

ATM 211

Topics for Midterm

- * Pressure, dew point, relative humidity
- * Soundings
 - * Finding an inversion, tropopause level, moist/dry layers
- * Radar
 - * Reflectivity
 - * Doppler radar (velocity)
 - * Dual-pol radar (correlation coefficient; differential reflectivity)
- * Satellite
 - * Geostationary vs. Polar orbiting
 - * Types of imagery: Visible / Infrared / Water Vapor
- * Isobaric maps
- * Map terminology (gradient, trough/ridge)
- * Thickness and geopotential height
- * Forces and basic force balances
 - * Pressure gradient force
 - * Coriolis force
 - * Geostrophic balance
 - * Frictional force
 - * Surface flow (Ekman/surface balance)
- * Why is there a jet stream? (relationship between jet and temp gradients)
- * Divergence and convergence; relation to surface highs/lows (mass continuity)
- * Curved flow, and gradient wind balance
 - * Ageostrophic wind
 - * Divergence and convergence in curved flow
- * Vorticity (curvature and shear vorticity)
- * Advection / temperature advection
- * Vorticity advection
 - * CVA/AVA and implications
- * Jet streaks

Any material from the homework

No geography!