**ATM 211: Weather Analysis and Forecasting**  
Spring 2024  
Course #: 1101 / 1102  
T/Th 10:30-11:50, W 4:30-5:25

**Instructor:** Ross Lazear, ETEC 417: rlazear@albany.edu  
**Office hours:** 2:30-3:30 PM, Mon., and Wed., and by appointment

**TA:** Megan Schiede, ETEC 438: mschiede@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](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:**  
***20% Quizzes  
*** 20% Midterm  
*** 25% Final exam  
*** 35% 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](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

Mental health:
Your mental health is also of utmost importance! 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.