

Syllabus for ATMS 113 – Understanding the Atmosphere – Lecture Section - Fall 2017

Date	Topic	Reading/Lecture*
M 21 Aug 2017	Introduction/ The Earth's Atmosphere	Chapter 1 - <i>class canceled due to solar eclipse activity</i>
W 23 Aug	The Earth's Atmosphere	
M 28 Aug	Warming the Earth and Atmosphere	Chapter 2
W 30 Aug	Warming the Earth and Atmosphere	
M 4 Sep	<i>Labor Day</i>	<i>No classes</i>
W 6 Sep	Air Temperature	Chapter 3
M 11 Sep	Air Temperature	
W 13 Sep	Exam I	Chapters 1 - 3
M 18 Sep	Humidity, Condensation, and Clouds	Chapter 4
W 20 Sep	Humidity, Condensation, and Clouds	
M 25 Sep	Cloud Development and Precipitation	Chapter 5
W 27 Sep	Cloud Development and Precipitation	
M 2 Oct	Cloud Development and Precipitation	
W 4 Oct	Air Pressure and Winds	Chapter 6
W 11 Oct	Air Pressure and Winds	
M 16 Oct	Air Pressure and Winds & Review	
W 18 Oct	Exam II	Chapters 4 - 6
M 23 Oct	Atmospheric Circulations	Chapter 7
W 25 Oct	Atmospheric Circulations	
M 30 Oct	Air Masses, Fronts, and Middle-Latitude Cyclones	Chapter 8
W 1 Nov	Air Masses, Fronts, and Middle-Latitude Cyclones	
M 6 Nov	Air Masses, Fronts, and Middle-Latitude Cyclones & Review	
W 8 Nov	Exam III	Chapters 7 - 8
M 13 Nov	Thunderstorms and Tornadoes	Chapter 10
W 15 Nov	Thunderstorms and Tornadoes	
M 20 Nov	El Reno tornado – May 2013	
M 27 Nov	Hurricanes	Chapter 11
W 29 Nov	Hurricanes	
M 4 Dec	Presentations	<u>Weather Forecasts</u>

*lecture viewing shall be completed **before** class meets on this date

Description

A course designed for the major and non-major student who is interested in learning the basics of the structure of our atmosphere and how the structure changes over time. Upon completion of this class you will be able to teach friends and family about details of the weather and be equipped to make a weather forecast for any location in the U.S.

Outline

The Earth's Atmosphere (text, Chapter 1)
Warming the Earth and Atmosphere (text, Chapter 2)
Air Temperature (text, Chapter 3)
Humidity, Condensation, and Clouds (text, Chapter 4)
Cloud Development and Precipitation (text, Chapter 5)
Air Pressure and Winds (text, Chapter 6)
Atmospheric Circulations (text, Chapter 7)
Air Masses, Fronts, and Middle-Latitude Cyclones (text, Chapter 8)
Thunderstorms and Tornadoes (text, Chapter 10)
Hurricanes (text, Chapter 11)

Grading

Weather Journal	5%
Pre- and Pro- Chapter Quizzes	5%
In-class Projects	10%
Weather Analysis and Forecast	10%
Exam I	15%
Exam II	15%
Exam III	15%
Final Exam	15%
Total	100%

92% < total score ≤ 100%	A
90% < total score ≤ 92%	A-
88% < total score ≤ 90%	B+
82% < total score ≤ 88%	B
80% < total score ≤ 82%	B-
78% < total score ≤ 80%	C+
72% < total score ≤ 78%	C
70% < total score ≤ 72%	C-
68% < total score ≤ 70%	D+
60% < total score ≤ 68%	D
total score ≤ 60%	F

Student Learning Outcomes for ATMS 113

- understand information being communicated on standard weather maps
- develop a conceptual model of the atmosphere that allows for the analysis and prediction of weather
- create solutions to weather-related challenges as a group and as an individual
- demonstrate an appreciation for impacts of global weather patterns on society

Weather Journal

Each student will be required to contribute to a weather web log in which they describe ways that the weather has impacted their daily life. You can find the weather web log page at <http://atms103unca.blogspot.com/> where further instructions are given. Each student is required to make nearly two entries a week (for a total of **25 entries minimum**). These entries will be reviewed periodically by the instructor to confirm that each student is keeping current with the assignment, so the entries are not private. In order to receive full credit on the weather journal assignment (5%), each student will need to make observations of weather impacts on their lives that are of a greater depth of analysis than simply writing “It was cold, so I put on a sweater.”

Pre- and Pro-

Preparation and professionalism are important habits at UNC Asheville and in your future workplace. We’ll work to develop both by having a lecture quiz at the very beginning of class on Mondays (no lecture quiz make-ups) to test that you have thoroughly read the chapter before diving into the in-class group projects. Professionalism is showing respect for each person in the class by actively listening and contributing. A lack of professionalism means that points are deducted from your Pre- and Pro- score. Each person will occasionally be evaluated on their contributions to group projects. The final semester tally will determine if you passed (earn the full 5%) or failed (0% score) in preparation and professionalism.

Chapter Quizzes

Quizzes will be given weekly once *per chapter* throughout the semester to encourage course participation and attendance. The quizzes will be defined either as individual or group quizzes. When a quiz is designated for a *group*, each individual within the group will receive an identical grade.

