



Fall 2020 Pgeog 130 Weather and Climate

This course is an asynchronous online course that does not have weekly scheduled meeting sessions

Course Instructor: Professor Anita Erdős Forrester

Office: 1032 HN, Department of Geography

Office hours: Tue 7:30–8:30 & Fri 12:30–1:30, and by appointment via Zoom

Email: anita.forrester@hunter.cuny.edu

I will respond to emails within 24 hours except on the weekends. 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:

Required Lecture textbook:

Lutgens & Tarbuck, The Atmosphere: An Introduction to Meteorology, 14/E; Prentice Hall.

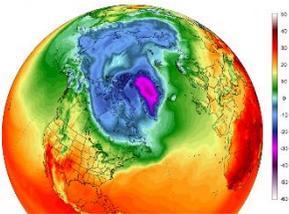
Look around and find the best option for your budget and needs. The book is available as a new or used physical copy, as well as a rental. Get it early to get the best price but you will need on week 1.

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 labs missing. I cannot provide you with copies of the missing labs.



Course Description and Objectives:

This course has 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 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

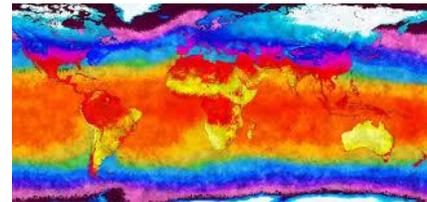
as cloud formation, fronts, storm systems and severe weather, and reviews basic weather forecasting and analysis techniques. The course explores short and long-term climate processes and their impact on the environment and people. The course demonstrates how different regions of the world have been and 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.



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 online asynchronous course meaning that the class will not have official meeting times however I will be available to meet with you guys to review content once a week online via Zoom and during office hours. During these zoom session we will review the content scheduled for the week, and go over some of the more challenging concepts. These are not required, but having taught online for years, I find that students do best if they attend these sessions. The sessions will not be recorded. If you are not familiar with Zoom then check out the folder labeled Zoom in the Week 1 folder on our course Blackboard page. You will find some tutorials as well as how to create your own zoom account @ zoom.us I have been using Zoom for years (yes, I have been using it for both teaching and meeting with students since 2016)

Besides our Zoom virtual class meetings, you will need access to a computer, microphone and camera so that you can participate in the zoom sessions. While you can use your phone for zoom, it is best to use a computer for the assignments and exams. 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 you are probably concerned about online learning – for many of you this might not be your preferred method of learning, but don't worry. I have been teaching at Hunter for 20 years now, and during the last 10 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 each folder you will find:

1. Link to our Zoom class session
2. Link to office hours
3. Pdf of the week's lecture notes – you can print these out for note taking
4. Chapter Review Quizzes for the week (always due by Thursday at midnight)
5. Discussion post for the "In the News" assignment (always due by Thursday at midnight)
6. A "News and Videos" folder 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
7. On the weeks that we have an Exam scheduled it will also be found in this folder

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 policy:

Exams (3)	50%
Chapter Quizzes	15%
In-the-News	5%
Lab Manual & online lab exercises	25%
Pre-lab Quizzes	5%

Exams: Exams will be a mix of multiple choice, true/false and fill-in-the-blank and short answer questions.



Quizzes: You will have **pre-lab quizzes** prior to each lab; as well as end of **chapter quizzes** to help you stay on track. These will be administered online through Blackboard. Pre-lab quizzes must be completed prior to beginning the online lab assignment. There are no make-up opportunities for the pre-lab quizzes.

You are expected to prepare for your lab class by reading the lab exercise and reviewing your lecture notes and textbook chapter relating to the lab exercise before you begin working on the lab. There will be a *5 question timed quiz* to test your general knowledge of the lab subject. If you read the lab exercise before lab and review your notes and textbook chapter you will be able to answer the questions.

End of chapter quizzes will be available after each chapter to help you stay on track and identify material that you will need to review more in-depth before the exams.

Weekly Laboratory Exercises: There will be lab assignment to 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.

In the News: Weekly current event type assignments that will include discussion board postings of “news” on the week’s topic

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., exams, quizzes, discussion, etc.) and it will be the delivery method for on-line lectures, discussions, and office hours. 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.

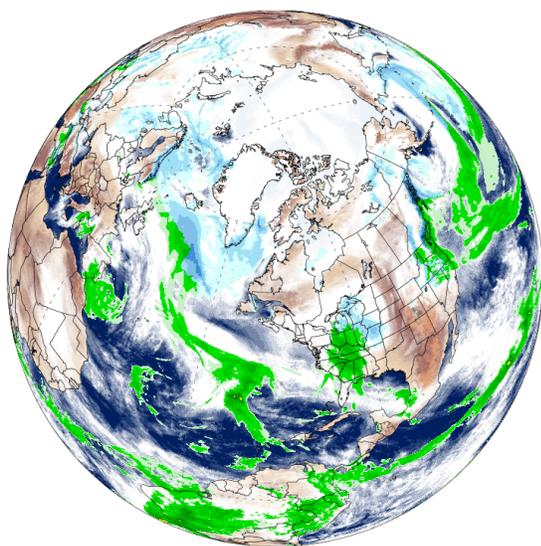


Fall 2020 – Pgeog 130: Weather and Climate			
August 26th, 2020 - December 20th, 2020			
Module	Virtual Zoom Classroom	Assignments and Exams posted in current Module 's folder on Bb	Due Dates submit via Bb
Module 1 half week	Introduction to Weather and Climate	1. Lab Assignment 2. In the News - Discussion post	Mon, 8/31 11:59pm
Module 2	Chapter 1: Intro to the Atmosphere Lab 1: Vertical Structure of the Atmosphere (Q 1-22)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Mon, 9/07 by 11:59pm
Module 3	Chapter 2: Heating Earth's Surface and Atmosphere Lab 2: Earth-Sun Geometry (Q 1-6)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Mon, 9/14 by 11:59pm

