

Physical Oceanography Fall 2020

AOSC 420/670, GEOL670

Monday/Wednesday 3:15-4:30PM

Online option will be available for remote students!

Prerequisites: Physics I, Calc II, or instructor permission

Instructor: Jacob Wenegrat (wenegrat@umd.edu)

The ocean acts as a 'flywheel' in the climate system, moving heat, carbon, and other geochemical tracers through the ocean gyres, and into the abyssal ocean where water was last in contact with the surface in the middle ages. In this graduate (670) and undergraduate (420) class we will cover the major elements of physical oceanography, including description of the ocean water masses, ocean circulation, pathways between the surface and deep ocean, and how these processes affect the distribution of biogeochemical tracers, biological productivity, and the interaction of the atmosphere and ocean. Students will be introduced to the tools of physical oceanography, including theory, numerical models, and new observational tools, such as satellites and autonomous instruments, that are revealing a new view of ocean physics.



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Image: NASA