Syllabus for ATMS 111 – Understanding the Atmosphere – Lab Section – Fall 2017

Date	Topic	Reading/Homework*
W 23 Aug 2017	Introduction/ Lab#1 – The Sun	Prep – Lab#1
M 28 Aug		Prep – Lab#1 exercises due
W 30 Aug	Lab#1 – The Sun	Field work - UNCA
T 5 Sep		Lab#1 write-up due
W 6 Sep	Lab#2 – Air Temperature	Prep – Lab#2
M 11 Sep		Prep – Lab#2 exercises due
W 13 Sep	Lab#2 – Air Temperature	Field work - UNCA
M 18 Sep		Lab#2 write-up due
W 20 Sep	Lab#3 – Humidity	Prep – Lab#3
M 25 Sep		Prep – Lab#3 exercises due
W 27 Sep	Lab#3 – Humidity	Field work - UNCA
M 2 Oct		Lab#3 write-up due
W 4 Oct	Laboratory Exam#1	
W 11 Oct	Lab#4 – Precipitation	Prep – Lab#4
M 16 Oct		Prep – Lab#4 exercises due
W 18 Oct	Lab#4 – Precipitation	Field work – Ski Cataloochee
M 23 Oct		Lab#4 write-up due
W 25 Oct	Lab#5 – Air Pressure	Prep – Lab#5
M 30 Oct		Prep – Lab#5 exercises due
W 1 Nov	Lab#5 – Air Pressure	Field work – Purchase Knob
M 6 Nov		Lab#5 write-up due
W 8 Nov	Lab#6 - Wind	Prep – Lab#6
M 13 Nov		Prep – Lab#6 exercises due
W 15 Nov	Lab#6 - Wind	Field work – Greer, SC (NWS)
M 20 Nov		Lab#6 write-up due
W 29 Nov	Laboratory Exam#2	

*assignment shall be completed before class meets on this date

Description

A laboratory course designed specifically for the non-ATMS major student who is interested in learning about aspects of the earth's atmosphere to a greater depth than can be gained in a lecture hall. A significant portion of the laboratory sessions will be spent outside observing weather elements and an appreciation of the challenges in making accurate measurements will be gained. ATMS 111 satisfies the LAC laboratory science requirement.

Outline

Laboratory#1 – The Sun
Laboratory#2 – Air Temperature
Laboratory#3 – Humidity
Laboratory#4 – Precipitation
Laboratory#5 – Air Pressure
Laboratory#6 – Wind

Grading

Attendance	14%
Preparatory Exercises	11%
Laboratory Exam I	20%
Laboratory Exam II	20%
Laboratory Reports	35%
Total	**100%**

$92\% < \text{total score} \leq 100\%$	A
$90\% < \text{total score} \leq 92\%$	A-
$88\% < \text{total score} \leq 90\%$	B+
$82\% < \text{total score} \leq 88\%$	B
$80\% < \text{total score} \leq 82\%$	B-
$78\% < \text{total score} \leq 80\%$	C+
$72\% < \text{total score} \leq 78\%$	C
$70\% < \text{total score} \leq 72\%$	C-
$68\% < \text{total score} \leq 70\%$	D+
$60\% < \text{total score} \leq 68\%$	D
$\text{total score} \leq 60\%$	F

Student Learning Outcomes

Each ATMS 111 student will

- gain accurate scientifically-based conceptual models of atmospheric structure and evolution on multiple spatial and temporal scales,
- develop an ability to communicate these conceptual models through writing,
- develop an ability to make a significant contribution to a team-based research effort, and
- develop problem-solving skills.

Attendance

Attendance for a laboratory class is critical since the number of meeting times in ATMS 111 is rather limited (once per week) during the semester. Students will be working in groups in ATMS 111 so that others in the class will be counting on you to make a solid contribution to their team research project. For this reason, attendance will be taken and will count toward a significant portion (14%) of the final course grade. One absence will result in the loss of half of the attendance score (7%) and two or more absences will result in an attendance score of **zero**. Exceptions will be made for university-sanctioned events (e.g., athletic events, undergraduate research-related trips) or a ***documented*** illness or family emergency. In the event of an acceptable absence, the student will submit a written plan to Prof. Miller describing how the missed work will be made up and the deadline for turning in the make-up work.

Preparatory Exercises

Bi-weekly preparatory exercise assignments will be completed by each individual in ATMS 111 and are designed to encourage the development or "re-awakening" of skills necessary for an upcoming laboratory exercise. Consulting with other students on the exercises is permissible but each must turn in their own work. Preparatory exercises are due the ***Monday*** after they have been assigned.

Laboratory Exam I and II

The mid-term laboratory exams I and II will primarily be testing material relevant to Laboratory Reports#1-3 and #4-6, respectively. Testable material will also include concepts presented on the corresponding preparatory exercises. There will be NO final examination in ATMS 111. Instead, the final exam period will be used as a debrief session to review course material from a "big picture" perspective.

Laboratory Reports

Scientists must provide documentation for each experiment that they undertake so that successive generations can build on their findings. In order to build on past findings, it is critical that the results be reproducible. This requires that scientific papers provide a detailed description of what was done in order to achieve the observed results. Each laboratory report in this course will follow an outline containing the sections; (1) Background and Introduction, (2) Methodology, (3) Results, (4) Conclusions, and (5) References. Laboratory reports must be type-written and double-spaced so that they can be easily read and graded. Recall that the purpose of these reports is "to learn how scientists communicate their findings with colleagues via the written word."

Assignment/Exam Policy

Assignments are to be handed in before the start of lecture on the date they are due. Assignments handed in after the start of lecture are considered late until 4:30 pm on the date they are due and will be have an automatic 10% deduction from their final score. Assignments handed in after 4:30 pm on the date they are due will receive no credit.

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 exams for special circumstances will occur at a mutually agreed upon time outside of the usual class meeting time.

Instructor

Doug Miller
232-5158
http://www.atms.unca.edu/dmiller/
dmiller@unca.edu

Textbook

Laboratory notebook – composition notebook is required (please **no** spiral notebooks)

Reference - "Essentials of Meteorology An Invitation to the Atmosphere" by C. Donald Ahrens (sixth edition)

Accommodating Students with Disabilities

UNC-Asheville values the diversity of our student body as a strength and a critical component of our dynamic community. Students with disabilities or temporary injuries/conditions may require accommodations due to barriers in the structure of facilities, course design, technology used for curricular purposes, or other campus resources. Students who experience a barrier to full access to this class should let the professor know and make an appointment to meet with the Office of Academic Accessibility as soon as possible. You can make an appointment by calling 828.232.5050; by emailing academicaccess@unca.edu; by clicking on https://uncaoaaintake.youcanbook.me/; or by dropping by the Academic Accessibility Office, room 005 in the One Stop suite (lower level of Ramsey Library). You can access further information here: https://oaa.unca.edu/

Students who receive Letters of Accommodation are strongly encouraged to request, obtain, and present these to their professors as early in the semester as possible so that accommodations can be made in a timely manner. It is the student's responsibility to follow this process each semester.

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 Integity

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.