BIMM126 Marine Microbiology

Time and location:	Tu/Th 11-12:20. York 4080A
Instructor:	Bianca Brahamsha, 3135 Hubbs Hall, Scripps Institution of
	Oceanography
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Course web site:	webCT.ucsd.edu
The lecture notes (ov	erheads and slides) will be available on the week they are given
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Section: Not mandatory. For review purposes.

Grading: There will be three quizzes and a final exam. The quizzes will be given during the first 30 mins of that day's lecture. The final exam will count for 50% of the grade. The lowest quiz score will be dropped and the remaining two will count for 50%. The quizzes will be a combination of multiple choice, short answer, and short essay and will cover the material immediately preceding them. The final will be comprehensive and will be similar to the quizzes in format.

Cheating: The University imposes strict guidelines on academic integrity (www-senate.ucsd.edu/manual/appendices/app2.htm) and these will be enforced. Anyone caught cheating will receive an F for the course and will be reported to the Academic Integrity coordinator. Please bring a photo ID to all exams and quizzes. You will be required to sign an attendance sheet when you turn in your exams.

Reference Texts: Marine Microbiology: Ecology and Applications. C. B. Munn. ISBN: 1-85996-288-2. On reserve at the Biomed Library. Referred to as **M** below. Brock Biology of Microorganisms (12^{th} edition). Madigan, Martinko, Dunlap, Clark. On reserve at the Biomed Library. Referred to as **B** below.

Review Articles: An entire issue of Nature Reviews Microbiology has been devoted to marine microbiology (5:2007). The excellent series of review articles can be accessed at and downloaded from <u>www.nature.com/nrmicro/focus/marinemicrobiology/index.html</u>.

DATE TOPIC		READING
3/30	Introduction to the marine environment	M (Ch. 1) B (687-692)
4/1	The prokaryotic cell	M (Ch. 3.18) B (67-105)
4/6	Methods in marine microbiology A	M (Ch. 2) B (Ch. 22)
4/8	Methods in marine microbiology B	B (Ch. 22)

4/13	Quiz1 Phylogenetic diversity of marine prokaryotes	M (Ch. 5, 6)
4/15	Metabolic diversity: Phototrophy and Lithotrophy	M (Ch. 4.1- (4.4) B (Ch. 20)
4/20	Metabolic diversity: Respiration, methanogenesis, N fixation	M (Ch. 4.1- (4.4) B (Ch. 21)
4/22	Brian Palenik: Marine Eukaryotic Microbes	M (Ch. 7)
4/27	Marine viruses	M (Ch. 8)
4/29	Quiz 2 The Microbial Loop	M (Ch. 9)
5/4	Doug Bartlett: The cold deep sea	M (4.6.1-4.6.3) B (690-692)
5/6	Hydrothermal vents	B (717-720) M (Ch. 10.3)
5/11	Eric Allen: Marine Microbial Metagenomics	B (364-365, 665-666)
5/13	Paul Jensen: marine microbes and natural products	M (16.8)
5/18	Peter Franks: HABs (harmful algal blooms)	M (Ch. 12)
5/20	Quiz 3 Symbiotic associations	M (Ch. 10) B(720-721)
5/25	Symbiotic associations	
5/27	Marine microbes and human disease	M(Ch.11)

- 6/1 Current directions and developments in marine microbiology
- 6/3 Review