

# Meteorology, GEOG 377/517

Spring 2009

**Section:** 01, 3 credits  
**Lecture:** T,R 9:30-10:45 AM, LI307

**Instructor:** Beth Hall  
**Office:** Linthicum 020C  
**Phone:** 410-704-3192  
**E-mail:** [Beth.Hall@towson.edu](mailto:Beth.Hall@towson.edu)  
**Office Hrs:** MF: 10:00-11:00; T: 2:15-3:15

## Required Texts:

1. Ahrens, C. D., 2008: *Meteorology Today: An Introduction to Weather, Climate, and the Environment*, Ninth Ed., Thomson Publishing.
2. Workbook and Study Guide for *Meteorology Today*, Ninth Ed.

**You must register this course on Blackboard  
in order to receive a grade for this course!!!!  
[bbweb.towson.edu](http://bbweb.towson.edu)**

## Course Description and Objectives:

**General Catalog Description:** Examines the composition and structure of the atmosphere, thermodynamic processes, forces and related small-and large-scale motions, air masses, fronts, tropical cyclones, solar and terrestrial radiation, general circulation and weather forecasting. 3 cr.

## Specific Course Objectives:

*Meteorology* is the study of the atmosphere for short-term meteorological explanations. It also concerns representing the spatial relationships of the atmosphere with the surface of the earth and how the sun is the driving force for nearly all weather phenomena. Students will be able to analyze weather maps for the location and movement of atmospheric phenomena and be able to explain the process causing the weather.

## Methods of Instruction:

Knowledge of the subject matter will be acquired through a combination of lecture, collaborative work, audiovisuals, and demonstrations

Articles used for the students enrolled in the graduate section of this course will be research journal articles in the *Bulletin of the American Meteorological Society*, *Weather and Climate*, *Journal of Atmospheric Science*, and *Journal of Meteorology and Forecasting*.

## **Grading and Assignments:**

### **Exams:**

There will be four exams worth 100 points given throughout the semester. These exams will be mostly objective questions with an additional 4 short answer essays. No make-up exams are given during the semester. If an exam is missed due to illness, family problems, sporting events (either participant or spectator), work obligations or other problems *of any nature*, it can be made up by taking the optional comprehensive Final Exam at the end of the semester. The final exam can account for only one missed exam. Any additional missed exams are scored as zero. The final exam is cumulative consisting of questions given in previous tests and quizzes.

### **Corrected Exams:**

Each exam will require that a corrected version of the objective questions from that exam be turned in for a total possible 35 points. These corrected exams are NOT optional – they are separate assignments that go towards the overall course grade. Assignments are due one week from when the exams were returned to the class. They are to be turned in prior to lecture beginning. Late assignments are given a 10% deduction and are only allowed for one additional week after the original deadline. It is the student's responsibility to hold onto all assignments in case there is a discrepancy between Gradebook and what they received.

### **In-Class Activities:**

*In class active learning exercises are a regular component to this course. Everyone is expected to participate in these. There will be 3 unannounced collections of these exercises. Each exercise will count for 20 points and the lowest score will be dropped.*

### **Quizzes:**

After the lecture of each planned chapter, there will be a quiz given pertaining to the material covered. Each quiz is worth 10 points each. The two worst scores will be dropped. No make-up quizzes are offered.

### **Forecasting Study:**

An additional handout will be provided for this project. Students will be divided into small groups and a US city will be chosen. Students will record forecasts out to 3 days for daily max/min temperatures, chance of precipitation, amount of precipitation, and precipitation type from the National Weather Service, The Weather Channel, an AccuWeather. Forecasts will be compared to actual observations and individual predictions. The report will summarize which forecast was most accurate.

### **Graduate Students taking GEOG 517:**

There will be 2 papers due throughout the semester. The papers will be short, scientific research journal paper summaries. The paper evaluations are each worth 75 pts.

**Course Grade**

Undergraduate		Graduate	
Assessment Tool	Total Points	Assessment Tool	Total Points
Chapter quizzes (13@10)	130	Chapter quizzes (13@10)	130
Exams (4@100)	400	Exams (4@100)	400
Corrected Exams (4@35)	140	Corrected Exams (4@35)	140
In-Class Exercises (2@20)	40	Article Essays (2@75)	150
Forecasting Study	100	Forecasting Study	100
		In-Class Exercises (2@20)	40
<b>Total Course Points</b>	<b>750</b>	<b>Total Course Points</b>	<b>900</b>

**Grading Scale:**

Undergraduate		Graduate	
Total Points	Grade	Total Points	Grade
94-100	A	90-100	A
90-93.9	A-	80-89	B
87-89.9	B+	73-79	C
83-86.9	B	<73	F
80-82.9	B-		
77-79.9	C+		
73-76.9	C		
68-72.9	D+		
63-67.9	D		
<63	F		

