Date	Topic	Assignment	Reading
Monday March 30 Wk1	Requirements/Course Structure/Intro to course		S&A: 34 (natural time)-36; 37 (location systems)-41; 45-46 (oceans)
Wednesday April 1	Water and water cycle, Arctic/Antarctic/heat		S&A: ; 130-134 (temperature & heat, changes of state); 144-150
Friday April 3	Dissolved constituents	HW #1	S&A 154-160 (up to gases); 163,166 (pH)
Monday April 6 Wk 2	Early earth, Layers of Earth, start of plate tectonics		S&A: 34 (geological time); 51-59 (up to evidence for crusal motion)
Wednesday April 8	Consequences of plate tectonics,	HW #1 DUE, start of class	S&A 68-77, 78 & 82 ("hot spots");
Friday April 10	The sea floor	HW #2	S&A 95-108 (up to sediments); "Mappers of the Deep" by Tharp & Frankel
Monday April 13 Wk 3	Ocean/atmosphere coupling: Winds		S&A 173-176 (up to specific heat), 184-196 (sections 7.5, 7.6)
Wednesday April 15	ocean layers; El Nino	HW #2 DUE, start of class	S&A 197-201 (el nino), 208-211 (sections 8.1, 8.2)
Friday April 17	Major surface currents		S&A 227-231 (sections 9.1, 9.2), "Message in a Bottle" by Krajik
Monday April 20 Wk 4	Thermohaline circulation; convergence/divergence zones		S&A 211-217 (up to bordering seas); 236 (begin with permanent zones)-241 (up to N. Pacific oscillations)
Wednesday April 22	Hurricanes/storm surge		S&A 196-197 (section 7.7); 201-204 (practical considerations)
Friday April 24	**Mid term**	Midterm 1	
Monday April 27 Wk 5	Light and nutrients; Photosynthesis in the ocean,		S&A 360-363(up to oxygen); 372-375 (section 15.1); 390-398 (sections 16.1, 16.2)

Wednesday April 29	heterotrophy in the ocean		S&A 398-408 (sections 16.3, 16.4, 16.5)
Friday May 1	Food webs, from plankton to fish Hypoxia?	HW #3	S&A 375-384 (sections 15.2-15.5);
Monday May 4 Wk 6	Fishes and turtles		S&A 429-441
Wednesday May 6	Marine Mammals (include impacts of toxic algae on marine mammals)	HW #3 DUE, start of class	S&A 415-426 (section 17.1)
Friday May 8	Waves; energy from waves Tsunamis	HW #4	S&A 248-251 (up to dispersion); 253-254 (wave height); 255-257 (up to refraction); 262-255 (section 10.9)
Monday May 11 Wk 7	Tides		S&A 280-287 (sections 11.1- 11.5); 291-294 (section 11.7)
Wednesday May 13	**Life in a High CO_2 World** Rising CO_2 levels Heat and expanding hypoxia	HW #4 DUE, start of class	S&A 180-182 (carbon dioxide)
Friday May 15	Ocean acidification		"Dangers of Ocean Acidification" by Doney; "Anticipating Ocean Acidification's Economic Consequences on Commercial Fisheries" by Cooley & Doney
Monday May 18 Wk 8	Potential impacts on corals		S&A 461-466 (section 18.4)
Wednesday May 20	**Ocean Fertilization** Iron fertilization		"Fertilizing the Ocean with Iron" by Powell; "A Rash of Proposals Emerges to Transfer Excess Carbon into the Ocean" by Madin and Nevala
Friday May 22	**Midterm**	Midterm 2	
Monday May 25 Wk 9	HOLIDAY		
Wednesday May 27	Limiting nutrients concept, growth of phytoplankton, iron fertilization		S&A 384-387 (section 15.6)

Friday May 29	Other means of fertilization	HW #5	
Monday June 1 Wk 10	**Puget Sound/Strait of Juan de Fuca** Coasts and beaches		S&A 300-313 (sections 12.1-12.5); 314-315 (coastal structures)
Wednesday June 3	Estuarine circulation; hypoxia	HW #5 DUE, start of class	S&A 320-321; 336-338 (section 13.2)
June 5	Oceans and human health; HABs; invasive species		S&A 409-412 (section 16.7)
Thursday Jun 11	**Final, 8:30-10:20**		