

METR 2603 – Severe and Unusual Weather COURSE SYLLABUS Spring 2008

School of Meteorology, University of Oklahoma

Rev. 2/3/08

Instructor: Mr. Kenny L. Tapp
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NWC
Office Hours (SEC): By Appointment
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Class Meeting Times: TR 6:00-7:15 pm Carson Eng. 117
Course Website: www.severestorms.info

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Content: Severe and Unusual Weather is a non-majors course that serves as a General Education Core II Natural Science Elective (non-lab). It is designed to provide students with an in-depth look at the physical and societal aspects of severe and unusual weather. Specific topics to be covered include thunderstorms, squall lines, supercells, hail, lightning, tornadoes, microbursts, tropical storms and hurricanes, observation systems, remote sensing tools, severe weather climatology and forecasting, floods, ice storms, and lake-effect snow storms.

Required Textbook: “Severe and Hazardous Weather” (2nd Edition)
Rauber, Walsh and Charlevoix. Kendall/Hunt Publishing.

Suggested Text(s): “Fieldguide to North American Weather”
David Ludlum. National Audubon Society.

Student Evaluation:	2 Hourly Exams	40%
	Final Exam	12%
	3 Homework Assignments	28%
	1 Essays/Research Paper	10%
	Participation Quizzes	10%
	Field Trip(s)	+5%

Grading Scale:

100 – 90%	A
89 – 80%	B
79 – 70%	C
69 – 60%	D
< 59	F

**Syllabus subject to change and revision.

Exam Format: Exams must be taken on the scheduled date. The final exam is not optional and is required. No make-up exams or quizzes will be given. The only exceptions to missing more than one exam or quiz without significantly impacting your grade will be: (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. Appropriate documentation must accompany any excused absence from an exam or quiz.

Attendance: You are expected to attend every lecture, although attendance will not be taken, it will factor into your class participation grade. The material learned in one class is connected to other material learned in the class on other days, so it is to your advantage to attend every lecture. Random participation quizzes will be given to monitor attendance.

Homework: You are expected to submit assignments in-class. Electronic submissions will NOT be accepted, unless due to extreme circumstances that are approved by the Instructor.



Course Website: This course has a web page located at www.severestorms.info where lectures will be made available for online viewing. Other course resources (handouts, research articles, quizzes, etc.) and grades will be posted on <https://learn.ou.edu>.

University Accommodation:

"The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the professor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173."

Academic Integrity:

From the Provost's page on academic integrity, <http://www.ou.edu/provost/integrity/>:

The "Academic Misconduct Code" describes in detail a student's rights and responsibilities as a member of the OU academic community. The Code defines academic misconduct simply as any act which improperly affects the evaluation of a student's academic performance or achievement. Just as professionals are expected to know the rules of their profession, students have to know what counts as misconduct. Claiming ignorance of the rules is not a defense. So when in doubt, ask your professor!

Here is an example that counts as misconduct under the Academic Misconduct Code:

IMPROPER COLLABORATION. Collaboration means working together. Unless the instructor specifies otherwise, it is assumed that all work submitted for a grade will be the product of the student's own understanding. When a student's work is identical or very similar to someone else's at points where individual variations in expression would be expected, it is reasonable to conclude that academic misconduct has occurred.

DATE	METR2063		
	Lecture	Topic	
T Jan 15	-	Introduction	
R Jan 17	1	Intro to the Atmosphere	
T Jan 22	2	Atmospheric Measurements	
R Jan 24	-	<i>Guest Lecture: Weather Briefing</i>	
T Jan 29	3	Weather Radar Observations	
R Jan 31	4	Atmospheric Stability & Forces	
T Feb 5	5	Upper Air Sounding Analysis	
R Feb 7	6	Development of Pressure Systems	
T Feb 12	7	Air Masses & Fronts	
R Feb 14	8	Mid-latitude Cyclones	HWK 1 Due
T Feb 19	-	EXAM 1	
R Feb 21	9	Precipitation Processes	
T Feb 26	10	Freezing Precipitation, Lake Effect Snowfall	
R Feb 28	11	Heavy Rainfall & Flash Flooding	
T Mar 4	12	Mountain Weather Processes	
R Mar 6	13	Tropical Cyclones - Climatology & Structure	HWK 2 Due
T Mar 11	14	Tropical Cyclones - Development	
R Mar 13	-	EXAM 2	
T Mar 18	-	<i>No Class --- Spring Break</i>	
R Mar 20	-	<i>No Class --- Spring Break</i>	
T Mar 25	15	Severe Local Storms	
R Mar 27	16	Thunderstorms - Single and Multicell	
T Apr 1	17	Thunderstorms - Squall lines & Bow Echoes	
R Apr 3	18	Thunderstorms - Downbursts & Microbursts	
T Apr 8	19	Thunderstorms - Lightning	HWK 3 Due
R Apr 10	20	Thunderstorms - Hail	
T Apr 15	21	Supercell Thunderstorm - Initiation & Development	
R Apr 17	22	Supercell Thunderstorm - Tornadogenesis	
T Apr 22	23	Severe Storm Case Study	
R Apr 24	24	Numerical Weather Prediction	ESSAY Due
T Apr 29	25	Review	
R May 1	-	FINAL EXAM	