

### **Course Overview**

Oceanography is the study of the ocean. In this course, we will tentatively study the geography and geology of ocean basins; chemistry of sea water; physical dynamics of currents, waves, and tides; coastal processes; biology of diverse ecosystems such as deep sea hydrothermal vents, coral reefs, rocky intertidal zones, and estuaries; and human effects on marine environments. This course offers opportunities for numerous laboratory investigations that are centered around the study of live and preserved marine organisms and their habitat. Yes, you will be able to handle live marine organisms such as sea urchins, sea anemones, brittle stars, etc. Students will learn to make informed decisions using critical thinking and scientific problem solving. Furthermore, this course will offer a college preparatory delivery, as well as college level textbooks and publications.

### Course Prerequisites.

To be eligible to take this course you should be in grade 11 or 12 AND you should have completed Biology & Physical Science I or Chemistry with a grade of “C” or better.

### **Course Materials**

#### Required Texts.

Pinet, P. R. (2006). *Invitation to Oceanography*, Fourth Ed. Boston, MA: Jones and Bartlett Publishers.  
Castro, P., & Huber, M. E. (2007). *Marine Biology*, Sixth Ed. New York, NY: The McGraw-Hill Companies, Inc.

#### Other Required Items.

School issued Chromebook or Laptop with Internet access  
Scientific Calculator (capable of executing typical mathematical operations, including logarithms, exponential functions, etc. and handling scientific notation)

### **Course Format**

#### Direct Interactive Instruction.

This strategic methodology will allow us to outline learning objectives, organize and cover concepts, as well as infuse structured guided and independent practice opportunities. It is highly recommended that you take detailed notes during this time. Furthermore, it is good academic practice to review all notes for current material daily.

#### Daily Coursework.

*Practice Question Sets.* A list of recommended questions will be assigned and reviewed during each chapter. All students are strongly encouraged to solve all problems. Some problems will be submitted via Moodle and graded, some will not. Completing this work will help you think critically and practice your problem solving skills.

#### Laboratories and Projects.

*Live and Virtual Laboratories.* Laboratories will allow for interactive, direct experience of concepts discussed in class. You will gain laboratory skills, as well as communicate procedures, observations, results, and conclusions in words and writing.

Safety in the lab is vital. You will be required to sign and abide by a safety contract, as well as follow laboratory directions in order to participate.

*Projects.* You will be expected to present and/or publish work in order to communicate your knowledge. Work will be peer and/or educator reviewed.

#### Tests, Semester/Midterm Exam, and Final Exam.

*Tests.* Tests will be given to cover one or more chapters at a time.

*Midterm and Final Exams.* Two comprehensive exams will be given throughout the school year. These exams will take place approximately at the middle end of the school year.

## Grading

Coursework must be submitted on assigned due dates. Late coursework will be issued a 30% deduction.

A quarter grade will be determined through a weighted system.

- 40% Laboratories and Projects (LAB)
- 60% Tests (TEST)

Per school policy, the semester grade will be determined through the weighted system below and grading scale listed below will be utilized in determining all grades.

Semester Grade Weighted System

- 45% Quarter Grade
- 45% Quarter Grade
- 10% Comprehensive Exam

Grading Scale

100-97.....A+	89-87..... B+	79-77 .....C+	69-67..... D+	59-↓ .....F
96-93.....A	86-83..... B	76-73 .....C	66-63..... D	
92-90.....A-	82-80..... B-	72-70 .....C-	62-60..... D-	

## Academic Assistance

If you should have moments of struggle in this course, please see or email me immediately. I will help you to get to the root of your concerns and establish a plan of action that provides additional scaffolding (e.g., individualized instruction, graphic organizers, targeted problem-solving opportunities, etc.). I will also be monitoring your growth through formative assessment opportunities and will initiate a meeting, plan of action, etc. if necessary. Your academic success is very important to me.

## Academic Integrity

Academic misconduct in any portion of the academic work for this course is a serious offense. Therefore, it is expected that all students conduct themselves with honesty, integrity, and professionalism.