## PGEOG 13000 – Weather & Climate Lab Section 1L03&1L04 Thursdays 8:30 AM to 10:20 AM and 10:30 AM to 12:20 PM Spring 2023

### As of January 15, 2023, and subject to revision

Instructor: Ms./Professor Keneshia Hibbert

**Office**: HN 1032 (ring the doorbell)

Office Hours: Email me to set up a Zoom appointment.

Email: khibbert@hunter.cuny.edu

#### My Contact Policy:

I will respond to your emails within 24 hours, except on weekends. 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 away from the lab.
- 2. If you email me after 5 PM on Wednesday before we meet on Thursday, I may only be able to help you after class meets the next day.
- 3. Send your email to me from your @myhunter email address.
- 4. All email messages to me must include **PGEOG 13000** in the subject line.
- 5. Sign your name as it appears in CUNY first. Always.
- 6. Please refrain from communicating with me via Blackboard.
- 7. Please only email me if you can attend class or if you will be on time Absence or tardiness is not a legitimate excuse for failing 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 require official documentation), you can scan (or photograph it on your cell phone) your completed lab assignment and email it to me at Khibbert@hunter.cuny.edu as a pdf <u>by MIDNIGHT on Thursday that it is due</u>. I will consider it late if it arrives after 12Midnightn the due date.
- 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 that you haven't read the corresponding chapter in the textbook or the information in the lab or failed to attend the lab.
- 10. If your question(s) is answered in this syllabus, I most likely will not respond to your email.
- 11. I am only accepting labs emailed to me; if I approve via conversation beforehand, you are required to be in class and hand in your labs by the due date; otherwise, it is considered late and gets a zero (0) grade.

Required Lab Manual: *Exercises for Weather & Climate*, 9<sup>th</sup> edition, Greg Carbone, University of South Carolina; ISBN-13: 978-0-13-404136-0; Prentice Hall 2016.

Or you can order a digital copy of the book. However, I would avoid using copies as I have had students mention that lab pages needed to be included. Unless Pearson (the publisher) has cleaned up the bugs, there are printing issues with the digital version of the lab manual. I cannot provide copies of the missing labs or magically correct printing problems.

The library's lab text is reserved (Call Number: QC981 .C34 2016). You can photocopy and use this if there is no writing in it. Please note that I need to find out the precise condition of this library copy. If it has missing pages, you are still responsible for the work. Ensure you have access to the manual or a copy by the time the class begins working on Lab 1. Our meeting on February 1<sup>st</sup> (the first meeting) will deal with lab work, which I will provide you via email, Blackboard, or even hard copy.

**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, 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. If the circumstances permit, I will accept an emailed version of the lab exercise due (by the start time of class and no later).

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

# 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 promptly. 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 consider 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.

There are no graded quizzes or exams in the lab (though there have been all three in the very recent past). Your lab and lecture grades will give you the final course grade you earn. Please speak to me immediately if you believe I have missed something or graded your lab incorrectly or harshly.

Please do not wait until the last week to reach out to Prof. Haydee Salmun or me if you have any questions, problems, or issues that come up. Please email me to set up a Zoom meeting if you have a concern or a question.

<u>Special Note:</u> In the 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 still need to submit a laboratory exercise, you will NOT be eligible for a P/NC grade. The following website gives you the details on how and when to apply for P/NC. <u>https://hunter.cuny.edu/students/registration/registration-for-classes/credit-no-credit/</u>

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. Before my short lab overview lecture, you should become familiar with the vocabulary used in the lab. Apart from Lab NM, all the material in the lab should first be covered in the 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. Suppose you leave the lab before the end of the period (you forfeit my help if you have problems later. Stay for the whole 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, feel free to submit it.

In effect, you will teach yourself the concepts of weather and climate, answer the questions, and solve the problems in your lab manual. Consider me your guide. Part of the lab course is learning to read for content and 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. NO LATE LABS! Any late submissions are a zero grade; however, I will drop the two (2) lowest lab grades. Assignments will be on BlackBoard via quiz format.

**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 be as understanding as possible when certain situations or hardships arise. However, it would be best if you addressed 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 way we conduct our meetings and group work. If you have any concerns about the class's environment, 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				Date	Text
No.	Date	Lab No. and Topic	Problems	Due	Chap.
1	Jan 26	Syllabus review and Lab nm	All questions	Feb 2	
2	Feb 2	Lab 1, Vertical Structure of the Atmosphere*	1-22	Feb 9	1
3	Feb 9	Lab 2, Earth-Sun Geometry	1-3, 9-10, 17	Feb 16	2
4	Feb 16	Lab 3, Surface Energy Budget and	11-15	Feb 23	2
		Lab 4, Global Energy Budget	1-5 and 11-15		2,3
5	Feb 23	Lab 5, Atmospheric Moisture	10-29	Mar 2	4
6	Mar 2	Lab 6, Saturation and Atmospheric Stability	1-16, 18-25	Mar 9	4
7	Mar 9	Lab 9, Weather Map Analysis*	1-3,5,8-9	Mar 16	9
8	Mar 16	Lab 14, Climate Controls	1-22	Mar 23	
9	Mar 23	Lab 10, Mid-Latitude Cyclones	1-17	Mar 30	9
		SPRING RECESS 04/05-04/13- NO LAB			
10	Mar 30	Lab 12, Thunderstorms and Tornadoes	1-17	Apr 20	10
11	Apr 20	Lab 13, Hurricanes	1-17	Apr 27	11
12	May 4	Lab 16, Climate Variability and Change	1-23	May 11	14
13	May 11	Lab 17, Simulating Climatic Change	1-16	May 18	14
14	May 17-23	FINALS WEEK – NO LAB			

I take academic integrity very seriously. I do not tolerate cheating in any form. Not even one minor 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 falsifying 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 the lab. I encourage this. But it would be best if you always recorded the answers to the labs in your own words. Please 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 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 be a challenging 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.

Please call (212-772-4857)/ TTY (212- 650- 3230) for further information and assistance. 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 a 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: <u>http://www.cuny.edu/about/administration/offices/la/Policyon-Sexual-Misconduct-12-1-14-with-links.pdf</u>.

#### I. Course Description and Objectives

This is the lab section of the PGEOG 13000 course, which has a lecture and laboratory component worth 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 expect you to have mastered basic math (addition, subtraction, multiplication, division, introductory algebra, and order of operations) and how to write a complete, grammatically correct sentence or group of sentences. The course (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 various weather phenomena, such as cloud formation, fronts, storm systems, and severe weather, and reviews essential 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 the 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, 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.

#### III. Preferred Gender Pronoun

"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."