METR 3123: Atmospheric Dynamics II
Spring 2019 Syllabus

Instructor
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Teaching assistant
Mr. Joshua Gebauer
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Class meeting time and place
Mon, Wed, Fri: 10:00 – 10:50 am and Wed: 4:00 – 5:15 pm, NWC 5600.

Office hours
Mon, Wed, Fri: 12:00 – 1:00 pm, NWC 5419; appointments for other hours and for office hours with the teaching assistant should be made through email.

Prerequisites
Grade of C or better in METR 3113, METR 3213, and MATH 3413.

Required textbook

Supplementary textbook

Website
Course materials will be posted on https://canvas.ou.edu/

Proposed grading
Two homework quizzes (February 13, April 3): 10% each.
Two intermediate tests (February 20, April 10): 20% each.
Final exam (May): 40%.
Grade cutoffs. A: ≥85%, B: ≥70%, C: ≥50%, D: ≥20%, F: <20%.

**General information**

This course continues considerations of atmospheric motions begun in Dynamics I. Particular topics include:

1. Streamlines and trajectories
2. Thermal wind, vertical motion, and pressure tendency
3. Circulation and vorticity
4. Atmospheric oscillations and waves
5. Atmospheric boundary layer

It is assumed that students who take the class have been introduced to the formal mathematical characterization of atmospheric motions, to forces acting in the atmosphere, and to basic equations of atmospheric kinematics and dynamics. Students are also expected to have a thorough knowledge of elementary calculus, and know basics of vector calculus.

**Note:** Any student in this course who has a disability that may prevent the full demonstration of his or her abilities should contact Dr. Fedorovich personally as soon as possible, so that accommodations can be made necessary to ensure full participation and facilitate student’s educational opportunities.