

OCN 100L - OCEANOGRAPHY LAB

FALL 2009

Prerequisite: Completion of or concurrent enrollment in Oceanography 100 Lecture

Instructor: Dr. L. Yon

Office: NS 110-C

Office Hours: Mon. & Wed., 1:00 – 3:00 PM;
Tues. & Thurs., 4:00 – 4:30 PM; or by appointment.

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Course Content:

Oceanography 100L is an optional one-unit lab course that accompanies the Oceanography 100 lecture course. Topics covered in the lab will tie in with topics covered in the lecture portion. Many students have reported an increased understanding of lecture topics as a result of hands-on activities from the lab. In Oceanography 100L, we will examine a wide variety of oceanographic phenomena and you will have the opportunity to work with real oceanographic data (basic algebra knowledge is essential). The course is very field oriented with about 25% of our time spent out in the field (be prepared to get your feet wet!).

Lab Manual and Other Supplies:

Required Lab Manual:

Laboratory and Field Exercises in Oceanography, 6th Edition, Deen, Trujillo, and Yon (2009)

Please note that, as a lab manual, pages in the book will be written on and torn out. As a result, there are no used copies of the lab manual available (do not buy a used copy from a former student of the class). The lab manual must be brought to all class meetings including field trips (lack of a lab manual will result in points being deducted from your grade). The lab manual is available at Off-Campus Books, 1450 West Mission Road in San Marcos (1 mile west of the college).

In the introductory reading for each lab, there is a list of required supplies needed to complete that week's lab assignment. The following is a list of required supplies that you will need during the semester:

- Several #2 pencils with erasers (Lab exercises are to be completed in pencil.)
- Several colored pencils or markers (fine-tipped)
- Ruler (metric system is best)
- Calculator (basic algebra functions)
- Clipboard (optional, but handy on field trips)
- Pencil sharpener (optional, but handy on field trips)

Class Attendance and Etiquette:

Attendance is an absolute requirement for the successful completion of this course. Late reports or "make-ups" will not be accepted. You will be allowed to attend another lab section once per semester only with instructor approval (not all labs cover the same material in a given week). Even if you miss a lab, you are responsible for any missed work. In addition, it is your responsibility to get any notes or assignments from another student for any missed class (see me only if you need clarification of the material). If you miss a lab session before a field trip, consult this schedule and see the lab manual for directions and meeting time. If you are unsure, please contact me.

As a courtesy to your fellow students and to me, I expect you to arrive on time for class meetings. Should circumstances make you late for class, please enter the classroom quietly and quickly take a seat. **Please note that points are deducted when tardiness occurs on a regular basis.** Also, note that points are deducted for disruptive behavior. Cell phones and pagers are considered disruptive and must be turned off during class time.

Academic Honesty:

Please note that committing any type of academic fraud is a very serious offense and that cheating and plagiarism are not tolerated in any of my classes. This class will be conducted in accordance with the Palomar College "Student Code of Conduct" and the basic standards of academic honesty. If I have reason to believe that plagiarism or cheating has occurred, you will receive a zero grade for the work in question. You will also be reported to the Director of Student Affairs. For your information, please note the following:

- ★ **Plagiarism** is using someone else's ideas or work without acknowledging them as a reference.
- ★ **Cheating** involves the copying someone else's work on a quiz, test, or homework question. It also includes intentionally or unintentionally giving or receiving help during an exam, using unauthorized information sources during an exam, or removal of an exam from the classroom.

Students with Disabilities

If you have a disability that requires some accommodation, please speak with me and provide official documentation within the first two weeks of class. Reasonable accommodation will be made.

Add-Withdrawal Information:

Only students who are officially registered may participate in this class. If you are given a permission code to add this class, you must officially add the class prior to the next class meeting. If you have difficulty using eServices to add, please notify me immediately. **The deadline for adding any class or using a permission code to add is Sept. 6, 2009. Under no circumstance will students be allowed to add this class after the add deadline.** The following table summarizes the Add/Drop time schedule:

Through Sept. 23	Sept. 24 through Oct. 17	Oct. 17 through the end of the semester
Visit Student eServices to drop classes. The instructor's permission is not required. No notation or grade will appear on your record. Last day to qualify for a refund is Sept. 6, 2009.	Visit Student eServices to drop classes. An instructor's permission is not required. A "W" will appear on your record.	No drops are allowed. An evaluative grade (A, B, C, D, F) must be given. Note: Incompletes are given only in documented cases of extenuating circumstances such as an accident or medical concern.

