

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

**ENV 121 SEC ENVIRONMENTAL SCIENCE I LABORATORY CODE:**

Meeting Times:	Lab:	DATE	TIME	ROOM
Lecture Instructor:	Name:			
Office Hours:	DATE	TIME	ROOM	
	EMAIL: xxxx@hostos.cuny.edu			

**CREDITS:** 1 credits, 2-hr lab

**PRE-REQUISITES:** ENV110/111

**CO-REQUISITES:** ENV120

**REQUIRED MATERIALS:**

Safety Goggles (required for all laboratory sessions): Type approved for the chemistry laboratory: Indirect ventilated, ANSI Z87.1

Lab Manual: Zero Cost Lab Manual <https://guides.hostos.cuny.edu/env121>

**COURSE DESCRIPTION:** This course will introduce students to the scientific method and the contribution of observations, evidence, and scientific hypotheses to the scientific method, the process of background research, data gathering and interpretation. Students will learn environmental science terminology, will acquire skills in basic laboratory techniques, and in excel and graphing. Students will learn about toxic household chemicals and, and how to identify potentially hazardous chemicals in the household. This course will provide hands on experience enabling practical connection to the ENV120 syllabus content and will allow students recognize the presence and impact of environmental issues on a daily life.

**STUDENT LEARNING OUTCOMES:**

**Discipline-Specific Learning Outcomes (DLO)**

At the end of this course, students will be able to:

- Demonstrate a general understanding of the qualitative and quantitative research methods to gain empirical evidence bearing on evaluation of topics in environmental science (DLO1)
- Demonstrate proficiency in safe laboratory practices and proper use of the materials necessary for simple scientific experiments (DLO2)
- Develop and practice observational skills (DLO3)
- Conduct experiments, take various measurements to generate experimental data, display quantitative data using tables and graphs, and use simple statistical methods to interpret data and test hypotheses (DLO4)

- Design an experiment to test a specific hypothesis, identify controls and variables, and make the necessary measurements. Interpret and discuss results, and revise the hypothesis if needed (DLO5)
- Connect theoretical knowledge from ENV120 with laboratory experiments conducted in ENV111 (DLO6)

**Assessment Tools:**

**Discipline Learning Outcomes: DLO1-15**

**Assessment Tool:** Prelab readings and exercises. In class discussion. Participation in laboratory activities. Lab reports. Quizzes and final exam.

**Discipline Learning Outcomes: DLO1-6**

**Assessment Tools:**

**Assessment Tool Lab Report Sequence**

Each week, students will practice making measurements, conduct an experiment, or discuss results in class. They will then submit a lab report documenting their measurements, experimental design, and/or interpretations.

**Assessment Tool: Quizzes**

Quizzes will be used to assess students' understanding of the previous week's material. Each quiz will cover one or more Discipline Specific Learning Outcomes.

**Assessment Tool: Pre-lab assignments**

Each week, students will be responsible for a short assignment that prepares them for the day's activities.

**Assessment Tool: Final Project/Final Quiz**

In lieu of a final exam, students will be required to submit a final lab report based on their capstone project. This project will be designed to assess.

**GRADE DISTRIBUTION:**

The overall course grade will be computed using the following general distribution:

<b>Lab</b> -----	<b>100%</b>
- Prelab Assignments/Initial Lab Question-----	10 %
- Lab Work-----	20 %
- Lab Report-----	30 %
- Quizzes-----	20 %
- Final Project/Final Quiz-----	20 %

## Lab Safety

- You must come to lab dressed appropriately: no open shoes/sandals; tie back long hair
- Safety goggles must be worn at all times while working in the lab. Clean goggles will be provided for you to use during lab. At the end of each lab session, please return all used goggles to the cabinet so they can be cleaned for the next class.
- If you are not dressed properly, do not wear safety goggles, or engage in any unsafe or disruptive behavior, you may be asked to leave the lab.
- If you do not complete an experiment because you were removed for unsafe or disruptive behavior, you will not be permitted to make up the work. You may turn in a lab report based only on the work you completed before being asked to leave. Your grade will reflect an incomplete lab report.

## Requirements and Grading Criteria

- Required Text:** The Laboratory Manual for Environmental Science is posted as a pdf file on Blackboard course site
- Pre-Lab Assignments/Initial Question:** Check the laboratory schedule for the experiment you'll be doing each week. Before we begin a new lab experiment in class, you are to read through the introduction and procedures for that experiment and answer any pre-lab questions.
- Lab Reports:** You must complete the data sheets, including experimental observations and any calculations, and answer the questions at the end of the experiments. These will typically be due one week after completing an experiment. Due dates and specific instructions for each lab report will be posted on Blackboard; check it regularly for updates. Partial credit will be given for late work up to one week past the due date. After that, no credit will be given.
- **Lab Quizzes:** All quizzes will be completed at the beginning of class session.
- **Final Lab Quiz:** A cumulative final lab quiz will be given during final exam week.

Details regarding the Hostos Community College grade policies can be found at:  
<http://www.hostos.cuny.edu/Administrative-Offices/Office-of-the-Registrar/Academic-Info/Grades-Policy>

### ATTENDANCE POLICY:

- You are expected to actively participate in every laboratory experiment.
- If you have an unexcused absence from a laboratory session, you will receive a grade of zero for that week, and no lab report will be accepted for that experiment.
- If you miss part of an experiment (e.g. you are absent for part of a multi-week experiment, you come to class very late, or you leave a lab early), you will lose all points associated with the portion of the experiment that you missed. For example, if you miss half of a lab, the highest grade you can earn on that lab report will be 50%.
- More than three (3) absences from lab will result in a failing grade (F) in this course.

### GRADING POLICY:

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

### 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.

## ENV121 - LAB SCHEDULE

Week #	Experiment	Lab #
1	Introduction Safety Guidelines Lab 1: Scientific Method	1
2	Lab 2: Excel and Graphing	2
3	Lab2: Excel and Graphing (Discussion) Lab 3: Home Chemicals (Introduction)	2/3
4	Lab 3: Home Chemicals (Development)	3
5	Lab 3: Home Chemicals (Discussion) Lab 5: Toxic Chemicals (Introduction)	4
6	<b>Quiz 1</b> Lab 4: Toxic Chemicals (Development)	4
7	Lab 4: Toxic Chemicals (Discussion) Lab 5: Food/DNA Extraction (Introduction)	5
8	Lab 5: Food DNA Extraction (Development)	5
9	<b>Quiz 2</b> Lab 5: Food/DNA Extraction (Discussion) Lab 6: The City of the Future (Introduction)	6
10	<b>High Impact Practice: Common Intellectual Experience (Earth Day/Science Day Participation). This date is subject to change). This participation grade represents Quiz 3. Instructor will decide student specific participation</b>	
11	Lab 6: The City of the Future (Development)	6
12	<b>Quiz 4</b> Lab 6: The City of the Future (Discussion) Case Study (Introduction)	6
13	Case Study Development	
14	Case Study Discussion/ <i>Quiz based on case study</i>	7
15	Final Quiz/Final Project Discussion	