Physical Oceanography, Fall 2002 Reading schedule

Reading schedule subject to change.

Last updated

12/12/02

KN = Knauss, OC = Ocean Circulation, WT = Waves Tides & Shallow Water Processes, PP = Pond and Pickard, DX = Duxbury, Hartmann = photocopied readings in solution binder (Gedanken Lab)

	Mon	Tue	Wed	Thurs	Fri	
Sept	2	3	4	5	**Tides**	Tides: KN 234-243, WT 50-72, PP 253-264
Sept	**Tides**	10	**Fluid dynamics. Total derivative**	12	**Eq. of motion (continuity)**	KN 82-84, 66-69, OC: 101-102 PP Chap. 4
Sept	**Eq. of motion (continuity)**	17	**Eq. of motion (pressure grad)**	19	**Eq. of motion (Coriolus)**	KN 80-82,84-94, OC 12-13, 98-102
Sept	**Eq. of motion (coriolus)**	24	**Inertial Circles and geostrophy**	26	**Geostrophy continued**	Inertial circles: KN 108-109, OC 44-46 Geostrophy: KN 110-118, OC 46-49, 54-56
Sept/Oct	**Geostrophy: Margule's eqn**	1	**Barotropic/clinic Hydrostatic balance**	3	**Friction**	KN 116-119, 95-96, OC 49-53 Friction: KN 71-73, 96-99,104 OC 4.2.3
Oct	**Friction cont.**	8	**Ekman theory**	10	**Ekman Theory**	Ekman: KN 122-128, OC 42-44, 64-68
Oct	**Fall Break**		**Ekman pumping**	17	**Ekman cont./ Sverdrup theory**	Sverdrup: KN 128-130 OC 90-92, PP 119-124
Oct	**Sverdrup theory**	22	**Midterm Exam**	24	**Sverdrup cont.**	
Oct/Nov	**Stream function and Vorticity**	29	**Vorticity Cont**	31	**Western boundary currents**	Stream fn: PP 132-133, Vorticity: OC sec. 4.2.1, KN: 105-107 Boundary currents: KN 131-133, OC sec 4.2.2
Nov	**Boundary currents cont.**	5	**Equation of State and Stability**	7	**Stability and Potential energy**	EOS: KN: 24-30, 37-38, DX Chap 4 Stability: KN 34-36 OC: 26-28
Nov	**Oceanography history**	12	**History**	14	**Cartography**	History: DX Prologue
Nov	**Energy, black-body radiation**	19	**Energy balance of ocean and atmosphere**	**Local energy budget. 8pm meeting**	**Water masses**	Energy: KN: 39-44, 59-64 OC:14-15,190, Energy Balance & Budget KN 44-55 OC 191-201
Nov	**Thermohaline circulation**	26	**Thanksgiving Break**			Water masses and Thermohaline circ: KN 170-179, OC 206-223, 240-247, Wunsch article (handout)
Dec	**Mixing diagrams**	3	**Modelling and Ar/N2 fluxes**	5	**No class**	Mixing: OC 225-229, Modelling: OC 102-106, Battle article (handout)
Dec	**No Class**	10	**Return to Global radiation balance and Milankovitch**	**Reading period**		Global balance: Hartmann 18-39, Milankovitch forcing: Hartmann 300-312
Dec	16	**Exam Period**			20	**Final Exam: Sat., December 21, 2:00pm**