

OCAN 1 Oceanography Schedule

Instructor: Katryn Wiese, katryn.wiese@mail.ccsf.edu, <http://fog.ccsf.edu/kwiese>

Office hours: See website for office hours. **Location:** Science 5

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

Required handouts: Oceanography 1 Wiese Handouts – Bookstore – Latest edition

Recommended texts: any edition within the last 5 years of:

Essentials of Oceanography, Trujillo and Thurman,

An Introduction to the World's Oceans, Sverdrup and Armbrust

Oceanography, Tom Garrison OR *Invitation to Oceanography*, Pinet

***NOTE*:** To achieve a passing grade in this class, the average student will have to spend 6 hours per week on homework.

Class Schedule	DATES*	Topics covered AS REVIEW – NOT AS LECTURE. Online tutorials and online quizzes covering this material must be completed before each week's topic is addressed in class.
Week 1		Introduction to class + Overview of Earth History
Week 2		Water Planet (including Latitude & Longitude)
Week 3		Plate Tectonics
Week 4		The Seafloor and its Sediments
Week 5		<i>Catch up / Review day – if school is open + Exam I</i>
Week 6		Physical Properties of Seawater
Week 7		Chemistry of Seawater
Week 8		Seasons & Atmosphere
Week 9		Currents
Week 10		<i>Catch up / Review day – if school is open + Exam II</i>
Week 11		Waves
Week 12		Tides + Environmental Issues
Week 13		Coastal Processes
Week 14		<i>Catch up / Review day – if school is open + Exam III</i>
Week 15		Marine Organisms Classification & The Living Ocean
Week 16		Productivity and Plankton
Week 17		Nekton and Benthos
Finals Week		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)**

O CAN 1 Oceanography – Student Learning Outcomes

STUDENT LEARNING OUTCOMES (SLOs): 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. Analyze and evaluate the model of **Plate Tectonics**.
- B. Apply the plate tectonics theory to the origin, evolution, and **features of ocean basins**.
- C. Classify and analyze the **stratigraphy of ocean floor rocks and sediment** (ophiolites).
- D. Analyze and interpret the origin, distribution, and evolution of ocean **sediment**.
- E. Demonstrate and explain the unique **properties of water** and their application to the oceans (surface tension, heat capacity, density-temperature curve, dissolving power, wavelength-specific light absorption, sound transmission).
- F. Evaluate the effects of **temperature, pressure, and salinity on the density, layering**, and dynamics of the oceans.
- G. Examine the origin and regulation of, impacts on, and consequences of the **ocean's salinity and dissolved gas content**.
- H. Integrate and evaluate the general circulation and heat transport of the **atmosphere and oceans**.
- I. Analyze and assess the origin, interactions and effects of **waves, tides, and ocean currents**.
- J. Analyze and interpret basic **beach processes**, including variations in sediment size, coastal-sediment erosion, deposition and transport.
- K. Examine and illustrate the origin and foundations of **life in the oceans**, including photosynthesis, nutrients, nutrient and energy cycling, and traits adapted specifically to marine organisms.
- L. Analyze and evaluate the interdependence of the **biological, physical, and chemical processes** of the oceans.
- M. Classify and analyze the **pelagic and benthic environments** of the ocean.
- N. Classify and analyze the basic characteristics and general varieties of **phytoplankton and zooplankton**.
- O. Classify and analyze the basic characteristics and general varieties of **marine autotrophs and heterotrophs**.

Highlighted words do not match current course outline and are intended for future edited version.

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

CLASS POLICIES

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

Grading: 18% exam 1 | 18% exam 2 | 18% exam 3 | 18% exam 4
18% quiz average | 10% iClicker Questions + in-class activities.

