Kinetic Molecular Theory	ALEKS assignment and Reading Text Book
	Chapter 5: Gases and The Kinetic Molecular Theory	ALEKS assignment and Reading Text Book
	Chapter 6: Thermochemistry: Energy Flow and Chemical Change	ALEKS assignment and Reading Text Book
	Chapter 6: Thermochemistry: Energy Flow and Chemical Change	ALEKS assignment and Reading Text Book
	Exam III: Chapters 13, 5 and 6	
	Chapter 7: The Quantum Theory and Atomic Structure	ALEKS assignment and Reading Text Book
	Chapter 7: The Quantum Theory and Atomic Structure	ALEKS assignment and Reading Text Book
	Chapter 8: Electron Configuration and Chemical Periodicity	ALEKS assignment and Reading Text Book
	Chapter 8: Electron Configuration and Chemical Periodicity	ALEKS assignment and Reading Text Book
	Chapter 9: Models of Chemical Bonding	ALEKS assignment and Reading Text Book
	Chapters 9: Models of Chemical Bonding	ALEKS assignment and Reading Text Book

	Chapter 10: The Shapes of Molecules	ALEKS assignment and Reading Text Book
	Exam IV: Chapters 7,8,9	
	Final Review/Final Exam Orientation	ALEKS assignment and Reading Text Book

Final Cumulative Exam: Final Exam week (...): to be announced

CHE 210 Lab Course Schedule: (include semester/year)

The course schedule is subject to change

Week/Day	Experiment	Virtual Lab Assignment
Week 1	<u>Lab #1</u> : Syllabus Review Discussion of Safety Rules Laboratory Report Drawer Assignment Introducing Measuring in the Laboratory	Chemistry Virtual Lab Tutorial
Week 2	<u>Lab #1</u> : Introducing Measuring in the Laboratory (Continuation)	Lab Skills (5): <ul style="list-style-type: none"> • Using a Balance • Using a Graduated cylinder • Using an Alcohol Thermometer • Using a Ruler • Using a Pipet and Burette
Week 3	<u>Lab #2</u> : The density of liquids and solids	Density – Density of Plastic Cube
Week 4	<u>Lab #3</u> : Nomenclature of Ionic Compounds	N/A
Week 5	<u>Lab #4</u> : Chemical Formula Determination	N/A
Week 6	<u>Lab #5</u> : Types of Chemical Reactions	Reactions in Solution - (Balancing Equations)
Week 7	<u>Lab #6</u> : Mole Ratios and Reaction Stoichiometry	Stoichiometry - Synthesis of Calcium Carbonate
Week 8	<u>Lab #7</u> : Titration of Vinegar	Titration - Concentration of Vinegar
Week 9	<u>Lab #7</u> : Titration of Vinegar (Continuation)	N/A
Week 10	<u>Lab #8</u> : Calorimetry and Hess's Law	Calorimetry – Heat Capacity of a Calorimeter
Week 11	<u>Lab #9</u> : Determination of the Gas Constant	Gas Law – Ideal Gas Law Constant

Week 12	<u>Lab #10</u> : Gravimetric Analysis of an Unknown Sulfate	Solubility – Qualitative Analysis
Week 13	<u>Lab #11</u> : Spectrochemistry	Spectrophotometry – Apply Beer's Law to Determine Concentration of Dye
Week 14	Final Exam Review	N/A

Information in Blackboard

- You can find all the information related to the course in designated folders named after relative topic – under **Syllabus/Course Info**.
- You can find all the information related to the current topic of the course in designated folders named after relative course topic – under **Course Content**.
- You can find the recordings of the Lecture Sessions in the **Blackboard Collaborate Ultra --- Menu--- Recordings**

Student Responsibilities

- Be on time
- Be proactive
- Read the syllabus *in full*, and let me know ASAP if you have any questions or concerns.
- Check Blackboard and your Hostos email regularly for updates – You don't want to miss any announcements, instructions, information related to the course.
- Work regularly and consistently in ALEKS --- This is essential as your EXAMS will be given in ALEKS, so it is necessary for you to work very systematically in ALEKS to be ready for the exams.
- Pay attention to assignment deadlines and exam/quiz dates.
- Let me know *as soon as possible* if you are having trouble keeping up with the course material, if you need extra help, or if any other problems arise.
- Be respectful
- I expect you to be respectful and courteous to myself and to all students in the class.
- You should refer to me as "Professor ..." or "professor", not "miss".
- Do not engage in any behavior that is disruptive or distracting to myself or your fellow students. Unruly and/or disruptive behavior may be subject to disciplinary action.

