

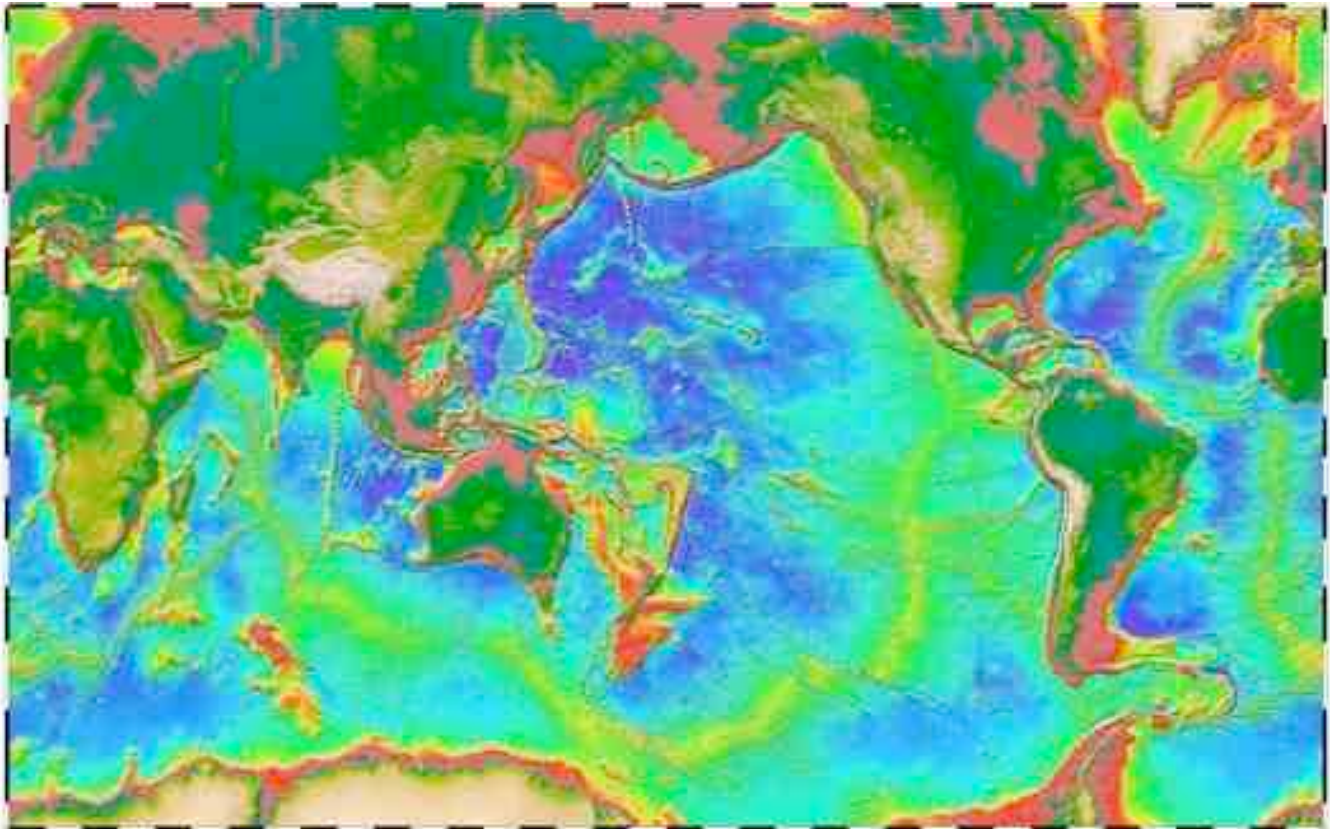
Syllabus for: Introduction to Oceanography	
Semester & Year:	Spring 2014
Course ID and Section Number:	OCEAN-10- E5226 / OCEAN-10- / E5273 (035226) / (035273)
Number of Credits/Units:	3
Day/Time:	Tuesday, Thursday 10:05AM - 11:30AM
Location:	Humanities Bldg, Room HU125
Instructor's Name:	Danny O'Shea
Contact Information:	danny-oshea@redwoods.edu
Course Description: An introduction to the Earth's ocean including marine environments, geology, plate tectonics, fundamental chemical and physical properties of seawater, atmospheric-oceanic relationships, oceanic circulation, coastal environments and biological productivity.	
Student Learning Outcomes:	
<ol style="list-style-type: none"> 1) Use the formal methodology of the scientific method as an inquiry-based tool to critically evaluate oceanic phenomena. 2) Describe how energy is transferred between different elements of the Earth's geologic, oceanic, atmospheric, and biological systems. 3) Apply oceanographic principles to describe how coastal materials and landscapes change over time. 4) Apply concepts of physics and chemistry to quantitatively explain variations in the characteristics of the oceanic environment. 	
Special accommodations: College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact Disabled Students Programs and Services. Students may make requests for alternative media by contacting DSPS.	
Academic Misconduct: Cheating, plagiarism, collusion, abuse of resource materials, computer misuse, fabrication or falsification, multiple submissions, complicity in academic misconduct, and/ or bearing false witness will not be tolerated. Violations will be dealt with according to the procedures and sanctions proscribed by the College of the Redwoods. Students caught plagiarizing or cheating on exams will receive an "F" in the course.	
<p>The student code of conduct is available on the College of the Redwoods website at: http://redwoods.edu/District/Board/New/Chapter5/AP%205500%20Conduct%20Code%20final%202002-07-2012.pdf</p>	
Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods homepage.	
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Introduction to Oceanography

