

Hunter College – CUNY  
Department of Geography and Environmental Science  
PGEOG 13000

**WEATHER AND CLIMATE LAB - SECTION 1L01**

**Mondays 9:30 – 11:20 AM (In Person)**

**Spring 2023 Syllabus**

**Room:** HN1028 (Hunter North)

**Lab Instructor:** Natalie Monterrosa

**Email:** [nmonterrosa@hunter.cuny.edu](mailto:nmonterrosa@hunter.cuny.edu)

**Office Hours:** Tuesdays 11:30 AM – 12:30 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 Lab section in the subject line (also include your full name in the body of the email). I will try my best to answer all emails within 24 hours, and within 48 hours on the weekends.

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**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 concepts through application and analysis.

**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 (#1A) is not in the manual and a hardcopy will be provided. Please have (purchase/rent/copy) the lab manual no later than Feb 6.

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

**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. 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. If there is a name or pronoun(s) you prefer to be addressed by, please approach me in class, send me an email, or mention it to me privately during office hours and I will add this information to my course roster.

Due to the ongoing COVID-19 pandemic, we must continue to adhere to all guidelines from CUNY. [COVID-19 Info – The City University of New York \(cuny.edu\)](https://www.cuny.edu/coronavirus/). 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.

### **Grading Rubric (Lab only)**

Lab Exercises: 80%

Class Participation: 20%

This is a combined course, including both lecture and lab (**Lecture Prof. Frank Buonaiuto**). Please see your lecture syllabus for more details. Your final lab grade is 25% 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). No labs will be accepted after the last day of class. **Exceptions will be made on a case-by-case basis.** Please let me know if you have any questions or concerns.

Finally, please read the Hunter College Statement on Academic Integrity (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.

### **Statement on the use of Artificial Intelligence (AI)-based technologies**

- Artificial intelligence-based technologies, such as ChatGPT, must not be used to generate responses for your assignments.
- Unauthorized use of artificial intelligence software or word mixing software to complete assignments or disguise plagiarized work is considered unauthorized assistance in this course.
- Use of an AI text generator when an assignment does not explicitly call or allow for it without proper attribution or authorization is plagiarism.

### **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.

### **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.

### **WEEKLY LAB SCHEDULE**

<b>Date</b>	<b>Topic</b>	<b>Textbook Chapter</b>
1/30	Syllabus Review Lab 1A - Units, Latitude/Longitude, Isolines (All questions)	
2/6	Lab 1 - Vertical Structure of the Atmosphere (1-22)	1
2/13	<b>NO CLASS</b>	
2/21	Lab 2 - Earth-Sun Geometry (1-6, 9-12, 17)	2
2/27	Lab 3 - Surface Energy Budget (1-4, 11-15) Lab 4 - Global Energy Budget (1-5, 11-15)	2,3
3/6	Lab 5 - Atmospheric Moisture (10-29)	4
3/13	Lab 6 - Saturation and Atmospheric Stability (1-16, 18-25)	4
3/20	Lab 9 - Weather Map Analysis (1-3, 5, 8-9)	8, 9
3/27	Lab 10 - Mid-latitude Cyclones (1-17)	9
4/3	Lab 12 - Thunderstorms and Tornadoes (1-17)	10
4/10	<b>NO CLASS</b>	
4/17	Lab 13 - Hurricanes (1-17)	11
4/24	Lab 14 - Climate Controls (1-22)	15
5/1	Lab 16 - Climate Variability and Change (1-23)	14
5/8	Lab 17 - Simulating Climate Change (1-16)	14
5/15	<b>Group Activity/Review</b>	