

AT350: INTRODUCTION TO WEATHER AND CLIMATE

COURSE SYLLABUS Fall 2019

1:00 - 1:50 PM TUESDAY/THURSDAY

Room: 120 Engineering

Instructor: Dr. Steven Rutledge, Professor, 307 Atmospheric Science Bldg.,
Foothills Campus,
Phone: 491-8283 email: srutledg@colostate.edu

Teaching Assistants for AT350 and Instructors for AT351: Chelsea Nam
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Objectives: Introduce students to a variety of topics relevant to an understanding of weather, climate and related topics. Familiarize students with information sources regarding these topics. Instill a basic understanding of atmospheric processes and how they determine various atmospheric phenomena.

Text: Meteorology Today: C. Ahrens and R. Henson, Cengage Learning, 12th Edition

Course Website: <http://radarmet.atmos.colostate.edu/AT350>

Course Structure and Grading Criteria: 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 examination. Exams will be multiple choice and computer graded. Questions will cover material from readings in the text, lecture material and class discussions. The final grade will be based on equally weighting the two highest midterm scores and the final examination. **Only under special circumstances will students be allowed to make up missed examinations.**

Seniors graduating Fall 2019 (ONLY): You are not required to take the final exam if you have taken all three hourly exams and you would like to accept the average of the three as your final grade.

Date	Topic(s)	Reading
August 27	Introduction, course mechanics, review of syllabus and course web site	Introduction Notes
August 29	Descriptors of the atmosphere	Chapter 1, 4

September 3	Descriptors of the atmosphere, con't	Chapter 1, 4
September 5	Solar and terrestrial radiation	Chapter 2
September 10	Continued...	Chapter 2
September 12	Seasonal and Daily Temperatures	Chapter 3
September 17	Catch up and review for Midterm I	
September 19	Midterm I	
September 24	The atmosphere's water	Chapter 4
September 26	Condensation: Dew, Fog and Clouds	Chapter 5
October 1	Stability and cloud development	Chapter 6
October 3	Continued...	
October 8	Precipitation	Chapter 7
October 10	Continued...	
October 15	Forces, air pressure and winds	Chapter 8
October 17	Continued...	
October 22	Small Scale and Local winds	Chapter 9
October 24	Midterm II	
October 29	Air masses and fronts	Chapter 11
October 31	Atmospheric General Circulation	Chapter 10
November 5	Continued...	
November 12	Thunderstorms and severe weather	Chapter 14, 15, 16
November 14	Continued...	
November 19	Lightning and Thunder	Chapter 14
November 21	Midterm III	
November 26	No Class, Thanksgiving Break	
November 28	No Class, Thanksgiving Break	
December 3	Climate Change	Chapter 17, 18
December 5	Continued...	
December 10	El Nino	Chapter 10
December 12	Con't and review for Final Exam	
December 17	FINAL EXAM	2:00 – 4:00 PM