Midland College  
Syllabus  
2008  
GEOL 1447  
Meteorology  
4 Semester Credit Hours  
(3 Lecture/3 Lab)

Course Description: Introduces the study of the weather, including atmospheric properties and processes that control temperature, wind, precipitation, and storm systems. Students also discuss weather forecasting, air pollution, and climate change. Format includes field trips.


Course Goals/Objectives: Four (4) broad goals are identified for the students of this course. These are:

1. To provide comprehensive knowledge of atmosphere and its changing behavior as it relates to human activities and influence our daily lives.
2. Important learning topics include: Mechanics of the Earth’s atmosphere; environmental problems related to the atmosphere; the atmospheric phenomena of temperature, moisture conditions, atmospheric stability, forms of condensation and precipitation, air pressure and winds, role of air masses, and weather patterns.
3. Acquiring knowledge of the cloud types and explain the phenomena of rainfall, fog, snow, sleet, and frost.
4. Understand the mechanism of weather analysis and forecasting.

Student Contributions, and Class Policies: Students are expected to:

1. Spend at least 1 hour per week for each classroom hour in preparation for class.
2. Make-up work is considered the ultimate responsibility of the student. Attendance is critical in this class and MC policies may be invoked at the discretion of the instructor: that is, three consecutive classroom hours of unexcused absences or a total of six unexcused classroom hours reported to the registrar may result in an automatic grade of “W.”
3. Make-up exams will only be given to those students who have valid excuses and only within one-week’s time of the originally scheduled exam. No grades will be dropped.
4. Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the MC Student Handbook on this subject.

Evaluation of Students:
The final grade will be determined on the basis of: 75% from the lecture portion of the course and 25% from the laboratory portion. A proposed distribution of the course grade system is shown below:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>4 Lecture Chapter Tests @ 100 pts each</td>
<td>80%</td>
</tr>
<tr>
<td>Final Project/Exam</td>
<td>20%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
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Grades will be determined with no exceptions using the traditional grading ranges as follows: A=90-100, B=80-89, C=70-79, D=60-69, F=below 60.

Course Schedule: See Attached Schedule.

Intellectual Competencies:
1. Reading - Understanding the material incorporated in the text used in this course will require the student to analyze and interpret various meteorological concepts.

2. Listening - The primary teaching methods used in this course are discussion and lecture. Understanding the oral presentation of material will require the student to analyze and interpret various meteorological concepts.

3. Critical Thinking - Critical thinking, as exemplified by problem solving, is inherent in the study of any meteorological discipline. Meteorological problems will be considered, discussed, and analyzed in this course.

ADA Statement:

Exemplary Objectives for Natural Sciences:
Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact the instructor as soon as possible. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations.

<table>
<thead>
<tr>
<th>Competency</th>
<th>Course Number</th>
<th>Course Title</th>
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<tr>
<td>1 2 3 4 5</td>
<td>X X X</td>
<td>GEOL 1447</td>
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**Competencies:**

1. To understand and apply method and appropriate technology to the study of the natural sciences
2. To recognize scientific and quantitative methods and the differences between these approaches and the other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
3. To identify and recognize the differences among competing scientific theories.

**Instructor Information:**

Instructor: Lori Manship

Office: AHSF 151

Phone: 432-685-4728

E-mail: lmanship@midland.edu
       ojammonite@yahoo.com
       manship_l@utpb.edu

Office Hours: M 7:00-8:00 AM, M 11:00-12:00 PM or by appointment

Division Dean: Dr. Margaret Wade, 125 SF, 685-4615

Division Secretary: Ms. Norma Duran, 124 SF, 685-4612
       Ms. Brenda Smith, 124 SF, 685-6413