

**PGEOG 251 –EARTH SYSTEMS SCIENCE II  
SPRING 2023  
LAB SECTION INFORMATION AND OBJECTIVES**

**LAB CLASS SCHEDULE:**

**Section 1: Monday 12:30 to 1.20 PM, Room 1090B Hunter North  
Section 2: Thursday 12.30 to 1.20 PM, Room 1090B Hunter North**

Instructor: Dr. Shruti Philips  
Office: Hunter North, 1044, Dept. of Geography and Environmental Science  
Office hours: Mondays and Thursdays 1.30pm to 2pm  
E-mail: [shruti.philips@hunter.cuny.edu](mailto:shruti.philips@hunter.cuny.edu) (communications to me must have **ESS-II lab** in the subject line and you must sign your full name as it appears in CUNYfirst.)

**COURSE OBJECTIVES**

The three main objectives of this course are:

1. To introduce students to “systems thinking” in the context of the earth system. Systems- thinking is critical in all areas of study, and particularly in the fields of environmental studies and earth sciences.
2. To introduce students to quantitative analysis. In the lab portion of this course, we will be introduced to some of the concepts necessary to study environmental systems in a quantitative fashion. Labs are meant to provide students with a number of identifiable skills that can be applied in other courses as well as in work environments.
3. To provide students with a sufficiently broad, yet integrated, understanding of the earth system to identify particular areas or sub-disciplines that they would like to pursue in more detail.

**COMPUTER LABS**

Computer labs will be held once per week in room **1090B Hunter North**. Labs will consist of exercises designed to introduce students to some of the concepts and skills necessary to study environmental systems in a quantitative fashion. These include basic mathematical concepts, as well as using computer simulations, or models, to understand the earth from a “systems dynamics” perspective. STELLA® modeling software will be used in modeling exercises. No previous experience in computer modeling or STELLA software is expected, although basic

familiarity with the Windows operating system, MS WORD and MS EXCEL, is expected. Computer labs will be provided to you.

Most labs take 2 weeks. Labs are expected to be emailed to the professor before the beginning of the next lab.

**Group work** – is allowed for labs **1, 2, 3 and 5**. For individual labs 4 and 6, discussions and consultations are allowed but the work **MUST** be individual. If students choose to work in groups, students must:

- (1) inform the professor which students are working together; and
- (2) hand in **INDIVIDUAL** lab reports, written in the student's own words and style, unless otherwise stated in the lab instructions.

## **GRADES**

Grades follow Hunter's grading system: 90-100 = A; 80-89 = B; 70-79 = C; 60-69 = D; <59 = F.

Lecture portion	60%
Lab portion	30%

## **EXAMS (lecture portion)**

The exams will be based on the material covered in class, in the textbook and concepts that are learned through the lab portion of the course.

## **Lab grades:**

Lab exercises	90%
Classroom participation	10%

## **LAB ASSIGNMENTS**

Lab assignments are to be submitted on **Blackboard** under "Assignments" in each lab module. Email submission is generally **NOT** accepted. You will need to name your assignments as follows:

**Last name – first name – lab # e.g., Philips\_Shruti\_Lab1**

## **Tardiness in handing in assignments and labs:**

Every student can submit one lab late (within a reasonable time scale, i.e., not more than 1 week). After that, lab grades will be penalized for lateness.

**Classroom policies:** No cell phones; classroom participation is crucial in the lab section

**Absolutely no eating and drinking in the computer lab!!! The lab manager regularly checks on us, and violators risk getting their computer lab access removed! They will at least be suspended for 1 day.**

## **ATTENDANCE**

Attendance is required at all labs. Only **one unexcused absence** is allowed from lab sessions. Each unexcused absence after the maximum allowable will result in a decrease of **5%** from the student's final grade.

## **Diversity and Inclusion:**

I am committed to fostering an intellectual environment that is enriched and enhanced by diversity in all dimensions, including race, ethnicity and national origins, gender and gender identity, sexuality, class and religion. All people have the right to be addressed and referred to in accordance with their personal identity. In this class, we will have the chance to indicate the name that we prefer to be called and, if we choose, to identify pronouns with which we would like to be addressed...I will do my best to address and refer to all students accordingly and support classmates in doing so as well.

As with all courses at Hunter College:

**Academic Dishonesty:** Please be advised that plagiarism, dishonesty, or cheating in any portion of the work required for this course will be punished to the full extent allowed according to Hunter College regulations.

**Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.**

See the following report by the Hunter College Senate for more details:

<http://www.hunter.cuny.edu/senate/assets/Documents/Hunter%20College%20Policy%20on%20Academic%20Integrity.pdf>

## **ADA Policy**

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented

disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, in Room E1214B, to secure necessary academic accommodations. For information and assistance: (212)772-4857 or (212)650-3230.

## PGEOG 251 Spring 2023: Lab SCHEDULE

Mondays <b>Lab Section 1L01</b>	Thursdays <b>Lab Section 1L02</b>	<b>12.30 pm to 1.20 pm</b>
1/30	1/26	<b>Lab 1. S-shaped growth: logistic model</b>
2/6	2/2	Lab 1 (cont'd)
2/21	2/9	<b>Lab 2. Stochastic Processes, S-shaped Growth, Forest Succession</b>
2/27	2/16	Lab 2 (cont'd)
3/6	2/23	<b>Lab 3. Biodiversity index</b>
3/13	3/2	Lab 3 (cont'd)
3/20	3/9	Lab 3 (cont'd)
3/27	3/16	<b>Lab 4. Chemistry</b>
4/3	3/23	<b>Lab 5. On Climate, Climate Change, and Sound Investments</b>
4/17	3/30	Lab 5. (cont'd)
4/24	4/20	Lab 5. (cont'd)
5/1	4/27	<b>Lab 6. Data, Statistics, Observations</b>
5/8	5/4	Lab 6 (cont'd)
5/15	5/11	<b>Lab 6 due @ 11 PM</b>