

# OCEANOGRAPHY COURSE SYLLABUS

Lecture Hours: 3 (1919.00)

Message phone: (760) 757-2121 x7879 (San Elijo Campus office)

Office Hours: 11:00 AM – Noon Mondays & Wednesdays, SAN 503

E-mail address: pfarquharson@miracosta.edu

Blackboard site: <https://blackboard.miracosta.edu/>

Instructor's class website: <http://oceanography.geology-guy.com/>

*MasteringOceanography Study Area: All sorts of Visualizations, Practice Quizzes, even Flash Cards & Glossary! (through Bb)*

## Teaching Philosophy

As odd as this may sound, I don't consider myself a **teacher**. I can't teach you anything. My goal is to encourage you to **learn**. Picture me wearing a pleated skirt, a sweater with a letter on the front (G, as in Geology!) and pom-poms in hands, cheering you on: "Go! Fight! Learn tonight!" I don't **give** grades. I'm merely the scorekeeper. You are responsible for your success. I have been considering myself a **mentor** since a supervisor who hired me some time ago pointed out that all of the references that he checked said that mentoring was part of my persona. Hence, I have adopted that label for myself: **Earth Sciences Mentor**. Note that oceanography is a highly interdisciplinary field of study, as is geology. Lesson 1 - it's all one thing!

## Textbooks and Other Supplies

- *Recommended: **Essentials of Oceanography** 11th Edition, Trujillo and Thurman (© 2014) Note that there are many purchase options (e.g. regular bound text, loose-leaf version, eText, digital reader)..*
- *Required: Access to **Modified MasteringOceanography** (it must be purchased through our Blackboard site online for \$41.00).*

## Important information regarding MyLab and MasteringGeology

**DO NOT** purchase an access code for **MasteringOceanography** anywhere other than through our Blackboard site! Please follow the instructions on the "unofficial" website, also in Blackboard.

## Optional Regional Resource Books

*The Rise and Fall of San Diego: 150 Million Years of History Recorded in Sedimentary Rocks, Patrick L. Abbott, 1999, Sunbelt Publications. ISBN: 0-932653-31-6*

## Teaching Philosophy

As odd as this may sound, I don't consider myself a **teacher**. I can't teach you anything. My goal is to encourage you to **learn**. Picture me in wearing a pleated skirt, a sweater with a letter on the front (O, as in Oceanography!) and pom-poms in hands, cheering you on: "Go! Fight! Learn tonight!" I don't **give** grades. I'm merely the scorekeeper. You are responsible for your success. I have been considering myself a **mentor** since a supervisor who hired me some time ago pointed out that all of the references that he checked said that mentoring was part of my persona. Hence, I have adopted that label for myself: **Earth Sciences Mentor**. Note that geology is a highly interdisciplinary field of study. Lesson 1 - it's all one thing!

## Instructor Availability

I am a friendly, helpful, approachable person. My office hours will be on the San Elijo Campus on Mondays and Wednesdays from 11 AM until noon. For other communications, E-mail is preferred, with backup method of the telephone.

## Short Description (Fall 2015 Course Schedule)

*"The scientific study of the ocean. Topics include the formation and evolution of the ocean basins, atmosphere-ocean interactions, waves, tides, coastal oceanography, and an introduction to the study of marine life, including plankton, fishes, and marine mammals. CSU; UC"*

## **Course Description (2013-14 MCC Catalog)**

*“This course explores the major processes and features of the world’s oceans. Topics include the origin and history of the ocean basins, atmospheric circulation and weather, ocean circulation, and the dynamics of waves, tides, and coastlines. The course also reviews marine life (including plankton, nekton, benthos, and marine mammals), explores the oceans as a resource for people, and considers human impacts on marine environments.”*

## **Student Learning Outcomes (“SLO’s”)**

A successful student should be able to meet the following Student Learning Outcomes (SLOs):

- Describe characteristic processes and landforms associated with tectonic plate boundaries.
- Compare and contrast the oceanic and atmospheric characteristics of El Niño and La Niña.
- Describe the seasonal pattern of phytoplankton productivity for tropical, middle latitude, and polar oceans..