Oceanography 10 – E-5226 / E-5273

College of the Redwoods

Spring 2014



Syllabus

Instructor Danny O'Shea

Oceanography 10 E-5226 & E-5273
Introduction to Oceanography
Office HU 125A

Spring 2014
Danny O'Shea
e-mail: danny-oshea@redwoods.edu

TTh 10:05 a.m. – 11:30 a.m.
Room HU 125

Course Description: This Earth Science course is an introduction to the oceans including marine geology, plate tectonics, and the physical and chemical properties of seawater, oceanic-atmospheric circulation, marine environments, and biological productivity. The goal of this course is to understand the biogeochemical relationships of the Earth's Ocean. This 3-unit course meets Tuesday and Thursday in Room PS111 on the CR main Eureka campus at 10:05 a.m. The course will follow the syllabus outlined below, however, material will shift to accommodate events or discoveries that occur during the semester.

Syllabus

<u>Week</u>	<u>Day-Month</u>	<u>Topic</u>	<u>Reading</u>	<u>In-Class Activities</u>	<u>Online Quiz</u>
1	21 - Jan 23 - Jan	Origins Exploration	1	1) Charts, Latitude Longitude & Time	1
2	4 - Feb 6 - Feb	Plate Tectonics Ocean Basins	2 3	2) Plate Boundaries & Marine Geology	2
3	11 - Feb 13 - Feb	Seafloor Sediments Review	4	3) Mantle Plumes & the Hawai'ian Hot Spot	Research Outline Due
4	18 - Feb 20 - Feb	1 st Exam Water & Salts	1 - 4 5	4) Seawater Chemistry	3
5	25 - Feb 27 - Feb	Seawater Chemistry Physical Properties	5	5) Pressure, pH & CO ₂	
6	4 - Mar 6 - Mar	Atmospheric Circulation	6	6) Coriolis Effect	4
7	11 - Mar 13 - Mar	Ocean Circulation	7	7) Ocean Circulation	5
8	18 - Mar 20 - Mar	Spring Break!		No Class	6
9	25 - Mar 27 - Mar	Research Paper Due 2 nd Exam	5 - 7	Review	Research Paper Due
10	1 - Apr 3 - Apr	Ocean Waves	8 9	8) Ocean Wave Prediction	7
11	8 - Apr 10 - Apr	Tides Deltas & Coastlines	10	9) Ocean Tides	8
12	15 - Apr 17 - Apr	3 rd Exam Life in the Ocean	6 -11 12	10) Life in the Ocean	9
13	22 - Apr 24 - Apr	Plankton Marine Animals	13 14		
14	29 - Apr 1 - May	Marine Biology	15		10
15	6 - May 8 - May	Marine Resources Marine Pollution	16		Notebooks Due
16	15 - May	Final Exam	1 - 16	Final Exam	

Textbooks are available in the CR Bookstore and are to be used as a background reading to improve your general understanding of the material. Read the chapters before you come to class. Any recent edition of an Introductory Oceanography textbook will suffice, however, you will need to cross reference the chapter from the syllabus and outline available on the myCR website (www.redwoods.edu).

Taken with the laboratory, Oceanography 11, this course is transferable to CSU and UC schools as a science class with a laboratory.

