

METR 4624—Radar Meteorology SPRING 2008

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National Weather Center, Room 5417, 325-3881
Office hours: M,W 1:30-2:30 pm or by appointment

Principles of weather radar and storm observations including: propagation effects, detection of precipitation particles, beam distortions, ground clutter, attenuation, rainfall measurements, single- and dual-Doppler interpretation, polarimetric theory and interpretation and kinematics of convective storms (multi-cell, supercell, mesoscale convective systems).

Lecture class will meet MWF 11:00-11:50 pm in room NWC 5600. Lab classes will be held in NWC 5720 on Fridays from 4:00-6:00 pm. If available I will reserve use of a SMART-radar during April. Labs involving the SMART-radar will be optional since we'll have to break into small groups.

The TA for the course is Nathan Dahl (droughtman@ou.edu), NWC XXXX. Mr. Dahl will have office hours T and F from 2:30-4:00 pm. He or Mr. Gordon Carrie may occasionally provide lectures during my absence.

Required text: *Radar for Meteorologists* by R. E. Rinehart (1991) fourth edition. Copies can be purchased at the Bookstore. [Note: This book covers fundamentals at an introductory level. We will go well beyond the material in this text].

Other books that I will use for reference include:
Radar Observations of the Atmosphere by L. J. Battan (1973)
Doppler Radar and Weather Observations by R. J. Doviak and D. S. Zrnic (1984)
Radar and Atmospheric Science: A collection of essays in honor of Dave Atlas.
Edited by R. Wakimoto and R. Srivastava (2003)
Mesoscale Meteorology and Forecasting edited by P.S. Ray (1986), and
Doppler Radar Meteorological Observations; Federal Meteorological Handbook
No. 11 (Part B) (1990).

Grades will be determined by the following formula:

2 mid-terms	30% each	=	60%
Homework (collected randomly)		=	10%
<u>Final exam</u>		=	<u>30%</u>
			100%

Approximately 90 % or better = A
Approximately 80 to 89 % = B **FIRST EXAM – 29 February.**
Approximately 70 to 79 % = C **SECOND EXAM — 18 April**
Approximately 60 to 69 % = D **FINAL EXAM — 5 May 1:30-3:30 pm**

Below 60 %

= F

First lab will be 1 February.

No class on Friday, 14 March.

NOTE: All materials provided you in this class are protected by copyright.

Legal Requirements:

1) The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the professor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173.

2) Academic integrity policy website information: There have been several changes to the Academic Misconduct Code. Details can be found at the following website: www.ou.edu/provost/integrity-rights.

In addition, persons found, or suspected of, having violated university academic conduct will be punished to the maximum extent allowable. The instructor will do his best to dissuade potential employers from hiring a person found guilty of academic misconduct.