

AS200B Introduction to the Dynamics of the Earth System

Fall 2016

MS 7121, Mon/Wed 1:00–2:20 pm

Prof. Alex Hall (alexhall@atmos.ucla.edu), MS 7955

Office hours by appointment

Optional text: Neelin, J. David, *Climate Change and Climate Modeling*

On reserve at Boelter Science & Engineering Library

Monday 9/26 Lecture 1: Global and Meridional Energy Balance (Neelin, 2.1-2.4)

Wednesday 9/28 Lecture 1 (cont.)

Monday 10/3 Lecture 2: Radiation and the Atmosphere's Vertical Temperature profile (Neelin, 6.1)

Wednesday 10/5 Lecture 3: Surface Processes (Neelin 2.7)

Monday 10/10 Lecture 4: Planetary Boundary Layer

Wednesday 10/12 Lecture 4 (cont)

Monday 10/17 Exam 1

Wednesday 10/19 Lecture 5: Atmospheric Circulation (Neelin, 2.5)

Monday 10/24 Lecture 6: Hydrologic Cycle

Wednesday 10/26 Lecture 7: Ocean Circulation (Neelin 2.6)

Monday 10/31 Lecture 8: ENSO and teleconnections (Neelin, 4)

Wednesday 11/2 Lecture 8 (cont.)

Monday 11/7 Lecture 9: Paleoclimate (Neelin, 1.6)

Wednesday 11/9 Exam 2

Monday 11/14 Lecture 10: Climate Sensitivity (Neelin 6.2-6.8)

Wednesday 11/16 Lecture 11: Observed Climate Change (Neelin, 7.6)

Monday 11/21 Lecture 11 (cont.)

Wednesday 11/23 Lecture 12: The Carbon Cycle (Neelin 2.8)

Monday 11/28 Lecture 13: Climate and Climate Change Modeling (Neelin, 7.1-7.5, 7.7-7.8)

Wednesday 11/30 Exam 3

Grading

Exam 1 33%

Exam 2 33%

Exam 3 33%