**ATM 211: Weather Analysis and Forecasting**

Spring 2018

Course #: 1189/1190: TTh 10:15-11:35, F 10:25-11:20, ES-333

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Office hours:

2:45-3:45 PM, Mon. and Thur., and by appointment

TA:

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Office hours: 10:30-11:30 AM, Mon. and Wed., ES-330

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% Mid-term

\*\*\* 25% Final

\*\*\* 30% Homework / maps / forecasting

 Late same day: 10% off; next day 20%; then 30%; 50%; no credit.

***Requirements***:

*Rauber et al., Severe and Hazardous Weather, 4th Edition.*

***Prerequisites****:*

*ATM 210(Z)/209*

*(PHY 140)*

***Cell phones:***

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