



Background Readings There is no required textbook. Reading assignments will come from

### Points and grading scale for graduate students

	Possible points	% of Total
Attendance and active class participation	50	10
Homework (4 assignments)	100	20
Midterm 1	75	15
Midterm 2	75	15
Paper/Presentation	100	20
Final	100	20
<b>Total</b>	<b>500</b>	<b>100</b>

A+ 98-100%	A 93-97%	A- 90-92%
B+ 87-89%	B 83-86%	B- 80-82%
C+ 77-79%	C 73-76%	C- 70-72%
D+ 67-69%	D 63-66%	D- 60-62%
	F < 60%	

### Support and Disability Services

At UAF, the Office of Disability Services (203 WHIT; 474-5655; TTY 474-1827;

Week	Date	Lecture Topic	Assignment	Reading
9		Sedimentary transformation of trace metals	Hwk 3 returned	
		The role of bacteria		
10		The influence of sea ice		Melnikov Ch. 3
		Midterm 2		
11		Isotopes as tracers	Topic Due. Midterm 2 returned	Libes Ch. 5
		Isotopes as tracers (cont.)	Homework 4 Due	Swarzenski et al., 2000
12		Upwelling, fronts and eddies review	Outline/References Due	
		Controls on coastal productivity	Hwk 4 returned	Alongi Ch 7
13		Controls on coastal productivity (cont.)		Hutchins et al., 1998
		Interdisciplinary coastal research		Oceanography, 21(4): 90-107,
14		Coastal Observing Systems	Paper Due	
		Future challenges and coastal management		Valiela Ch 14
15		Student Presentations		
		Student Presentations	Papers Returned	
16		Final Exam		

### **Texts**

Alongi, D.M. (1998) *Coastal Ecosystem Processes*. CRC Press, Boca Raton, FL, 419 pp.

Artemyev, V.E. (1996) *Geochemistry of Organic Matter in River-Sea Systems*. Kluwer Academic Publishers, Dordrecht, 190 pp.

Emerson, S. and Hedges, J. (2008) *Chemical Oceanography and the Marine Carbon Cycle*. Cambridge University Press, Cambridge, 453 pp.

Libes, S.M. (1992) *An introduction to Marine Biogeochemistry*. John Wiley & Sons, Inc., New York, 734 pp.

Melnikov, I.A. (1997) *The Arctic Sea Ice Ecos*

Hutchins, D.A., G. R. DiTullio, Y. Zhang and K. W. Bruland. 1998. An iron limitation mosaic in the