

SIO 111/Physics 111
Introduction to Ocean Waves
Course Syllabus, Winter, 2016

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

Recommended website: cdip.ucsd.edu

Lectures	MWF 1-1:50	YORK 3030
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 18, 11:30-2:30,	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	4	M	Chapter 1	
JAN	6	W	Chapter 1	
JAN	7	Th	Movie: <i>Waves Across the Pacific</i> (1966)	
JAN	8	F	Chapter 1	
JAN	11	M	Chapter 1	
JAN	13	W	Chapter 2	Homework #1 due in class
JAN	14	Th	Discuss homework #1	
JAN	15	F	Chapter 2	
JAN	18	M	Holiday. NO CLASS	
JAN	20	W	Chapter 3	Homework #2 due in class
JAN	21	Th	Discuss homework #2	
JAN	22	F	Chapter 3	
JAN	25	M	Chapter 4	
JAN	27	W	Chapter 4	Homework #3 due in class
JAN	28	Th	Discuss homework #3	
JAN	29	F	Chapter 4	
FEB	1	M	Chapter 5	
FEB	3	W	Chapter 5	Homework #4 due in class
FEB	4	Th	Discuss homework #4	
FEB	5	F	Chapter 5	
FEB	8	M	Chapter 5	
FEB	10	W	Mid-term exam covering chapters 1-5	
FEB	11	Th	Discuss midterm	
FEB	12	F	Chapter 6	
FEB	15	M	Holiday. NO CLASS	
FEB	17	W	Chapter 6	
FEB	18	Th	Chapter 6	
FEB	19	F	Chapter 6	
FEB	22	M	Chapter 7	
FEB	24	W	Chapter 7	Homework #5 due in class
FEB	25	Th	Discuss homework #5	
FEB	26	F	Chapter 7	

FEB	29	M	Chapter 8	
MAR	2	W	Chapter 8	Homework #6 due in class
MAR	3	Th	Discuss homework #6	
MAR	4	F	Chapter 8	
MAR	7	M	Chapter 9	
MAR	9	W	Chapter 9	Homework #7 due in class
MAR	10	Th	Discuss homework #7	
MAR	11	F	Special lecture by Bob Guza	
MAR	18	F	Final Exam	TBA