Meteorology 3110 - Fall 2024 – Midterm Review

Surface and Upper Air data

Surface Data

- Metars - Decode
- Station Model (page 16 of class notes)
- Be familiar with the most common meteorological variables and how to put them on the station plot.
- You will need knowledge of the most basic weather symbols - Rain, snow, thunderstorms, haze, fog, etc.

Upper air data

- Importance of TTAA, TTBB, TTCC, TTDD, PPDD, etc.
- You will not be asked to decode upper air data.
- Plot according to model on page 32.

Contouring/Analysis

- Follow general rules of contouring and analysis.
- Be neat.
- Properly interpolate between stations.

Vertical Structure/Skew-T's

- Know and understand how to use a skew-t.
- Define the important variables and how to find them on skew-t.
- Stability
- Relationship between dew point temperature, web-bulb temperature, and dry bulb temperature.
- Stability indices
- Fat CAPE/Skinny CAPE
    - Impact of entrainment and water loading on updraft for both.
- Three ways to overcome a CAP/CIN and how each process achieves this task.

Norwegian Cyclone model

- Know stages of the development and theory.
    - Initial setup
    - Initiation
    - Development
    - Mature or Occluded
    - Dissipation
- Check online lecture for details on these stages.

Good Luck!