

SIO126 Marine Microbiology

Time and location: MWF 9-9:50. York 4080A

Instructor: Brian Palenik, 3110 Hubbs Hall, SIO
Phone: 858-534-7505, email: bpalenik@ucsd.edu
Office hours: By appointment

TA: Jenan Kharbush email: jkharbus@ucsd.edu

Course web site: ted.ucsd.edu

The lecture notes (ppt slides) will be available usually on the day of the lecture.

Sections: W or F, 10-10:50 York 3030

Grading: There will be three quizzes and a final exam. The final exam will count for 35% 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. Three assignments will count for 5% each.

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 may be required to sign an attendance sheet when you turn in your exams.

Recommended Texts: Marine Microbiology: Ecology and Applications. C. B. Munn. 2nd Ed (On reserve at Geisel)

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

<http://www.nature.com/nrmicro/focus/marinemicrobiology/index.html>

DATE	TOPIC	READING
Jan 5 M	Introduction to the marine environment: Physics and Chemistry A	M (Ch. 1,p.7-14)
Jan 7 W	Physics and Chemistry B	
Jan 9 F	Physics and Chemistry C	
Jan 12 M	The Prokaryotic Cell	
Jan 14 W	Methods in Marine Biology A	M (Ch. 2, p.25-40)
Jan 16 F	Methods in Marine Biology B	
Jan 19 M	Holiday	
Jan 21 W	Phylogenetic Diversity of Marine Prokaryotes	M (Ch. 4)
Jan 23 F	Quiz 1	
Jan 26 M	Metabolic Diversity A	M (Ch. 3)
Jan 28 W	Metabolic Diversity B	"
Jan 30 F	Metabolic Diversity C	M(Ch.3)
Feb 2 M	Eukaryotic Diversity A	M (Ch. 6)

Assignment 1 Due in class

Feb 4 W	Eukaryotic Diversity B	"
Feb 6 F	Marine Viruses	M (Ch. 7)
Feb 9 M	Quiz 2	
Feb 11 W	The microbial loop	M (Ch. 8)
Feb 13 F	Peter Franks: Red Tides	M (Ch. 12,p.270-277)
Feb 16 M	Holiday	
Feb 18 W	Cold Deep Sea and Hydrothermal Vents	
Feb 20 F	Sea Ice/Changing Oceans	

Assignment 2 Due in class

Feb 23 M	Marine Metagenomics in Diverse Environments	M(Ch 2, p. 46-55)
Feb 25 W	Kelly Goodwin NOAA: Marine Microbes and Disease A	M(Ch 11)
Feb 27 F	Marine Microbes and Disease B	M (Ch 12, p.259-270)
March 2 M	Paul Jensen: Marine Microbes and Natural Products	
March 4 W	Symbiotic Associations A	M (Ch 10)
March 6 F	Quiz 3	
March 9 M	Symbiotic Associations B	"
March 11 W	Symbiotic Associations C	"
March 13 F	Current directions and developments in marine microbiology/	

Assignment 3 Due in class

March 18 W 8-11 FINAL