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

ENV 110	**ENVIRONMENTAL SCIENCE I** **3 credit required core: LIFE AND PHYSICAL SCIENCES**
CREDITS:	3 *credits*, 3-h *lecture*
PRE-REQUISITE:	ENG 91 or ESL 91.
CO-REQUISITE:	ENV 111 (1 credit, 2 hour-Lab). ENG 91 or ESL 91.
TEXTBOOK:	**CHEMISTRY FOR CHANGING TIMES, 13th Edition by** **John W. Hill and Doris K. Kolb (a la carte version)** **Pearson Prentice Hall, ISBN-10: 0-321-75087-X**
RECOMMENDED:	**Student Study Guide by R. Jones and J.W. Hill** **Pearson Prentice Hall**
PROFESSOR:	
EMAIL:	
Office hours:	
Room:	
Tel:	

	DAY	TIME	ROOM
LECTURE:			

COURSE DESCRIPTION:

The student will analyze data and explain concepts related to the classification of matter, basic principles of atomic structure and bonding, energy sources and the health-related environmental effects and the social implications and control of major air and water pollutants.

STUDENT LEARNING OUTCOMES:

STUDENTS WILL:

- Understand the concept of matter, its classification, state, properties, and changes.
- Know basic concepts of the atomic structure of matter, perform electron configuration, and will understand and use the periodic table.
- Know basic concepts of chemical bonding, ionic compounds, and covalent compounds.
- Understand and apply concepts of balancing chemical reactions.
- Know basic concepts of organic compounds: structure and properties for saturated and unsaturated hydrocarbons, aromatic hydrocarbons, chlorinated hydrocarbons, alcohols, and polymers.
- Know and understand the uses and hazards of chlorinated hydrocarbons and alcohol.
- Know basic concepts of nuclear chemistry, including natural radiation, nuclear equations, half-life, artificial transmutation, nuclear energy, nuclear power plant.
- Understand and know energy and energy sources: fossil fuels, nuclear fission, nuclear fusion, and renewable sources.
- Discuss, evaluate, and compare the economical and environmental advantages and disadvantages of each of these sources of energy.
- Know and understand the composition of air and the atmosphere: conditions and sources affecting them.
- Analyze and know alternatives to minimize or prevent these conditions.
- Know about thermal inversion, natural pollution, Industrial Smog, Photochemical Smog, Acid Rain, the Ozone layer, and Global Warming among others.
- Know about surface and ground water and about the natural and chemical contamination affecting these.
- Know about water treatment plants and the alternatives to minimize and prevent water contamination.

GRADING POLICY-100%

4 PARTIAL EXAMS----------	45% (The Lowest grade will be dropped off)
FINAL EXAM----------	25%
HOMEWORK/ASSIGNMENT----------	15%
5 QUIZZES----------	15% (The Lowest grade will be dropped off)

COURSE OUTLINE

WEEK/DAY	CHAPTERS # SECTIONS	HOMEWORK/ASSIGNMENT: IT WILL BE WEEKLY UPDATED.
	CLASS INTRODUCTION/CHAPTER 1. CHEMISTRY.	END OF THE CHAPTER PROBLEMS
	CHAPTER 1. CHEMISTRY/CHAPTER 2. ATOMS	END OF THE CHAPTER PROBLEMS
	CHAPTER 3. ATOMIC STRUCTURE	END OF THE CHAPTER PROBLEMS
	QUIZ 1. (BASED ON CHAPTERS 1, 2 AND PARTIALLY 3) CHAPTER 3. ATOMIC STRUCTURE	END OF THE CHAPTER PROBLEMS
	CHAPTER 11. NUCLEAR CHEMISTRY	END OF THE CHAPTER PROBLEMS
	CHAPTER 11. NUCLEAR CHEMISTRY	END OF THE CHAPTER PROBLEMS
	CHAPTER 11. NUCLEAR CHEMISTRY	END OF THE CHAPTER PROBLEMS
	EXAM I: CHAPTERS 1,3 AND 11	
	CHAPTER 4: CHEMICAL BONDS	END OF THE CHAPTER PROBLEMS
	CHAPTER 4: CHEMICAL BONDS	END OF THE CHAPTER PROBLEMS
	CHAPTER 5: CHEMICAL ACCOUNTING	END OF THE CHAPTER PROBLEMS
	CHAPTER 5: CHEMICAL ACCOUNTING	END OF THE CHAPTER PROBLEMS
	QUIZ 2 (BASED ON CHAPTERS 4 AND 5) CHAPTER 9: ORGANIC CHEMISTRY	END OF THE CHAPTER PROBLEMS
	CHAPTER 9: ORGANIC CHEMISTRY	END OF THE CHAPTER PROBLEMS
	EXAM II: CHAPTERS 4 AND5	
	CHAPTER 10: POLYMERS	END OF THE CHAPTER PROBLEMS
	CHAPTER 10: POLYMERS	END OF THE CHAPTER PROBLEMS
	QUIZ 3 (BASED ON CHAPTERS 9 AND 10) CHAPTER 10: POLYMERS	END OF THE CHAPTER PROBLEMS
	CHAPTER 15: ENERGY	END OF THE CHAPTER PROBLEMS
	EXAM III : CHAPTERS 9 AND 10	

	Chapter 15: Energy	End of the Chapter Problems
	Quiz 4 (based on Chapters 15) Chapter 13: Air	End of the Chapter Problems
	Chapter 13: Air	End of the Chapter Problems
	Chapter 13: Air	End of the Chapter Problems
	Exam IV: Chapter 13 and 15	
	Chapter 14: Water	End of the Chapter Problems
	Quiz: 5 (based on 14 partially) Chapter 14: Water	End of the Chapter Problems
	Final Review/Final Exam Orientation	

Final Cumulative Exam: Final Exam week: Monday, December 19

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.

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.

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.