## **Instructor’s Course Objectives**

I hope to help you to discover:

- Key concepts and developments in evolution of ocean science.
- Continental shelves, ocean basins, selected trenches.
- Nature and character of sea floor sediments.
- Wave and tide motions.
- Basic principles of physics and chemistry as they apply to ocean composition and behavior.
- Plant and animal relationships within the oceanic environment.
- Identification and comparison of estuarine and intertidal communities.
- Major ecological problems associated with the sea.
- Evaluation of impact of humans on fragile interfaces of ocean environment.

## **General Requirements**

- Attendance is very important but not required. Important material will be covered in each class session. I will take attendance the first four class meetings only. After that, I will be loosely monitoring student progress in Blackboard and Mastering and **might** send nagging emails to those who do not appear to be participating, and therefore in danger of a negative outcome in the class: the dreaded "F"! You are now responsible for your own success.
- Drop and add dates and deadlines are found in the **Official MiraCosta Fall 2015 Credit Courses** class schedule (page 5).
- **PLAN TO ARRIVE EARLY FOR CLASS!!** I understand that, occasionally, things run late. However, do not make a habit of arriving late or leaving early as it causes a disruption for me and for other students in the class. If you do arrive late, please quietly take a seat in the rear of the room or nearest the door. Do not disrupt class by turning in homework or picking up handouts during class session.
- Texting, Facebook, Twitter, etc. - please be discreet! (see previous paragraph)
- Visitors allowed only with instructor approval.
- Audio or video recordings are encouraged, if it helps you learn.
- Food and beverages are not allowed in the classroom. Plastic water bottles are allowed but clean up behind yourself.

## **Academic Misconduct: (key word: PLAGIARISM!)**

Section 41301 of Title V of the California Code of Regulations defines academic misconduct as “cheating or plagiarism in connection with an academic program at a campus.” Examples of cheating include using notes or copying others’ work during an exam, using old exams and study guides to prepare for an exam, and falsifying data or records for an exercise. Examples of plagiarism include copying other students’ answers or, when working in collaborative groups, not stating answers in your own words, based on your own understanding. For more information about plagiarism, please see the MCC Writing Center’s excellent Plagiarism Resources web [page](#).

## ***Due Dates and Late Work Policy (new for Spring 2014)***

Note that there are mostly ***RELEASE*** dates shown in the schedule below. Mastering assignments will generally be due one week (two class periods) after they are released. If they are turned in late, 2% of the points earned will be deducted from the scores, per day late, up to 50% off the total score. Writing assignments will be due two weeks after their release dates, and the same late policy will apply.

## ***Mastering Oceanography Homework***

There will be homework in Mastering based on the material in the text, counting 15 to 50 points, depending on relative importance. They will be strictly multiple-choice questions. Note that they will be untimed - no ticking "time bomb" counter at the top of the homework.

## ***Writing Assignments ("Exams")***

In addition to the Mastering "homework" assignments, there will be writing assignments requiring synthesis of the previous material.

## ***Writing Assignments***

In addition to the midterm exams, there will be writing assignments assigned in class. These assignments will consist of researching some specific subject on the Internet or in the library. Be sure to follow the directions for these assignments.

## ***The Writing Center:***

The Writing Center provides 30-minute appointments which can be scheduled same-day or up to 10 days in advance. We provide writing feedback or reading assistance for any MCC class completely FREE. We help at any stage of the writing process. We are located in the HUBs at OCN and SAN. To make appts, call 760.795.6861, stop by, or go online to <http://www.miracosta.edu/WC/appt>

## ***Extra Credit***

There will be a few opportunities to earn extra credit points during the semester. In the past, extra credit points have been awarded for attending talks given by speakers, for participating in beach clean-up days, for reviewing a chapter in the textbook, for computer projects, for in-class quizzes, and for other oceanography-related activities. Class attendance is important for knowing when extra credit opportunities become available (there are no make-ups on any missed extra credit assignment).

## ***Field Trips***

Field trips are not offered in conjunction with the lecture portion of this course. However, the optional one-unit Oceanography 101 Lab course is very field-oriented and I would encourage you to enroll in the lab course concurrently (during the same semester that you take the lecture). Many former students comment on how much taking the lab facilitates their success in lecture.

