

Department of Atmospheric Sciences

COURSE ANNOUNCEMENT – SUMMER SESSION 2 – 2005

ATMS 120: Severe and Hazardous Weather

Call number: 30298
Instructor: Donna Charlevoix, 111 Atmos. Sci. Bldg., 244-9575
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Room and Time: 390 Lincoln Hall; 11:00 a.m.-12:50 p.m. M T R
Credit: 3 hours
Prerequisites: None

Most extreme manifestations of weather and climate are analyzed in terms of their physical basis and their historical, economic and human consequences. Emphasis is placed on the interplay between technological advances, the evolution of meteorology as a science and the impacts of extreme weather (floods, severe thunderstorms, hurricanes, tornadoes). Technological advances include satellites, weather radars, and computer models used for weather prediction. Daily weather discussions will track severe weather events occurring during the summer.

Course Content:

1. Overview of Meteorology
2. Instruments used in meteorology; Doppler radar and satellites
3. Fronts and mid-latitude cyclones
4. Severe thunderstorms
5. Severe thunderstorm hazards: tornadoes, floods, downbursts, lightning
6. Hurricanes

Text: *Severe and Hazardous Weather*, 2nd Edition, by Robert Rauber, John Walsh and Donna Charlevoix, Kendall-Hunt, 2005 (required).

Active Learning Exercises for Severe and Hazardous Weather, 2nd Edition, by Robert Rauber, John Walsh and Donna Charlevoix, Kendall Hunt, 2005 (required).

*This course is approved for General Education credit in the category of
Natural Sciences and Technology: Physical Science*