Time required (units) – For each lecture unit, expect to put in 1 hour in lecture and 2 hours in homework for an average grade of a C. For example, a 3-unit lecture class requires 3 hours in class and 6 hours homework weekly for a C average. Each student will need to put in more or less time, depending on his or her background and study techniques. This standard is set for all colleges across the country. Breakdown of time estimates for this class each week: 2-3 hours: watch videos, answer chapter question sheets (take notes), take embedded quiz (open notes, open book). 1-2 hours: Complete worksheet prior to class. 1-2 hours: review previous week’s material.

Class prerequisites – There are no official prerequisites. However, without the following basic skills, you will need extra help and time in this class: comprehensive reading, writing, algebra, basic geometry, and basic chemistry. If you are weak in these areas or have any questions at any time, come to office hours, see the tutor, attend study sessions, make an appointment, or e-mail me. We’re here to help!

Weekly HW – 6 hours on average for an average grade.

BEFORE CLASS:

1. Watch online tutorial/lecture while taking notes on the associated chapter worksheets (should be in same order as video). Make a note of questions you have. Write out answers to them based on what you learn. Use textbook as an additional resource.
2. Complete embedded online quizzes. (It is recommended that you watch each video twice – the first time – video only -- to take notes, the second time -- with the quiz -- to complete the quiz.)
3. Ensure that worksheets are COMPLETE for in-class review. (Must be 100% complete to be given credit.)
Yes, you are teaching yourself the material as best you can. This work will not be replicated in class.

DURING CLASS:

1. Review completed worksheets in groups.
2. Complete interactive discussions and activities that cover the week’s material.
3. Engage in iClicker testing/questions in groups.
4. Ask questions.

*NOTE: No traditional lecture happens during class. Lecture happens outside class through the online videos.

AFTER CLASS:

1. Review week’s worksheets to ensure you can answer them solo on exam.
2. Seek help (or attend a study session) for material that still hasn’t clicked or for further review.
3. Prepare for next week’s class per above.

Class WORKBOOK/Handouts – All class handouts must be purchased through the bookstore and can also be found online at: <http://fog.ccsf.edu/kwiese> ... click on Class Handouts & Websites.) If you miss class, please catch up quickly on your own and/or with tutors (attend study sessions) or you will fall even further behind. It is essential that you **bring your WORKBOOK with you to each class. You will need to access these pages throughout the semester.**

Textbook – A textbook is a valuable resource in this class. It is not required but is highly recommended as a supplement to class videos (all required content is provided in videos and video scripts). To prevent excess costs, I recommend you obtain any introductory-level oceanography textbook (new or used) as long as it’s no more than 5 years old. Don’t delay. See me if, at any time, you need a temporary loaner book. Recommended authors: Trujillo and Thurman; Sverdrup; Garrison, Pinet.

Videos and Video Quizzes – Each week you will have to watch the online tutorial and complete the quiz PRIOR to the start of the first class. Online videos can be accessed on any computer that also shows YouTube videos – all you need is a browser with flash running. The media center at CCSF and most computer labs will work. If you encounter ANY problems, contact an administrator of the lab and make sure FLASH is installed. Email me if you encounter problems, so I can keep a log, but it is up to you to ensure you have sufficient technology to meet the needs of the class. Some hints: watch the video early. Slow internet connections can prevent streaming. If the video doesn’t start up (but it looks like it’s still loading), try a different browser. If that doesn’t work, go to another video on the page (and earlier video) and test if it works. If no longish videos are playing, it’s your internet connection. Give yourself time to handle this situation so you can watch the videos later on campus. NOTE: Internet speeds seem to slow between 9 pm and midnight! There are no makeups on quiz scores (but you have plenty of time to take them ahead of time). QUIZZES are open notes, open book. They can be taken multiple times. However, they are not “group” activities. You are being trusted to take them on your own. (I will drop your two lowest quiz scores for the semester.)

