



Fall 2021

**Pgeog 13000
Weather and Climate
Lab**

Section 2L03
Online session

Course Instructor: Professor Anita Erdős Forrester
Office: 1032 HN, Department of Geography
Office hours: via Zoom time TBD, and by appointment
Email: anita.forrester@hunter.cuny.edu

I will respond to emails within 24 hours except on the weekends when there will be a 48 hour response time. If your preferred name is different than what appears in CUNYfirst please let me know so that I can adjust my roster. Do not just hit reply to messages that were sent from Blackboard – those are ‘do not reply messages’ and they do not return to me.

Course Materials for lab:

Required Lab manual:

Exercises for Weather & Climate 9/E

Greg Carbone, University of South Carolina; ISBN-13: 978-0-13-404136-0; Prentice Hall 2016

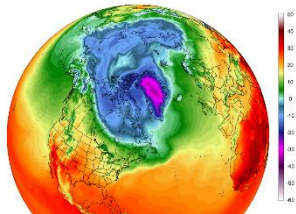
For the lab manual you can also chose to order the digital copy of the book – I would stay away from rentals or used copies as I have had students mention that there were lab pages missing.

I cannot provide you with copies of the missing labs. Make sure that you have access to the manual on the first day of our class.



*The lab text is on reserve in the library (Call Number: **QC981 .C34 2016**). You can photocopy and use this as long as there is no writing in it. Please note that I do not know the condition of this book. If it is missing pages you are still responsible for the work.

*You **MUST** purchase or use the 9th edition of the Lab Text. You may rent the book as long as you can print the activities. A used book with writing in it is **NOT** acceptable. Also be wary of missing pages in used editions. Do Not Purchase the Vitalsource/Coursesmart ebook for the lab text. There have been **MAJOR** formatting problems with it.



Course Description and Objectives:

This is the lab section of the PGEORG 13000 course which has both a lecture and a lab component worth in total 4.0 credits (5 hours). The course fulfills the Hunter Common Core section C. Life and Physical Sciences and the General Education Requirements GER 2/E (Natural Science). There are no prerequisites.

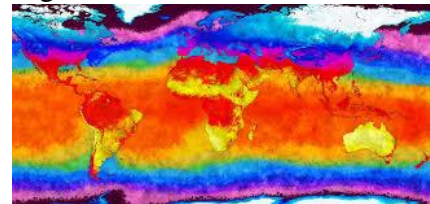
The course (both lecture and lab) provides an introduction to meteorology and atmospheric sciences. It includes the structure and composition of the atmosphere and the elements that affect it, such as pressure, humidity and temperature. It examines the development of a variety of weather phenomenon, 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. The course 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 the labs we will be using mathematical formulas and calculations. You are expected to have at least a basic understanding of mathematics through algebra.



Expected Learning Outcomes:

Upon completion of the course the student will 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 map and globe.
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
 - c. the impact created by shifts in climate zones



Course delivery:

This course will run as an asynchronous course which means that all content will be delivered online. Please check the syllabus for a preliminary schedule which we will keep. Please make sure to monitor both – especially before class. Each week, you can expect to see recorded lab content, lab instructions and supplementary materials posted in your weekly folders. There will be zoom sessions – office hours - where you can drop-in with questions. I have been using Zoom for years (yes, I have been using it for both teaching and meeting with students since 2016) so I know the ins and outs of the system.

You will need access to a computer, microphone and camera so that you can participate in any optional zoom sessions, classwork, etc. While you can use your phone for zoom, it is best to use a

computer so that you can see the shared screen, your instructor and the rest of the class during any live office meetings. I also recommend that you complete your assignments and lab quizzes, etc on a computer and not on a phone. If you have any questions regarding, zoom, Blackboard or any other tech questions – I recommend that you first reach out to me because I might be able to easily solve the issue. If I can't then we will find the person that the situation needs. You can also contact the student helpdesk via phone at (212) 650-3624 or email at studenthelpdesk@hunter.cuny.edu Please make sure that you have access to your Hunter email – and that you check it too; and to your CUNYfirst account by the first day of classes.

I am very excited to work with you this coming semester. I know some of you are probably concerned about online learning. Maybe it isn't your preferred method of learning, but don't worry. I have been teaching at Hunter for over 20 years now, and during the last 6 have been teaching hybrid courses, so I am familiar with online learning and teaching. I will be available via email and live zoom meetings, including office hours to discuss content, answer questions or just to share and discuss material relevant to our course and to the field of earth science.

You will find all of the course materials you will need organized into weekly folders based on our course schedule (see at the end of this syllabus and on Blackboard). In the folders you will find:

1. Link to office hours and optional sessions when available
2. Pdf of the week's lab notes – you can print these out for note taking
3. Lab work, quizzes and assignments for the week
4. A “News and Videos” section with content relevant articles, videos, tutorials, virtual field trips that we use in class or that can supplement the week's topic as well as any “breaking news” when it comes to Weather and Climate and the Earth Sciences

Don't worry, I will post announcements and short reminder videos and will go over what you need to do at the beginning of each week.

Grading breakdown for labs can be found on your lecture syllabus. Your lab grade will be composed of the lab exercises, which is lab manual and online work, pre-lab quizzes and participation.

Your lab grade, along with your lecture grade will together give you your final semester grade. Don't wait until the last week to reach out to your lecture and lab instructors if you have any questions, problems, or issues that can come up. Email or visit your instructors when you have a concern or a question.



Weekly Laboratory Exercises: There will be both pre- and post-lab assignments for each lab. Lab manual exercises must be completed for each lab and scanned and submitted via Bb. You can scan these using your phone's “notes” function. You will also need to complete the online lab assignment as well – which will be administered via Bb.

