OUTLINE: ATMOSPHERIC MOISTURE

A) Source
1. How is Moisture Transferred from Earth to Atmosphere?
   a. evaporation  b. transpiration

2. How is Moisture Transferred from Atmosphere to Earth?
   a. condensation  b)deposition  c)precipitation

3. How is Moisture Transferred Within Atmosphere?
   a) convection  b. horizontal winds

B) Humidity
1. saturation point or 100% relative humidity or dew point
2. how is humidity measured?  a. specific  b. relative

C) Adiabatic Cooling
1. hot air rises - instability
2. convection cell - "thermals"
3. condensation nuclei present
4. condensation (latent heat gets released as sensible heat)

1. convection
2. orographic uplift
3. frontal precipitation

E) Clouds
1. causes:  condensation and deposition
2. types

F) Fog
1. cause
2. types:  a)resulting from evaporation (steam fog)
   b)resulting from air cooling (advection, valley)

G) Stability vs. Instability
1. stable air conditions (ELR is less than DAR)
2. unstable air conditions (ELR is greater than DAR)

H) Types of Air Masses - Source areas for North America
1. mP  4. cT
2. cP  5. cA
3. mT

I) 3 Stages of Frontal Precipitation
1. warm front  3. occluded front
2. cold front

L) Development of Severe Weather - Thunderstorm Cell