My office hours are Tuesday 9:00 p.m. – 10:00 a.m., or by appointment. The best way to contact me is via e-mail at: danny-oshea@redwoods.edu

Course Learning Outcomes:

- 1) Use the formal methodology of the scientific method as an inquiry-based tool to critically evaluate oceanic phenomena.
- 2) Describe how energy is transferred between different elements of the Earth’s geologic, oceanic, atmospheric, and biological systems.
- 3) Apply oceanographic principles to describe how coastal materials and landscapes change over time.
- 4) Apply concepts of physics and chemistry to quantitatively explain variations in the characteristics of the oceanic environment.

Grading:

Your performance on: the three midterm, and cumulative final exams, research paper; in-class activities, online quizzes, readings, and class participation determine the grade you receive. There are 1000 points available and grades are assigned by the percentage of total points as follows:

1000-940=A	939-900=A-	899-870=B+	869-830=B	829-800=B-
799-770=C+	769-730=C	729-700=C-	699-670=D+	669-600=D
<599=F				

Grading Summary:

Grading Summary:	Points
➤ 3 Midterms and 1 Final:	400
➤ Course Notes and Illustrations	150
➤ Research outline and report	150
➤ Activities	150
➤ Online Quiz	100
➤ Participation	50
Total Points:	1,000

Mid-Term/Final Exams

The 3 midterms and final are worth 100 points each. The exams are a mix of multiple choice, true/false, short answer, and essay questions based on the lectures, activities, homework, and course reading. The final is cumulative and will concentrate on physical, chemical, and geological topics relevant to the biological topics covered during the last several weeks of the course. Each student is required to submit a multiple-choice question for the final exam based on the information presented by the student during the last two weeks of class.

Course Notes and Illustrations

Each lecture will include several illustrations that relate to the specific topic being discussed for that day. Credit is given for careful reproduction of the illustrations including any notes, labels, and graphs. You will turn in your notebook toward the end of the semester along with your activities and homework that has been completed through the semester.

Reading

You will need an Introductory Oceanography textbook to successfully complete the Ocean-10 course. New textbooks are very expensive, so I have set up this course so that any recent (published since c.a. 2000) edition of an Introductory Oceanography textbook will suffice. You will need to read the chapter(s) to be discussed **BEFORE** you come to class. This will make the lectures more interesting, and improve your learning experience. A course outline is posted on myCR so that you can review topics covered in the classroom. I strongly encourage you to investigate other sources of information, such as, news feeds, journal articles, and other media.

Activities

Each week we will focus on a specific topic, and use some of the class time to develop these themes. You may need to spend some time out of class completing the activities. There are 10 activities throughout the course, each worth 15 points.

On-Line Quiz

Each week a multiple-choice, on-line quiz will be posted on myCR. Variations of the quiz questions will also appear on the midterm exams. Note that the questions may be slightly different, so read exam the questions carefully. Each on-line quiz is worth 10 points.

Research Project

Each student is required to submit a **2,000 to 3,000-word** research paper with **2 images** on a topic of interest to you. The paper is to be **submitted online** via the myCR web site. Your information should come from your own observations, scientific articles on the subject, library and internet research. No late work accepted.

>>>>>>>>>>*Projects submitted without references will not receive a grade***<<<<<<<<<<<<**

A research project on a topic of interest to you that is related to Oceanography is required from each student. For full credit your research must include:

- 1) **2,000-3,000 words**, original (not copied and pasted) **text** (this is about 5-7 pages);
- 2) **2 images:** at least one **chart** or **map** with a **figure number** (e.g. Figure 1) and **brief description** of the location of interest; and at least one **image, drawing** or **graph** complete with a **figure number** and **brief description.**
- 3) **References** (Bibliography, Works Cited, etc.); A minimum of **three references**, not including your textbook. One of your references must be from the science journal “Science” available in the library or online through myCR under the “Library Resource” link in the Course Tools box.

We will briefly review some basic writing techniques early in the course.

A **General outline** with specific research topics for your project is due **February 13** (20 pts)

The **Final draft** is due by **March 27** early submissions are encouraged. Projects are to be turned in online as a .pdf. I will post your research project on the MyCR website so other in the class students will have the chance to learn from your research. I will enable the Turnitin service so you will be able to see your similarity (to online sources) index. No late work accepted.

>>>>>>>>>>*Projects submitted without references will not receive a grade***<<<<<<<<<<<<**

Attendance/Participation

Participation is very important and absence will reflect negatively on your performance and final grade. Showing up late is very disruptive so please come to class on time. Likewise, if you need to leave the class early, please let me know before the class starts. Eating, drinking, texting, and chatting are social activities, and are best done outside the class. Thank-you.

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