No late labs will be accepted, unless you have a documented excuse or contacted the professor **prior** to the assignment due date and you received written permission to submit your assignment at a later date. All submitted labs must be submitted in neat, legible handwriting, with all calculations and units of measurements shown. If I cannot read or understand an answer, it is wrong. Labs that are not submitted in a timely manner will receive a grade of zero. You will be assigned lab partners – if you know some of the students, then make sure to let me know who you

may want to work with. It is not necessary to work with your “partners” but I found that it is the best way to complete the course successfully. You will keep each other on track and accountable. Often, reaching out to your partner, or cohort members will give the answer that you are looking for. There will be a student forum that will be available via Blackboard. I know that some of you will be connecting outside of the “school environment/platform” too. Just remember that I am not monitoring that so any suggestions or answers that you may get, I am not responsible for. If you have any concerns at all, reach out to me, or post it on the class Bb discussion.

Blackboard:

Make sure that your Blackboard account is active and that you know how to use it. We will use BB extensively in this course so please make sure that you familiar with the application before the course begins. I will use it for course related work, send out assignments, reminders and emails. There will be classwork and assignments that are Blackboard-based (i.e., quizzes, discussion, etc.) and it will be the delivery method for on-line sessions and discussions. We will go over these in our first class session – but please email me as soon as you find that you can’t find something or don’t know how to get to an activity. I will not be responsible for work that you miss because you do not check your @myhunter email account or you didn’t check BlackBoard.



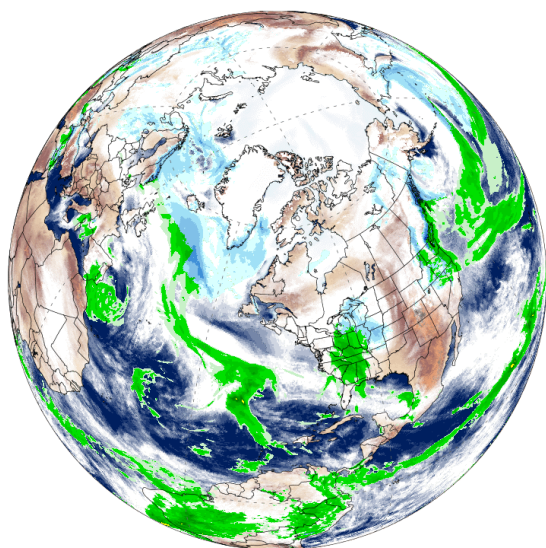
On the next page you will find the tentative schedule as of August 17st, 2021 and is subject to change. Our class weeks will always begin on Wednesdays and will end the following week on Tuesday. That means that labs will always be due on Tuesday by midnight. I found over the years, that this schedule seems to be the one that works for most students – better than a Monday through Sunday schedule. Please Any changes made to our schedule will be announced in class and on Blackboard and an updates schedule will be posted to Blackboard and sent out via email.

Life has thrown us a few curveballs this past year and I am impressed by how well students were able to adjust to changes. Hopefully, this will be a boring semester when it comes to any surprises



Preliminary Weather and Climate Lab Schedule

Week begins	Labs due by	Lab assignments
25-Aug	31-Aug	Pre-lab exercises (A-E) - posted on Bb
1-Sep	14-Sep	Pre-lab exercises (A-E) - posted on Bb
8-Sep		No class
15-Sep	21-Sep	Lab 1: Vertical Structure of the Atmosphere
22-Sep	28-Sep	Lab 2: Earth-Sun Geometry
29-Sep	5-Oct	Lab 3: The Surface Energy Budget &
6-Oct	12-Oct	Lab 4: The Global Energy Budget
13-Oct	19-Oct	Lab 5: Atmospheric Moisture
20-Oct	26-Oct	Lab 6: Saturation and Atmospheric Stability
27-Oct	2-Nov	Lab 9: Weather Map Analysis & Lab 10: Mid-Latitude Cyclones
3-Nov	9-Nov	Lab 12: Thunderstorms and Tornadoes
10-Nov	16-Nov	Lab 13: Hurricanes
17-Nov	23-Nov	Lab 14: Climate Controls
24-Nov	30-Nov	Lab 15: Climate Classification
1-Dec	7-Dec	Lab 16: Climate Variability and Change
8-Dec	14-Dec	Lab 16: Climate Variability and Change



Course Policies

Attendance is an integral part of the course. Missing lab – not logging in and working on assignments, reviewing posted material, etc will negatively impact your performance as there will be things discussed and reviewed “in class” that are not in your text or lab book. While there will be no point or grade deductions based on attendance, you can not expect to learn and understand the material if you do not participate in the class. Participation is a very important part of your final course grade. It can include anything from asking questions and participating in class discussions during your lecture sessions, in our lab forum, via email, as well as

logging in to the course’s Blackboard page and participating any other sessions.

Any work assigned must be completed before the next class session begins whether you are in class or not. Missing a class – be it your lecture or our lab class - does not excuse you from completing and submitting the material that was assigned or that was due that day. If you know you will miss a class, you may scan and send me any assignment that may be due as long as I receive it before class begins.

Classroom Zoom Etiquette for live sessions and office hours:

Please make sure that your microphone is muted when you are not speaking. If you are asking a questions, or participating, please turn your camera on – if this is a problem, then shoot me an

email and we can figure things out. Don't just turn on the session and walk away, as I may call on you, just like I would call on student in class. More details about this on our first session.

Hunter College Policy 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 the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.

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 Harassment

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 Policy:

Except for changes that substantially affect grading, this syllabus is a guide for the course and is subject to change with advance notice. These changes will be announced in class and through Blackboard announcements. Make sure to check Blackboard regularly.

