NATURAL SCIENCES DEPARTMENT
HOSTOS COMMUNITY COLLEGE
of THE CITY UNIVERSITY OF NEW YORK

CHE SEC GENERAL CHEMISTRY I CODE:
4 *credits, 3-hr lecture/1-hr recitation/3-hr lab*

Professor

Meets:	Lecture: A-534 Tuesdays 9:30-10:45am Recitation Laboratory:
Email:	
Office hours:	
Phone:	.
Contact Policy:	o 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 in the text. I will answer your message in less than 48 hours. o 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. o If you need to reach me urgently, contact the Department's secretary at (718) -518-4128. Leave a brief message and your contact information.

COURSE DESCRIPTION:

The student 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.

COURSE LEARNING OUTCOMES:
By the end of the course, students will:

- Know the basic principles and topics of Chemistry and their application to real world problems.
- Solve problems ranging from simple to complex chemistry calculations based on the materials covered.
- Use chemical terminology to explain aspects ranging from engineering problems to every day life situation.
- Demonstrate to think critically about a chemistry problem, devise a strategy for solving it, and assess whether the results make sense.
- Relate chemistry to all areas of science.
- Connect diverse topics of chemistry.
- Manipulate basic laboratory equipment
- apply proper chemistry procedures related to separation techniques, stoichiometry, chromatography, calorimetry, gravimetry, etc.

CO/PREREQUISITE: MAT 160

TEXTBOOK:
Chemistry, A molecular Approach, 2011, 2th Ed., Nivaldo Tro, Pearson Prentice Hall
ISBN 10: 0-321-65178-2
LABORATORY MANUAL: Chemistry, The Central Science, 10th Ed., J.Nelson&K.Kemp, Prentice Hall, 2006, ISBN: 0131464795
RECOMMENDED: Student Study Guide by TRO

The Final grade will be determined by the grades on lecture and lab combined as follows:

GRADE DISTRIBUTION

Lecture	**70%**
Partial Exams	
Final Exam	
Participation	
Online Assignments	
Laboratory	**30%**

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**, an F grade may be given by the faculty member 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.

Grade		GPA Value
A	93-100%	
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.

Lecture and Lab Participation:

Your participation in class is an important part of the final grade. These portions of the grade are based primarily on attendance (75% or more of the classes= 1.5 point), punctuality (to be on time in the 75% or more of the classes=1.5), participation in class discussions (2%).

Lab report Lateness Policy:
Lateness providing lab reports will negatively affects its lab grade. Each late week will have a 10% penalty on the specific lab grade.

Academic Integrity:

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, change of program, or extenuating circumstances will be considered on an individual basis by the instructor. 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.

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.

Course Schedule

DATE	**CHAPTERS # Sections**	**Homework/Assignment:** It will be weekly updated.
	Class Introduction/Chapter 1. Matter, Measurement, and Problem Solving	End of the Chapter-even Problems Online Homework
	Chapter 1. Matter, Measurement, and Problem Solving	End of the Chapter-even Problems Online Homework
	Chapter 1. Matter, Measurement, and Problem Solving	End of the Chapter-even Problems Online Homework
	Chapter 2. Atoms and Elements	End of the Chapter-even Problems Online Homework **Quiz One (Chapter 1)**
	Chapter 2. Atoms and Elements	End of the Chapter-even Problems Online Homework
	Chapter 3: Molecules, Compounds, and Chemical Equations	End of the Chapter-even Problems Online Homework
	Chapter 3: Molecules, Compounds, and Chemical Equations	End of the Chapter-even Problems Online Homework **Quiz Two (Chapter 2)**
	In Class Exam I: Chapters 1 and 2	**Online Exam I: Available (9/21/-9/23)**
	Chapter 4: Chemical Quantities and Aqueous Reactions	End of the Chapter-even Problems Online Homework **Quiz Three (Chapter 3)**
	Chapter 4: Chemical Quantities and Aqueous Reactions	End of the Chapter-even Problems Online Homework
	Review Chapters 3 and 4	End of the Chapter-even Problems Online Homework **Quiz Four (Chapter 4)**
	In Class Exam II: Chapters 3 and 4	**Online Exam II: Available (10/12/-10/14)**
	Chapter 5: Gases	End of the Chapter-even Problems Online Homework
	Chapter 5: Gases	End of the Chapter-even Problems Online Homework
	Chapter 6: Thermochemistry	End of the Chapter-even Problems Online Homework **Quiz Five (Chapter 5)**
	Chapter 6: Thermochemistry	End of the Chapter-even Problems Online Homework
	Chapter 7: The Quatum-Mechanical Model of the Atom	End of the Chapter-even Problems Online Homework **Quiz Six (Chapter 6)**
	Chapter 7: The Quatum-Mechanical Model of the Atom	End of the Chapter-even Problems Online Homework
	Chapter 7: The Quatum-Mechanical	End of the Chapter-even Problems Online Homework

