

Meteorology 301 – Spring 2024

Exam #1 Review Sheet

Review topics

- Exponential decrease of pressure and density with height.
- Application of equation of state.
- Virtual temperature.
- Hydrostatic approximation.
- Definition of surface pressure from hydrostatic approximation.
- Geopotential.
- Hypsometric equation and thickness.
- Reduction of pressure to sea level.
- Forms of the first law of thermodynamics.
- Dry adiabatic lapse rate.
- Potential temperature.
- Water vapor variables.
- Saturated adiabatic lapse rate.
- Equivalent potential temperature.
- Wet-bulb potential temperature.
- Stability
- Skew-T diagrams.

Equations of Interest

- Definition of surface pressure from hydrostatic approximation.
- Hypsometric equation and thickness.
- ~~Forms of the first law of thermodynamics.~~
- Dry adiabatic lapse rate.
- ~~Potential temperature.~~