# Syllabus

## Introduction to Oceanography



### Course Intro and Objectives

This course is designed for upper-division undergraduates and new graduate students in meteorology, ocean engineering, and oceanography. After reading this book, it expected that students will describe physical processes influencing the ocean and coastal regions: the interaction of the ocean with the atmosphere, and the distribution of oceanic winds, currents, heat fluxes, and water masses.

In this course you will learn to:

* Describe the theories of the origin of the earth, atmosphere, and oceans
* Describe the development of ocean knowledge from early voyages to modern times
* Describe the theory and features of plate tectonics
* Identify the major features of ocean basins
* Recognize different ocean sediments, their characteristics and origins
* Identify the chemical and physical characteristics of sea water
* Explain how Earth's atmosphere oceans circulate and influence each other
* Compare density and surface currents and identify the factors that affect each
* Understand the formation and behavior of waves
* Explain the formation of tides and identify factors that affect the tidal cycle
* Describe the general characteristics of coastlines and coastal processes
* Identify the factors that influence organisms and productivity in the ocean
* Describe the general characteristics of life in the water
* Describe the general characteristics of life on the sea floor
* Identify and consider possible solutions to the environmental issues of the oceans

### Delivery Format

Blended. Partly online, partly onsite, partly offsite (field trips). Lectures are delivered online via video. Live class sessions are reserved for active lab work. Online activities include group field trip logging and discussions, quizzes, and homework assignments.

The face-to-face class sessions take place this semester on Tuesdays from 3 – 4:15 pm

### Textbook

Introduction to Physical Oceanography by Robert Stewart of Texas A & M University|NASA

Cost: Free

URL: [oercommons.org/courses/dr-robert-stewarts-physical-oceanography-class-page](http://www.oercommons.org/courses/dr-robert-stewarts-physical-oceanography-class-page)

### Required Work

#### Readings and Videos

Each week you will be expected to read the assigned chapter(s) or article(s) listed in the online course modules. There are also two hours of video lecture for you to watch each week. These are online so you can watch (and rewatch) them at your convenience.

#### Lab Work & Assignments – 25%

We’ll be doing lab work and Q&A in our live face-to-face meetings. These typically lead into or complement assignments that you’ll need to submit for scoring.

#### Quizzes – 20%

Each week you are required to take a quiz specifically on the readings for the week. These are timed and randomized, but you have 2 attempts. However, your first quiz attempt **must** be complete before we meet f2f.

#### Field Trips – 20%

We will be going on 5 field trips during the semester. These happen on Friday mornings. I will begin each site visit with a short lecture that introduces you to the particular environment and connects it to previous lessons.

You will be working on discovering and logging your field trip work as described in the online course Field Trip assignments.

#### Paper – 10%

Each of you will write a report or essay based on one of your experiences in the field. You’ll write two drafts of this paper and participate in a peer review process. This is described in the online course.

You probably want to use Google Docs to create and share your paper draft with your classmates. The **Collaborate** tool in Canvas makes this easy to do.

#### Exams – 25%

Oh no! You have two exams, a midterm and a final. Don’t worry: if you’ve been reading, studying, watching the lectures, and taking the quizzes you should be well prepared. Both exams are comprehensive, so practice those quizzes!

These exams are online, but must be taken at a secure, proctored location such as the Campus Testing Center.

### Communication

In addition to our face-to-face interaction you can expect to receive regular communications from the teacher from within the course web site. Be sure to configure your Canvas profile to receive notifications the way *you* want to.

But in general I’ll be using:

* **Announcements** to send class-wide messages
* **Assignment messaging** for private, assignment-specific discussions
* The **Q&A discussion** forum for addressing general, class-wide questions
* **Conferences** or **Chat** for virtual office hours (by appointment only)
* **Conversations** if I need to discuss a non-assignment issue privately with you

### Group Work

You’ll need to sign up for a **Group** in the **People** area of Canvas. Each group will work together on Field Trip activities. Canvas gives each group its own area to discuss, chat, share, etc. Use your Group’s area as a stage for preparing your Field Trip Log Discussion submissions.

### Non-Discrimination Policy

Our college provides equal opportunity in education and employment and does not discriminate on the basis of race, sex, age, color, religion, national origin, marital status, gender, sexual orientation or disability.