OXFORD COLLEGE

Geosciences 115 - Meteorology and Climatology

Fall 2006

Goals for the course: Geosciences 115 (Meteorology and Climatology) has been designed for either the environmental studies major or for a student who wants an interesting laboratory science course as part of their liberal arts education. As such, no prior background is assumed or necessary; just a desire to learn and an interest in the natural world. Meteorology and Climatology will give students an understanding of scientific investigation as it relates to our atmosphere. The students' observational skills will be considerably improved through the analysis of weather phenomena. Basic mathematical skills will be mastered through calculations of weather and climate parameters in the laboratory. Students will also gain an appreciation of the processes that create weather and how biomes relate to climates. These are concepts that they will be able to use outside of the classroom and in their daily lives.

Course Announcements

Instructor: Dr. Stephen W. Henderson

Office: 106 Pierce Hall

Office Phone: (770) 784-8345

Office Hours: Monday and Wednesday 1:00-2:00, Tuesday 9:30-12:00 and other times by appointment or walk-in's. I'm usually in my office and available.

Text: Lutgens and Tarbuck, 2006, The Atmosphere, 10th edition

Lab Manual: Paul, 1996, Exercises in Meteorology, 2nd edition

Organization: The class will meet for lecture 3 times each week: Monday, Wednesday, and Friday at 9:35. The laboratory section meets from 2:00 – 5:00 on Wednesday.

Attendance: All students are expected to attend all scheduled lecture and laboratory sessions. Attendance will be taken. No unexcused cuts are allowed in lab. Lab quizzes cannot be made up without a valid excuse. Students who have an absence in lab will have their final grade reduced 3 points per absence. A student who has four or fewer lecture cuts for the entire semester will receive the addition of two points to the final course average. There are no excused absences. Students having six or more lecture absences will have their final course grade reduced one point per absence starting with the sixth absence.

Being late to class is rude and distracting. Therefore, three tardies will be considered equal to one absence. If you come in more than 15 minutes tardy, you will be counted absent. If you come in late, it is your responsibility to see me immediately after class to ensure that you are marked tardy and not absent. No adjustments will be made at a later time. If you are continuously tardy, you may be excluded from further classroom attendance. When you are in class, you must be attentive and not disturb others. Leaving a class early, counts as an absence as does sleeping through a class or being generally inattentive.

Class Etiquette: In class, you should be concentrating on learning. Anything that distracts from this is contrary to the educational process. Therefore, cell phones are to be turned off and can not be used in class or lab (including as calculators). Bring a calculator to lab. For the same reason, food and drink are not allowed in class.

APPLICATION OF HONOR CODE TO GEOSCIENCES 115:

The Honor Code of Oxford College applies to Geology 141. All quizzes, tests, and exams will be done individually with no non-sanctioned additional materials or help. The laboratory exercises can be done with other students and with the instructor's help. If you are unsure whether or not an action may result in an honor code violation, ask the instructor first. The Honor Code at Oxford College is quite serious.

Grading System: Geosciences 115 will use the plus-minus grading system. The distribution of grades is as follows:

A	93-100	C+	77-79
A-	90-92	C	73-76
B+	87-89	C-	70-72
B	83-86	D+	67-69
B-	80-82	D	60-66
		F	59 and below

Evaluation: Lecture work will comprise 50% of your final average, lab will comprise 45% and class participation in the entire class is 5%. It is broken down as follows:

Highest two half-tests	20%
(Lowest half-test grade is dropped)	
Lecture half-test #1 on 9/15	
Lecture half-test #2 on 10/6	
Lecture half-test #3 on 11/17	
Lecture Test on 10/23	15%
Final Exam on 12/14 @ 9:00 a.m.	15%
Weekly Lab Quizzes (best 6 of 8)	15%
Lab Exam #1 on 10/18 in lab	15%

Lab Exam #2 on 11/29 in lab	15%
Class Participation	5%

Tentative Lecture Schedule and Reading Assignments:

Day	Topic for the Week	Text Assignment for the Week
W 8/30	Introduction to the Atmosphere	Chapter 1
F 9/1		
W 9/6		
F 9/8		
M 9/11	Heat and Temperature	Chapters 2 & 3
W 9/13		
F 9/15	Lecture half-Test #1	
M 9/18		
W 9/20	Atmospheric Optics	Chapter 16
F 9/22		
M 9/25	Moisture and Atmospheric Stability	Chapter 4
W 9/27		
F 9/29		
M 10/2	Condensation and Precipitation	Chapter 5
W 10/4		
F 10/6	Lecture half-test #2	
W 10/11	Air Pressure and Winds	Chapter 6
F 10/13		
M 10/16	Atmospheric Circulation	Chapter 7
W 10/18		
F 10/20		
M 10/23	Lecture Test	
W 10/25	No Class	
F 10/27	Air Masses	Chapter 8
M 10/30		
W 11/1	Weather Patterns	Chapter 9
F 11/3		

M 11/6	Thunderstorms and Tornadoes	Chapter 10
W 11/8		
F 11/10		
M 11/13	Hurricanes	Chapter 11
W 11/15		
F 11/17	Lecture half-test #3	
M 11/20	Changing Climate	Chapter 14
M 11/27		
W 11/29		
F 12/1	Global Climate	Chapter 15
M 12/4		
W 12/6		
F 12/8		
M 12/11		

Laboratory Schedule for Geosciences 115:

Meeting	Weds.	Ex. #	Title of Exercise	Quiz at End of Lab?
1	9/6	1	Introduction & Isopleths	Yes
2	9/13	3	Earth-Sun Relationships	Yes
3	9/20	5	Temperature	Yes
4	9/27	6	Air Pressure	Yes
5	10/4	8	Moisture	Yes
6	10/11	11	The Weather Map	Yes
7	10/18		LAB TEST #1	
8	11/1	12	Weather Analysis	Yes
9	11/8		Weather of Oxford, GA	Discussion
10	11/15	13	Climate	Yes
11	11/29		LAB TEST #2	