ATM 211: Weather Analysis and Forecasting
Spring 2021
Course #: 1120/10289 and 1121/10290
T/Th 10:30-11:50 in ES-328, W 4:30-5:25 in ES-328
Class Zoom link: https://albany.zoom.us/j/91429311576

Instructor: Ross Lazear: rlazear@albany.edu
Office hours (Zoom): https://albany.zoom.us/j/620353582
2:00-3:00 PM, Mon., and 10:00-11:00 AM Wed., and by appointment

TA: Scott Feldman: swfeldman@albany.edu
Office hours (Zoom): https://albany.zoom.us/j/95645102361
Password: atm211
3:00-4:00 PM, Tue. And Thur., and by appointment

Class webpage: http://www.atmos.albany.edu/facstaff/ralazear/ATM211

Topics covered:
Atmospheric properties and measurements
Satellite and radar
Isobaric maps, levels of the atmosphere, and hand contour analyses
Forces, force balances (geostrophy/Ekman/gradient wind)
Forcing for ascent/precipitation, jets/jet circulation
Fronts
Cyclones (mid-latitude)
Introduction to numerical weather prediction (models)
Forecasting
Atmospheric Stability
Atmospheric flow patterns and properties

Objectives:
The goals of this course are to teach you the fundamental synoptic-scale processes of the atmosphere. The final part of the course will teach you how to forecast for various cities around the country in a fun, competitive environment. Your responsibilities will include taking several quizzes on geography and lecture material, mapping and Skew-T assignments, exams, as well as forecasting during the final few weeks of the course.

Grading:
*** 35% Quizzes
*** 30% April exam
*** 35% Homework / maps / forecasting
   Late same day: 10% off; next day 20%; then 30%; 50%; no credit.

Accommodations:
Please don’t hesitate to reach out to me if you are having trouble completing an assignment on-time. I’ll do my best to be understanding this semester, but I’ll need to hear from you if you’re struggling with deadlines (in other words, if I don't hear from you, the late penalties will apply).

Prerequisites:
ATM 210(Z)/209
(PHY 140)

Cell phones:
Unless an emergency, please put away your cell phones during class.

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Absences:  
Medical: Please refer to the University’s medical excuse policy:  
https://www.albany.edu/health_center/medicalexcuse.shtml

Religious observance: New York State Education Law Section 224-A excuses absences due to religious beliefs. Students must notify the instructors in a timely manner prior to the absence.

Undergraduate academic regulations, and standards of academic integrity:  
https://www.albany.edu/undergraduate_bulletin/regulations.html

Class modality:  
A portion of this class—especially Wednesday discussion sections—will be taught in-person. Any portion of the course taught in person will be recorded in real-time so students can watch from home during the class period, or if need be, can watch later after the lecture is posted. Regardless of whether you attend in person or online, my preference is for you to attend class during the designated class period, so you can benefit by asking and answering questions during class. However, I understand that in these challenging times, you may not be able to attend every class at its designated time.

COVID-19 Protocol:  
The health and safety of you, your classmates and instructors, and your friends and family, is of utmost importance. If you choose to attend class in person, please be sure that you enter the classroom wearing a mask and keep it on during the entire class period.

Please follow physical distancing markers, and the posted classroom cleaning protocols as you enter and exit the classroom.

Mental health:  
Your mental health is also of utmost importance! These are really challenging, stressful times. Please take care of yourself and reach out to me if you need any help. You’re always encouraged to reach out to Counseling and Psychological Services (CAPS) at 518-442-5800 or consultation@albany.edu to schedule a virtual appointment. The CAPS website has helpful resources as well.