

OCAN 1L Oceanography - Syllabus

Location: Science 45

Texts: *Lecture Textbook (any okay)* AND *Marine Biology Coloring Book*, 2nd Edition, 2000, Niesen AND *Oceanography 1 Lab Manual*

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Class website: <http://fog.ccsf.cc.ca.us/~kwiese/content/Classes/ocanlab.html> or just go to fog.ccsf.edu/kwiese

***NOTE*:** To achieve a passing grade in this class, it is expected that the average student will have to spend 2-3 hours per week on homework. Be sure you have that amount of time in your schedule.

It is HIGHLY recommended that you come into the lab room during study sessions weekly to review materials and skills in preparation for exams.

	Date	Topics covered
Week 1		Class Introduction and Lab: Lab Skills Review
Week 2		Lab: Nautical charts: Latitude, Longitude, and World Maps
Week 3		Lab: Nautical charts: Bathymetry of the Ocean Floor
Week 4		Lab: Plate Tectonics
Week 5		Exam I + Marine Rocks/Sediments PREVIEW
Week 6		Lab: Marine Rocks and Sediments
Week 7		Lab: Beach Materials (+ video: <i>Beach: A River of Sand</i>)
Week 8		Field trip Ocean Beach (2:30-5:30) (3 hours)
Week 9		Exam II + Chemistry PREVIEW
Week 10		Lab: Hydrothermal Vents
Week 11		Lab: El Nino
Week 12		Lab: San Francisco Bay / Water Chemistry / Weather
Week 13		Exam III + Marine Ecology PREVIEW
Week 14		Lab: Plankton
Week 15		Field Trip: Pelagic Organisms - Aquarium (3-6) (3 hours)
Week 16		Lab: Benthic Organisms - Piling Moss
Week 17		Field trip: Tidepooling (3 hours)
Week 18		Exam IV **VERY IMPORTANT** Final exams start ON THE HOUR, not 10 minutes after. You may have the full 2hrs ONLY if you show up on time. If you show up late, you must be done by the time the last person who showed up on time leaves.

*(get dates from website and first day of class)

OCAN 1L Oceanography - Student Learning Outcomes

STUDENT LEARNING OUTCOMES: Students can access the learning outcomes for this class by going to the Earth Sciences Department website: www.ccsf.edu/Earth/slo. Scroll down to the Course Outcomes and click on the course you're taking.

Upon completion of this course a student will be able to:

- A. Demonstrate ability to use basic field and lab equipment to gather data on the world's oceans and analyze and interpret results.
- B. Use bathymetric and world maps and charts to calculate global position and interpret ocean floor features.
- C. Locate world ocean floor features and use plate tectonics to analyze their origin.
- D. Use ocean floor features and properties to calculate plate spreading rates and directions.
- E. Identify and classify ocean sediment and rocks and analyze their origins and formation environment.
- F. Calculate and analyze the physical properties of seawater.
- G. Measure and analyze the chemistry of seawater.
- H. Classify and characterize sand samples and analyze their origins.
- I. Map and describe coastlines and interpret their history and evolution.
- J. Measure, record, evaluate, and analyze interactions of currents, waves, tides, and coastal processes.
- K. Identify and classify basic marine plant and animal life.
- L. Measure, evaluate, and interpret dynamics and interactions of marine communities.

Which of the above student learning outcomes is(are) your favorite? (write it or them again below and explain why)

Lab Class Policies

Grading scale: A=90-100%; B=80-89%; C=70-79%; D=60-69%; F=<60%.

Grading: Your grade is equally divided between each exam and the total for all your weekly quizzes. For example, since there are 4 exams in the class, each is worth 20%, with the remaining 20% coming from your quizzes.

Supplies: All labs **must be completed in pencil**, so bring a pencil and eraser to each lab. All corrections will be made with pen, so bring one for use **ONLY** during the correction phase of your lab. Also, you should bring your own **protractor**, and **colored pencils**. These will ensure that you don't have to wait for supplies during lab.

BRING YOUR ENTIRE LAB MANUAL WITH YOU TO EACH CLASS!!!!

Class prerequisites – For lab, you must have taken or be taking the lecture component (Oceanography lecture). In addition, you must have completed a Math class up through 1st year Algebra = MATH 840 or ET 108B – specifically you will need to be able to solve problems involving: exponents, inequalities, linear equations with fractions, unit conversion, basic geometry, graphing (creating and interpreting).

Time required (units) – This class requires 4 hours in the lab each week (sometimes less, sometimes more, depending on your skill level). The first hour is interactive “lecture,” where we’ll be reviewing skills and procedures and content. The next three hours are to complete the lab. You will also need to put in 2-3 hours outside class each week, preparing prereading and studying/practicing for exams.

Weekly HW – Prereading assignment for upcoming lab and review/practice of previous lab in preparation for weekly quizzes and exams.

Prereading – Each lab has an associated prereading assignment, which is in the Lab Manual. Thoroughly read the review material and seek help during study sessions on any topics on which you have questions. Complete the prereading, and bring it with you to lab. To get full credit for your prereading, we don't expect you to have the right answers YET (you can refine them in lab); but you must have worked on and have an answer for every question. PREREADING IS NOT OPTIONAL AND MUST BE DONE AHEAD OF CLASS! Prereading assignments are designed to prepare you for the lab. At the end of the day's lab, both must be completed before you can get a key to correct the lab.

