

# **AS200B Introduction to the Dynamics of the Earth System**

## **Fall 2009**

Alex Hall ([alexhall@atmos.ucla.edu](mailto:alexhall@atmos.ucla.edu))

**Thursday 9/24** Lecture 1: Atmosphere, Ocean, and Land Surface (Hartmann, 1)

**Tuesday 9/29** Lecture 1: Atmosphere, Ocean, and Land Surface (cont.)

**Thursday 10/1** Lecture 2: Global and Zonal-mean Energy Balance (Hartmann, 2)

**Tuesday 10/6** Lecture 3: Radiation and Climate (Hartmann, 3) Homework #1 due

**Thursday 10/8** Lecture 4: Atmospheric Circulation (Hartmann, 6.1-6.3)

**Tuesday 10/13** Lecture 4: Atmospheric Circulation (Hartmann, 6.4-6.5)

**Thursday 10/15** Lecture 5: Atmospheric Circulation and the Hydrologic Cycle (Hartmann, 5)

**Tuesday 10/20** Lecture 6: The Hydrologic Cycle Homework #2 due

**Thursday 10/22** Lecture 7: Physical Processes at the Surface (Hartmann, 4)

**Tuesday 10/27** Lecture 8: Terrestrial Ecosystems

**Thursday 10/29** Midterm exam

**Tuesday 11/3** Lecture 9: Ocean Circulation, Part I (Hartmann 7.1-7.4)

**Thursday 11/5** Lecture 10: Ocean Circulation, Part II (Hartmann, 7.5-7.8) Homework #3 due

**Tuesday 11/10** Lecture 11: Marine Ecosystems

**Thursday 11/12** Lecture 12: El Niño and the Southern Oscillation, Part I

**Tuesday 11/17** Lecture 13: El Niño and the Southern Oscillation, Part II

**Thursday 11/19** Lecture 14: Paleoclimate (Hartmann, 8)

**Thursday 11/24** Lecture 15: Observed Climate Change

**Thursday 11/26** Thanksgiving Holiday

**Tuesday 12/1** Lecture 16: Climate Sensitivity and Climate Modeling (Hartmann, 9-11)

**Thursday 12/3** Lecture 17: The Carbon Cycle Homework #4 due

### Grading

Homework, 20% (5% for each assignment)

Midterm, 35%

Final exam, 45%

Homework is assigned one week in advance of due dates noted above.