

# METR 3113, Atmospheric Dynamics I

## Fall 2016

<b>Instructor</b>	Dr. Kelvin K. Droegemeier (kkk@ou.edu) Office: Five Partners Place, Suite 3100 (325-3806) Office Hours: Immediately after class for 30 minutes Other times by appointment -- contact Cathi Parker (clparker@ou.edu)								
<b>Assistant</b>	Ms. Larissa Reames (lreames@ou.edu) Office: National Weather Center, Room 5104 Office Hours: To be announced								
<b>Classroom/Time</b>	Room 5600, National Weather Center, M W F, 9:00 – 9:50 am								
<b>Class Web Site</b>	<a href="http://kkd.ou.edu/">http://kkd.ou.edu/</a>								
<b>Facebook</b>	<a href="https://www.facebook.com/groups/LOUDynamicsI/">https://www.facebook.com/groups/LOUDynamicsI/</a>								
<b>Required Text</b>	Holton, J.R. and G.J. Hakim, 2013: <i>An Introduction to Dynamic Meteorology</i> , 5th Edition, Academic Press, 532 pp.								
<b>Prerequisites</b>	Grade of C or better in METR 2023/2021, MATH 2443 or 2934, PHYS 1215 or 2524.								
<b>Goal/Topics</b>	The goal of this course is to lay the foundation for the formal mathematical characterization of atmospheric motions, to provide descriptions of forces acting in the atmosphere and atmospheric energy transformations, and to introduce basic concepts and notions applied in atmospheric dynamics. Topics include units and dimensions, coordinate systems, vector calculus, Newtonian mechanics, forces, reference frames, mass and energy conservation, and balanced flows.								
<b>Grading</b>	<table><tr><td>Homework Problems (5-6 problem sets)</td><td>20%</td></tr><tr><td>Quizzes (weekly)</td><td>10%</td></tr><tr><td>Exams (September 21, October 21, November 18)</td><td>35%</td></tr><tr><td>Comprehensive Final Exam (8:00 – 10:00 am Thursday, Dec 15)</td><td>35%</td></tr></table>	Homework Problems (5-6 problem sets)	20%	Quizzes (weekly)	10%	Exams (September 21, October 21, November 18)	35%	Comprehensive Final Exam (8:00 – 10:00 am Thursday, Dec 15)	35%
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*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.*