* Please note that it is the student's responsibility to initiate the procedure of withdrawing from a course by filing the proper information with administration; I can not do this for you. The instructor's signature is not required and you may withdraw through the 8th week of the semester. Although you officially do not need to inform me of your withdrawal, I would appreciate the chance to talk to you before you do so.

**Please remember that I am here to help you learn the material!
Please do not be afraid to ask questions!**

Lab Procedures:

Before coming to class, you must read the background material for the designated lab in the lab manual so that you are able to complete the lab within the 3-hour lab period. As part of your preparation, be sure you make a note of the supplies you will need to bring to the lab session.

At the beginning of the lab session, there will be a 10-point quiz covering the material from a previous in-class lab session and/or a field trip report due (also worth 10 points). Please note that if you arrive late for class, you will have less time to complete the quiz! Arriving late also means that you may miss important announcements (especially regarding field trips) and introductory comments regarding the lab exercise for the day. I usually take some time to explain the work that you will complete in the lab and include some tips and helpful hints to assist you in successfully completing the lab exercise. Your attention during this time is expected...you should not begin work on the lab exercise until instructed to do so. Points may be deducted from the lab for not following directions.

All in-class lab exercises are completed in lab groups of two persons. Field trips will have specific group instructions associated with each trip; please arrive on time to receive those instructions. All exercises must be done neatly and legibly in pencil. Basic algebra knowledge is essential: be sure to show your work by setting up the problem when any mathematical computation is required. You may find that your lecture notes and lecture book are valuable resources in the lab. Please note that you shouldn't leave the lab with any wrong answers to the questions in the lab exercise. However, I am not here to simply give out correct answers. My job is to help you figure out the answer for yourself (that's part of the reason why you work with a lab partner!). There might not always be a single "right" answer to a question. Oftentimes, it is how one views the question and interprets the data that's important in arriving at an answer. Don't be afraid to do interpretation but remember that you'll need to justify your answer.

All the lab exercises are lengthy but if you have prepared well and have come to work hard in lab, you will be able to finish the lab within the 3-hour lab period. There will not be an official break during the lab, but you can take a short break once the introductory portion of the lab session has been completed. Please note that food is not allowed in the classroom. For some labs, however, you may have closed drink containers. Also, please note that if you socialize with your lab partner or neighbors too much during the lab time, you won't be able to finish the lab in the 3-hour lab period and points will be deducted.

When your group has completed the lab exercise in class, you must check out with me before leaving. You will be assigned 10 points for the work done in lab if it is satisfactory. Points will be deducted if you are taking too long to complete the lab due to not following directions, goofing off in lab (too much socializing), or because of your lack of preparation. If you finish early and your work has been checked out, you are free to leave.

Field Trip Procedures:

For the field trips, we will meet in the field at a designated time instead of meeting in class. Some flexibility in meeting times is essential so that we can match good low tides. The field trips start and end in the field. Consult the lab manual for locations and meeting times. Each field trip will last for approximately 2 hours in the field, so you may not be able to make it back to Palomar by 4 PM (if you need to return to campus) after every field trip.

The field trips are opportunities to apply some of your knowledge and to observe oceanographic phenomena in action. Come prepared to work (not people watch or surf), take notes, and to learn (that's the whole idea!). Although no students have been seriously injured on any field trip in the past, there is always the potential of being injured while in the field. Please dress appropriately, act responsibly, and obey the instructor at all times. Please note that failure to comply with class or school policies can result from your removal from the class.

If the weather looks threatening on a day that is scheduled for a field trip, you may want to check with me before going out to the field trip site. Generally, the weather has to be really bad for the field trip to be canceled (light rain is not a reason to cancel a trip!). On the day of a field trip, I will make a determination at least 2 hours before the lab time and leave a message on my voice mail. If a field trip is

canceled, we will meet in the classroom and do an alternate lab instead. Please note that for this reason, slight adjustments may be made to the lab topic schedule.

Each field trip will have specific instructions for the field trip report or worksheet. If a hand-out is given with fill-in blanks, the answers should be neatly written or typed in the space given. All answers should be thoughtful, concise, and written in complete sentences. If you are directed to do an essay-style report, the content should be well-organized into paragraphs using complete and concise sentences. Words should be accurately spelled and proper punctuation should be used. The report must be typed; 12-point type, double spacing, and 1-inch margins. Reports are not group projects; please complete your own work. Reports are due at the beginning of class; they should be ready to hand in as you walk into class. If you are absent, please make arrangements for the report to be delivered to me before the start of class.

