

Spring 2021 – PGE0G 130.00: Weather and Climate Lab

Lab 1L01 [05458] online synchronous M 11.10 am - 1 pm

Instructor: Henry Sirotin

e-mail: For messages use hsirotin@hunter.cuny.edu – Please include PGeog 130L01 in the subject line, and sign all messages with your first and last name.

Office Hour: There will be no formal hour. I will be available 24/7 by email- if you don't have a response in 24 hours, please repeat the email. Sometimes things fall through the cracks.

This course is an adjunct course to PGeog 130 lecture and has no separate credit. If you are not registered for a lecture section, do so NOW. All course credit and final grading for the two parts of the course will be handled through your lecture course instructor.

The course will be taught synchronously, the listed hours, using Zoom and Blackboard. Zoom may be new to some of you. You can download the app at <https://zoom.us/download> if you do not have it. Do not worry if you see a 45 minute time limit on your session- I will be hosting with a Hunter license that overrides that. So long as I am on Zoom, you will be. Before each session, I will send an email with an invitation to the session and a password. Simply use these to log in. I believe you are already familiar with Blackboard, so just make sure it is up and running for you.

Learning Outcomes: in

- Recognize methods employed in meteorology
- Apply basic mathematical concepts of meteorology
- Gain practical experience in the reading and construction of weather-related charts, graphs, and maps.

Textbooks:

Required Lab Manual:

- Greg Carbone, *Exercises for Weather and Climate, 9th ed.*
Pearson, 2016 ISBN-10: 0134041364, ISBN-13: 9780134041360

Hard copies of the book should be available through Shakespeare, or for possibly better prices see www.bookfinder.com. Use the ISBN to search. However you do it, make sure you have the 9th edition.

DO NOT PURCHASE EARLIER OR USED EDITIONS. USED EDITIONS WILL BE MISSING SECTIONS, AND SEVERAL OF THE LABS HAVE BEEN SIGNIFICANTLY CHANGED FOR THIS EDITION.

EVersions of the text are available, I believe Chegg's may be cheapest. But

Do Not Purchase the Vitalsource/Coursesmart ebook. It has MAJOR formatting problems

You must have the manual by the third lab.

Submission of Assignments:

Each session will begin with a brief summary of the lab, in which I will give general instructions and details (and some tricks) for particular questions. Please try to read the lab beforehand- it will make it easier for you, and if there is something you don't understand, this is the time to bring it up. Later in the term there will be lab pre-quizzes

Labs will be submitted through Blackboard.

- For each lab, there will be envelopes within Blackboard Materials;
 - Blue icons will mark information regarding the lab.
 - Open book icons will mark envelopes to submit assignments.
 - Pencil icons will mark quizzes and exams.All envelopes will be appropriately titled, in addition to the icons.
- Each lab session will be recorded, and the recording placed in Course Information on Blackboard.
- Lab format: Please submit the lab as a Word doc or pdf, following the question list in the lab itself. For those questions that require you to draw on maps or graphs, photo the necessary page and submit it with the assignment. There is reason for this- I have 100+ labs to grade each week, in addition to three lecture courses, and from past experience it can be extremely difficult to read handwriting, especially if it is poorly photographed. If I can't read the answer, it's wrong.
- DO NOT photo the entire lab and submit it as such. DO NOT SUBMIT THE ENTIRE MANUAL IN AN ASSIGNMENT ENVELOPE, WITH INSTRUCTIONS TO READ THE GIVEN LAB. That will be an automatic zero for the lab.
- For math equations, write them out using the four basic symbols in Word, [+ - x /] Exponents, if relevant, can be shown with a carat [$4^3 = 64$, ie, four to the third power = 64].
- **Make sure your name is on all submissions**

You will have one week to do each lab. The labs must be submitted by midnight of the day of the following course session. At that point any further submissions will be blocked, and the lab grade will be zero. No exceptions without medical documentation. After the labs are submitted I will post the correct answers in the blue icon envelope for the lab.

DO NOT SEND LABS TO MY EMAIL ADDRESS. I HAVE 100 LAB STUDENTS THIS TERM AND, EVEN IF THE SECTION IS IDENTIFIED, WILL NOT TRY TO FIGURE OUT WHERE TO PLACE IT. I WILL SIMPLY DELETE IT. ALL LABS GO TO THE ASSIGNMENT SECTION OF THE RELEVANT LAB FOLDER.

If there is a technical reason you cannot do this, contact me, and we may be able to set up an alternative solution.

You can work together on labs, but there must be separate submissions. I will open a Discussion session in Blackboard for each lab for you to communicate with each other.

Grading:

Grading will be done in 5 point increments. The average of your labs will be sent to your lecture instructor. The instructor will determine what percentage of the final grade the lab average will contribute.

Schedule:

CHECK THE COURSE SYLLABUS FOR INSTRUCTIONS ON HOW TO SUBMIT LABS

Lab No.	Date	Title	Questions to Complete	Due Date
To be provided	2/1	Dimensions and Units	1-13	2/8
To be provided	2/1	Earth Measures	1, 3-5 [For 5, do mountains, deserts, ocean currents]	2/8
To be provided	2/8	Location	Part I: 1-2; Part II: 1-4	2/22
	2/8	Time	Part I: 1-4; Part II: 1a & 1b	2/22
	2/8	Isolines	Part I and Part II	2/22
	2/15	President's Day - No Class		
1	2/22*	Vertical Structure of the Atmosphere	1-18	3/1
2	3/1*	Earth-Sun Geometry	1-6 [for 4-6, use analemma], 9 -13; 17-19 [For 1, compute the solar angle for all eight positions.] Give radiation values for _all_ solar angles	3/8
3, 4	3/8*	The Surface Energy Budget The Global Energy Budget	Surface: 1-15, 20 Global: 1-4, 11-15	3/15
5	3/15*	Atmospheric Moisture	10-24	3/22
6	3/22*	Saturation and Atmospheric Stability	1-16, 18-25	4/5
	3/29	Spring Break- No Class		
9	4/5*	Weather Map Analysis	1-3, 5, 7-9	4/12
10	4/12*	Mid-Latitude Cyclones	1-17	4/19
12	4/19*	Thunderstorms and Tornadoes	TBD	4/26
13	4/26*	Hurricanes	1-17	5/3
14	5/3*	Climate Controls	1-18, 20-21	5/10
15	5/10*	Climate Classification	1-2, 4-5, 7-25	5/17
16	5/17*	Climate Variability	1-5, 7-11, 13-16, 18, 21-23	TBD

Commented [HS1]:

*There will be pre-quizzes on these labs.