

MARINE BIOLOGY CLASS SYLLABUS

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Introduction: Marine Biology is an interdisciplinary science elective at Peninsula Catholic. Oceanography, physics, chemistry, geology, and ecology are woven into all aspects of the course, providing a solid foundation for understanding the sea. Biological topics such as the environment, taxonomy, evolution and voyages through every major component of ocean life are emphasized. We will spend the bulk of our time exploring regions of the sea and how all these concepts interrelate in each of these marine biomes. The course will include an abundance of hands-on activities, computer simulations, and observation/dissection of specimens. Careers in marine science will be covered as well, providing potential springboards for life-long learning and professional exploration.

Class Website: www.pchsmarinebio.weebly.com

I will do my best to keep the website updated with class notes, handouts, assignments, helpful links and test preparation materials. This **is not** to substitute for attendance or paying attention in class. However, if you are absent or find you are missing materials when you are at home, it is a way for you to not fall behind. If I find students are abusing the benefit of my posting notes on the website, I will discontinue this practice.

Grading:

Tests and Quizzes	35%	Labs	30%
Class work & Participation	15%	Homework	20%

All tests and quizzes will be graded on a point scale. That is, tests will be worth approximately 100 points and quizzes worth less. I will give you an updated progress report on your cumulative grade each time I return a graded test. If you want an updated report before that, ask and I will get it for you. The final is only cumulative from the midterm forward.

Unless told otherwise, to receive credit for homework, you must have it turned in on the day it is due. Homework is a chance for you to practice skills and information we are learning; tests are to prove you know it. Therefore, there will be no late homework accepted as we will go over homework in class on the day it is due.

There will be one large project to be completed near the end of the semester which will be graded as two test scores. All written reports must be turned in using turnitin.com.

***Work turned in late will receive a 20% penalty for the first day late and 10% on the second. In other words, if you turn something in a day late, the best you could get on it is an 80%, 2 days late - 70 %, after 2 days, late work will not be accepted.

Please keep all work until the end of the semester. Not only can you use previous work to study for cumulative exams, if somehow a mistake happens and I do not have a grade recorded, you will be able to show me that you did in fact turn the work in & it was graded and I will correct my error in the grade book. However, with out the proof of the graded work, I cannot change a zero.

Extra Credit: Yes, you can receive extra credit. This class is truly a community of learners. Therefore, when a question is brought up in class which I cannot answer, but I feel could benefit all of us from learning, I will write it on the board. At the next major test (chapter, section, etc.), these questions will be used as extra credit. You will have had time to research the answer. You may submit the answer(s) with your test, but must include a cited reference in order to receive credit. Wikipedia is not a viable source for citing.

Materials:

Everyday--textbook, 3 ring binder, paper, non-spiral warm up notebook, pen (not red) or pencil, colored pencils. Required supplies are kept to a minimum, but I would appreciate anyone contributing a box of tissues to the class supply.

Absences:

I will follow all policies in the Handbook regarding absences and make up work. **If you are absent (and it is excused), it is your responsibility to miss work covered while you were gone.** In an effort to assist you, any assignments/ work handed out will be in a file bin in the classroom waiting for you upon your return.

If you are absent 3 or more days (and it is excused), ask and I will be happy to make a packet of materials for you of the work missed which you may pick up upon your return or from the office. If you know in advance you will be absent (and it is excused) **and** you notify me, I will do my best to prepare work for you ahead of time, but may not have all the materials at that time. I will let you know if the packet is complete or missing material, but it is still your responsibility to check upon your return that you have received everything from me. In either case, if you would like me to gather materials for you, please contact me via e-mail or the school office no later than 2 days in advance.

