ATM 211: Weather Analysis and Forecasting
Spring 2022
Course #: 1120/1121
T/Th 10:30-11:50, W 4:30-5:25

Instructor: Ross Lazear, ETEC 417: rlazear@albany.edu
Office hours (Zoom and in-person): https://albany.zoom.us/j/620353582
2:00-3:00 PM, Mon., and 10:00-11:00 AM Wed., and by appointment

TA: Cameron Paquette, ETEC 424F: crpaquette@albany.edu
Office hours: 12:00-1:00 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:
*** 25% Quizzes
*** 20% Midterm
*** 25% Final exam
*** 30% Homework / maps / forecasting
   Late same day: 10% off; next day 20%; then 30%; 50%; no credit.

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

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

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

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

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.