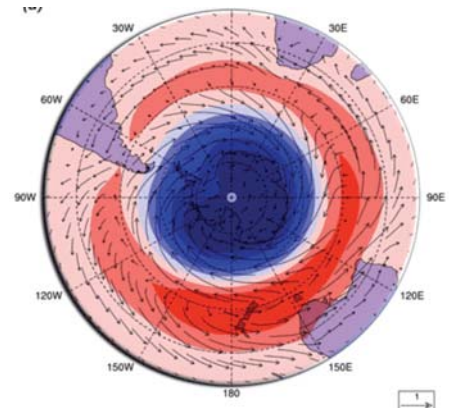
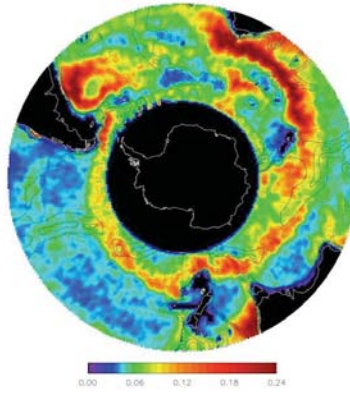


TOPEX/POSEIDON Sea Level Standard Deviation (m)



Readings on Dynamics of the Southern Ocean

COLLEGE OF MARINE SCIENCE

Spring 2012
OCE 6934 Section 637
CRN: 89919

Instructor:
Don P. Chambers

Open to Marine Science Grad Students

Prerequisite: Passing of Physical Oceanography Core Course

Credits: 2 hours

Grades: S/U

The Southern Ocean is unique in many ways. It contains the only current that both completely circumnavigates the globe and has measurable currents all the way to the bottom. Evidence indicates that eddies play a much stronger role in heat and mass transport in this area than in other regions. The Southern Ocean is also the largest natural sink for CO₂ on the planet.

As important as the Southern Ocean is, there is still much to understand of its dynamics and how it is adjusting in our changing climate. This course will consist of reading and discussing a series of papers covering specific aspects of the Southern Ocean climate and dynamics, including the transport of the Antarctic Circumpolar Current, the Southern Annular Mode, warming of the abyssal ocean, barotropic vorticity, and the Southern Ocean and the carbon cycle.

Grades will be Satisfactory/Unsatisfactory only and will be based on participation in the discussion. The only prerequisites are a being a student in the Marine Science program and having passed the Physical Oceanography core course, as students will be expected to have a general understanding of water masses and large-scale ocean circulation.