Syllabus for: Introduction to Oceanography			
Semester & Year:	Fall 2012		
Course ID and Section Number:	OCEAN 10 #032466		
Number of Credits/Units:	3		
Day/Time:	Friday 9:00 a.m. – 12:10 p.m.		
Location:	Room 122, Mendocino Coast Education Center		
Instructor's Name:	Jason Patton		
Contact Information:	Office location and hours: available by appointment		
	Phone: 707-962-2667		
	Email: jason-patton@redwoods.edu		

## Course Description (catalog description as described in course outline):

An introduction to the world ocean including marine geology, plate tectonics, oceanic circulation, fundamental physical and chemical properties of seawater, atmospheric-oceanic relationships, marine environments, and productivity.

## Student Learning Outcomes (as described in course outline):

- 1. Make reasonable interpretations of oceanographic data.
- 2. Apply the scientific method to the critical evaluation of data and concepts.
- 3. Identify the underlying concepts and physical and chemical processes of oceanography in a variety of different areas.
- 4. Recognize and discuss the relationships between physical and chemical environmental factors and the organisms and populations characteristic of an area.
- 5. Identify and the primary forces responsible for oceanic circulation.
- 6. Discuss the relationships between oceanic processes and local and global climate and weather.
- 7. Use their understanding of oceanographic principles to interpret and discuss the processes affecting coastal areas.
- 8. Explain plate tectonics and discuss multiple lines of scientific evidence that support this theory.
- 9. Describe in writing the processes involved in the formation of sediments in the ocean and identify the principal source materials for each of the basic types of marine sediments.

**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.

The student code of conduct is available on the College of the Redwoods website at: <a href="http://redwoods.edu/District/Board/New/Chapter5/AP%205500%20Conduct%20Code%20final%2002-07-2012.pdf">http://redwoods.edu/District/Board/New/Chapter5/AP%205500%20Conduct%20Code%20final%2002-07-2012.pdf</a>

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.

College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.

# College of the Redwoods Mendocino Coast Campus Introduction to Oceanography Course Syllabus Fall 2012

# Ocean 10 – Section 032466 – 3.0 Units Friday 9AM -12:10 PM Room 122

Instructor: Jason Robert Patton email: <u>Jason-Patton@redwoods.edu</u>

Voicemail: 707. 962.2667 (If you leave a voicemail, please state your name, phone, and

time that you called, in addition to the topic.)

Office: Room 101

Office Hours: Thursday afternoon by appointment

**Required Text:** Alan Trujillo & Harold Thurman, <u>Essentials of Oceanography</u>, 10<sup>th</sup> ed., 2010

**Required Supplies:** three ring binder for class handouts including blank paper for drawing illustrations and notes during class; colored pencils for making illustrations better, USB "thumb" drive.

<u>Contact</u>: Please don't hesitate to email me with any questions, comments, or concerns. I welcome any feedback or suggestions. The best way to contact me for any reason is by sending an email directly to my CR email <u>Jason-Patton@redwoods.edu</u>

Alternatively, you may leave me a voice mail message (see phone number at the top of this syllabus). Please do not send messages through the myCR 'messages' application.

### **Course Description**

An introduction to the world ocean including marine geology, plate tectonics, oceanic circulation, fundamental physical and chemical properties of seawater, atmosphericoceanic relationships, marine environments, and productivity.

#### **Course Learning Outcomes**

- 1. Make reasonable interpretations of oceanographic data.
- 2. Apply the scientific method to the critical evaluation of data and concepts.
- 3. Identify the underlying concepts and physical and chemical processes of oceanography in a variety of different areas.
- 4. Recognize and discuss the relationships between physical and chemical environmental factors and the organisms and populations characteristic of an area.
- 5. Identify the primary forces responsible for oceanic circulation.

