

FOUNDATIONS OF ATMOSPHERIC SCIENCE I

ATMS 203.002

FALL 2021

This is the first course in a two-course sequence designed for atmospheric sciences majors that introduces basic meteorological, mathematical, and computational concepts, skills, and tools that are critical for advanced study in the atmospheric sciences. Once you complete the two-part series, you will have an excellent foundation for success in your meteorological studies. Ask lots of questions and enjoy!



PROFESSOR

Dr. Christopher Godfrey

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Office hours: Via virtual meetings through Google Meet on **Mondays 2:00–3:00 p.m.** and **Thursdays 11:00–12:00**, or by appointment. You may call my office (it bounces to my cell phone) during regular business hours. You may send me as many email messages as you wish. Check Moodle for the Google Meet link.

CLASS INFORMATION

Meeting times: W 12:30–3:00 p.m.

Location: Robinson Hall, room 209 and occasionally via Zoom

Required text: None.

Website: <http://www.atms.unca.edu/cgodfrey/courses/atms203/>

» Please visit <http://www.atms.unca.edu/slos.shtml> for a list of the student learning outcomes for the Department of Atmospheric Sciences.

COURSE SCHEDULE

Given the current state of the COVID-19 pandemic, I have opted to offer this course using the “occasional hybrid” mode to reduce our in-person interactions as much as possible, while still following the rules dictated by the UNC system. This mode requires that 75% of the course remain presented in-person, with remote classes offered synchronously, and no more than two consecutive classes offered remotely. **Please carefully note the online classes in red in the schedule below.** With the exception of examination dates, this course schedule is approximate and subject to modifications.

Date	Week	Topic	Lab Exercise Due Date
*18 August 2021	1	Geography and the National Weather Service	25 August 2021
*25 August 2021	2	Linux Fundamentals	1 September 2021
1 September 2021	3	Plots and Basic Statistics with Microsoft Excel	8 September 2021
*8 September 2021	4	ArcMap and Map Projections	15 September 2021
15 September 2021	5	Meteorological Codes	22 September 2021
22 September 2021	6	Surface Station Models	29 September 2021
29 September 2021	7	Surface Map Analysis	6 October 2021
6 October 2021	8	Upper-Air Analysis	13 October 2021
13 October 2021	9	Wind Components	20 October 2021
20 October 2021	10	Skew T -log p Diagrams	27 October 2021
27 October 2021	11	Sounding Parameters	3 November 2021
3 November 2021	12	Scientific Data Visualization	10 November 2021
10 November 2021	13	Moisture Variables	17 November 2021
17 November 2021	14	Comprehensive Review	6 December 2021

*Dates marked in red and with an asterisk will be held *only* online via Zoom.

GETTING QUESTIONS ANSWERED

I will be available on Google Meet during scheduled office hours. Just drop in. If at any other time you have a question, you are more than welcome to call me or send me an email. E-mail is by far the best way to reach me and you will usually get a speedy reply. You may also schedule an appointment with me for a virtual meeting. Please don't hesitate to ask questions about class, other coursework, or the stresses of college life whenever the need arises.

EVALUATION

Your progress is evaluated based solely on the grades for each of the lab exercises. There are no exams or quizzes. **Lab assignments are due via Moodle at 12:00 p.m.** on the date listed in the syllabus. The *only* exceptions to this rule are: (1) serious medical condition (illness or injury) of you or an immediate family member; (2) University excused absence; (3) jury duty; or (4) military orders. Only in such instances will a grade penalty be waived for a late assignment. I will accept completed lab assignments up to 24 hours late (12:00 p.m. the following day) for a 50% late penalty. *Assignments more than 24 hours late will not be graded.* In the event of an unforeseen circumstance that causes you to miss a due date, *you must notify me by phone or e-mail within 24 hours of the event.* Appropriate documentation should be attached to a late assignment. Please review the guidelines for submitting homework, available on Moodle, prior to submitting your first assignment.

GRADING

The grades that you earn on each of the 14 individual lab exercises will each contribute equally to your final grade. I reserve the option to curve the final grades upward at my discretion. However, you are guaranteed *at least* the following based on your final score before applying any curve:

A	≥92.0%	C	72.0–77.9%
A-	90.0–91.9%	C-	70.0–71.9%
B+	88.0–89.9%	D+	68.0–69.9%
B	82.0–87.9%	D	60.0–67.9%
B-	80.0–81.9%	F	<60.0
C+	78.0–79.9%		

Final grades are not negotiable. If you see a problem with a grade, you may plead your case no later than 14 days from the date I return the assignment to the class. I do make mistakes. Under no circumstances will your grade be *lower* if you see me with a question.

ACADEMIC INTEGRITY

Since the point of this or any class is to learn, you may collaborate on lab assignments, but *you absolutely must make sure that you hand in your own work and that you understand the material.* Copying your friend's answers will not only be obvious to me, but will result in both of you sharing the credit for that answer. For example, if you do a fantastic job on the lab assignment and then let three of your friends copy *any part of it*, you will each receive a maximum grade of 25% for the assignment. I have zero tolerance for academic misconduct and will deal with the problem by immediately filing charges through the regular University channels.

COMPUTERS IN THE CLASSROOM

We will make extensive use of the computers in the classroom. I ask that you please refrain from using the computers for anything other than academic purposes related to the class. This means that Facebook, email, sports scores, and even weather updates must wait until after class. Inappropriate and distracting mouse clicks will earn you an invitation to leave the room. With the exception of laptops that are used specifically for class, all personal electronics, including cell phones, must be silenced and stowed at all times.

NOTES

University of North Carolina at Asheville is committed to making courses, programs and activities accessible to persons with documented disabilities. Students requesting accommodations and/or academic adjustments must do so through the Office of Academic Accessibility and may be required to provide supporting documentation. All information provided will remain confidential. For more information, please contact the Office of Academic Accessibility at (828) 232-5050 or academicaccess@unca.edu or visit them in the Academic Success Center.

COVID-19 ADDENDUM

Following university guidelines, **masks are required** at all times during the course of the semester, regardless of vaccination status. This includes before, during, and after class both inside the classroom and in the hallway. As such, **eating and drinking are not permitted** in the classroom. If you remove your mask, you will be asked to leave. **I have unvaccinated children at home.** While I will always happily entertain your questions from a distance during class and during virtual office hours, please **do not physically approach me** with questions before or after class. I ask for your patience and flexibility as we all navigate a global pandemic.