### Course Schedule (Subject to change by instructor)

<u>Week</u>	<u>Class</u>	<u>Date</u>	<u>Chapter/Topic</u>
1	1	1/27	Course Introduction Ch 1: Earth and its Atmosphere
	2	1/27	Ch 1: Earth and its Atmosphere
2	3	2/3	Ch 2: Energy: Warming the Earth and the Atmosphere
	4	2/5	Ch 3: Seasonal and Daily Temperatures
3	5	2/10	Ch 3: Seasonal and Daily Temperatures
	6	2/12	Ch 4: Atmospheric Humidity
4	7	2/17	<b>EXAM I: 1-3</b>
	8	2/19	Exam Return / Ch 4: Atmospheric Humidity
5	9	2/24	Ch 5: Condensation: Dew, Fog, and Clouds
	10	2/26	Ch 6: Stability and Cloud Development
6	11	3/3	Ch 6: Stability and Cloud Development
	12	3/5	Ch 7: Precipitation
7	13	3/10	<b>EXAM II: 4-7</b>
	14	3/12	Exam Return / Ch 8: Air pressure and winds <b>(Graduate Essay 1 Due)</b>
8		3/17	<b>SPRING BREAK</b>
		3/19	<b>SPRING BREAK</b>
9	15	3/24	Ch 9: Wind: Small-Scale and Local Systems
	16	3/26	Ch 9: Wind: Small-Scale and Local Systems
10	17	3/31	Ch 10: Wind: Global Systems
	18	4/2	Ch 11: Air Masses and Fronts
11	19	4/7	Ch 11: Air Masses and Fronts
	20	4/9	<b>EXAM III – Ch 8-11</b>
12	21	4/14	Exam Return / Ch 12: Mid-Latitude Cyclones <b>(Fcst Assign Part 1 Due)</b>
	22	4/16	Ch 12: Mid-Latitude Cyclones
13	23	4/21	Ch 14: Thunderstorms and Tornadoes
	24	4/23	Ch 14: Thunderstorms and Tornadoes
14	25	4/28	Ch 15: Hurricanes
	26	4/30	<b>EXAM IV – CH 12, 14, and 15</b>
15	27	5/5	Exam Return / Ch 13: Weather Forecasting
	28	5/7	Forecasting Findings, Presentations
16	29	5/12	Forecasting Findings, Presentations <b>(Forecasting Paper Due)</b> Exam Review; Quiz on Chapter 13
	MONDAY	5/18	Cumulative Final Exam -- Monday, May 18 <sup>th</sup> (10:15-12:15) <b>(Graduate Essay 2 Due)</b>

### Policy on Late or Missed Graded Material

This course maintains a strict policy on late assignments and missed quizzes and exam.

1. There are NO make-up quizzes or exams offered (see Excused Absences below). To accommodate unforeseen circumstances for having to miss an exam or quiz, the following are dropped from the course grade:
  - a. Lowest exam of the 5 offered (including the Final)
  - b. Lowest 2 quizzes of the 14 offered
2. Late assignments (i.e., corrected exams, essays) are accepted up to one week after the original due date. A 10% late deduction is automatically applied regardless of the reason for the any assignment turned in within 1 week of the original due date. After the late grace period has passed, assignments will no longer be accepted for a grade.
3. It is the student's responsibility to regularly monitor his or her posted grades through Gradebook.

### \*Excused Absences for due dates and exam/quizzes.

An excused absence includes any absence that falls under the following two cases:

**Case 1:** School-related required obligations (e.g., university athletic participation, school-sponsored representation, etc.)

**Case 2:** Family/medical emergencies

For Case 1 excused absences that coincide with an exam or quiz, notification must be made through official documentation to Dr. Hall at least 2 weeks prior to the scheduled exam or quiz.

For Case 2 excused absences that coincide with an exam or quiz, notification must be made via official doctor's note or other official documentation to Dr. Hall within 1 week of return from the absence.

No make-up exams or quizzes are offered for the first excused exam or first two excused quizzes, since the lowest exam and two lowest quiz grades are automatically dropped, causing the student to incur no penalty from the absence(s). Should the student have excused absences for more than one exam or more than two quizzes, a make-up exam/quiz will be allowed given that official documentation for the absence was received for every missed assessment. Exams and quizzes are considered separately under these guidelines.

All other assignments (i.e., corrected exam assignments) are given one full week to complete, with an additional one full week grace period that will include a 10% lateness deduction. Therefore, the Case 1 excused absences on the due date of the assignment will not allow for a due-date extension. The student should plan according for the foreseen absence and either turn the assignment in early or accept the late penalty. A Case 2 excused absence, given official documentation proof of the absence, will provide the student with one additional week past the original due date for full credit potential and one additional week past the grace period deadline for partial credit potential.

### Additional Rules:

1. Students may not repeat a course more than once without prior permission of the Academic Standards Committee
2. Attendance is optional. However, due to the lack of make-up quiz/exams opportunities, and the frequency of quizzes and exams, attendance is highly encouraged for acquiring the necessary scoring points to pass the course.
3. Participation is highly encouraged.
4. Personal honesty and integrity are expected. Please refer to university rules on academic dishonesty, including plagiarism, as it relates to grades. Any suspicion of dishonesty can lead to the automatic failing of this course. Refer to the Student Handbook on this topic (<https://inside.towson.edu/generalcampus/tupolicies/documents/03-01.00%20Student%20Academic%20Integrity%20Policy.doc>). The university policy on plagiarism can be found at <http://www.towson.edu/studentlife/judicialaffairs/academicintegrity.html>.
5. If TU is closed on an exam day, the official make-up for that exam will be the following class period, if possible.
6. If you need accommodation due to a disability, see me during office hours. Please bring with you a statement from Disability Support Services authorizing your accommodation.
7. Students are expected to arrive on time to examinations. It is highly disruptive to all involved when students arrive late. For this reason and for the security of each examination, late examinees may be admitted up until **30 minutes** into the exam. Highly unusual circumstances will be entertained on a case-by-case basis. **For the first 30 minutes of an exam, no one will be permitted to leave the room. A student who arrives more than 30 minutes late for an examination will receive a zero for that exam.**