Cell Phone Policy (does not apply to online classes)

Cell phones and other electronic devices are prohibited in the class, unless instructed otherwise by your professor.

Please, turn off your cell phone ringer while in class.

If you are waiting for an emergency call, keep your cell on vibrate. If you need to use your phone, please step outside the classroom without disturbing the class to use it.

College attendance policy: *(Reproduced from pages 158-162 of the 2006/2007 Catalogue).*

Students are expected to attend all class meeting in the courses for which they are registered. Classes begin at the times indicated in the official schedule of classes. Arrival in class after the scheduled starting time constitutes lateness.

The maximum number of absences is limited to 15% of the number of scheduled class hours per semester and a student absent more than the indicated 15% is deemed excessively absent. Attendance is monitored from the first official day of classes. In the case of excessive absences or lateness, the instructor has the right to lower the grade, assign a failing grade, or assign additional written work or readings.

Netiquette

Netiquette or etiquette when on the Internet refers to the conduct that is socially acceptable in the online environment.

Everyone deserves to be treated as a respected colleague.

Any behavior that is inappropriate in a traditional classroom is inappropriate in the online classroom

- Exhibit the same courtesy to your classmates and professor as you would expect to receive. Be open-minded and accepting of constructive criticism and difference of opinion.
- Make certain that your tone is positive and professional. Flaming, or bashing, is when someone attacks a person instead of the logic of his or her argument. Flaming will not be tolerated.
- All criticism should be constructive.
- If someone posts a message that is difficult to understand or offensive, ask for clarification. Don't respond in kind.

Respect Privacy

Within campus online services it is important to recognize that these services are ACADEMIC online spaces and have a different level of privacy than spaces like social media.

In any academic online service it's important to remember:

- Don't post private matters on the discussion forum.
- Don't spam the instructor or classmates or send Facebook friend invites.

- Don't send harassing or bullying communications.
- Don't send or post inflammatory, argumentative or hate speech.
- Use private emails to socialize.
- Don't make inappropriate overtures to classmates or instructor.

Academic Integrity

See College catalog for further information: <http://www.hostos.cuny.edu/catalog/>

Hostos Community College believes that developing student's abilities to think through issues and problems by themselves is central to the educational process. Since the Hostos College degree signifies that the student knows the material s/he has studied, and the practice of academic dishonesty results in grades or scores that do not reflect how much or how well the student has learned, understood, or mastered the material, the College will investigate any form of academic dishonesty brought to its attention. If the charge of academic dishonesty is proved, the College will impose sanctions. The three most common forms of academic dishonesty are **cheating, plagiarism, and bribery**.

In the collegiate setting, **cheating** is defined as the purposeful misrepresentation of another's work as one's own. Faculty and students alike are responsible for upholding the integrity of this institution by not participating either directly or indirectly in act of cheating and by discouraging others from doing so.

Plagiarism is a form of cheating which occurs when persons, even if unintentionally, fail to acknowledge appropriately the sources for the ideas, language, concepts, inventions, etc. referred to in their own work. Thus, any attempt to claim another's intellectual or artistic work, as one's own constitutes an act of plagiarism.

In the collegiate setting, **bribery** involves the offering, promising, or giving of items of value, such as money or gifts, to a person in a position of authority, such as a teacher, administrator, or staff member, so as to influence his/her judgment or conduct in favor of the student. The offering of sexual favors in exchange for a grade, test score, or other academic favor, shall be considered attempted bribery. The matter of sexual favors, either requested or offered, in exchange for a grade, test score or other academic favor, shall also be handled as per the Sexual Harassment procedures of the College.

If you are suspected of plagiarism or cheating or if you attempt to bribe or influence your professor, you will be immediately reported to the college's Academic Integrity Officer. You will be unable to drop the class. The penalties range from an F with a score of 0 for an assignment to Failure for the entire term to expulsion from The City University of New York.

Students are expected to attend all class meeting in the courses for which they are registered. Classes begin at the times indicated in the official schedule of classes. Arrival in class after the scheduled starting time constitutes lateness.

The maximum number of absences is limited to 15% of the number of scheduled class hours per semester and a student absent more than the indicated 15% is deemed excessively absent. Attendance is monitored

from the first official day of classes. In the case of excessive absences or lateness, the instructor has the right to lower the grade, assign a failing grade, or assign additional written work or readings.

Absences due to late registration, the instructor will consider change of program, or extenuating circumstances on an individual basis. Each department and program may specify in writing a different attendance policy. Instructors are required to keep an official record of student attendance and inform each class of the College's or department attendance policy.

Thank you

ENJOY LEARNING AND HAVE A WONDERFUL SEMESTER!