Oceanography 100 Lab Topic Schedule – Thursdays, 1:00 – 3:50 PM

Semester Week Number	Calendar Date	Topic	Lab Manual Page Number
1	Aug. 27	Introduction to Marine Charts	3
2	Sept. 3	Imaging the Sea Floor	13
3	Sept. 10	Plate Tectonics and Sea Floor Features	27
4	Sept. 17	<i>Field Trip: Batiquitos Lagoon, Carlsbad¹</i>	187
5	Sept. 24	Marine Sediments	43
6	Oct. 1	From Mountains to Monsoons	57
7	Oct. 8	*Properties of Sea Water	65
8	Oct. 15	Global Winds and Ocean Currents	79
9	Oct. 22	Investigating Ocean Waves	109
10	Oct. 29	Tides and Tidal Charts	125
11	Nov. 5	<i>Field Trip: Coastal Cliff Erosion, Del Mar & Solana Beach¹</i>	175
12	Nov. 12	Coastal Navigation	157
13	You must attend one of the following boat trips: Monday Nov. 16, Tuesday Nov. 17, & Friday Nov. 20 with boat trip departures at 12:30 pm (returns at 5 pm) Or Saturday Nov. 21, departing at 9 am (returning at 1:30 pm) *The Ocean Institute Floating Lab, Dana Point Harbor ²		225
14	Nov. 26	No Class Meeting – Happy Thanksgiving!	-
15	Dec. 3	<i>*Field Trip: Agua Hedionda & Marine Fish Hatchery, Carlsbad²</i>	197, 209
16	Dec. 10	<i>Field Trip: Birch Aquarium at Scripps, La Jolla²</i>	233
¹ These field trips require a report due the following week. Instructions for reports are given during the field trip. Please note, if you do not attend a field trip, you cannot write a report! ² These field trips require a worksheet to be submitted at the end of the field trip. *Please note that the Properties of Sea Water lab, the Ocean Institute Floating Lab, and the Marine Fish Hatchery field trip have special dress code requirements: close-toed and flat-heeled shoes are required to be worn for health and safety reasons. Any student who attends without proper footwear will not be allowed to participate in the lab activity.			

Please note that there are these approximate costs involved for the field trips:

Ocean Institute Floating Lab: \$40.⁰⁰

Birch Aquarium at Scripps: \$ 5.⁰⁰

Your own transportation & parking (carpooling recommended).

The cost for the Ocean Institute Floating Lab is payable at the Palomar College Cashier's Office (A-2). I will announce the beginning of sign-ups (usually the 8th week of classes) and give specific directions for sign-ups at that time. Sign-ups are done on a first-come, first-serve basis. Each trip is limited to 35 people, so if you sign up late, you may not get to go on the trip you had planned on.

Grading (Thursday Lab – Section 70411)

The completion of each lab exercise or attendance at field trips is worth a maximum of 10 points, except for the Ocean Institute Advanced Floating Lab which is worth 30 points. Reports, worksheets, and quizzes are worth a maximum of 10 points each. **The lowest of your lab scores (up to 20 points) will be dropped in computing final grades. This may represent any missed lab and quiz/report except for the Ocean Institute Floating Lab.**

Points for this lab course will tentatively be earned as follows:

14 Lab sessions @ 10 points each	= 140 points
2 Field trip reports @ 10 points each	= 20
3 Field trip worksheets @ 10 points each	= 30
6 Quizzes @ 10 points each	= 60
Ocean Institute Floating Lab	= <u>30</u>
	SUBTOTAL 280
Missed Lab (possible 20 points)	- <u>20</u>
TOTAL POSSIBLE (subject to change)	= 260 points

The lab session points include attendance at class meetings and field trips. Points may be deducted for any of the following reasons: Excessive tardiness, verbatim copying of lab answers, failure to bring the required lab equipment, failure to complete the pre-lab reading, not following lab procedures, lab work done in pen, failure to show math work, inappropriate behavior or malicious conduct.

Final Grades will be assigned based on these percentages:

A=93% B=87% C=80% D=70% F= below 70%

Although this grading scale may seem severe, note that the majority of the points are given just for showing up and doing the lab exercises (which is easy!).

Please don't hesitate to contact me if you have any questions or concerns about the course or your performance in the course.

Welcome aboard and smooth sailing!

