SIO 30 – SYLLABUS (Fall Q 2020)

Instructors:  
J. Mackinnon <jmackinnon@ucsd.edu> physical oceanography, marine biology  
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Teaching Assistants:  
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Discussion sessions:  
A01 (3:00-3:50 p.m. W), A02 (4:00-4:50 p.m. W)  
A03 (3:00-3:50 p.m. F), A04 (4:00-4:50 p.m. F)

Suggested reading:  
Garrison & Ellis, Oceanography, 9th (or older) Edition

**Lectures: (M-W-F, 2:00 – 2:50 p.m.)**

Marine Geology (Castillo)  
Oct. 2 F Origin of the Earth and oceans  
Oct. 5 M Introduction to Marine Geology  
Oct. 7 W Plate Tectonics I  
Oct. 9 F Plate tectonics II  
Oct. 12 M Ocean basins & margins I  
Oct. 14 W Ocean basins & margins II  
Oct. 16 F Marine sediments I  
Oct. 19 M Marine sediments II  
Oct. 21 W Marine sediments III  
Oct. 23 F EXAM I

Physical Oceanography (MacKinnon)  
Oct. 26 M Physical properties of the ocean: temperature, salinity and density  
Oct. 28 W Forces acting on the ocean  
Oct. 30 F Forces in action  
Nov. 2 M Forces continued  
Nov. 4 W Global circulation  
Nov. 6 F Waves  
Nov. 9 M Tides

Marine Chemistry (Castillo)  
Nov. 13 F Water & ocean chemistry I  
Nov. 16 M Water & ocean chemistry II  
Nov. 18 W Water & ocean chemistry III  
Nov. 20 F Marine resources and environment  
Nov. 23 M EXAM II

Biological Oceanography (MacKinnon)  
Nov. 25 W Overview, terminology, biomes of the sea.  
Nov. 30 M Who’s who in the sea: small  
Dec. 2 W Who’s who in the sea: medium-large  
Dec. 4 F Interactions: nutrient cycles and the circle of life  
Dec. 7 M Interactions: ecology of the sea  
Dec. 9 W Unique environments: coral reefs, hydrothermal vents, Arctic, others tbd  
Dec. 11 F Climate change and the IPCC report

Dec. 16 W FINAL EXAM - 3:00-5:59 p.m.