- 6. Discuss the relationships between oceanic processes and local and global climate and weather.
- 7. Use their understanding of oceanographic principles to interpret and discuss the processes affecting coastal areas.
- 8. Explain plate tectonics and discuss multiple lines of scientific evidence that support this theory.
- 9. Describe in writing the processes involved in the formation of sediments in the ocean, and identify the principal source materials for each of the basic types of marine sediments

## Grading

Your final grade will be comprised of:

Summary	<u>Points</u>
3 Mid Terms and 1 Final Exam	400
Course Notes and Illustrations	180
Activities	100
Online Quizzes	100
Research Paper Outline	50
Research Paper	120
<u>Video Presentation (~5 minutes)</u>	<u>50</u>
Total	1000

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+	769-700=C	699-670=D+	669-600=D	<599=F

#### Classroom Conduct

Side conversations among classmates are disrespectful and disruptive to the instructor and your fellow students. Questions or comments about the course material are welcome at all times but should be approached in a respectful manner.

The use of cell phones, iPods, or other items that may distract you, your instructor, or your classmates are not permitted during class. All such devices must be turned off.

You may not leave the room during an exam or quiz unless you are ready to turn in your finished exam.

#### **Academic Honesty**

You are encouraged to work together to review notes from lectures, to work on problems from the text, and to formulate ideas for any take-home assignments. However, all work you turn in must be your own independent, original work.

In the event that any work is copied from another student, zero credit will be given to all students involved (regardless of who copied from whom).

Any sources of information used in your written work must be referenced (regardless of whether the material was copied word-for-word). This includes your text book and all internet sources (reference these by including the name and URL). Any work including un-referenced material from another source (regardless of whether it was copied word-for-word) will be given zero credit.

<u>Academic Misconduct</u>: 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.

Academic dishonesty in any form may be reported to the vice president of CR, as per the student code of conduct available at <a href="http://www.redwoods.edu/District/Board/New/Chapter5/Ap5500.pdf">http://www.redwoods.edu/District/Board/New/Chapter5/Ap5500.pdf</a> See in particular page 9, Article VIII which begins "Students are expected to demonstrate qualities of morality, integrity, honesty, civility, honor, and respect."

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#### **Tentative Class Schedule\***

<u>Date</u>	<u>Topic</u>	<u>Readings</u>
8/31/12	Course Introduction; Origins & Structures of the Earth	Ch. 1
9/7/12	Plate Tectonics	Ch. 2
9/14/12	No Class (Read ahead on your own)	
9/21/12	Ocean Basins; Marine Sediments	Ch. 3, 4
9/28/12	Research Paper Outline Due; Mid Term I; Chemical	
	Oceanography	Ch. 5
10/5/12	Atmospheric Circulation; Air-Sea Relations; Ocean	

	Circulation	Ch. 6, 7
10/12/12	Waves and Tides	Ch. 8, 9
10/19/12	Mid Term II; Prepare for Oceanographic Cruise	
10/26/12	Oceanographic Cruise (7A - 3PM)	
11/2/12	Coastal Oceanography: Beaches, Coastlines, and Estuaries	Ch. 10, 11
11/9/12	Biological Oceanography: Classification and Energy Balanc	е
	(Productivity)	Ch. 12, 13
11/16/12	Mid Term III; Biological Oceanography: Pelagic	
	Environment	Ch. 14
11/23/12	Holiday: Thanksgiving Break (Read ahead on your own)	
11/30/12	Biological Oceanography: Pelagic Environment	Ch. 15
	Five Minute Video Presentation Report Due; Research Paper	<u>Due</u>
12/7/12	Oceans and Climate Change	Ch. 16
	<u>Five Minute Video Presentations</u>	
12/14/12	Final Exam; Course Notes and Illustrations are due	

<sup>\*</sup> Note: Instructor reserves the right to make changes to course schedule as deemed necessary.

# College of the Redwoods Resources and Information

<u>Disabilities</u>: College of the Redwoods is dedicated to providing access to all classes for persons with disabilities. If you have a verified disability and need accommodation, or suspect you have a disability and wish to be evaluated for eligibility, you are encouraged to speak with Carole Freeman at 707.962.2638.