

Introduction to Meteorology

Mr. Ian Turner
717-371-2764
ian@globeturner.com

Course Overview

The course will start with a review of the atmosphere and how it works relating to weather. Then we'll discuss topics such as temperature, humidity, condensation and types of precipitation. The next section will focus on wind and air pressure, and cover topics such as the role of the jet stream and global wind patterns. Subsequent sections of the course will focus on weather fronts, thunderstorms, tornadoes, and hurricanes. We'll conclude with a study of the Earth's climate.

Course Materials

We will be using the textbook, "Meteorology Today: An Introduction to Weather, Climate, and the Environment", 9th edition by C. Donald Ahrens. Each student should have this book prior to the first day of class on Wednesday, August 29. The ISBN-10 number for the book is 0495555738, and it is available on Amazon.com. I recommend buying a used version in "Like New" or "Very Good condition, as these prices are significantly more reasonable than the books in "New" condition. Please make sure you are buying the 9th edition, with a white and blue cover, not the much more expensive later editions.

Exams and Grading

The homework reading schedule is listed below. Each week there will be a quiz on the chapter(s) that were assigned. The cumulative quizzes will represent 50% of each student's final grade. A comprehensive final exam on Wednesday, December 12 (the last day of class) will make up the remaining 50% of the final grade. The grading scale is: A: 90-100; B: 80-89; C 70-79; D 60-69; F: 59 and below.

Agenda

Before the end of each class, each student will receive an agenda covering the next week's reading assignment. The agenda will help guide the students on the topics I believe are most critical for the next week's discussion and can be used as a guide to prepare for the quiz on those chapter(s).

A Day in Class

The first 40-45 minutes of each class will be spent reviewing the assigned reading material for that week. Questions from the students are highly encouraged! The last 20 minutes or so of the class will be spent taking the quiz. Each quiz will be composed of 10-15 questions. As stated above, the agenda can be used by the students to anticipate what will be asked on the quiz. If a student has a question about the reading material, and wishes to ask it before class, then they are welcome to send the question by email. A student's parent should be copied on the email I

receive, and they will also be copied on my response. I will collect a list of email addresses on the first day of class.

Reading Schedule

- Aug. 29 Introduction
- Sept. 5: Chapter 1, "The Earth and Its Atmosphere" and Chapter 2, "Energy: Warming the Earth and the Atmosphere"
- Sept. 12: Chapter 3, "Seasonal and Daily Temperatures" and Chapter 4, "Atmospheric Humidity"
- Sept. 19: Chapter 5, "Condensation: Dew, Fog, and Clouds" and Chapter 6, "Stability and Cloud Development"
- Sept. 26: Chapter 7, "Precipitation"
- Oct. 3: Chapter 8, "Air Pressure and Winds"
- Oct. 10: Chapter 9, "Wind: Small Scale and Local Systems" and Chapter 10, "Wind: Global Systems".
- Oct. 17 Chapter 11, "Air Masses and Fronts"
- Oct. 24 Chapter 12, "Middle-Latitude Cyclones"
- Oct. 31: Chapter 13, "Weather Forecasting"
- Nov. 7: Chapter 14, "Thunderstorms and Tornadoes"
- Nov. 14: Chapter 15, "Hurricanes"
- Nov. 21: No class (review the quizzes and the agendas for the final!)
- Nov. 28: Chapter 16, "The Earth's Changing Climate" and Chapter 17, "Global Climate"
- Dec. 5: Review
- Dec. 12: Final exam

Results of the final exam and final grade will be emailed individually to each student/parent no later than Thursday, December 13.