	Model of Atom	
	In Class Exam III: Chapters 5 and 6	**Online Exam III: Available (11/9/-11/11)**
	Chapter 8: Periodic Properties of the Elements	End of the Chapter-even Problems Online Homework
	Chapter 8: Periodic Properties of the Elements	End of the Chapter-even Problems Online Homework **Quiz Seven (Chapter 7)**
	Chapter 9: Chemical Bonding I	End of the Chapter-even Problems Online Homework
	Chapters 9 and 10: Chemical Bonding I and II	End of the Chapter-even Problems Online Homework
	Chapter 11/Chapters 12: Liquids, Solids and Intermolecular Forces/Solutions	End of the Chapter-even Problems Online Homework **Quiz Eight (Chapters 8, 9 and 10)**
	Chapter 11/Chapters 12: Liquids, Solids and Intermolecular Forces/Solutions	
	The Finale: Final Assignment Discussion	End of the Chapter-even Problems Online Homework
Tuesday December 13	Final Review/Final Exam Orientation	End of the Chapter-even Problems Online Homework **Quiz Nine (Chapters 11 and 12)**
Final Exam:		

SCHEDULE OF EXPERIMENTS

(Lab Instructor will provide more details)

DATE	EXPERIMENT	EXPT #	PAGE
	Drawer assignment Discussion of Safety Rules for Laboratory Sessions Attendance and Grading Policies Directions for Writing a Laboratory Report and Flow Charts **Basic Laboratory Techniques** (to be concluded in the second lab period:two weeks, for next semester, take care)	1	1
	Identification of Substances by Physical Properties **Assignment: Elaborate Flowchart and write Lab report**	2	17
	Separation of the Components of a Mixture **Assignment: Elaborate Flowchart and write Lab report. This lab report will be revised.**	3	29
	<u>Quiz 1: Lab 1, 2 and 3</u> **Chemical Formulas** **Assignment: Elaborate Flowchart and write Lab report**	5	47
	Chemical Reactions (Parts B and C) **Assignment: Elaborate Flowchart and write Lab report**	4	37
	Paper Chromatography: Separation of Cations (Part B) **Gas Chromatography (Demo)** **Assignment: Elaborate Flowchart and write Lab report**	10	97
	<u>Quiz 2: Lab 4, 5 and 6</u> **Chemicals in Everyday Life: What Are They and How Do We Know?** **Assignment: Elaborate Flowchart and write Lab report. This lab report becomes the basis for a formal writing assignment.**	7	67
	Titrations of Acids and Bases (Part A) **Assignment: Elaborate Flowchart and write Lab report**	20	215
	Calorimetry	**HA**	**OUT**

	Assignment: Elaborate Flowchart and write Lab report	**ND**	
	<u>Quiz 3: Lab 7, 8 and 9</u> **Behavior of Gases: Molar Mass of a Vapor (Part B)** **Assignment: Elaborate Flowchart and write Lab report**	13	137
	Gravimetric Analysis of a Chloride Salt **Assignment: Elaborate Flowchart and write Lab report. This lab report will be peer reviewed and revised.**	8	77
	Colorimetric Determination of Iron/Part A (Calibration Curve) **Assignment: Elaborate Flowchart and write Lab report**	33	423
	<u>Quiz 4: Lab 10, 11 and 12</u> **Colorimetric Determination of Iron (Unknown)/Part B** **Cleaning of Glassware and Check Out** **Assignment: Elaborate Flowchart and write Lab report**	33	423
	Review		
	Final Exam		