Quizzes – At the start of class (or earlier if you want more time), submit the prereading to the instructor, who will check its completeness. If complete, you get 50% of the weekly quiz credit. If not, you start the quiz with a 50% deficit. Quizzes last 15 minutes (you can have more time if you choose to start early, but you can't continue late). Quizzes are closed notes and consist of short-answer questions based on the previous week's lab PLUS an extra credit question from the current week's prereading. (EXCEPTION: For the first quiz AFTER an exam, the quiz will be based entirely on prereading and won't be extra credit. This prereading material will be REVIEW of what we completed in the time allotted AFTER the exam.)

To do well on quizzes and exams, be sure to practice each week's lab and make sure you can successfully repeat the skills on your own, with no notes. (Questions on quizzes and exams come directly from the labs – with numbers or characters changed – but with no surprises.) Look in your lab manuals for practice examples to help, but also be sure to review and “redo” the original labs enough to feel comfortable. NOTE: If you know you'll be late to lab or miss a lab, make arrangements to have your prereading checked off and take the quiz BEFORE the lab meets. We will drop one quiz score to handle emergencies, but otherwise, there are no makeups after the fact. If you cannot attend labs or make it on time, this is not the class for you. LAB GRADES = QUIZ GRADES.

Lab sessions – The point of lab sessions is to learn lab skills. When you have completed the lab **with a pencil**, turn it in to the instructor (with attached prereading), who will check to ensure it is complete before assigning you an answer KEY. With this key, you correct your own lab **with a pen**. The more careful you are correcting your lab, the better you'll understand the material and be able to prepare for the quizzes and exams. When you take the exams, you will be graded on your correctness (grading is detailed – remember units – be complete – or you will lose points). The keys demonstrate grading methods; review them carefully. Use lab time to become as expert as possible. Ask questions!

Field trips – You must arrange your own transportation to field trips. Start making friends now with students with cars. Carpools are encouraged! Field trips begin at times that provide you sufficient time to reach each site from CCSF. Arriving late means you may miss us (if we move) or parts of the trip to which you can't return. Field trips will last between 2.5 to 3 hours depending on site (see syllabus). There are only a few field trips, so make plans well in advance to ensure you can participate for the full time if required. Dress in warm, dry clothing that you don't mind getting messy (hats and gloves and raingear recommended). Weather cancellations of field trips will occur only during storms. Bring good boots for walking along beaches and up and down hills. Bring writing utensils and prereading material and a hard writing surface, like a clipboard. You will be working! **Plan now for the field trips – especially night classes. These are mandatory. If you cannot clear your schedules to attend these field trips, you might not pass the class, and perhaps this lab is not the one for you.**

Exams – Exams begin exactly at the start of class time and vary in time based on the material (unlike quizzes, exams cannot be started early). You have a maximum of 2.5 hours to complete them. Exams consist of questions nearly identical to those that have appeared on labs and prereading (numbers and names changed). To get the highest exam score, be sure to attend all lab classes and field trips, learn the material covered in each, and practice and review the lab skills and principles. Note: students have varying review needs based on the lab's subject matter and individual academic background. Don't assume that simply attending lab is enough to master the material. Review will be required. All exams will be followed by interactive lecture/group work to prepare for the next week's lab.

Working together – You are encouraged to work together on labs. HOWEVER, it is important that you be able to answer the problems by yourself, with no notes or books on the quizzes and exams. We recommend that you work in proximity to others and periodically check your answers with each other and discuss questions, but do the work primarily on your own.

Attendance – Your attendance will be tracked through your weekly quizzes or exams. If you miss two labs or miss an exam (without immediately making contact to discuss your options), you WILL be dropped. We will not keep students enrolled just for financial aid or student visa status – if you want to stay enrolled, keep attending and contributing. **You must take exams and quizzes on scheduled days.** Exceptions are made only for extenuating circumstances and only when alternate arrangements have been made prior to the exam/quiz or as soon as possible after.

Cheating – The highest level of integrity is required for all quizzes and exams. Anyone found cheating will receive a zero, and a letter describing the incident will go on your permanent record at CCSF.

Handouts – All handouts are provided in the Lab Manual. You can find an electronic copy of the Lab Manual on-line (<http://fog.ccsf.edu/kwiese> ... click on Class Handouts & Websites.) Please be considerate to those students who have not missed class by not using class time to get caught up. Catch up quickly on your own and/or with tutors (attend study sessions) or you will fall even further behind. I HIGHLY recommend that you **keep all materials in one notebook for easy reference.**

Loaner books – See instructor if you need a temporary loaner book (NOT class text, but similar).

Seeking Help – If you have questions, come to office hours, see the tutor, attend study sessions, make an appointment, or e-mail your instructor. It's your responsibility to seek needed help. We're here when you're ready! Study Session Schedule is online at <http://www.ccsf.edu/Earth>

Cancelled classes – If class is cancelled, for whatever reason, keep up with the homework and topics on the syllabus.

Leaving class – During lab, the room is open. You may enter or exit as necessary. Just remember you need to get your lab completed by the end of class.

Eating and drinking – **No gum chewing in the room at all.** No food or spillable drink containers on the tables or desks during class. Note: Especially in late-night classes, you will get hungry. Feel free to bring food, but eat it only outside the classroom or by the display cases.