Department of Atmospheric Sciences

COURSE ANNOUNCEMENT – SEMESTER I – 2006–2007

ATMS 100/Sec. C: Introduction to Meteorology

Call number:	41912(CL2), 41913(CD1), 41914(CD2), 41915(CD3), 41916(CD4)
Instructor:	Tracy Twine, 210 Atmospheric Science Bldg., 333-7105
E-mail:	twine@atmos.uiuc.edu
Room and Time:	CL1: 112 Chem Annex; 1:00 pm M W (lecture)
	CD1: 390 Lincoln Hall, 11:00 am R (discussion)
	CD2: 390 Lincoln Hall, 10:00 am R (discussion)
	CD3 390 Lincoln Hall, 2:00 pm F (discussion)
	CD4: 390 Lincoln Hall, 3:00 am F (discussion)
Credit:	3 hours
Prerequisites:	None

This course introduces basic concepts of meteorology in a hands-on, interactive format. The nature of the physical processes responsible for changes in daily weather will be discussed. Computer based exercises during discussion classes will use current and recent weather data to investigate phenomena.

Course Content:

1. Overview of the earth, atmosphere and weather systems
2. Understanding weather maps and charts
3. Energy – heating of the earth & atmosphere, seasons, greenhouse effect
4. Air temperatures near the ground and human comfort
5. Moisture in the atmosphere, precipitation
6. Formation of dew, frost, fog and clouds
7. Cloud development & dissipation and atmospheric stability
8. Why the wind blows – pressure, forces and wind; lake breezes; jet streams
9. Air masses, fronts and mid-latitude cyclones
10. Weather forecasting
11. Severe weather – thunderstorms, tornadoes and hurricanes

Text: *Essentials of Meteorology: An Invitation to the Atmosphere*, by D. C. Ahrens, 4th edition, 2004, Thomson-Brooks/Cole (required)

This course is approved for General Education credit in the categories of
"Natural Sciences and Technology: Physical Science"
and "Quantitative Reasoning II"