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See httn://www.uaf edu/uafany/faci	ulty-senate/curriculum/course-degree-procedures-/ for a complete description of the
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10. COMPLETE CATALOG DESCRIPTION including dept., number, title, credits, credit distribution, cross-listings and/or stacking (50 words or less if possible): Example of a complete description: FISH F487 W, O Fisheries Management 3 Credits Offered Spring Therew and practice of fickaries management with an emphasis on etratories williand for the management of ENGL F213X; ENGL F414; FISH F425; or permission of instructor. Cross-listed with NRM F487. (3+0) MSL 694 Physical, Chemical, and Biological Interactions in the Oceans 3 Credits Offered Fall 2013 his course takes an interdisciplinary look at the interactions between physical chemical and biological appearance in

	15. SPECIAL RESTRICTIONS, CONDITIONS none	
	16. PROPOSED COURSE FEES \$ 0	
	Has a memo been submitted through your dean to the Provost for fee approval?	
	Yes/No	
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	18. ESTIMATED IMPACT	

	JUSTIFICATION FOR ACTION REQUESTED
	The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course anning to make sure that the qualitie of LIAE education is not lowered as a result of the proposed.
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	change. Please address this in your response. This section needs to be self-explanatory. Use as much space as
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Physical, Chemical, and Biological Interactions in the Oceans **MSL 694**

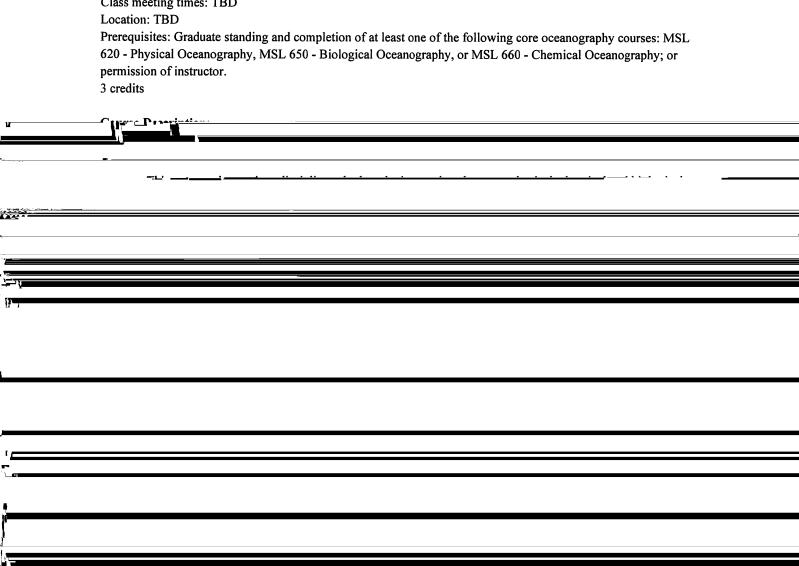
Proposed Fall 2013 Syllabus

Instructor:

Assistant Professor of Oceanography School of Fisheries and Ocean Sciences 231 Irving II 907-474-7529 amcdonnell@alaska.edu

Class meeting times: TBD

Office Hours: TBD

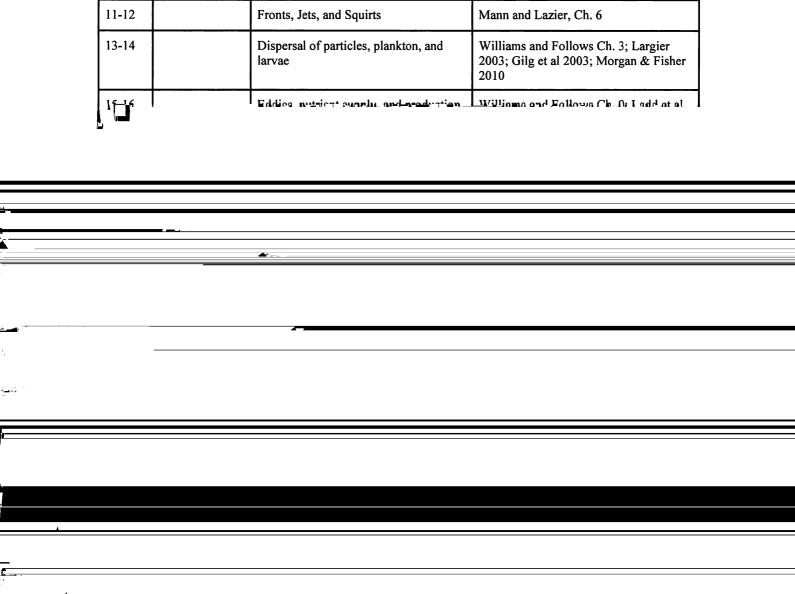


	Class Participation:	
<u></u>	Attendance, participation in class sessions, discussions, and presentations is required and factors into the	
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	Course Readings/Homework: The assigned course readings are all required and essential to meeting the course learning chicatings.	
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	percentages will be rounded to the nearest whole percentage point and letter grades will be assigned according to the following scale (no plus or minus grading): A: >90% B: 80-89% C: 70-79% D: 60-69% F: <59%
	Course Policies
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Course Schedule

Class Session	Date	Торіс	Reading
1		Course Introduction and Concept Mapping	Syllabus
2		Boundary Layers and phytoplankton	Mann and Lazier, Ch. 2
3		Zooplankton in a viscous environment	Mann and Lazier, Ch. 2
4-5		Ecosystem Engineers: Biology Shaping the Physical/Chemical Environment	Brietburg et al, 2010
6		Plankton Patchiness	Martin 2003
7-8		Vertical Structure of the open ocean: mixed layer dynamics	Mann and Lazier, Chpt. 3; Dewar et al 2006
9-10		Coastal Upwelling	Mann and Lazier, Ch. 5;
11-12		Fronts, Jets, and Squirts	Mann and Lazier, Ch. 6
13-14		Dispersal of particles, plankton, and larvae	Williams and Follows Ch. 3; Largier 2003; Gilg et al 2003; Morgan & Fisher 2010
15		Eddica sufficie panella, and made often	Williams and Fallows Ch. At I add at al.



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Dynamics of Marine Ecosystems: Biological-Physical Interactions in the Oceans - 3rd Edition (2006), by K. Mann
and J. Lazier. Blackwell Publishing.
Ocean dynamics and the carbon cycle: principles and mechanisms, (2011) Williams, R. G., & Follows, M. J.
Cambridge University Press.
Journal Articles (To be distributed in class or on Blackboard one week prior to assignment due date)
Breitburg, D. L., Crump, B. C., Dabiri, J. O., & Gallegos, C. L. (2010). Ecosystem engineers in the pelagic realm:
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