

# METR 4433, Mesoscale Meteorology

## Spring 2008

<b>Instructor</b>	Dr. Kelvin K. Droegemeier Office: National Weather Center, Room 5439 (325-6561) Office Hours: Tues & Thurs, 4:00 – 4:30 pm; Other times by appointment Use of email is strongly encouraged (kkd@ou.edu)
<b>Room/Time</b>	Room 5600, National Weather Center, Tues and Thurs 2:30-3:45 pm
<b>Class Web Site</b>	<a href="http://kkd.ou.edu/METR4433_Spring_2008/METR4433.htm">http://kkd.ou.edu/METR4433_Spring_2008/METR4433.htm</a>
<b>Grader</b>	Mr. Eddie Natenberg (eddienatenberg@ou.edu) Office: National Weather Center, Room 5642 Office Hours: Tues & Thurs, 10:00 – 11:00 am
<b>Required Texts</b>	Holton, J.R., 1992: <i>An Introduction to Dynamic Meteorology</i> , 4th Edition, Academic Press, 535pp.  Bluestein, H., 1993: <i>Synoptic-Dynamic Meteorology in Mid-Latitudes, Volume II: Observations and Theory of Weather Systems</i> . Oxford Univ. Press, 594pp. See errata at <a href="http://weather.ou.edu/~hblue/corrections">http://weather.ou.edu/~hblue/corrections</a> .
<b>Prerequisites</b>	METR 4133 (Dynamics III) and METR 4424 (Synoptic Laboratory) or their equivalents. IF YOU HAVE NOT RECEIVED A GRADE OF “C” OR BETTER IN THESE PREREQUISITES YOU CANNOT ENROLL.
<b>Content</b>	This course is designed to acquaint the student with the application of atmospheric dynamics and physical analysis techniques to mesoscale phenomena. Topics include definition of the term “mesoscale,” radar principles and interpretation, drylines, deep convective storms, tornadoes, mesoscale convective systems, mesoscale cellular convection, horizontal convective rolls, land/sea breezes, mountain waves and hurricanes.
<b>Project</b>	Each student will perform a critical literature review on a topic of their choice in mesoscale meteorology and prepare a 6-page, AMS conference-style report. First drafts will be subject to 2 anonymous peer reviews worth half of the total points on the paper. The other half of the point total will be based on an evaluation made by the instructor of the final version. No oral reports will be given.
<b>Grading</b>	Homework problems 20% Three in-class exams (Feb 26, Apr 8, May 9 @ 1:30-3:30 pm) 60% <i>Note: There will be no comprehensive final exam</i> Research Project 20%

*The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Those having such a need are requested to speak with Dr.*

*Droegemeier as early in the semester as possible. Students with disabilities also must be registered with the Office of Disability Services (ODS) prior to receiving accommodations in this course. You may contact the ODS at Goddard Health Center, Suite 166, phone 405-325-3852 or TTD only at 405-325-4173.*

*It is the student's responsibility to read and understand the University of Oklahoma Student Code, especially that governing Academic Misconduct. Violations of the Student Code will not be tolerated in this course.*