

**SIO 111/Physics 111  
Introduction to Ocean Waves  
Course Syllabus, Spring, 2021**

Course website: [SIO/PHYS 111 on Canvas](#)  
Recommended websites: [cdip.ucsd.edu](http://cdip.ucsd.edu),  
[http://www.stormsurf.com/mdls/menu\\_wam.html](http://www.stormsurf.com/mdls/menu_wam.html)

Lectures:	Tu Th 3:30-4:50pm	In Person / Podcast
Discussion:	Wed 5-5:50pm	Zoom
Final exam:	Monday June 7, 3:00-6:00pm	In Person / Online

**Instructor:**

Falk Feddersen, Professor, Scripps Institution of Oceanography, [ffeddersen@ucsd.edu](mailto:ffeddersen@ucsd.edu)  
Zoom Office hours: , Mon 4-5pm, F: 9-10am, or by appt

**Teaching Assistant:** Ben Davis, Graduate Student, SIO, [bddavis@ucsd.edu](mailto:bddavis@ucsd.edu)

Zoom Office hours: Tu 5:30-6:30p

**Administrator:** Josh Reeves, ECKART 204, 858-822-4559, [jdreeves@ucsd.edu](mailto:jdreeves@ucsd.edu)

**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.

**Text:** On-line textbook written by SIO Professor Salmon. The textbook may be downloaded from the Canvas or at <http://pordlabs.ucsd.edu/rsalmon/111.textbook.pdf>  
Other resources include: Chapter 7 of Kundu: (available online at UCSD library)  
<http://www.sciencedirect.com/science/book/9780123821003>

**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:** HW 40%, Mid-term 30%, Final exam 30%

HW is due to Canvas at the beginning of class on the date for which it is assigned. Late HW will not be accepted, except for illness or unusual circumstances. HW will be assigned on Canvas one week before the due date. One HW can be dropped, but you must inform Prof. Feddersen that you wish to drop that particular HW assignment. Extra credit will be given for those who do all the assigned HW.

**TENTATIVE SCHEDULE:**

Tues/Thur are lecture days. HW will be assigned Tuesdays and is due via Canvas prior to class the following Tuesday, unless otherwise stated. HW will be discussed in the

following section. This schedule is tentative and may be subject to change will would be announced via email and revisions to this syllabus.

MAR	30	Tu	Introduction	
MAR	31	W	No Discussion Section	
APR	1	Th	Chapter 1	
APR	6	Tu	Chapter 1	HW 1 assigned
APR	7	W	Open Discussion	
APR	8	Th	Chapter 2	
APR	13	Tu	Chapter 2	HW2 assigned
APR	14	W	Discuss HW1	
APR	15	Th	Chapter 3	
APR	20	Tu	Chapter 3	HW 3 assigned
APR	21	W	Discuss HW 2	
APR	22	Th	Chapter 4	
APR	27	Tu	Chapter 4	HW 4 assigned
APR	28	W	Discuss HW 3	
APR	29	Th	Chapter 5	
MAY	4	Tu	Chapter 5	
MAY	5	W	Discuss HW 4	
MAY	6	Th	Mid-term exam	
MAY	11	Tu	Chapter 6	
MAY	12	W	Discuss mid-term exam	
MAY	13	Th	Chapter 6	HW 5 assigned
MAY	18	Tu	Chapter 7	
MAY	19	W	Open Discussion	
MAY	20	Th	Chapter 7	HW 6 assigned
MAY	25	Tu	Chapter 8	
MAY	27	W	Discuss HW 5	
MAY	27	Th	Chapter 8	HW 7 assigned
JUN	1	Tu	Chapter 9	HW 7 due (note shortened due date)
JUN	2	W	Discuss HW6,7	
JUN	3	Th	Guest Lecture	
JUN	7	M	Final Exam	3:00-6:00pm Online

**Lectures:** Lectures will be in person and also available shortly thereafter on Canvas via

podcast.ucsd.edu You are notified that these lectures will be recorded, and that this program uses video and audio recording or other personal information for the purpose of facilitating the course and/or test environment. UC San Diego does not allow vendors to use this information for other purposes. Recordings will be deleted when no longer necessary. However, if cheating is suspected, the recording may become part of the student's administrative disciplinary record.

**Disability Resources:** Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD) located in University Center 202 behind Center Hall. Students should present their AFA letters to Faculty (please make arrangements to contact me privately) at least two weeks prior to an exam to ensure that accommodations may be arranged.

Contact the OSD for further information:

T: 858.534.4382

E: [osd@ucsd.edu](mailto:osd@ucsd.edu)

W: <http://disabilities.ucsd.edu>