PGEOG 13000 – Weather & Climate Lab Section 2L02
Hunter North 2018 – Tuesdays, 11:30 AM to 1:20 PM
Fall 2022
As of November 18, 2022 and subject to revision

Instructor: Dana G. Reimer (Ms., Mrs., or Professor – pick one)
Office: HN 1032 (double black doors, ring the doorbell)
Office Hours: Tuesday from 1:45 PM to 2:45 pm or by Zoom appointment
Email: dreimer@hunter.cuny.edu

My Contact Policy:

I will respond to your email messages within 24 hours except on weekends when there can be up to a 48-hour lag in response time. Please be sure to read and adhere to the following email guidelines:

1. **Read your @myhunter email and the course Blackboard site every day!** This is how I will communicate with you when we are not in lab together.
2. If you email me after 5 PM on Monday evening before we meet on Tuesday morning, I may not be able to help you before class meets at 11:30 AM.
3. Send email to me from your @myhunter email address. I will not respond to personal email addresses, e.g., Yahoo, Google, gmail, msn, etc.
4. All email messages to me must include **PGEOG 13000** in the subject line.
5. Sign your name as it appears in CUNYfirst. Always.
6. Do **not** communicate with me via Blackboard.
7. Please do not email me if you cannot attend class unless you have been diagnosed with a communicable disease or illness, verifiable hospitalization, abduction by Martians or other extraterrestrials, or your flight was cancelled, or if you will be late. While I don't take formal attendance, I almost always know who is in class and who isn't. Absence or tardiness is not a legitimate excuse for failure to turn in lab work on the due date listed in this syllabus. If, for a valid reason you cannot attend class (including medically diagnosed COVID, medically mandated quarantine, aforementioned alien abduction, etc., all of which will require official documentation), you can scan your completed lab assignment and email it to me as a pdf at dreimer@hunter.cuny.edu **before 11:30 AM on the Tuesday that it is due**. Then you must present the hard copy of your lab to me the next time you come to lab. I will not grade your lab online and I will not print it out.
8. If you are emailing me about a problem with a lab, be as descriptive as possible with your question(s), tell me your thought processes, and include any relevant diagrams as needed as pdfs.
9. Please attempt to solve your own problem(s) **before** emailing me. "I don't understand the lab exercise" of "I have no idea what a midlatitude storm is" are not acceptable because they indicate to me that you haven't read the corresponding chapter in the textbook or the information in the lab or you failed to attendant the lab.
10. If your question(s) is answered in this syllabus, I most likely will respond to your email with "Read the lab syllabus."

Required Lab manual: ***Exercises for Weather & Climate*, 9th edition**, Greg Carbone, University of South Carolina; ISBN-13: 978-0-13-404136-0; Prentice Hall 2016.
Or you can order the digital (ebook) copy. However, I would stay away from used copies of the lab manual as I have had students mention that there were lab pages missing. Unless Pearson (the publisher) has cleaned up the bugs, there are printing issues with the digital version of the lab manual. I cannot provide you with copies of the missing labs or magically correct printing problems.

The lab text is on reserve in the library (Call Number: QC981 .C34 2016). You can photocopy and use this if there is no writing in it. Please note that I do not know the precise condition of this library copy. If it has missing pages, you are still responsible for the work. Make sure that you have access to the manual or a copy by the time the class begins work on Lab 1 on September 6. Our meeting on August 30th (the first lab meeting of the semester) will deal with lab work which I will provide you via email or Blackboard or even hard copy.

Extras for lab: You will need a decent calculator (the one in your cell phone or on your laptop is more than adequate), several #2 pencils with good erasers, a protractor, and at least **red**, **blue**, and **green** colored pencils. PENCILS, not pens because you will need to be able to erase if you make a mistake. You will need to use colored pencils in several labs.

Miscellaneous Stuff: Please turn off your cell phone and put it away unless you are using the calculator function. There is no need to have your laptop or notebook open in this class. Even if you rely on an ebook for your lab manual, please bring a PRINTED copy of your lab with you to each lab meeting because you will be working on your labs in class. I will do my best to keep a few photocopies of blank lab exercises for your use if I am given prior notice. Class notes should be taken by hand with a pencil or pen and not typed into your tech stuff.

