

UNIVERSITY OF MASSACHUSETTS LOWELL
ENVIRONMENTAL, EARTH, AND ATMOSPHERIC SCIENCES

85.141.201 Weather and Climate

Fall 2007

Dr L.F. McNamara

Week	Date	Topic	Chapter	Homework
1	Sept. 05 07	The Earth's Atmosphere The Earth's Atmosphere	1 1	#1 Due Sep 10 1.2, 1.4, 1.8
2	10 12 14	The Seasons Heat and Temperature Radiation	2 2 2	#2 Due Sep 17 2.1, 2.2, 2.7, 2.8, 2R9
3	17 19 21 Q1	Heat Budget Temperature Variations Thermometers	2 3 3	#3 Due Sep 24 3.1, 3.3, 3.5, 3.7, 3R4
4	24 26 28	Adiabatic Air Parcels Atmospheric Stability Cloud and Fog	4 4 5	#4 Due Oct 1 4.1, 4.3, 4.4, 4R6
5	Oct 01 03 05	Test #1 Precipitation Precipitation Measurement	1 - 4 5 5	#5 Due Oct 10 5.1, 5.2, 5.6, 5R8, 5R10
6	08 10 12	<i>Columbus Day</i> Pressure and Winds Horizontal Flow	 6 6	#6 Due Oct 15 6.1, 6.2, 6R12
7	15 17 19 Q2	Vertical Flow Local Winds Global Circulation	6 7 7	#7 Due Oct 22 7R6, 7R8, 7R12
8	22 24 26	Global Precipitation Air Masses Test #2	7 8 5 - 8	#8 Due Oct 29 8.11, 8R15
9	29 31 Nov 02	Weather Fronts Cyclones Cyclogenesis	9 9 9	#9 Due Nov 5 9R2, 9R11
10	05 07 09 Q3	Thunderstorms Tornadoes Hurricanes	10 10 11	#10 Nov 14 10R5, 10R7, 10R15
11	14 15 16	Hurricanes Weather Analysis (W date) Weather Forecast	11 12 12	#11 Nov 19 12.1a, 12.1b, 12.1c, 12R14
12	19 21 23	Test #3 Air Pollution <i>Thanksgiving</i>	8 - 12 13	#12 Nov 26 13R3, 13R8, 13R13
13	26 28 30 Q4	Air Pollution Climate Changes Greenhouse Warming	13 14 14	#13 Due Dec 3 14R1, 14R7, 14R10, 14R13
14	Dec 03 05 07	Optical Phenomena Climate Controls Climate Controls	16 15 15	
15	10,12	Review		
	15-21	Final Exam		

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Web Site <http://ulcar.uml.edu/eeas/85.141/>

e-mail leo.mcnamara@comcast.net

COURSE POLICY

This course gives an introduction to the solar-terrestrial relations and physics of the earth's atmosphere, explaining the fundamentals of weather and climate. The textbook for the course is *The Atmosphere* by Lutgens and Tarbuck, 10th Edition, Prentice Hall.

Attendance

- Attendance is mandatory.
- Class rolls are taken on random days.

Homework

- The homework problems must be handed in on the Monday after the week for which they are set. [Note: R = Review]
- All required information is in the text book.
- Untidy homework will be returned un-graded, and cannot be re-submitted.
- Homework will not be accepted late, for any reason.

Quizzes

- A 15-minute quiz will be given on some Fridays. See **Q** in the schedule.
- All material presented after the previous Test is eligible material for a quiz.
- Quizzes cannot be made up.

Tests

- Three 50-minute tests will be held (during a scheduled class).
- Under extenuating circumstances, tests may be taken in the hour prior to the next scheduled class. This is the LAST chance.

Final Exam

- The Final is comprehensive.

Course Grade

The course grade will be based on the following:

Quizzes:	10%
Attendance	5%
Homework	10%
Tests:	55%
Final:	20%

No extra credit will be given. To achieve a high grade, you must do well *throughout the semester*.

Office hours:

08:30-0920 on M, W, F in OH 402-b