PHY 392S PHYSICS OF CLIMATE Spring Term, 2011 GENERAL INFORMATION

LECTURER: Prof. Kimberly Strong Office: McLennan Physics Laboratory 710A Telephone: 416-946-3217, Fax: 416-978-8905 Email: strong@atmosp.physics.utoronto.ca WWW: http://www.atmosp.physics.utoronto.ca/people/strong/strong.html TEACHING Zhe Jiang **ASSISTANT:** Office: McLennan Physics Laboratory 619A Telephone: 416-978-2706, Email: zjiang@atmosp.physics.utoronto.ca LECTURES: 2:10 – 3:00 PM, Mondays and Wednesdays, Room MP137 **OFFICE HOURS:** 3:00 – 4:00 PM Wednesdays, Room MP710A Also, feel free to drop by or make an appointment. HOMEWORK: There will be 4 problem sets. They will be due, in class, two weeks after they are assigned. There will be a late penalty of 5% per day, up to 7 days, after which material will not be accepted. MARKING: 40% Problem sets (will hand out on January 24, February 14, March 7, March 23; due in class February 7, February 28, March 21, April 6) 20% Mid-term test (in class Wednesday, March 2) 40% Final exam **HOMEPAGE:** http://www.atmosp.physics.utoronto.ca/people/strong/phy392/phy392.html Lectures and supplementary material will be posted on the course homepage. TEXTBOOKS: **Required Text:** Atmosphere, Ocean, and Climate Dynamics, John Marshall and R. Alan Plumb, Academic Press, 2008. **Additional Reference Books:** Introduction to Atmospheric Physics, David G. Andrews, Cambridge University Press, 2000. Atmospheric Science, An Introductory Survey, John M. Wallace and Peter V. Hobbs, Academic Press, 2006. **OUTLINE:** Topics covered (not necessarily in order presented) Global energy balance Radiative transfer The vertical structure of the atmosphere Convection • The meridional structure of the atmosphere The general circulation of the atmosphere The ocean and its circulation Climate variability