

Erth 303 Weather and Climate
Syllabus

Text: "Meteorology Today" by C. Donald Ahrens 9th ed.

This course presents an introduction to the Earth's atmosphere via the science of meteorology and through its composition, structure and processes.

COURSE OBJECTIVES:

1. To understand the relationships between Planet Earth and its position in the Solar System.
2. To understand the composition, structure, and processes of the atmosphere.
3. To understand the basis of weather prediction.
4. To understand the weather processes that are the basis of climatic systems.
5. To understand the relationships between Global climatic change and its effects upon man and Planet Earth.

COURSE CONTENT:

SEPT. 10 The Earth and its Atmosphere, Energy: Warming the Earth and the Atmosphere Chapters 1, 2

SEPT. 15, 17, 22 Seasonal and Daily Temperatures, Atmospheric Humidity, Condensation: Dew, Fog, and Clouds. Chapters 3, 4, 5.

SEPT. 24 Exam 1 Chapters 1-5

SEPT. 29 Stability and cloud development, Precipitation, Chapters 6,7.

OCT. 8 Air Pressure and Winds, Wind: Small Scale and Local Systems, Wind: Global Systems. Chapters 8, 9, 10.

OCT. 22 Exam 2 Chapters 8-10

Oct. 27 Air masses and fronts, Middle- Latitude cyclones. Chapters 11, 12.

NOV. 3 Weather forecasting. Thunderstorms and tornadoes . Chapters 13, 14

NOV. 17 Hurricanes, The Earth's Changing Climate, Chapters 15, 16

NOV. 24 Global Climate, Air Pollution Chapters 17, 18

DEC. 1 Light, Color, and Atmospheric Optics

DEC. 8 Exam 3

Dec. 10 Make up exam day.

COURSE REQUIREMENTS:

Students must complete all exams and quizzes. Three unannounced quizzes will be given during the semester. Missed quizzes can not be made up.

EXAMS:

- A. Exam questions will cover materials presented in lectures and reading assignments.
- B. Students involved in cheating on exams will receive a grade of "F" for the course.
- C. Absences on exam days will result in a grade of zero for that exam, except under the following conditions:
 - 1. Family emergency
 - 2. Medical reasons
 - 3. Participation in University related activities (sports, field trips, professional meetings, etc.) These exceptions must be preceded by an excuse signed and dated by the faculty member responsible for the activity.
- D. Exceptions for family emergencies or medical reasons must be accompanied by an excuse approved by the Dean of Students Office.
- E. Missed quizzes can not be made up.
- F. All missed (Excused) exams will be made up on the last class day of the semester.
- G. Under no conditions will exams be given prior to the established dates.
- H. If you are a student that needs assistance with your exam because of a handicap, please let me know so that we can jointly arrange a procedure with Disability Support Services or the SOS office.

GRADING:

Assessed Outcomes: Exam questions will be structured to test the students ability to critically assess atmospheric concepts and to solve atmospheric problems.

Three unannounced quizzes will be given throughout the semester. Three regular exams will be given over the semester. Each exam and quiz will be scored on the basis of the percentage of correct answers. The percent correct from all exams and quizzes will be averaged to arrive at a final grade according to the scale below:

85-100	A
70-84	B
55-69	C
41-54	D
0-40	F

COURSE INSTRUCTOR: Dr. Thomas Zwick

OFFICE: Science Building Room 212

PHONE: 657-2028

OFFICE HOURS: Please make an appointment for all office hours.