

SIO 111/Physics 111
Introduction to Ocean Waves
Course Syllabus, Winter, 2014

Course website: www-pord.ucsd.edu/~rsalmon

Recommended website: cdip.ucsd.edu

Lectures	MWF 1-1:50	HSS 2321
Discussion	Th 5-5:50	YORK 3030
Office hours	Tu 2-4:00, Th 2-4:00 or by appt	363 Keck (SIO campus)
Final exam	F March 21,	TBA

Instructor:

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Course description:

An introduction to ocean surface waves, including: Dispersion relation, group velocity, and ray tracing. Sources of wave energy. Wave measurement and prediction. Tsunamis. Shoaling waves. Breaking waves. Long-shore currents.

Text: On-line textbook written by the instructor. The textbook may be downloaded from the website. Students must print their own hard copy.

Prerequisites: Physics 2A-C or 4A-C, and Math 20A-E or equivalent. (To gauge the mathematical level of the class, see the on-line textbook at the website.)

Grading: Homework 35%, Mid-term 25%, Final exam 40%

Homework is due at the beginning of class on the date for which it is assigned. Late homework will not be accepted, except for illness or unusual circumstances. Homework will be assigned at the website one week before the due date.

SCHEDULE

MWF are usually lecture days. Homework is due at the beginning of Wednesday's lecture. Homework will be graded and returned in the discussion section on the following day.

JAN	6	M	Chapter 1	
JAN	8	W	Chapter 1	
JAN	9	Th	Chapter 1	
JAN	10	F	Movie: <i>Waves Across the Pacific</i> (1966)	
JAN	13	M	Chapter 1	
JAN	15	W	Chapter 2	Homework #1 due in class
JAN	16	Th	Discuss homework #1	
JAN	17	F	Chapter 2	
JAN	20	M	Holiday. NO CLASS	
JAN	22	W	Chapter 3	Homework #2 due in class
JAN	23	Th	Discuss homework #2	
JAN	24	F	Chapter 3	
JAN	27	M	Chapter 4	
JAN	29	W	Chapter 4	Homework #3 due in class
JAN	30	Th	Discuss homework #3	
JAN	31	F	Chapter 4	
FEB	3	M	Chapter 5	
FEB	5	W	Chapter 5	Homework #4 due in class
FEB	6	Th	Discuss homework #4	
FEB	7	F	Chapter 5	
FEB	10	M	Chapter 5	
FEB	12	W	Mid-term exam covering chapters 1-5	
FEB	13	Th	Discuss midterm	
FEB	14	F	NO CLASS	
FEB	17	M	Holiday. NO CLASS	
FEB	18	Tu	NO OFFICE HOURS	
FEB	19	W	Chapter 6	
FEB	20	Th	Chapter 6	
FEB	21	F	Chapter 6	
FEB	24	M	Chapter 6	
FEB	26	W	Chapter 7	Homework #5 due in class
FEB	27	Th	Discuss homework #5	
FEB	28	F	Chapter 7	

MAR 3	M	Chapter 8	
MAR 5	W	Chapter 8	Homework #6 due in class
MAR 6	Th	Discuss homework #6	
MAR 7	F	Chapter 8	
MAR 10	M	Chapter 9	
MAR 12	W	Chapter 9	Homework #7 due in class
MAR 13	Th	Discuss homework #7	
MAR 14	F	Special lecture by Bob Guza	
MAR 21	F	Final Exam	TBA