

## ATMOSPHERIC SCIENCES 340

### *Introduction to Thermodynamics and Cloud Processes*

Winter 2009

Instructor: Professor Becky Alexander

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Office hours: M W 10:30-11:30 or by appointment

Office location: ATG 306

Phone: 206-543-0164

Class meeting times: M W F 9:30-10:20

Class location: ATG 310C

Class web site: <http://courses.washington.edu/atms340/index.html>

Required book: *Atmospheric Sciences: An Introductory Survey*, 2<sup>nd</sup> edition by J.M. Wallace and P.V. Hobbs, Academic Press, 2006.

#### **Purpose of course:**

1. To review the basic concepts of thermodynamics and apply these to the atmosphere
2. To provide an introduction to the physical processes leading to the formation of clouds, precipitation, and storm electrification

#### **Course structure:**

1. Lectures: questions encouraged! Readings from Wallace and Hobbs that are relevant to the lectures are assigned weekly.
2. Problem sets: Homework problems will be assigned, and you will hand them in. You may work on them together, but you must hand in your own work. The neater you are, the easier it is for me to give you partial credit. Homework assignments are due at the beginning of class on the date indicated. No late homework assignments will be accepted without prior arrangement.
3. Exams: Mid-term and final exam will be closed book and closed notes, with equations provided. A review sheet will be posted on the web site before the exam. No make-up exams will be allowed without prior arrangement.

#### **Grading:**

1. 25% Problem solving
2. 30% Mid-term exam
3. 45% Final exam held on Wednesday, March 18 at 8:30-10:20 in ATG 310C