I affirm all forms of gender expressions and identities. If you prefer to be called a name other than that which is on the class roster, please let me know. Feel free to inform me about your preferred gender pronoun or if you do not have a pronoun. Because **I** want to be referred to as either Mrs. Reimer, Ms. Reimer, Professor Reimer, or simply Professor, it is important to know how to address **you.** Perhaps that's Ms. Oliviera or Mr. Barton or David or Muhammed or Kierra? I will do my best to get to know your names as soon as possible but there are more of you (usually 25) than there are of me. I will most likely stare at you for a few seconds longer than usual while I am taking attendance for our first few lab meetings. It's only because I'm trying to fix your face and name in my memory.

My expectations are that you are here to learn and get the best possible grade for the course. You accomplish this, in great part, by being prepared for every lab. Read your textbook. Your lab manual is correlated with the Lutgens, Tarbuck & Tasa textbook. I will try to keep pace with Prof. Forrester's lecture schedule so **be sure to read the textbook chapter that corresponds to your lab exercise** (see page vii in the front of your Carbone lab manual) **before we start the corresponding lab exercise**. Read your lab before you come to lab so you have at least a passing familiarity with the vocabulary used. Know what equipment you need to bring to class. I have a quirky habit of randomly asking students to answer questions about the assigned lab.

LABORATORY SPECIFIC DETAILS

Grading: Your lab grade is worth 30% of your total grade for this course. You can easily pull your course grade down by failing to complete and/or hand in your lab exercises in a timely manner. This 30% depends on the time you put toward your lab exercises and your participation in class conversations. Although I do not factor attendance into your lab grade you will find that I DO take into consideration your participation in class discussions, answering my questions, asking me questions, and working on your lab assignments in class. All of these will be considered when I report your final lab grade to Prof. Forrester.

Your lab grade, along with your lecture grade will together give you the final course grade you earn.

Legibility: If I cannot read your handwritten lab exercises, I will require you to submit your answers (other than graphs, etc.) as a Word document. Otherwise, I will mark those answer wrong. If it takes me more than three minutes to make sense of your answer then I will mark them wrong. Make sure to print or write your answers legibly and use complete and grammatically correct sentences. I do not like fragments of sentences. And please, no smiley faces or hearts over your jays and eyes, please. If you believe that I have missed something or graded your lab incorrectly or too harshly, please speak to me about it immediately.

Please do not wait until the last week to reach out to Prof. Forrester or me if you have any questions, problems, or issues that come up. Email me, come to my office hour, or set up a Zoom meeting with me when you have a concern or a question. I can help with both the lab and the lecture portions of the course. My face-to-face office hour will be from 1:45 pm to 2:45 pm on Tuesday or by Zoom appointment. You can also find me in HN 1032 (double black doors with a doorbell to the right of the door) before lab from at least 11 AM until I leave for class.

Special Note: In fall of 2021 Hunter adopted a new Pass/No Credit (P/NC) policy. However, this new policy still requires that you satisfy the requirement for completing all required work. This includes all lab assignments, map quizzes, pre-lab quizzes, and lecture exams. At the end of the semester if you want to request P/NC and you have failed to submit a laboratory exercise you will **NOT** be eligible for a grade of P/NC grade. The following website gives you the details on how and when to apply for P/NC.
https://hunter.cuny.edu/students/registration/registration-for-classes/credit-no-credit/

Laboratory Preparation: Come to class prepared. I expect you to have read the laboratory exercise listed for each class **before** the beginning of that class period. You should become familiar with the vocabulary used in the lab before my short lab overview lecture. Apart from Lab NLM (not from the lab manual), all the material in lab should first be covered in lecture; however, there may be specific things that differ in the lab. Laboratory exercises can be complex, and if you do not read them before class, you may have difficulty turning them in on time. In addition, you MUST have all materials for the day's lab printed out for use during lab or have your lab manual with you (not the e-manual). I expect you to stay in lab for the full class time and (1) work on your lab with your neighbors and (2) ask me questions. And, if you finish your lab before the end of class, hand it in. I'll be happy to take it from you.

