

PGEOG 13000
WEATHER AND CLIMATE LAB - SECTION 3L03
Wednesdays 2:30 PM – 4:20 PM (In Person)
Fall 2022 Syllabus

Room: 1028 N (North Building)

Lab Instructor: Natalie Monterrosa

Email: nmonterrosa@hunter.cuny.edu

Office Hours: Wednesdays 12:30 PM – 1:30 PM (Rm 1032 N - In person) or via Zoom.

Note: We can schedule a Zoom meeting based on need/availability. Please send an email with the course # and Lab section in the subject line (also include your full name in the body of the email) and we can schedule time to meet. I will try my best to answer all emails within 24 hours, and within 48 hours on the weekends.

Course Description

This is the lab section to a combined introductory course on weather and climate, focused on understanding the basic principles of meteorology and climatology. We will examine the atmosphere, earth energy budget, different weather phenomena, surface weather map analysis, characteristics of world climates and climatic change. Lab exercises are designed to further your understanding of these concepts through application and analysis. Please also refer to your lecture syllabus for more information.

Learning Objectives

- Describe the basic elements that determine weather patterns and climatological features across the earth
- Describe the basic chemistry and physics of atmospheric processes
- Discuss the basic concepts related to earth's climate, and what is known about recent climatic changes

Required Materials

Lab Manual: **Greg Carbone, *Exercises for Weather and Climate, 9th ed.* Pearson, 2016 ISBN-10: 0134041364, ISBN-13: 9780134041360**

We will be working on labs in class. You may bring in a hardcopy of the lab or the e-text version (must be able to write/draw on device). The e-text is not recommended if you want to print a hardcopy of each lab due to alignment and other printing errors. There is also a reserve copy of the lab manual in the Hunter Library (Call Number: QC981 .C34 2016) if you want to make copies. The first lab (#1nm) is not in the manual and a hardcopy will be provided. **Please have (purchase/rent/copy) the lab manual no later than Sept. 6.**

Please also bring a calculator, protractor, pencils, colored pencils (optional), eraser, and paper (for notetaking).

Attendance, Participation and Classroom Policies

Attendance is mandatory and is taken every class. It is important that you attend every class to prepare for the assignments (in class and on Blackboard). There will be a short lecture/review of the material at the beginning of every session. I encourage you to ask questions and participate in discussions during this time. Class participation constitutes 20% of the final lab grade. We will be working in groups and all students are expected to abide by the following policies to provide a more respectful and productive learning environment.

- Lecture/class notes should be taken using pen/pencil and paper.
- All cell phones must be silenced.
- Texting and other non-class related smart phone activities are not allowed. Students should quietly excuse themselves from the classroom if substantial external electronic communication is required.
- Tape recording is not permitted.
- Laptops, iPads, tablets, and other electronic devices may be used **ONLY** for lab assignments during class time.

Please be respectful of yourselves and each other. Inappropriate behavior in our language and/or conduct will not be tolerated. In addition, I affirm all forms of gender expression and identities. If you have a preferred gender pronoun or preference like a “nickname” I will make note. If you have any questions or concerns, please address them with me immediately.

Due to the ongoing COVID-19 pandemic, we must continue to adhere to all guidelines from CUNY. <https://www.cuny.edu/coronavirus/#2022>. You are no longer required to wear a mask. However, since we will be working in groups, wearing a mask is highly recommended. I will continue to wear a mask for the duration of the class. **If you are not feeling well, please do not come to class.** Send me an email and we can discuss how and when you can make up missed assignments. If you have any other health or wellness related questions or concerns, please let me know as soon as possible.

Finally, please read the Hunter College Statement on Academic Integrity (see below) very carefully. **I take academic responsibility and honesty very seriously.** Although we will be working in groups, your responses must be your own. My penalty for plagiarism or cheating will result in giving you an automatic zero for the assignment for the first time, an F for the course if it is repeated. The college may also take further disciplinary action. If you find the work challenging or need extra help with lab assignments, there are resources available to help you.

Grading Rubric (Lab only)

Lab Exercises: 90%

Class Participation: 10%

This is a combined course, including both lecture and lab (**Lecture: Prof. Allan Frei**). Please see your lecture syllabus for more details. Your final lab grade is 30% of your final (combined) grade. We will discuss the potential to earn extra credit towards the final lab grade.

Lab Assignments

Lab exercises from the manual will be completed in class, individually or in groups. **All assignments posted on Blackboard (graded) will be due the following week. Due dates will also be posted on Blackboard.** If you must turn in a physical lab to be graded, please make sure your handwriting is legible and you use proper grammar in your responses. (Example: use “because” instead of “b/c” or “at” instead of “@”). If you miss a class session, you are still expected to complete the lab assignment and submit it on time. You will be allowed **ONE** late lab. Any late labs thereafter will be subject to a 10 point/day penalty (including weekends). **Exceptions will be made on a case-by-case basis.** Please let me know if you have any questions or concerns.

Syllabus Change Policy

Except for changes that affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice. All changes will be announced on Blackboard, by email, and/or in class.

Hunter College Statement on Academic Integrity

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. 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.

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, located in Room E1214B, to secure necessary academic accommodations. For further information and assistance, please call: (212) 772- 4857 or (212) 650-3230.

Hunter College Policy on Sexual Misconduct

In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).

b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek

complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

CUNY Policy on Sexual Misconduct Link:

<http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>

WEEKLY LAB SCHEDULE

****subject to change****

Date	Lab #	Topic	Questions	Textbook Chapter
8/31	1A*	Syllabus Review Units, Latitude/Longitude, Isolines	All	
9/7	1	Vertical Structure of the Atmosphere	1-22	1
9/14	2	Earth-Sun Geometry	1-6, 9-19	2
9/21	3, 4	Surface Energy Budget Global Energy Budget	Lab 3: 1-15 Lab 4: 1-5,11-15	2,3
9/28	5	Atmospheric Moisture	10-29	4
10/5		NO CLASS		
10/12	6	Saturation and Atmospheric Stability	1-16, 18-25	4
10/19		Review/Discussion/Hunter Green Roof		
10/26	9	Weather Map Analysis	1-7	8
11/2	9, 10	Weather Map Analysis Mid-latitude Cyclones	Lab 9: 8-9 Lab 10: 1-17	9
11/9	12	Thunderstorms and Tornadoes	1-17	10
11/16	13	Hurricanes	1-17	11
11/23	14	Climate Controls	1-22	15
11/30	16	Climate Variability and Change	1-23	14
12/7	17	Simulating Climate Change	1-16	14
12/14		FINALS WEEK - NO LAB		

* = not in lab manual