Worksheets, group work, and classroom seating

The weekly worksheets are required to be completed prior to each week's class. These questions align with the online tutorials, and you should be answering them as you go through the tutorial. The answers will assist you with quizzes and with the exams. BEFORE attending class each week, carefully and thoroughly watch the online tutorials and develop answers to these questions. During class we will review only – clarify, deepen, and improve understanding through Q&A, group discussion, and class projects and activities. It's up to you to review the content and complete the traditional "lecture" on your own BEFORE class. The more you read and study the material before class, the more you will get out of class, and the better you will do on exams. If you do not prepare well enough, you may have difficulty following and participating in classroom discussion and activities. If at the end of the week you still have questions or doubts on any of the topics, seek help ASAP. Start early.

At the start of the first class each week, groups will be formed to discuss these worksheets, check answers, and provide help to each other (first 30 minutes of class). You will be able to participate in these group discussions ONLY if you have completed the worksheet ahead of time. You will get points for this in-class group activity ONLY if you arrive to class on time and have your worksheet 100% complete (answers don't have to be right, but answers have to be given for every question). Students who are late to class will be assigned to work with each other (as you arrive). Students who arrive more than 10 minutes after class starts or are absent for any reason will receive no credit given for this activity.

Exams – Exams are closed notes, closed book. Each exam takes between 45 to 90 minutes to complete and consists of short answer and short essay questions that cover topics that have appeared on chapter question handouts. **NO DICTIONARIES OR ELECTRONIC DEVICES ALLOWED DURING EXAMS OR QUIZZES (CALCULATORS OK IF NECESSARY, BUT UNPROGRAMMABLE ONES ONLY).** Please ask me during the exam if you don't understand a question. You will need to bring your own pencil and eraser. Regular exams are NOT comprehensive; however, keep past pass sheets because some of those questions will appear again on the final exam. **You must take exams and quizzes on scheduled days.** Exceptions are made only if arrangements are made to take the exam early or prior to the next class meeting time (and only for extenuating circumstances).

Optional Comprehensive Exam – This exam option is available only to those who had one poor or missed exam that significantly dropped their grade. You may take an optional comprehensive exam during finals week (in addition to the regular exam, which everyone must take) to replace the lowest of your first 3 exam scores. Note: your grade on this exam WILL replace an existing score, even if that score is higher, so don't take this extra exam unless you are prepared to do better. **This exam will not replace quiz scores or participation points.** To take this exam, you must have first met with me before finals week begins, received permission (confirmation that you meet the criteria), and scheduled the exam. This exam will contain questions from the exam worksheets from exams 1, 2, and 3 (1/3 each).

Participation points – 10% of your class grade comes from giving correct answers to iClicker questions and completing in-class activities. You will receive points for every class's set of activities – divvied up equally across all the activities for the day. If you are not present in class to complete these activities or do not complete the activities correctly, you will not receive the points. These activities will all allow for group interaction and discussion. (I will drop your three lowest participation points/days for the semester).

Attendance – Your attendance will be tracked through in-class activities and quiz/exam completion. If you miss 3 weeks of classes or 3 quizzes or 1 exam (without immediately making contact to resolve), you WILL be dropped. Since being dropped from class might affect your financial aid or student visa status, if you want to stay enrolled be sure to keep attending class and contributing.

Seeking Help – If you have questions, come to office hours, see the tutor, attend study sessions, make an appointment, or e-mail me. We're here if you're ready! But it's your responsibility to seek needed help.

Cancelled classes – If class is cancelled, for any reason, keep up with homework assigned on syllabus.

Cheating – The highest level of integrity is required for all quizzes and exams. Anyone found cheating will receive a zero on the exam or quiz and face disciplinary action at the college.

Leaving class – When arriving late to class or leaving class while it is in session, please be as nondisruptive as possible. There is no need to ask permission or give excuses. You're all adults, so I assume you're making the best choices for yourself. **In S45, please use the back door only!**

Eating and drinking – **No gum chewing in the room at all.** No food or spillable drink containers on the tables or desks during class.