For those of you who are freshmen, this class may feel a bit different from classes you took in high school. I will not force feed you information, nor will I share my Powerpoint slides or lecture notes. In effect, you will be teaching yourselves the concepts of weather and climate and answering the questions and solving the problems in your lab manual. Consider me your guide. Part of the lab course is learning to read for content, understand the content (and that might mean doing extra research like reading your textbook or using one of the search engines to help you solve a problem). By all means, work together and help each other but remember that your work must be your own.

Keep up with your lab work and do not fail to turn it in on time. I deduct 10 points for every day a lab exercise is late and that includes Saturdays and Sunday and holidays (see Item **7** in the My Contact Policy on page 1 of this syllabus). Labs not submitted on the day and time they are due can be left in my mailbox in the office of the Department of Geography and Environmental Science during regular office hours (posted on the door of HN 1006). It must be initialed by Ms. Mimoza Frankfurt with the day and time of receipt. If I find a lab in my mailbox without the required information, I will assume that you left it there just a few minutes before I checked my mail.

Online Labs: There will be lab exercises to complete through the lab Blackboard site and the grades will be added to the labs from your lab manual. These online labs can be done at home or in the library or in any of the many computer labs that are available to students here at Hunter College. The online lab is due by 11:59 PM on the date posted on BB. Correct answers to your online lab will be posted once I grade all of that week's and record them in my gradebook. And because I grade all week long I suggest you complete your lab work earlier rather than later. Don't wait until the night the online lab is due. Remember than I log into BB on a daily basis and I will know how often and when you log into the site. I will explain more about the online labs in class.

Extra Credit: No extra credit is given in this laboratory section. Whatever effort you would put into an extra credit assignment put into completing the lab exercises and studying for the lecture exams. I will try to be as understanding as I can when certain situations or hardships arise. However, you must address them with me immediately, not at the end of the semester.

Class Environment: To ensure that all class members feel welcomed and equally able to contribute to class discussions, we will all endeavor to be respectful in our language, our examples, and the manner in which we conduct our discussions and group work. If you have any concerns about the environment of the class, please contact me ASAP.

Syllabus Change Policy: This syllabus and schedule are guides for the course and are subject to change without advance notice. All changes will be announced on Blackboard, by email, and/or in class.

LABORATORY SCHEDULE

Note 1: The first two lab sessions will be devoted to a special lab that is not in your lab manual. It will print out copies and bring them to our first meeting on August 30th or I will post them on our lab Blackboard site or send you a pdf of the lab exercise for you to print out.

Note 2 (8/26/22): Depending on how quickly and easily you move through Lab 1A, I may start the official lab, Vertical Structure of the Atmosphere, on September 6th, our second meeting. Please be sure to have your lab manual or a copy of Lab 1 with you when you come to lab on September 6th.

Week No.	Date	Lab Number and Topic	Problems	Date Due	Text Chap.
1	Aug. 30	00 Syllabus review and first lab (**not in manual**!)	All		
2	Sept. 6	00 Lab not in manual (cont'd)		Sept. 13	
3	Sept. 13	Lab 1, Vertical Structure of the Atmosphere*****	1-22	Sept. 20	1
4	Sept. 20	Lab 2, Earth-Sun Geometry	1-6, 9-19	Oct. 11	2
	Sept. 27	**NO CLASSES AT HUNTER**			
	Oct. 4	**NO CLASSES AT HUNTER**			
5	Oct. 11	Lab 5, Atmospheric Moisture	10-29	Oct. 18	4
6	Oct. 18	Lab 6, Saturation and Atmospheric Stability	1-15, 18-25	Oct. 25	4
7	Oct. 25	Lab 9, Weather Map Analysis*	1-9	Nov 1	9
8	Nov. 1	Lab 10, Mid-Latitude Cyclones	1-17	Nov. 8	9
9	Nov. 8	Lab 12, Thunderstorms and Tornadoes	1-16	Nov. 15	10
10	Nov. 15	Lab 13, Hurricanes	1-17	Nov. 22	11
11	Nov. 22	Lab 14, Climate Controls	1-22	Nov. 29	15
12	**Nov. 29**	**Lab 16, Climate Variability and Change**	**1-23**	**Dec. 6**	**14**
13	Dec 6	Lab 17, Simulating Climate Change	1-16	Dec. 13	14
14	Dec. 13	Catch up, review for third exam,			

