

AT 350: Introduction to weather and climate
Course syllabus
Fall 2018

1:00-1:50 PM Tuesday/Thursday
ENGR 120

Professor:

David W. J. Thompson, Department of Atmospheric Sciences
430 Atmospheric Sciences Bldg., foothills campus
www.atmos.colostate.edu/~davet
david.thompson@colostate.edu

Teaching assistants (AT350)/instructors (AT351):

Luke Davis, Department of Atmospheric Sciences
lukelbd@gmail.com

Eleanor Casas, Department of Atmospheric Sciences
Eleanor.Delap@colostate.edu

Lab (AT351):

ATS 351 L01 2:00-4:40 p.m. ENGR B 101
ATS 351 L02 4:00-6:40 p.m. ENGR B 103

Office hours:

Thompson: 2-250pm Tuesday. Engineering A 102F
TAs: TBD

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, C. Donald Ahrens, West Publishing Co. 12th edition.

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 one 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. I will go through questions similar to those that will appear on the exam occasionally during lecture.

Grading:

Three hourly exams: 20% each
Final exam: 40%

AT 350: Introduction to weather and climate
Course outline (subject to change)
Fall 2018

Aug. 21-Sept. 27 (12 lectures)	Atmospheric composition/descriptors Energy Seasonal / diurnal cycle Moisture, clouds, water vapor feedback	Chapter 1 Chapter 2 Chapter 3 Chapters 4, 5
Oct. 2	Exam 1	
Oct. 4 - Oct. 23 (6 lectures)	Stability and cloud development Winds, forces	Chapter 6 Chapter 8
Oct. 25	Exam 2	
Oct 30 - Dec. 4 (9 lectures)	Winds: small and global scale Air masses, fronts, cyclones Climate variability and change	Chapters 9, 10 Chapters 11, 12 Chapters 17 + IPCC material
Dec. 6	Exam 3	
Wed. Dec. 12, 6:20-8:20 PM	Final Exam	