

# Introduction to Physical Oceanography

MAR 352 - Fall 2007

Tuesday 9:50am - 11:50 am

Room: Natural Science W 105\*, Stony Brook - Southampton

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## Instructor Information

Name : Joe Warren, Assistant Professor  
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Teaching Assistant : Amanda Burson, [amburson@yahoo.com](mailto:amburson@yahoo.com)  
Office Hours: TBD

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## Course Description

An introduction to the physical properties, motion of, and forces that drive the movement of fluids (air and water) on the earth. Physical oceanographic processes that range in scale from several mm to 1000s of km will be studied. This course will introduce the student to the physics of the marine environment and the tools (physical, mathematical, scientific) to study these waters. Environments ranging from pelagic to estuarine will be examined.

## Prerequisites

MAT 127, 132, or 142      Calculus  
PHY 119, 121, 125, or 131      Physics

## Textbook

Required : Robert H. Stewart, *Introduction to Physical Oceanography*  
Book should be available at the Stony Brook Southampton bookstore.

## Grading

Your grade in the course will be earned / calculated as follows:

problem sets	45%
2 exams	15% each
final exam	25%

## Student Expectations

Will attend class, be courteous, and do their best. Will be prepared and active participants in the learning process.

## **Problem Sets**

### **Late Assignments will not be graded.**

Un-stapled assignments will lose 15% of that assignments points.

Problem sets are due at the beginning of class. There are 5 problem sets for this course which make up 45% of your final grade. This means that each PS is worth 9% of your final grade. Doing poorly on the problem sets (or not doing them at all) will ensure you a poor grade.

## **Exams and Final Exam**

Each of the two exams will comprise 15% of the course grade with the the final exam composing an additional 20%. The final exam is comprehensive.

## **Academic Honesty**

If you are caught cheating on any assignment in the class, you will automatically fail that assignment and I reserve the right to give you a failing grade for the course.

## **Stony Brook University Syllabus Information**

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Any suspected instance of academic dishonesty will be reported to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at:  
<http://www.stonybrook.edu/uaa/academicjudiciary/>

Stony Brook University expects students to maintain standards of personal integrity that are in harmony with the educational goals of the institution; to observe national, state, and local laws and University regulations; and to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, and/or inhibits students' ability to learn.

## Course Calendar

Date	Topic	Reading	Assignment
Tue 04 Sep	Syllabus, Introduction and History	Ch. 1,2	Quiz 1
Tue 11 Sep	Physical Environment of the Ocean	Ch. 3	
Tue 18 Sep	Atmospheric Influences	Ch. 4	Problem Set 1 due
Tue 25 Sep	Heat Budget	Ch. 5	
Tue 02 Oct	Physical Properties	Ch. 6	Problem Set 2 Due
Tue 09 Oct	<b>Exam 1</b>		
Tue 16 Oct	Equations of Motion	Ch. 7	
Tue 23 Oct	Ocean Waves	Ch. 16	Problem Set 3 Due
Tue 30 Oct	Tides	Ch. 17	
Tue 06 Nov	Surface Motion	Ch. 9	Problem Set 4 Due
Tue 13 Nov	<b>Exam 2</b>		
Tue 20 Nov	CORRECTION DAY		
Tue 27 Nov	Geostrophic Currents	Ch. 10	
Tue 04 Dec	Wind-Driven Ocean Circulation	Ch. 11	
Tue 11 Dec	Deep Circulation	Ch. 13	Problem Set 5 Due
XXX 17-21 Dec	<b>Final Exam</b> - Date TBD		