Review notes for 1025 Exam IV

Temperature scales (C, F, K) Which are absolute scales and which are not? What is an absolute scale? Absolute Zero
Know your heat units: calorie, Food Calorie (kcal), British Thermal Unit (BTU), A/C "Ton" (12,000BTU/hr)
Pay particular attention to the difference between SI calories and US Food Calories (1 US Food Cal – 1000 cal)
Definitions and **distinction between** Heat, Internal Energy and Temperature. Units for each? (J, J, F or C or K) Absolute Zero
Definition of specific heat. Unit?
What is special about the specific heat of water and how does it affect the weather?
Phase Change processes and Latent Heat. How does the latent heat of water affect the weather?
Vaporization, Condensation, Freezing and Melting.
Which are cooling processes and which are warming to their surroundings? Why?
Three forms of heat: Convection, Conduction and Electromagnetic Radiation.
Know the definitions of and examples of each.
Insulators and conductors of heat. "R" Values of building materials.
Convection Currents
Basics of the Refrigeration Cycle
Electromagnetic Waves
Know the Electromagnetic Spectrum – Order in terms of frequency and wavelength. (RMIVUXG, ROYGBIV)
How does a body's temperature affect the kind of EM radiation it emits?
Greenhouse effect: How it works in a greenhouse and on planets with atmospheres.
Know the major greenhouse gases in Earth's atmosphere.

Waves – Energy in motion via some sort of oscillation.
Wavelength, Frequency, Period, Amplitude, Intensity.
Definitions, how they are related, what perceived aspect of an EM wave they affect.

$v = f\lambda$ $F = 1.8C + 32$
$T = 1/f$ $K = C + 273$