## ***Students with Disabilities***

Students with disabilities, whether physical, learning, or psychological, who believe that they may need accommodations in this class, are encouraged to contact Disabled Students Programs & Services as soon as possible to ensure that such accommodations are implemented in a timely manner. Authorization from DSP&S is required before any accommodation can be made. Their phone number is 795-6658 and they are located in Building 3000-Student Services, adjacent to Parking lot 3C on the Oceanside campus.

## ***Grades***

Grades are calculated as follows: A = 90-100%, B 80-89%, C 68-79%, D = 55-67%, F = < 54%.

Course grades are calculated on:

Mastering Assignments	→	343 points
Writing assignments	→	150 points
Syllabus Quiz	→	10 points
<b>Total:</b>		<b>503 points</b>

**Tentative Schedule, OCEA101, 12:30 PM Mon/Wed**

<b>Month</b>	<b>Date</b>	<b>Day</b>	<b>Chapt.</b>	<b>Topic</b>	<b>Milestones (<u>Release Dates</u>)</b>
<b><u>Module 1</u></b>					
<b><u>Plate Tectonics and the Sea Floor</u></b>					
August	24	Mon		Class and Instructor Introduction	<i>Syllabus Quiz (10 pts, in Blackboard)</i>
	26	Wed	1	Introduction to Planet Earth	Chapter 1 Mastering Asgmt. (23 pts)
	31	Mon	2	Plate Tectonics and the Ocean Floor	
September	2	Wed		Plate Tectonics (continued)	
	7	Mon		<b>Labor Day - no class</b>	
	9	Wed		Plate Tectonics (continued)	
	14	Mon		Plate Tectonics (continued)	Chapter 2 Asgmt. (30 pts)
	16	Wed	3	Marine Provinces	
	21	Mon		Marine Provinces (continued)	Chapter 3 Asgmt. (19 pts)
	23	Wed	4	Marine Sediments	
	28	Mon		Marine Sediments (continued)	Chapter 4 Asgmt. (28 pts) <i>Writing Asgmt. #1 (Chaps. 1-4) (50 pts, in Bb)</i>
<b><u>Module 2</u></b>					
<b><u>Circulation of Air and Water</u></b>					
	30	Wed	5	Seawater Chemistry	
October	5	Mon		Ocean Acidification	Chapter 5 Asgmt. (19 pts)
	7	Wed	6	Atmospheric Circulation	
	12	Mon		Atmospheric Circulation (continued)	
	14	Wed		Hurricanes	Chapter 6 Asgmt. (30 pts)
	19	Mon	7	Ocean Circulation	
	21	Wed		Ocean Circulation (continued)	
	26	Mon		Ocean Circulation (continued)	Chapter 7 Asgmt. (21 pts) <i>W.A. #2 (Chapters 5-7) (50 pts, Bb)</i>
<b><u>Module 3</u></b>					
<b><u>Waves / tides / coastal processes</u></b>					
	28	Wed	8	Wind Waves	
November	2	Mon		Tsunami	Chapter 8 Asgmt. (25 pts)
	4	Wed	9	Tides	
	9	Mon		Tides (continued)	Chapter 9 Asgmt. (15 pts)
	11	Wed		<b>Veterans Day - no class</b>	
	16	Mon	10	The Coast: Beaches and Shorelines	Chapter 10 Asgmt. (24 pts)
	18	Wed	11	The Coastal Ocean	Chapter 11 Asgmt. (20 pts)
	23	Mon	16	Climate Change and the World Ocean	
	25	Wed		Climate Change (continued)	Chapter 16 Asgmt. (34 pts) <i>W.A. #3 (Chapters 8-16) (50 pts)</i>
<b><u>Module 4</u></b>					
<b><u>Marine life vs. physical processes</u></b>					
	30	Mon	12	Marine Ecology	
December	2	Wed	13	Primary Productivity	Chapter 12-13 Asgmt. (21 pts)
	7	Mon	14,15	Plankton, Fishes, Cetaceans	Chapter 14-15 Asgmt. (34 pts)
	9	Wed		Utilization of ocean (& floor) resources	
	16	Wed		noon – 1:50 PM → Room 406	<b>Final Exam Period (I'll be there to answer questions)</b>
	19	Sat		11:59 PM in Blackboard	<b>ALL WORK Due</b>