

Marine Ecology

Instructor: Ms. Jeffries, B-19; CHS 336-6166, 1st block planning (7:30 am – 9:04 am)
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Course Description: *Marine Ecology at CHS/NHS is a higher-level biology course and serves as an elective science course for science requirements.* Marine Ecology is the study of the interactions between the chemical, physical, and biological components of the Marine Environment. Students will be introduced to all the marine environments, with a concentration on the intertidal or littoral ecosystems and Barrier Island Ecology.

Text: *Marine Science*, 2nd Edition. 2019. Castro and Huber.

Methods of Instruction

Lectures, PowerPoint presentations, class discussions, videos, reaction papers, and reading assignments are part of this class. Students will use library facilities and the internet for research on specific topics. Presentations will be announced. If possible, guest speakers from Wallops Facility, U.S. Coast Guard, VIMS, CBF, U.S. Fish and Wildlife Service, the Nature Conservancy, and the National Park Service will expand our knowledge of our marine environment.

Canvas

Canvas is a learning management system that we will be using this year. All course-related information, materials, and assignments can be found on Canvas. You can access Canvas by going to accomack.instructure.com

Course Prerequisite:

You must have completed two other science courses, one of which must be Biology.

Class supplies:

Students need the following supplies:

- A three-ring binder (notebook) with plenty of loose-leaf paper. Make sure the binder is for this class only.
- For assignments- tests or quizzes: blue/black ink or pencil.
- In addition, the following would be helpful: colored pencils and highlighters.

Bring your textbook, notebook, and writing materials to class unless otherwise instructed.

Syllabus and Pacing Guide

Because this course is designed to be an exploratory science course, we have great freedom to explore several topics in Marine Ecology based on student/teacher interests, availability of equipment, guest speakers, etc. Also, there is a certain degree of overlap when studying topics in Marine Science. We will study certain aspects of general oceanography, water properties, plankton, and marine biology. The final study includes an endangered species project.

Tentative Syllabus and Pacing Guide	
Topics	Schedule Week #
<i>Syllabus review, scientific method, history and technology associated with ocean studies (Chapter 1)</i>	1 – 2
<i>Structure and formation of the world's oceans and features (Chapter 2)</i>	2 - 3
<i>Physical and chemical properties of pure water. Physical and chemical properties of seawater. Effects of carbon dioxide on ocean chemistry. (Chapter 3)</i>	3 - 4
<i>Waves and tides. (Chapter 4)</i>	4 - 5
<i>Ocean and atmospheric circulation. (Chapter 5)</i>	5 -6
<i>El Nino Southern Oscillation (Chapter 5)</i>	6 - 7
<i>Barrier island ecology. Local study of Virginia's barrier islands</i>	7 - 8
<i>Overview of marine communities, lifestyles, and environments. Flow of energy and materials in marine environments. (Chapter 12)</i>	8 - 9
<i>Intertidal zone ecology. (Chapter 13)</i>	9 - 10
<i>Ecology of estuaries to include different types of estuaries and their communities (Chapter 14)</i>	10 - 11
<i>Ecology of estuaries with a highlight on the Chesapeake Bay (Chapter 14)</i>	11 - 12
<i>Coral reef ecology (Chapter 16)</i>	12 - 13
<i>Ecology of the epipelagic zone (Chapter 17)</i>	13 - 14
<i>Ecology of the epipelagic zone (Chapter 17)</i>	14 - 15
<i>Ecology of the deep ocean (Chapter 18)</i>	15 -16
<i>Ecology of the deep ocean (Chapter 18)</i>	16 -17
<i>Human impacts on the marine environment (Chapter 20)</i>	17 18
<i>Complete human impacts on the marine environment. (Chapter 20)</i> <i>Final exam</i>	18

Homework:

Homework will usually be given Monday through Friday. We will be using Canvas. All assignments and due dates are posted there.

Assessment:

Grades will be determined through unit tests, quizzes, film reactions, and notes. Several topic videos will be shown in class.

Testing:

Tests are a combination of multiple choice, essay, and sometimes interpretation of data. Tests are unit or chapter tests.

Grading:

Summative = 40%

Quizzes/Projects/Labs/Papers = 30%

Classwork = 20%

Homework/Formative = 10%

Late Work:

Late work may be turned in for a maximum of half credit. Points will be deducted for every day the assignment is late.

Makeup Work:

If you are absent for any reason, it is **YOUR** responsibility to get all work missed for that day. You have 1 day to turn in any make-up work for every day that is missed. If you are absent on the day of a lab, the lab will be made up after school. As per the county grading policy, a grade of **zero** will be entered into the gradebook until the work is completed.

Bathroom Passes:

Bathroom passes will be given as requested. Please try to use the restroom before or after the lesson.

Cell Phones: Cell phones, smartwatches, earbuds, and other personal electronic devices are prohibited during class. Personal electronic devices must be turned off and stored in your bookbag, purse, or locker.

EXAM EXEMPTION: Student incentives for good attendance: With the parents/guardians approval, a student who maintains a "B" average or above and who misses no more than two (2) days during a semester, or a student who maintains a "B" average or better and misses no more than four (4) days during a full year course may be exempted from the semester or final exams. (Policy JED-R)

Class resources:

1. clever.com

2. hellosmart.com, class ID: 141 247

Students must follow the Accomack County Public Schools “Standards of Conduct”

Discipline and RULES: Follow the Student Code of Conduct. **Respect yourself, and respect others and their property. Act as ladies and gentlemen.** There will be immediate consequences for inappropriate behavior.

Student Code of Conduct

- I will treat everyone with courtesy and respect.
- I will treat personal and school property with respect.
- I will help create and maintain a positive and safe learning environment.
- I will come to class on time and prepared to learn.
- I will act responsibly and accept the consequences of my actions.

Discipline Plan

(The type of punishment depends on the seriousness of the behavior and the number of students it affects.)

- I. **Minor infractions that affect only one or two students such as passing notes, talking to nearby students, too much talking, sleeping, not working, etc.**
 - 1. **Verbal warning**
 - 2. **Phone call home**
 - 3. **Refer to the office**
- II. **Offenses that affect the entire class such as loud talking, throwing objects, arguing, inappropriate comments, etc.**
 - 1. **Verbal warning**
 - 2. **Refer to the office**
- III. **Major offenses such as disrespectful comments to the teacher, inciting a student to fight, fighting, vulgar comments to another student or improper classroom language**
 - 1. **Send the student immediately to the office for administrative discipline.**
 - 2. **Recommend removal from class**