

Weather & Climate

Examination 2 Study Aide

The following bulleted list contains highlights to what you might be asked on the upcoming examination. A thorough preparation for the examination requires complete understanding of all the concepts presented in lecture, video episodes, and online text. Some of the items below can also be found in the Classroom Features page at <http://castle.eiu.edu/weather>.

- Five controls on Temperature
- Density and Dynamics
- Causes of pressure change
- Isotherm analysis and patterns across the globe
- Forces that drive surface winds
- CDC Method of Determining Wind Direction
- Draw and label all five stages of cyclogenesis
- Geography of the Mid Latitude Cyclone
- Differences between a strong and weak pressure gradient or temperature gradient
- Airmass Classification
- Blizzard of 1974 (found in the Classroom Features on <http://castle.eiu.edu/weather>)
- Severe Weather (i.e. tornado safety, direction of tornadoes, differences between watches and warnings)
- Global Circulation (i.e. pressure belts, wind belts, Hadley Cell)
- Local breezes (i.e. land and sea breeze)
- Simple map analysis (i.e. current conditions-refer to the Geography of a Mid Latitude Cyclone)
- "Warm Temperatures Pose Problems for soil" (Video found at <http://vimeo.com/tcpfilms> listed as "Under the Four Rivers Skies"). Hint: What happens to ammonia if the soil does not freeze for the winter?
- "WEIU's Newswatch in Focus: Warm Winter" (Video found on the home page at <http://castle.eiu.edu/weather>). Hint: What is the cause of the recent lack of snow and winter temperatures?
- "Explore Illinois' Winter on the Prairie"
- "An Illinois Winter"