ATMS 103 Introduction to Meteorology

Prerequisites: none

Text: Introduction to Meteorology by E.A. Brotak

For those wanting a different perspective on this material, there are other texts available in the Library and the Bookstore.

Course Outline: see handout

Grading: 4 tests (mid Sept., mid Oct., mid Nov., and final exam week); each worth 20%

Homework worth 20%; homework due next class period; 10 points will be deducted for every period late.

Normal ten point scale will be used. Depending on the grade distribution, I may scale grades slightly and use + and - grades.

Attendance: I do not take roll. Whether or not you attend the lectures is your decision. Certainly, you will learn more if you are here for explanations and demonstrations of concepts given in the text. Please try to get here on time and be attentive in class.

I will e-mail you course materials such as some of the homeworks, announcements, etc.. For this to work, you must get your e-mail through your school account.

Course Objectives

As a Natural Science class, this course will introduce you to the scientific method and generally how a science operates. As a meteorology course, Intro. Met. will give you the basics of the science in a mostly non-mathematical and, hopefully, understandable way. My goal is for each of you to be able to watch a TV weathercast or go on a weather website and understand what=s going on.

Your Instructor

Dr. Ed Brotak, Professor, Atmospheric Sciences Department

Office: RBH 234Office Phone: 232-5160

Office Hours: TR 1:00 - 1:40

E-mail: brotak@unca.edu (best way to reach me)

Meteorology Lab: RBH 238 Weather Line: 251-6435

ATMS 103 INTRODUCTION TO METEOROLOGY

Text: Introduction to Meteorology by E. A. Brotak

Course Outline and Reading Assignments	Pages	
Introduction	1	
Atmospheric Structure, Composition and Origin		2-6
Temperature	7-18	
Humidity		19-22
Condensation: Dew, Frost, Fog, & Clouds	23-25	
Weather Satellites	26-27	
Vertical Motions in the Atmosphere: Cloud & Precip. Formation	28-29	
Precipitation		30-34
Weather Radar	35-38	
Cloud Seeding and Rain Making	39	
Atmospheric Pressure	40-43	
Wind	44-47	
The Sun and Weather		48-51
Earth's Heat Budget	52-56	5
Hemispheric Circulations	57-64	
Upper-Level Circulations and Weather Systems	65-72	
Air Masses, Highs, Fronts, and Lows	73-87	
Thunderstorms	88-93	
Tornadoes		94-99
Tropical Cyclones	100-104	
Weather-Related Death & Destruction	105	
Weather Forecasting	106-112	
Weather and the Mass Media	113	