METR 5113, Advanced Atmospheric Dynamics I
Fall 2012
MWF 1:00 – 1:50 PM
National Weather Center (NWC), Room 5930

Instructor
Prof. Alan Shapiro
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phone: 325-6097
e-mail: ashapiro@ou.edu (e-mail is the best way to reach me – I read it many times a day)

Office hours
MWF, 2 – 3 pm
Additional office hours upon request – just ask! You can also drop by my office anytime
and see if I'm free. I'm usually not here early in the mourning (er, morning).

Required text

Recommended texts
A list of references and suggested readings will be distributed on the first day of class.

Class notes
Class notes will be posted online at: http://weather.ou.edu/~ashapiro/METR5113

Prerequisites
Math 4163 (Partial Differential Equations) or equivalent coursework

Grading
Two in-class exams (30% each)
Final exam (40%)

List of topics (tentative)
Vector and Cartesian tensor analysis. Lagrangian and Eulerian viewpoints. Streamlines
theory and applications. Bernoulli's equation and applications. Navier-Stokes equations

The University of Oklahoma is committed to providing reasonable accommodation for all students
with disabilities. Students with disabilities must be registered with the Disability Resource
Center prior to receiving accommodations in this course. The Disability Resource Center is
located in Goddard Health Center, Suite 166, phone # 325-3852.