*****You will need to bring colored pencils or number 2 pencils with good erasers.

I have taught this class many times over many years. I have seen a lot of plagiarism and cheating and I take it very seriously. If you remain in this course after the first class meeting I assume that you have read the college's statement on academic integrity and will abide by it. Not even one small infraction. Please keep this in mind when you read the next section. If you have ANY questions about what constitutes cheating or plagiarism or falsification, please speak to me immediately. I take no pleasure in turning you over to the Dean of Students but I will do it if I find you cheating in your lab exercises. And cheating includes use of any online source that students use for quick answers to lab questions. I have my own subscriptions so I am pretty good at figuring out who is and who isn't doing their own work.

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.

Remember that copying answers from the internet, an answer key, or someone else is plagiarism. In this class you can work in groups in lab. In fact, I encourage this. But you must always record the answers to the labs in your own words and do your own work. Do not give me any reason to be suspicious of you or doubt that you are being honest because I will not tolerate cheating. If you are caught cheating and/or copying on an exam or laboratory exercise, you will get an automatic zero on the assignment and possibly fail the course. I will also report you and the suspected incident to the Office of the Dean of Students. I promise you that it will not be a pleasant experience.

ADA POLICY (for students with special accommodations): 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 to secure necessary academic accommodations.

For further information and assistance please call (212-772-4857)/ TTY (212- 650- 3230). You must be registered with the Office of AccessABILITY to qualify for the accommodations.

HUNTER COLLEGE POLICY ON SEXUAL MISCONDUCT: In compliance with the CUNY Policy on Sexual Misconduct, Hunter College affirms 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 relationship. 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.barr7@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/Policyon-Sexual-Misconduct-12-1-14-with-links.pdf.**

I. Course Description and Objectives

This is the lab section of the PGEOG 13000 course which has both a lecture and laboratory component worth in total 4.0 credits (5 hours). The course fulfills the Hunter Common Core C, Life and Physical Sciences, and the General Education Requirements GER 2/E (Natural Science). There are no prerequisites. However, I do expect you to have mastered basic math (addition, subtraction, multiplication, division, basic algebra, and order of operations) and how to write a complete, grammatically correct sentence or group of sentences. The course (both lecture and lab) is an introduction to meteorology and atmospheric sciences. It includes the structure and composition of the atmosphere and the elements that affect it, such as pressure, humidity and temperature. It examines the development of a variety of weather phenomenon, such as cloud formation, fronts, storm systems and severe weather, and reviews basic weather forecasting and analysis techniques. The course explores short- and long-term climate processes and their impact on the environment and people. It also demonstrates how different regions

of the world have been and will be impacted by climate change in the past, present and future. This is a laboratory science course and the concepts covered in lecture will be demonstrated with hands-on and technology-based activities using a variety of exercises, observations and experiments. In several lab exercises we will be using mathematical formulas and calculations. Please, do **NOT** panic. I, too, am math phobic and will do my best to walk you through the math.

II. Expected Learning Outcomes

Upon successful completion of PGEOG 13000, Weather & Climate, you should be able to:

1. Describe, explain and appreciate the interconnected nature of the Earth systems through effective oral and written communication.
2. Identify major geographic features (both physical and human) on maps and globes.
3. Explain the relationship between the Sun and the Earth and the Sun's planetary impact on weather and climate.
4. Recognize the interaction between the elements of the atmosphere, including a. the composition and the structure of the atmosphere; b. the atmospheric and oceanic circulation processes, and fronts, storm systems and severe weather; c. interpret methods of weather forecasting and create basic weather maps.
5. Distinguish, analyze and evaluate climate processes and how they relate to the past, present and future climate and their impact on biogeography, including a. current technology and science in predicting meteorological outcomes, b. natural and anthropogenic climate change, and c. the impact created by shifts in climate zones.