METR 5233: Cloud and Precipitation Physics

Syllabus

CLASSROOM: National Weather Center, Rm. 5720
CLASS TIME: Mon.-Wed.-Fri. 12:00-12:50
OFFICE HOURS: Mon. & Fri. 2:00-4:00, or by appointment

INSTRUCTOR:
Guifu Zhang, Associate Professor
NWC Rm. 4620
guzhang1@ou.edu
(405) 325-3507

TEXT BOOK:
Rogers and Yau: A Short Course in Cloud Physics, Third Edition

REFERENCE BOOKS:
Pruppacher and Klett, Microphysics of Clouds and Precipitation
Straka, Cloud and Precipitation Microphysics: Principles and Parameterizations

COURSE DESCRIPTION

This course is intended to introduce students to the physical states and processes of clouds and precipitation at greater depth than the usual undergraduate course on the subjects. Polarimetric radar data and in-situ observations will be used in the class to illustrate precipitation development and evolution. Potential applications of cloud microphysics in model parameterization will be discussed.

GRADIENTS

Homework problems: 30%
Quiz questions: 20%
Midterm examination: 20%
Final examination: 30%