Module	Virtual Zoom Classroom	Assignments and Exams posted in current Module 's folder on Bb	Due Dates submit via Bb
Module 4	Chapter 3: Temperature Lab 2 con't: Earth-Sun Geometry (Q 9-19)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Mon, 9/21 by 11:59pm
Module 5	Chapter 4: Moisture and Atmospheric Stability Lab 5: Atmospheric Moisture (Q 10-29)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Mon, 10/28 by 11:59pm
Module 6	Chapter 5: Forms of Condensation and Precipitation; Lab 6: Saturation and Atmospheric Stability (Q 1-23)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. Exam 1 >	Mon, 10/05 by 11:59pm Tue, 10/06 by 11:59pm
Module 7	Chapter 6: Air Pressure and Winds Lab 8: Atmospheric Motion (Q 1, 2-11)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Mon, 10/12 by 11:59pm
Module 8	Chapter 7: Circulation of the Atmosphere Lab 8 con't: Atmospheric Motion (Q 12-18)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Mon, 10/19 by 11:59pm
Module 9	Chapter 8: Air Masses Chapter 9: Mid-Latitude Cyclone Lab 10: Mid-Latitude Cyclones (Q 1-17)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Mon, 10/26 by 11:59pm
Module 10	Chapter 10: Thunderstorms & Tornadoes Lab 12: Thunderstorms and Tornadoes (Q 1-15)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. Exam 2 >	Mon, 11/02 by 11:59pm Tue, 11/03 by 11:59pm
Module 11	Chapter 11: Hurricanes Lab 13: Hurricanes (Q 1-17)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Mon, 11/09 by 11:59pm
Module 12	Chapter 12: Weather Analysis and Forecasting Lab 9: Weather Map Analysis (Q 1-9)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Mon, 11/16 by 11:59pm
Module 13	Chapter 13: Air Pollution Lab 14: Climate Controls (Q 1-22)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Mon, 11/23 by 11:59pm

Module	Virtual Zoom Classroom	Assignments and Exams posted in current Module 's folder on Bb	Due Dates submit via Bb
Module 14	Chapter 15: World Climates Lab 15: Climate Classification (Q 1-26)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Wed, 12/02 by 11:59pm
Module 15	Chapter 14: The Changing Climate Lab 16: Climatic variability and Change (Q 1-23)	1. Pre-lab quiz 2. Chapter Review Questions 3. Lab Assignments 4. In the News - Discussion post	Wed, 12/09 by 11:59pm
Final Exam due by Friday 12/18/20			

This is the tentative schedule as of August 29th, 2020 and is subject to change. Any changes made to the schedule will be announced in class and on Blackboard and an updates schedule will be posted to Blackboard and sent out via email.



Incomplete Policy:

There will be NO INCOMPLETES (with the exception of a death, serious illness, or work related issues such as travel). Incompletes must be requested in writing prior to the last class session (unless of an unforeseen emergency as outlined above) and will be given only if student's grade is at "C" or above at the time the IN is filed, and with evidence of a satisfactory reason. At the time you request an IN you must also complete a Contract to Resolve an Incomplete Grade (form available at the college) and get my signature. Otherwise, I will average your existing grades based on the course grading rubric and record the grade you have earned. To receive a

CR/NC you must have completed all the course requirements (exams, quizzes, etc.) and have requested the CR/NC option prior to beginning the final exam. Based on your final score you will be assigned as a letter grade based on the numerical standards that can be found in the Hunter College Undergraduate Catalogue at <http://catalog.hunter.cuny.edu/>

Course Policies

Attendance is an integral part of the course. Missing lecture content will negatively impact your performance as there will be things reviewed and assigned as content in each module that might not be in your textbook. Since we don't meet regularly in a "live" classroom, it is easy to forget about class – please remember that this will negatively impact your grade. Class participation will be monitored each week. Please remember to actively participate in the course – don't just login, but do some of the work as well especially during the beginning to avoid being dropped during Attendance Verification after the first two weeks.

I will give feedback on assignments within a week of submission. If you have a questions about a grade or an assignment, please email me right away and I will get back to you within 24 hours.

If you miss an exam for a satisfactory and documented reason you must contact me **within two days** of the missed exam deadline to schedule a make-up at a mutually convenient time. After that the grade will be automatically a zero.

Classroom Zoom Ettiquette:

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.

Incomplete Policy:

There will be NO INCOMPLETES (with the exception of a death, serious illness, or work-related issues such as travel). Incompletes must be requested in writing prior to the last class session (unless of an unforeseen emergency as outlined above) and will be given only if student's grade is at "C" or above at the time the IN is filed, and with evidence of a satisfactory reason. At the time you request an IN you must also complete a Contract to Resolve an Incomplete Grade (form available at the college) and get my signature. Otherwise, I will average your existing grades based on the course grading rubric and record the grade you have earned. To receive a CR/NC you must have completed all the course requirements (exams, quizzes, etc.) and have requested the CR/NC option prior to beginning the final exam. Based on your final score you will be assigned as a letter grade based on the numerical standards that can be found in the Hunter College Undergraduate Catalogue at <http://catalog.hunter.cuny.edu/>

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.

