

# ***AT350: INTRODUCTION TO WEATHER AND CLIMATE***

## **COURSE SYLLABUS Fall 2022**

1:00 - 1:50 PM TUESDAY/THURSDAY

Engineering 120

**Instructor:** Dr. Steven Rutledge, Professor, Campus Office is Engineering A-102F. Office hours: arranged, following request from individual students. Prof. Rutledge will hold special office hours in Engineering A-102F from 11:30 AM to 12:45 PM prior to the 3 midterm exams. The class GTA, Ivy Glade will hold weekly office hours.

email: [srutledg@colostate.edu](mailto:srutledg@colostate.edu)

**Teaching Assistants for AT350:** Ivy Glade

Office hours: TBD, Engineering A-102F

**Course 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, 13<sup>th</sup> 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. 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 prior arrangement and under special circumstances will students be allowed to make up missed examinations.**

<b>Date</b>	<b>Topic(s) and Note Sections</b>	<b>Reading in Text</b>
August 23	Introduction, course mechanics, review of syllabus and course web site	-----

August 25	Descriptors of the atmosphere	Chapter 1, 4
August 30	Descriptors of the atmosphere, continued	Chapter 1, 4
September 1	Solar and terrestrial radiation	Chapter 2
September 6	Continued...	Chapter 2
September 8	Seasonal and Daily Temperatures	Chapter 3
September 13	Catch up and brief review for Midterm I	
<b>September 15</b>	<b>Midterm I</b>	
September 20	The atmosphere's water	Chapter 4
September 22	Continued...	
September 27	Condensation: Dew, Fog and Clouds	Chapter 5
September 29	Stability and cloud formation	Chapter 6
October 4	Continued...	
October 6	Precipitation	Chapter 7
October 11	Continued...	
October 13	Forces and winds	Chapter 8
October 18	Continued...	
<b>October 20</b>	<b>Midterm II</b>	
October 25	Local winds; air masses and fronts	Chapter 9; Chapter 11
October 27	Atmospheric General Circulation	Chapter 10
November 1	Continued...	
November 3	Thunderstorms and severe weather	Chapter 14, 15, 16
November 8	Continued...	
November 10	Continued...	
November 15	Lightning and Thunder	Chapter 14
<b>November 17</b>	<b>Midterm III</b>	
November 22	No Class, Thanksgiving Break	
November 24	No Class, Thanksgiving Break	
November 29	Guest: Dr. Russ Schumacher, State Climatologist	
December 1	Climate Change	Chapter 17, 18
December 6	Continued...	
December 8	Wrap up and review for Final Exam	
<b>December 13</b>	<b>FINAL EXAM</b>	<b>2:00-4:00 PM</b>

Important information for students: All students are expected and required to report any COVID-19 symptoms to the university immediately, as well as exposures or positive tests from a non-CSU testing location. If you suspect you have symptoms, please fill out the COVID Reporter (<https://covid.colostate.edu/reporter/>). If you know or believe you have been exposed, including living with someone known to be COVID positive, or have symptoms of COVID, it is important for

the health of yourself and others that you complete the online COVID Reporter. Do not ask your instructor to report for you. If you do not have internet access to fill out the online COVID-19 Reporter, please call (970) 491-4600. You will not be penalized in any way for reporting. If you report symptoms or a positive test, you will receive immediate instructions on what to do, and CSU's Public Health Office will be notified. Once notified, that office will contact you and most likely conduct contact tracing, initiate any necessary public health requirements and/or recommendations and notify you if you need to take any steps. For the latest information about the University's COVID resources and information, please visit the CSU COVID-19 site: <https://covid.colostate.edu>

***Basic Needs Statement***

*At CSU, Rams take care of Rams—period. If you are experiencing food, housing, and/or transportation insecurity, please contact [lsc\\_basicneedsinfo@colostate.edu](mailto:lsc_basicneedsinfo@colostate.edu).*

**Student Disability Center Accommodations**

Students who have federally supported disabilities will find information about processes and supports available at this site:

<https://disabilitycenter.colostate.edu/accommodations-process/>