

SIO 171: Introduction to Physical Oceanography

Fall 2018

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All course material on TritonEd.

Sep 27	Lecture 1. Introduction: Time and length scales for fluids on a rotating Earth.
Oct 2	Lecture 2. Physical properties of seawater, part 1.
Oct 4	Lecture 3. Physical properties of seawater, part 2.
Oct 9	Lecture 4. Typical distributions of water properties, part 1.
Oct 11	Lecture 5. Typical distributions of water properties, part 2.
Oct 16	Lecture 6. Ocean instruments and data.
Oct 18	Lecture 7. Transports and budgets.
Oct 23	Lecture 8. Conservation laws for physical oceanography.
Oct 25	Lecture 9. Diffusion and mixing.
Oct 30	Review for midterm.
Nov 1	Midterm.
Nov 6	Lecture 10. Conservation of momentum.
Nov 8	Lecture 11. Geostrophy.
Nov 13	Lecture 12. External forcing by the atmosphere.
Nov 15	Lecture 13. Potential vorticity.
Nov 20	Lecture 14. Eastern boundary current systems.
Nov 27	Lecture 15. Waves.
Nov 29	Lecture 16. Tides.
Dec 4	Lecture 17. Pacific equatorial circulation and El Niño
Dec 6	Review for final.
Dec 13	Final, 3-6 pm.

Course requirements (grading)

4 Homeworks (10% each)

Midterm (20%)

Final (40%)