

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:

Meteorology Today, 9th edition. C. Donald Ahrens, West Publishing Co.

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 text book.*
- 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%

AT 350: Introduction to weather and climate
Course outline (subject to change)
Fall 2009

Aug. 25	Introduction	
Aug. 27-Sept. 22 (8 lectures)	How we describe the atmosphere Atmospheric composition Radiation Temperature variations Moisture, clouds, water vapor feedback	Chapter 1 Chapter 1 Chapter 2 Chapter 3 Chapters 4, 5
Sept. 24	Exam 1	
Sept. 29 - Oct. 22 (8 lectures)	Stability and cloud development Winds, forces	Chapter 6 Chapter 8
Oct. 27	Exam 2	
Oct 29 - Nov. 17 (6 lectures)	Winds: small and global scale wind patterns Air masses, fronts, cyclones Severe weather, hurricanes	Chapters 9, 10 Chapters 11, 12 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	