METR 4133, Atmospheric Dynamics III
Fall 2009

Instructor: Dr. Kelvin K. Droegemeier
Office: National Weather Center, Room 5349 (325-6561)
Office Hours: Tues/Thurs, 12:45-1:30 pm; Other times by appointment
Use of email is strongly encouraged (kkd@ou.edu)

Grader: Mr. Matt Kumjian (kumjian@ou.edu)

Class Web Site: http://kkd.ou.edu/METR_4133_Fall_2009/METR4133.htm

Classroom/Time: Room 5600, National Weather Center, Tues and Thurs, 11:30 am – 12:45 pm

Required Texts:


Errata sheets are available at http://weather.ou.edu/~hblue/corrections.


Prerequisites: METR 3123 (Atmospheric Dynamics II) and METR 3223 (Physical Meteorology II) and or equivalents. 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 and thermodynamics
Kinematics of the horizontal wind and scalar fields
Quasi-geostrophic theory, applications to forecasting
Extra-tropical disturbances and baroclinic instability
Fronts, jets, and the dryline
Linear perturbation theory and atmospheric waves (Holton text)

Grading:
Homework Problems (4-5 sets) 30%
Mid-Term Exam (Tuesday, October 20) 35%
Non-Comprehensive Exam (10:30 am-12:30 pm on Wednesday, Dec 16) 35%

*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.*