

# METR 5233 - Cloud and Precipitation Physics

## Fall 2014 Syllabus

### Instructor:

Cameron Homeyer  
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**Lecture:** MWF 12-12:50 pm in NWC 5930

**Office Hours:** T 9-11 am (or by appointment)

**Course Website:** <http://weather.ou.edu/~chomeyer/teaching.html>

### Reference Texts:

- Lamb and Verlinde: *Physics and Chemistry of Clouds*
- Rogers and Yau: *A Short Course in Cloud Physics*, Third Edition

### Course Description:

There are two listed reference texts for this course. The first book (Lamb & Verlinde) mirrors the overall path of the course: developing an understanding of clouds and precipitation from the macroscale to the microscale. The course will start with an introduction to clouds and precipitation and a review of basic thermodynamics (3-4 weeks). Following the introduction, the material will gradually transition into microphysical properties of clouds including the formation and evolution of precipitation hydrometeors (rain, snow, hail). Important themes include cold vs. warm clouds, electrification, and examples from observational platforms such as radar.

\*I encourage and will solicit active discussion in class. Please do not hesitate to ask questions, no matter how simple you might think they are.

### Grading:

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| Homework (roughly 1 every 2 weeks)     | 33% |
| Mid-term Exam (October 8, 12-12:50 pm) | 33% |
| Final Exam (December 9, 1:30-3:30 pm)  | 33% |

### Reasonable Accommodation

*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 fax only 405/325-4173.*

**Academic Integrity**

*Academic integrity is expected of all students enrolled at the University of Oklahoma and in this class. Please visit <http://integrity.ou.edu> for a student's guide to academic integrity and the OU code. Violations of the code (defined as "any act that improperly affects the evaluation of a student's academic performance or achievement") will not be tolerated.*