

METR 4133, Atmospheric Dynamics III

Fall 2010

Instructor	Dr. Xuguang Wang Office: National Weather Center, Room 5341 Email: xuguang.wang@ou.edu Phone: 405 325 3426 Office Hours: Tues and Thurs 12:45-1:45pm
Grader	Ms. Amanda Kis (akkis@ou.edu ; office NWC 5642)
Class Web Site	http://weather.ou.edu/~xwang/METR4133.html
Classroom/Time	Room 5600, National Weather Center, Tues and Thurs, 11:30 am – 12:45 pm
Required Texts	Bluestein, H., 1992: <i>Synoptic-Dynamic Meteorology in Mid-Latitudes, Volume I: Principles of Kinematics and Dynamics</i> . Oxford Univ. Press, 431pp. Bluestein, H., 1993: <i>Synoptic-Dynamic Meteorology in Mid-Latitudes, Volume II: Observations and Theory of Weather Systems</i> . Oxford Univ. Press, 594pp. Errata sheets are available at http://weather.ou.edu/~hblue/corrections . Holton, J.R., 2004: <i>An Introduction to Dynamic Meteorology</i> , 4th Edition, Academic Press, 535pp.
Prerequisites	METR 3123 (Atmospheric Dynamics II) and METR 3223 (Physical Meteorology II) and <u>or equivalents</u> . IF YOU HAVE NOT RECEIVED A GRADE OF “C” OR BETTER IN THE PREREQUISITE COURSES, YOU CANNOT ENROLL IN THIS ONE.
Content	Review of elementary dynamics, thermodynamics, kinematics of wind and scalar fields Quasi-geostrophic theory and application Extra-tropical disturbances and baroclinic instability Fronts, jets, and the dryline Linear perturbation theory and atmospheric waves
Grading	Homework Problems (4-5 sets) 25% Mid-Term Exam (Thursday, October 21, in class) 35% Final Exam (10:30 am-12:30 pm on Friday, Dec 17) 40%

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. Wang 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.