AT 350: Introduction to weather and climate
Course syllabus
Fall 2009

1:00-1:50 PM Tuesday/Thursday
130 Glover Building

Professor:
David W. J. Thompson, Department of Atmospheric Sciences
430 Atmospheric Sciences Bldg., Foothills campus
Phone: 491-3338
Email: davet@atmos.colostate.edu

Teaching assistants (AT350)/instructors (AT351):
Katie Boyd and Jeremiah Sjoberg

Lab (AT351) (starts Monday August 31):
L01 Monday 2:00 pm-4:40 pm (B101 ENGR).
L02 Monday 4:00 pm-6:40 pm (105 EDDY).

TA Office hours:
A204 Engineering (Atmospheric Sciences Room by Dean’s office)
Times to be determined.

Final exam time:
December 15, 5:50 - 7:50 PM

Objectives:
- Introduce students to a variety of topics relevant to weather and climate.
- Instill a basic understanding of atmospheric processes and how they determine various atmospheric phenomena.
- Provide students with the tools necessary to critically assess media reports regarding weather and climate.

Text:

Course website:
http://www.atmos.colostate.edu/~davet/AT350
Class materials will be posted on the site.

Course structure:
- The class is offered for two credits and will meet two times per week for lecture/discussion.
- Grades will be based on student performance on three hourly exams and a final exam.
- Exams will be multiple choice and computer graded. Questions will cover material from readings in the text, supplementary reading materials (to be determined), and lecture. Lectures may cover material not included in the textbook.
- The lowest hourly exam score will be dropped. As a general rule, if a student misses an hourly exam, this becomes the dropped grade. Makeup exams will be offered only under extraordinary circumstances.

Grading:
Hourly exams: 30% each (total 60%)
Final: 40%
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Course outline (subject to change)
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Aug. 25
Introduction

Aug. 27-Sept. 22 (8 lectures)
How we describe the atmosphere Chapter 1
Atmospheric composition Chapter 1
Radiation Chapter 2
Temperature variations Chapter 3
Moisture, clouds, water vapor feedback Chapters 4, 5

Sept. 24
Exam 1

Sept. 29 - Oct. 22 (8 lectures)
Stability and cloud development Chapter 6
Winds, forces Chapter 8

Oct. 27
Exam 2

Oct 29 - Nov. 17 (6 lectures)
Winds: small and global scale wind patterns Chapters 9, 10
Air masses, fronts, cyclones Chapters 11, 12
Severe weather, hurricanes Chapters 14, 15

Nov. 19
Exam 3

Nov. 23-27
Thanksgiving break

Dec. 1-20 (4 lectures)
Climate variability and change Chapters 16, 17 + TBD

December 15, 5:50 - 7:50 PM FINAL EXAM