

PGEOG 13000 – Weather & Climate Lab Section 1L04
Hunter North 2018 – Tuesdays, 11:10 AM to 1:00 PM
Spring 2022
Revised 02/28/2022 – see Grading Revision on page 3

This lab schedule is tentative as of the writing of this syllabus on Thursday, January 27.

Instructor: Dana G. Reimer (Ms., Mrs., or Professor – pick one)
Office: HN 1032 (ring the doorbell)
Office Hours: Tuesday from 1:10 PM to 2:00 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 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 11:10 AM the next morning.
3. Send your email to me from your @myhunter email address. I will not respond to personal email addresses, e.g., Yahoo, Google, 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. Please do **not** communicate with me via Blackboard.
7. Please do not email me if you cannot attend class 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 COVID, mandatory quarantine, alien abduction, etc. (all of which will required official documentation), you can scan (or photograph it on your cell phone) your completed lab assignment and email it to me at dreimer@hunter.cuny.edu as a pdf **before 11:10 AM on the Tuesday that it is due**. If it arrives after 11:10 AM on the due date, I will consider it late.
8. If you are having 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" is not acceptable because it indicates to me that you haven't read the corresponding chapter in the textbook or the information in the lab or you failed to attend the lab.
10. If your question(s) is answered in this syllabus, I most likely will not respond to your email.

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 copy of the book. However, I would stay away used copies 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. Our meeting on February 1st (the first meeting) will deal with lab work which I will provide to you via email or Blackboard or even hard copy.

Extras for lab: It would also be very helpful if you also had a decent calculator (the one in your cell phone or on your laptop is probably more than adequate), several number 2 pencils with good erasers, 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 use colored pencils in Lab 1, Vertical Structure of the Atmosphere and whenever you are asked to create a line graph or a weather map.

COVID-19 Policy: The lab portion of this course will be in person, which means you are required to **WEAR A MASK AT ALL TIMES** during class. Your mask must cover your mouth and nose completely. There is no eating allowed during lab and please keep drinking (water, coffee, tea, etc.) to a minimum. If you are exposed to Covid or if you test positive for Covid or even if you have symptoms of Covid, **PLEASE DO NOT COME TO CLASS**. Send me an email immediately explaining your situation and, if the circumstances permit, I will accept an emailed version of the lab exercise that is due (by the start time of class and no later).

As we all know, Covid likes to surprise us, which means we need to be prepared to move to remote learning at any time. If the course switches to an online format, I will update you as quickly as possible, so check your Blackboard and your @myHunter email regularly.

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 unless your lab manual is an ebook. Notes should be taken by hand 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 what 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 or Professor Reimer it is important to know how to address you (perhaps Student your last name?). I will do my best to get to know your names as soon as possible but there are more of you (technically 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. Salmun'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.

Hunter College requires that I include sections on Course Description and Objective and Expected Learning Outcomes. These will appear at the end of this syllabus.

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 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. Salmun.

There are no graded quizzes or exams in lab (though there have been all three in the very recent past). Your lab grade, along with your lecture grade will together give you the final course grade you earn. If I cannot read your handwritten lab exercises, I will mark those answer wrong. Make sure to print or write your answers legibly and use complete and grammatically correct sentences. 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. Salmun 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 1:10 PM to 2:00 PM on Tuesday or by Zoom appointment.

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 0A, 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 and with you or accessible during the labs. If you leave lab before the end of the period (in this case 1:00 PM, you forfeit my help if you have problems later. Stay 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 might feel a bit different from other classes you've taken. I will not force feed you information, nor will I share my Powerpoint slides or lecture notes. In effect, you will be teaching yourself 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). You have two options for lab submission: scan your completed exercise and email it to me at dreimer@hunter.cuny.edu as a pdf or leave the hard copy in my mailbox in the Department of Geography office during regular office hours. It must be initialed by either Ms. Martha Taylee or 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.

Grading Revision (02/28/2022): At the end of the semester if you have submitted **all** of your labs on time I will deduct the lowest grade and average your lab grade on 12 instead of 13 lab assignments. Remember, if you cannot make it to class for a valid reason, I am willing to accept your lab as a pdf sent to me at dreimer@hunter.cuny.edu. Lab is still due no later than 11:10 AM on the date due. (See No. 7 on the first page of this syllabus.)

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: The first class 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 February 1.

Week No.	Date	Lab No. and Topic	Problems	Date Due	Text Chap.
1	Feb 1	Syllabus review and Lab nm	All but 4, 12, 13	Feb 15	
	Feb 8	NO CLASS – RUNS ON A FRIDAY SCHEDULE			
2	Feb 15	Lab 1, Vertical Structure of the Atmosphere*	1-22	Feb 22	1
3	Feb 22	Lab 2, Earth-Sun Geometry	1-6, 9-19	Mar 1	2
4	Mar 1	Lab 3, Surface Energy Budget and Lab 4, Global Energy Budget	1-15 1-5 and 11-15	Mar 8	2 2,3
5	Mar 8	Lab 5, Atmospheric Moisture	10-29	Mar 15	4
6	Mar 15	Lab 6, Saturation and Atmospheric Stability	1-15, 18-25	Mar 22	4
7	Mar 22	Lab 9, Weather Map Analysis*	1-9	Mar 29	9
8	Mar 30	Lab 10, Mid-Latitude Cyclones	1-17	Apr 5	9
9	Apr 5	Lab 12, Thunderstorms and Tornadoes	1-17	Apr 12	10
10	Apr 12	Lab 13, Hurricanes	1-17	Apr 19	11
	Apr 19	SPRING BREAK – NO CLASSES		Apr 26	
11	Apr 26	Lab 14, Climate Controls	1-22	May 3	15**
12	May 3	Lab 16, Climate Variability	1-23	May 10	14
13	May 10	Lab 17, Simulating Climatic Change	1-6	May 17	14

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

**As of the writing of this syllabus Prof. Salmun does not plan to lecture chapter 15. You will have to read that chapter on your own to support the work in this lab exercise.

I take academic integrity very seriously. I do not tolerate cheating in any form. 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.

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. 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 suspect 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/ia/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.