

METR 5803 003
Forecast Evaluation and Decision Analysis

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Class meeting: TR at 11:30-12:45 NWC 5930

Office hours: TBA

Prerequisites: None. METR 4303 (Statistics) helpful, but not required

Required text: None

Supplemental materials: *Statistical Methods in the Atmospheric Sciences* by D. S. Wilks (Academic Press), *Forecast Verification. A Practitioner's Guide in Atmospheric Science* by I. T. Jolliffe and D.B. Stephenson, (Wiley and Sons Ltd), *Economic Value of Weather and Climate Forecasts* by R. W. Katz and A. H. Murphy, Eds. (Cambridge Univ. Press, 1997), *Probability, Statistics, and Decision Making in the Atmospheric Sciences* by A. H. Murphy and R. W. Katz, Eds. (Westview Press), *Making Hard Decisions* by R. Clemen (Duxbury Press), journal articles.

Major topics

1. What is a good forecast?
 - a. Aspects and measurement of forecast "goodness"
 - b. Traditional and modern approaches to forecast evaluation
 - c. Conveying information about forecast goodness

2. Decision analysis
 - a. Making decisions with uncertain information
 - b. Utility functions
 - c. Identifying and educating users of forecast information

Grades: 1/3 Exams (1 mid-term, 1 non-comprehensive final)
1/3 Homework
1/3 Project

Exam/Homework-20% credit given for "I don't know" as an answer`
Late exam/homework-10% penalty per day

Persons with disabilities seeking reasonable accommodation should contact the instructor.

Expectations of academic conduct are discussed at <http://www.ou.edu/provost/integrity/>.