



## COURSE WORK

**Lab Assignments:** Lab assignments, generally consisting of one or more map analyses (isoplething), associated questions, and computer-aided analyses, will be assigned approximately weekly throughout the semester. These assignments are designed to allow you to practice and improve your weather map analysis skills while also stressing the important linkage between the topics covered in class and the actual weather. You are expected to complete all lab assignments on time; assignments turned in late will be penalized 20% for each day they are late (not including weekends). You may work together on your lab assignments, but *verbatim copying will NOT be tolerated under any circumstances*. The lab session on Fridays will be dedicated to reviewing and beginning new lab assignments. Note that this one-hour time period will not be sufficient for most of you to complete a lab assignment. Lab assignments are typically assigned during a Friday lab session, and are typically due at the beginning of the following week's lab session. Not completing your lab assignments on a regular basis is the most efficient way to risk failing this class.

**Exams:** There will be two evening midterm exams during the semester and a final exam held during the designated final exam period. The focus of any exam will be on the material covered since the previous exam, but occasional questions on important material from earlier in the semester can also be expected, especially on the final. **You are required to take exams during the scheduled time. Exams cannot be made up except in extremely unusual circumstances and absolutely must be cleared with me in advance.**

**Exam Dates:** Monday, September 22, 6:30pm – 8:30pm  
Thursday, October 30, 6:30pm – 8:30pm  
Friday, December 12, 1:30 – 4:30pm

**Grading:** Your grade will be calculated as follows:

15% Mid-Term Exam I	A+	> 97%	C	72 - 77%
15% Mid-Term Exam II	A	92 - 97%	C-	70 - 71%
20% Final Exam	A-	90 - 91%	D+	68 - 69%
45% Lab Assignments	B+	88 - 89%	D	62 - 67%
5% Class Attendance and Participation	B	82 - 87%	D-	60 - 61%
	B-	80 - 81%	F	< 60%
	C+	78 - 79%		

If you regularly attend class, complete your lab assignments, and prepare for your exams, you should not be in danger of failing this class. Regularly missing class will adversely impact your class participation grade as well as your knowledge of the material.

## **COURSE POLICIES**

**Weather Discussion:** Each class (except for exam days) will begin with a 15-20 minute discussion of the current weather, both in the local area and around the nation. These discussions will serve as a tool to familiarize yourself with many of the weather maps and other concepts you will be introduced to during the course. As students of meteorology, *you should look at the weather on your own every day!*

**Extra Credit:** If you sign up for the WxChallenge, the nationwide collegiate weather forecasting contest, 1/2 a percentage point will be added to your final grade. Additionally, for each forecast city for which you forecast on 6 or more of the 8 possible days, 1/2 a percentage point will be added to your final grade. If you fail to forecast for at least 6 days for a city, you will receive no reward for that city. There are 5 forecast cities for the fall semester (you forecast for each city over a two week period with four forecasts entered per week, Monday-Thursday), so the maximum total extra credit reward for the WxChallenge is 3 percentage points. Forecasts consist of high and low temperatures, maximum sustained wind (NOT gust) speed, and total precipitation to the nearest hundredth of an inch for the following day (06Z – 06Z). The accuracy of your forecasts will not affect your grade in any way. Extra credit is offered for participation in WxChallenge because it is a fun way to encourage you to look at the weather every day.

I will provide more information about the contest to everyone in the department during the coming weeks. The contest begins on Monday, September 29 and the registration deadline is Friday, September 26.

**Email:** I will strive to answer all emails in a timely matter. Occasionally, this will not be possible, especially if I am traveling. Email should be reserved for quick questions, especially after hours. If you have a more significant question or other problem, do not hesitate to stop by my or office during office hours or to make an appointment. Please include "ATMS-303" in the subject line when emailing Nathan or me.

**Respect:** You will treat other students and the instructor with respect and will ensure that the classroom is a good learning environment free from disruptions such as extraneous conversation and *the ringing of cell phones*. Please come to class on time. If you must come to class late or leave early, please do so without disrupting the class. Each class will start and end on time. Please also refrain from using the lab computers for extraneous activities (e.g., Facebook) during class time.

**Academic Integrity:** You are permitted work together on lab assignments, but the final product must be your own; students turning in assignments that are blatantly copied will receive no credit. You are expected to complete your exams independently. Failure to do so will result in strict disciplinary action. Please see [http://www.uiuc.edu/admin\\_manual/code/rule\\_33.html](http://www.uiuc.edu/admin_manual/code/rule_33.html) for more information.

**Special Needs:** To insure that disability-related concerns are properly addressed from the beginning of the course, students with disabilities who require reasonable accommodations to participate in this class are asked to see the instructor as soon as possible in accordance with university policy. For more information, please visit [http://www.uiuc.edu/admin\\_manual/code/rule\\_4.html](http://www.uiuc.edu/admin_manual/code/rule_4.html)

**Tentative Course Schedule:**

Date		Topic	Reading
Tu	08-26	Surface Weather Observations: The Station Model	
Th	08-28	Surface Weather Observations: METAR Code	
Tu	09-02	Surface Weather Maps: Isoplething	12.0, 12.1
Th	09-04	Surface Weather Maps: Air Masses, Fronts and Analysis	12.2
Tu	09-09	Upper-Air Weather Observations: Skew T-log p Diagrams	
Th	09-11	Upper-Air Weather Observations: Sounding Analysis	
Tu	09-16	Upper-Air Weather Maps	12.3-12.4
Th	09-18	Satellites and Cloud Identification	
<b>M</b>	<b>09-22</b>	<b>EVENING MIDTERM EXAM I – 6:30pm</b>	
Tu	09-23	(Almost) Everything a Weather Enthusiast Should Know about Mathematics	1.0-1.2
Th	09-25	Forces and the Geostrophic Wind	1.3
Tu	09-30	Friction and Surface Flow	1.4.3; 1.6
Th	10-02	Height and Thickness	1.4.0
Tu	10-07	The Thermal Wind and Hodographs	1.4.1-1.4.2
Th	10-09	Convergence, Divergence, and Vertical Motion	
Tu	10-14	Curved Flow Aloft; The Ageostrophic Wind	
Th	10-16	Introduction to Vorticity	1.5.0-1.5.1
Tu	10-21	Vorticity	1.5.2-1.5.3
Th	10-23	Jet Streaks	
Tu	10-28	Temperature and Thickness Tendency	
Th	10-30	Quasi-Geostrophic Theory (not on second exam)	2.0-2.2
<b>Th</b>	<b>10-30</b>	<b>EVENING MIDTERM EXAM II – 6:30pm</b>	
Tu	11-04	<b>NO CLASS – SEVERE STORMS CONFERENCE</b>	
Th	11-06		
Tu	11-11	Quasi-Geostrophic Omega	2.3: p 41-48
Tu	11-11	Quasi-Geostrophic Pressure and Height Tendency ( <i>evening</i> )	2.4
Th	11-13	The Motion of Highs and Lows; The Isallobaric Wind	
Tu	11-18	Diabatic Heating and Cooling	2.5
Th	11-20	Topography	
Tu	11-25	<b>NO CLASS – HAPPY THANKSGIVING</b>	
Th	11-27		
Tu	12-02	Cyclogenesis I	Chapter 5
Th	12-04	Cyclogenesis II	Chapter 5
Tu	12-09	Cyclogenesis III	Chapter 5
Tu	12-17	<b>FINAL EXAM, 1:30 - 4:30pm</b>	