In-class Projects

ATMS 113 has recently been converted to a flipped-lecture hybrid classroom experience. Key concepts will be covered (briefly) during lecture in class, but you’ll also have access outside of the classroom to a copy of recorded lectures covering the entire material of each chapter. Once a week you’ll work on ‘homework’ via in-class projects under the watchful eye of Prof. Miller. Individual and Group responses to these challenge projects will be turned in **once a week** and reviewed in preparation for the chapter quizzes and mid-term and final exams. It is important that you come to class every day fully prepared by having read the required chapters of the course textbook. You cannot receive credit for an in-class project if you are absent from class, unless you have an excused absence.

Weather Analysis and Forecast

At the end of the semester, your group will be responsible for giving a ten- to fifteen-minute weather briefing in which you discuss the current weather conditions (weather analysis) and create a weather forecast for a location in the United States. Prof. Miller will give examples of these discussions on Mondays throughout the semester. Details of the expectations and grading rubric for the weather briefing will be provided during the final month of the semester.

Exam I, II, and III

The mid-term exams (I, II, and III) will be primarily testing new material introduced since the previous exam or since the start of the semester.

Final Exam

The final exam is a *comprehensive* exam in which all the material contained in the entire course is testable.

Assignment/Quiz/Exam Policy

Reading assignments and lecture-listening are to be completed before the start of lecture on the date they are due. Quizzes and Exams are written tests and will be taken on the date they are scheduled, unless circumstances (e.g. medical or loss in the family) warrant. Make-up chapter quizzes for special circumstances will occur at a mutually agreed upon time outside of the usual class meeting time. The lowest chapter quiz score for each individual will be *dropped* from the total quiz score tabulation.

Instructor

Doug Miller
232-5158

[http://www.atms.unca.edu/dmiller/
dmiller@unca.edu](http://www.atms.unca.edu/dmiller/dmiller@unca.edu)

Textbook

“Essentials of Meteorology An Invitation to the Atmosphere” by C. Donald Ahrens (sixth edition; “up, up, and away in my beautiful balloon...”)

Preventing Sexual Harassment

Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education. Title IX covers discrimination in programs, admissions, activities, and student-to-student sexual harassment. UNC Asheville’s policy against sexual harassment extends not only to employees of the University but to students as well. If you encounter unlawful sexual harassment or gender based discrimination, please talk to any University Responsible Employee – which includes most faculty and staff -- who will report the incident; contact Dr. Jill Moffitt, UNC Asheville’s Title IX Administrator, at (828) 232-5658; or report anonymously at <https://police.unca.edu/anonymous-report>. For more information regarding Title IX and resources concerning sexual harassment and its prevention please visit <https://police.unca.edu/title-ix>

Understanding Academic Alerts

Faculty at UNCA are encouraged to use the university's Academic Alert system to communicate with students about their progress in courses. Academic Alerts can reflect that a student’s performance is satisfactory at the time the alert is submitted, or they can indicate concerns (e.g., academic difficulty, attendance problems, or other concerns). Professors use the alert system because they are invested in student success and want to

encourage open conversations about how students can improve their learning, and students who respond to alerts quickly are consistently more likely to earn credit for the course. *Please note, professors of 100-level courses are required to submit at least one alert about each student on or before the fifth week of classes.*

When a faculty member submits an alert that expresses a concern, the student receives an email from Academic Advising notifying them of the alert and subsequent registration hold on their account. To clear the hold, the student must complete a short Google Response Form included in the alert e-mail; the results will be shared with their instructor and advising staff. Instructors may also request to meet with the student to discuss the alert.

Questions about the Academic Alert system can be directed to Anne Marie Roberts (amrober1@unca.edu) in OneStop Advising and Learning Support.

Academic Integrity

As a community of scholars dedicated to learning and the pursuit of knowledge, UNC Asheville relies on the honesty and academic integrity of all the members of its community. Any act of plagiarism, cheating, or use of unauthorized materials or assistance is academic dishonesty. A person who knowingly assists another in academic dishonesty is likewise guilty of dishonesty. A student committing a first offense of dishonesty will receive a failing grade or a grade of zero for the assignment or test. A student committing a second offense of dishonesty will receive a failing grade in the course and be reported to the Senior Director of Student Success.

In all situations where a student has been disciplined for academic dishonesty, the instructor must submit a brief statement of the case to the Senior Director of Student Success with a copy to the student. The Senior Director maintains records of academic dishonesty incidents and notifies the instructor when a student is found to have multiple offenses. Depending upon the severity and/or repetition of the offense, the Senior Director and/or instructor may recommend that the Provost impose an additional penalty, such as cancellation of graduation with honors, cancellation of scholarships, or dismissal from the university. If the Provost decides that additional penalties are warranted, the student will be notified in writing.

If a student feels that he or she has been unjustly accused of academic dishonesty, the student has ten (10) class days from the date of the instructor's written notification to the student to respond in writing. This response is to be sent to both the instructor and the Senior Director of Student Success. The instructor should then meet with the student to discuss the charges within five (5) class days. If needed, the student may then contact the Senior Director for assistance in identifying options for possible resolution. If needed, the Faculty Conciliator will be contacted to mediate and/or convene the Academic Appeals Board.