ATM 211 Forecasting Steps...

1. Get a good grasp of the current situation. Check out satellite photographs and loops, radar loops, and the hourly METAR weather observations for Albany and the surrounding region. Read through the latest National Weather Service forecast discussions from the local offices.

2. Look at analysis maps (surface and upper air) to see how synoptic-scale features have been moving and/or intensifying over the past couple of days up to the present time.

3. Begin looking at forecast maps from various models. Note upper-level forcing, and low-level airmasses within the forecast period. Note precipitation intensity, timing, and differences amongst models. Take note of model trends. For short-term, use high-resolution models (HRRR, 3-km NAM, WRF, etc.).

Use Pivotal Weather
https://www.pivotalweather.com/model.php
or Tropical Tidbits:
https://www.tropicaltidbits.com/analysis/models/

4. Text-based output (extrapolated and MOS) from the NAM and GFS are available. For the ATM 211 contests, use:
http://www.atmos.albany.edu/facstaff/ralazear/fcst/fcst.html
Once again, take note of model differences, trends, and recent biases.

5. Finally... Look at model soundings and compare surface temperature with MOS and the NWS. For short-term forecasts, extrapolate the current satellite/RADAR, and see if the MOS variables agree with the current situation. Use your own intuition; if the NAM has been too low on the highs lately (and the synoptic pattern is remaining relatively similar), keep it in mind when you forecast.

6. Forecast!

7. Most importantly, learn from your mistakes. Everyone will make them from time to time. It’s important to ask yourself why your forecast was wrong. Did lower-tropospheric mixing clear out morning clouds so the high was warmer than you expected? Did overnight precipitation cause the temperature to “wet-bulb,” resulting in a lower overnight low than you forecast? Make sure you do this, so you don't keep repeating the same mistakes.