

ADVANCED BIOLOGY

TEXT

Marine Science: Marine Biology and Oceanography
The Oceans

PREREQUISITES

Biology with a grade of B or better

OBJECTIVES

Build upon biological concepts of first year Biology through investigating the physical, chemical and biological characteristic of the world's oceans.

CONTENT

- Chemical Oceanography
 - Basic ocean chemical principles
 - Properties of water

- Physical Ocean
 - Ocean Circulation
 - Waves
 - Tides

- Geological Oceanography
 - Structure of the earth
 - Continental and Oceanic Crusts
 - Plate Tectonics
 - Sea Floor

- Organisms of the Oceans
 - Review Classification
 - Marine Prokaryotes
 - Protist
 - Animalia
 - Vertebrates

- Ecology and Biodiversity
 - Between the tides
 - Estuaries
 - Coral Reefs
 - Life at the surface
 - Ocean Deep

SKILLS

- Deductive reasoning
- Note taking
- Notebook/Lab book organization/maintenance
- Scientific method/hypothesizing
- Laboratory equipment manipulation/application
- Compare/contrast skills
- Reading comprehension/summarization
- Research paper organization/format

METHODS

Lecture/Laboratory course. Lecture material is reinforced with hands-on laboratory experiments. Students engage in class and small group discussions and activities.

GRADING/CREDIT

- 15% Daily work
- 15% Homework
- 25% Laboratory reports
- 15% Quizzes
- 20% Final Exam
- 10% Research paper

ABSENCES/TARDIES

Excessive absences and/or tardies will result in lower grade and/or loss of credit.