Class Content:

Physical & Chemical Properties of Oceans

Geographic, Human, and Climate Interactions with the Ocean

Ecology of the Earth's Oceans

Overview of Marine Ecosystems: Estuaries, Intertidal Zone, Coastal Shelf, and Open Ocean

Careers in Marine Biology

Classroom Expectations:

- Come to class prepared. When the bell rings you are to be seated, assignments completed, homework turned in, supplies ready.
- Respect - *other students*...listen when they speak; *property*...follow all rules for lab and school equipment; your teacher...pay attention and TAKE NOTES; and *yourself*...always try your best!
- All non-educational equipment (iPods, cell phones, personal belongings) are to stay out of my view (and out of your hands) during class time. Refer to the handbook regarding demerits for these offenses.
- I will try to leave time for questions at the end of each class period. It is a good idea to jot them down in your notes so you don't forget to ask them. If you are having trouble keeping up or getting a concept and class does not provide enough time to help, I will be available after school during the activity period.

PCHS Honor Code

The PCHS Honor Code is based on the premise that PCHS students will not cheat, lie, or steal, nor tolerate those who do. The following expectations will apply:

- **Tests and Quizzes:** All work must be performed individually using only the resources specifically authorized by the teacher.
- **Lab Reports:** All work must be performed by the student or students submitting the report. Students will generally be assigned to a group for Lab work. Students or students in a group may work cooperatively with one another or with other groups but their lab report may not be a copy of some other student's or group's work unless a joint report is specified.
- **Homework assignments:** Students are encouraged to complete homework assignments cooperatively with other students, teachers, parents, mentors, and tutors as a means to enhance the learning and mastery of the process. By their nature, homework assignments are "open book." **On the other hand, the mere copying of another's work for submission and grading is prohibited by the Honor Code.**

FIELD EXPERIENCES FOR MARINE BIOLOGY

We live at the mouth of the Chesapeake Bay, the largest estuary in the United States. I would be negligent as your teacher if I did not give you an opportunity to get into that body of water as a Marine Biology student. To that end, I have planned very intentional field experiences throughout this semester. These are optional and some do incur a small fee. If you are unable to attend, required work will be left for you similar in nature to what the rest of the class is experiencing first hand. Here's what's in store:

Oyster Reef Keepers of Virginia - ongoing

Our class will be responsible for growing approximately 1,000 spat (baby oysters) in the Chisman Creek of York County. Once per month September through December we will leave school to check on our oysters. While there, we will perform water quality tests, clean the oyster cages, gather data, and document our work. This information will also be used back in the classroom to analyze how chemical and physical water qualities affect growth of marine organisms. Travel will be by PCHS bus. We will leave 5 minutes into the start of second lunch/homeroom and be gone through 4th block. Students will need to bring appropriate weather gear and a bag lunch. In the spring, the young oysters will be transplanted to a protected oyster reef to aid in the restoration of the Chesapeake Bay. I am hoping we will be able to get a grant to fund an after school trip with the Chesapeake Bay Foundation for all students from both semesters who would like to go out and release them.



The Chesapeake Experience - September 18 (rain date: September 21)

We will go by bus to Back Creek Park in Seaford where we will meet experienced guides who will instruct us in basic kayaking and then lead us on a day long excursion into the York River. We will leave at the start of first block and return at the end of our 4th block class period. We will paddle through the Goodwin Islands stopping to explore marine life in and near the water. Students will bring a bag lunch as a tour provided motor boat will bring them to the islands. We will return to Back Creek Park and ride the bus home. The cost for this trip is \$25.00. Some parent chaperones may be needed, I will give more information on that shortly.



The Virginia Marine Science Museum - December

We will explore the Marine Science Museum focusing on life in the open ocean. Following our own tour, we will meet a museum tour guide who will take us behind the scenes of the museum. Here we will see how the animals and exhibits are cared for, what research is being done, and how marine biologists work in the real world. The cost for this trip will be approximately \$12.00. Parent chaperones may be needed.



In the spring, I will organize a PCHS whale watching trip through the Marine Science Museum. This will be available for any students enrolled in Marine Biology in either semester. The trips are only offered in the spring due to the whale's migration patterns, but I thought it would be great to offer it for anyone who has never gone before (or who just wants to go again). The trip would not be during school hours.



