Syllabus for ATMS 111 – Introduction to Meteorology – Lab Section – Fall 2024

Date	Topic	Reading/Homework*
M 19 Aug 2024	Introduction/ Lab#1 – The Sun	Prep – Lab#1
M 26 Aug		Prep – Lab#1 exercises due, Field work - UNCA
M 2 Sep	*Labor Day*	*No classes*
T 3 Sep		Lab#1 write-up due
M 9 Sep	Lab#2 – Air Temperature	Prep – Lab#2
M 16 Sep		Prep – Lab#2 exercises due, Field work - UNCA
M 23 Sep	Lab#3 – Humidity	Lab#2 write-up due, Prep – Lab#3
M 30 Sep	*Tropical Storm Helene*	*Tropical Storm Helene*
M 14 Oct	"	"
M 21 Oct	"	",
M 28 Oct		Prep – Lab#3 exercises due, Pretend humidity field work
M 4 Nov	Lab#5 – Air Pressure	Lab#3 write-up due, Prep – Lab#5
M 11 Nov		Prep – Lab#5 exercises due, Pretend air pressure field work
W 13 Nov	Laboratory Exam#1	
M 18 Nov	Lab#6 - Wind	Lab#5 write-up due, Prep – Lab#6
M 25 Nov		Prep – Lab#6 exercises due, Pretend wind field work
M 2 Dec		Lab#6 write-up due
final exams week	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% < 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

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 #5-6, 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 for taking the second mid-term laboratory exam.

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 typewritten (double-spaced) and printed by each student 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 and Robert Henson (eighth edition)

(continued)

Office of Accessibility & Academic Accommodations
UNC Asheville is committed to providing an inclusive experience, accessible learning environments and equal opportunity to individuals with disabilities in accordance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act.

If you are a student experiencing barriers to access or full participation in this course on the basis of a disability, contact the Office of Accessibility to apply for reasonable accommodations and discuss available resources. You may contact the Office of Accessibility at academicaccess@unca.edu or 828-251-6292.

Students are responsible for discussing their Letter of Accommodations (LOA) with their faculty. Students and faculty are encouraged to discuss the LOA as early in the semester as possible to allow for extended access to accommodations. However, students may disclose a disability at any point in the semester. Accommodations are not retroactive and are activated when the LOA is discussed.

Sexual Harassment and Misconduct
UNC Asheville is dedicated to cultivating and maintaining a safe, respectful, and inclusive environment, free from harassment and discrimination. We strive to ensure that all have equal access to the educational and employment opportunities the University provides. If you or someone you know has been affected by sexual or gender-based harassment, including sexual assault, dating or domestic violence, or stalking, please know that help and support are available. UNC Asheville strongly encourages all members of the community to take action, seek support, and report incidents of sexual harassment to the Title IX Office. You may contact the Title IX Office or Heather Lindkvist, the Title IX Coordinator, directly at 828.232.5658 or at titleix@unca.edu or learn more by visiting titleix.unca.edu. .

As a faculty member, I am a "responsible employee" and private resource. This means that if you share any information or discuss an incident with me regarding sexual or gender-based harassment, I must disclose this information to the Title IX Coordinator. Our goal is to ensure you are aware of the range of options available to you and have access to the resources you may need.

If you wish to speak with a confidential resource, contact University Health and Counseling Services at 828.251.6520. Off-campus confidential resources include Our Voice (24-Hour Hotline at 828.255.7576) and Helpmate (24-Hour Hotline at 828.254.0516).

Academic Alerts
Faculty at UNC Asheville have access to an Academic Alert system. The purpose of this system is to communicate with students about their progress in courses. Alerts can indicate concerns (e.g., academic difficulty, attendance problems) or reflect on the good work you're doing. Professors use the Alert system because they are invested in student success and want to encourage open conversations about how students can improve their performance. When a faculty member submits an alert that expresses a concern, the student receives an email from Academic Advising notifying them of the alert. If a student receives three or more alerts, they will need to meet with a Student Success Specialist in the Academic Success Center. The instructor may also request to meet with the student to discuss the alert. It is in the student's best interest to address the alert quickly, as students who do so are more likely to earn credit for the course. Questions about the Academic Alert system can be directed to Anne Marie Roberts

(amrober1@unca.edu) in the Academic Success Center.

University Writing Center
The University Writing Center (UWC) supports writers in one-on-one sessions lasting 10 to 45 minutes. Consultants can help writers organize ideas, document sources, and revise prose. If you visit the UWC, bring a copy of your assignment, any writing or notes you may have, and the sources you are working with. Make an appointment by visiting writingcenter.unca.edu and clicking on "Schedule an Appointment," or drop in during open hours Monday-Friday.

Academic Honesty
The university's policy on academic honesty states that "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 or cheating is academic dishonesty. A person who knowingly assists another in cheating is likewise guilty of cheating. According to the instructor's view of the gravity of the offense, a student may be punished by a failing grade or a grade of zero for the assignment or test, or a failing grade in the course. If it seems warranted, the instructor may also recommend to the Provost dismissal or other serious university sanction." I expect that you will exercise integrity in all quizzes, exams, and written assignments. Please email me or pop in during student hours if you have additional questions or need clarification on any point.