

**School of Earth and Environmental Sciences**  
**Environmental Sciences 100/111**  
**Laboratory Syllabus**

**Section:** E4TBF/0308  
**Location:** D-245/D-231  
**Time:** Wed 6:00-8:20pm  
**Instructor:** Kimmy Szeto  
**Email:** kimmy.szeto@qc.cuny.edu  
**Office Hours:** Thu 1:00-1:30, 4:30-5:00 and by appointment. Room D-211.

**Course Goal** EnSci 100/111 lab provides hands-on experiences to illustrate concepts and tests the theories covered in lecture. You will learn to interpret and analyze data presented in various formats, and use the Excel software to present your own. You will be guided through a series of exercises that are designed to stimulate critical thinking about the natural earth environment around you.

**Materials** EnSci 111 Lab Manual; basic scientific calculator; pencils

**Attendance** Participation in all lab exercises is mandatory.

**Homework** (1) You are assigned to read the instructions and questions for the upcoming lab. (2) Lab reports are due at the beginning of the next lab. No late assignments will be accepted. All assignments must be typed, printed out, and handed in on paper. No emailed assignments will be accepted. If you miss a lab session, you will receive a grade of zero (0) for that lab report. You may not turn in a lab report for a lab you do not attend. No make-up assignments will be offered, except in extreme cases documented with a medical note.

**Quizzes** A short quiz will be given at the beginning of each lab session (5-10 minutes). The quiz will be about that day's lab exercise. The quiz may also include one or two questions about the previous week's lab activities. There will be no quiz given for the first or last labs. If you miss a quiz, you will receive a grade of zero (0). There is no make-up.

**Conduct**

- Obey instructions given by the faculty and technicians in the lab and in the field
- Treat the faculty, students, lab equipment and lab materials with respect
- Listen when someone else is speaking
- Only the instructor is allowed to answer cell phone calls in the lab
- Academic dishonesty will not be tolerated. This includes, but is not limited to, plagiarism, cheating on exams and quizzes, the purchase or sale of academic papers, and the falsification of records. If you cheat, you will receive a zero on the exam or assignment and will also be referred for College disciplinary action. This includes copying any part of your lab assignment. You must do your own assignments and write them in your own words. For more detailed information, see <http://web.cuny.edu/academics/info-central/policies/academic-integrity.pdf>

**Grading** Quizzes 20%                      Lab reports 75%                      Participation 5%  
This lab grade will then constitute 40% of the over all EnSci 100/111 grade.

**How to do well in this class:**

- Show up on time to every lab
- Attend and participate in every lab and turn in every assignment on time
- Read labs ahead of time and make sure you understand the purpose and exercises
- Pay attention and take notes during the introductory lesson for each lab
- Ask questions! I can't help you if I don't know you're having trouble!

**Lab Schedule**

<b>Week</b>	<b>Date</b>	<b>Lab #</b>	<b>Topic</b>
1	Sep 2	1	Introduction to the scientific method in environmental science
2	Sep 9	2	Understanding the risk I: Self-imposed versus environmental risk
3	Sep 16	3	Energy I: Personal energy consumption
4	Sep 23	4	Energy II: Putting food on the table
5	Sep 30	5	Air I: Weather and climate
6	Oct 7	6	Air II: Ground level ozone
7	Oct 14*	--	No lab scheduled
8	Oct 21	9	Water III: Natural Water
9	Oct 28	8	Water II: Drinking Water
10	Nov 4	7	Water I: Water-borne infectious diseases
11	Nov 11	10	Soil Contamination
12	Nov 18	11	Understanding the risk II: Consumption of fish and mercury exposure
13	Nov 25	12	Understanding the risk III: Health risk of lead
14	Dec 2	13	Understanding the risk IV: Nuclear Waste
15	Dec 9	14	Environmental Issues Debate
16	Dec 16	--	No lab scheduled

## Lab Assignments

Lab reports are due at the beginning of the next lab. No late assignments will be accepted. All assignments must be typed, printed out, and handed in on paper. No emailed assignments will be accepted. If you miss a lab session, you will receive a grade of zero (0) for that lab report. You may not turn in a lab report for a lab you do not attend. No make-up assignments will be offered, except in extreme cases documented with a medical note.

Your lab assignment must consist of the following parts:

**Name**

**Last 4 Digits of College ID**

**Date**

### **Title of the Lab**

**Purpose/Objectives/Goals:** This should be 2 or 3 sentences about the overall purpose of the lab exercise and any specific goals. You may also include what you expected to learn personally from this lab.

**Hypothesis:** If you are instructed to think of a hypothesis before beginning the lab exercise, this is the place to record it.

**Data tables/charts/graphs:** For most lab exercises, there will be some data collection, a tabulation of data in Microsoft Excel, and/or some graphs that you need to make. Make sure all of these are well labeled.

**Answers to Questions:** Each lab exercise has several questions associated with it. You must answer all questions of each assignment unless otherwise instructed. All of your answers must be in complete sentences. If a question requires some calculation, you should show me how you set up the equation to perform the calculation. Simple number answers will not suffice. If it is easier, you may hand-write in any equations and calculations. This is the only part of the assignment for which handwriting will be accepted.

**Conclusions:** This should be at least a full paragraph, maybe more. This is where you sum up what was learned in the lab assignment. Use this section to show me that you understand the purpose of the lab, how the exercises were meant to achieve that purpose, and the main concepts that were demonstrated. The following questions may be useful in constructing your conclusion:

- Did we accomplish the purpose/objectives/goals? If so, explain. If not, what else would we need to do?
- What were the major findings or discoveries?
- Were any assumptions made?
- Was your hypothesis correct? Discuss this part. If your hypothesis was incorrect, discuss why that is so.
- What did you learn personally from the lab?
- What did you find most interesting? Is what we learned beneficial to you? To society? Explain.

**REMEMBER YOU MUST TURN IN YOUR OWN WORK.** It is permissible to work together on lab exercises, but the assignments you turn in must be your own work written in your own words. If even a portion of your assignment is copied from another student or from the lab manual, you will receive a grade of zero (0) for that assignment and may be referred for disciplinary action.



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**Name:**

**School/Year/Major:**

I have read and understand the course syllabus and schedule.                      Yes    No

What math and science classes have you taken in high school and college? What's your favorite?

How are you with Microsoft Excel? Can you make calculations and draw graphs?

List some current environmental issues.

If you start taking action today, how many years do you think it will take to resolve each issue?

Are you allergic to any chemical, drug or food item?            Yes    No    Not Sure

If yes or not sure, please explain:

*Please write neatly:*

**Phone number**

**Emergency contact**

(name/relationship/phone number)

**Email address**

**Signature** \_\_\_\_\_ **Date** \_\_\_\_\_