

In marine biology students explore the extraordinary adaptations and interactions of abundant life in the ocean realm. Students will study a variety of topics that include many marine phyla, human influences on the ocean, animal adaptation and evolution, and relationships among marine habitats and ecosystems.

There are two OPTIONAL field experiences associated with this course. The first trip is an **overnight trip** to The Texas State Aquarium in Corpus Christi and the University of Texas Marine Science Institute in Port Aransas to ride aboard a research vessel. Students collect water samples and analyze them for salinity, dissolved oxygen and nutrients; make plankton tows and bottom trawls and collect sediment samples, observe and describe the similarities and differences in marine environments found along the coast. Students will have to be in good academic standing (passing all core classes) to attend and will be guaranteed a seat on the bus only if all required **permission slips (including the total cost of the trip)** are turned in by the due date. **The dates for this trip will be set by September 1. However, I will send out permission slips with details when the date gets closer.**

The second trip will be a day trip sometime in December and will involve a tour at Aquarena Springs in San Marcos. This trip will provide students with a clearer picture of how our watershed and freshwater sources might affect the marine environment as well as allow for comparisons of marine and freshwater environments. There are no capacity limitations for this trip so ALL students will be able to attend if they are in good academic standing and if they choose to go.

**Supplies:** For my class your student will need a composition book, pen and pencil, colored pencils (at least eight), a ruler, and other consumable materials for class projects. Students will be notified in advance what materials will be needed for these projects. Failure to bring in materials to work on projects may result in point deductions on projects. If students are unable to bring in materials, they should work with me before the project work day to acquire what they need.

**Contacting me:** E-mail is the best way to stay in communication with me. Please feel free to contact me at [ttasneem@austinisd.org](mailto:ttasneem@austinisd.org)

**Rules:** The schoolwide Kealing rules and discipline policy will be enforced in my classroom. In short, be prompt, be prepared, be productive, and be polite. Consequences for misbehavior begin with conference with the student, phone call to parents, and may escalate to detention.

**Grades:** In general, grades will be determined by the following percentages:

|                         |     |
|-------------------------|-----|
| Projects                | 35% |
| Classwork/Participation | 30% |
| Comp. book /mini-labs   | 25% |
| Quizzes                 | 10% |

Typically students are given plenty of time to work on projects in class, full credit will not be awarded in cases where time was clearly wasted during class. Makeup work (work missed due to absence) must be made up within one week's time, and **it is the student's responsibility to obtain the missing assignment/project information.** Office hours are from 3:00-4:00 on Tuesdays.

**Let's get ready for a great semester!**

## **Dynamic Syllabus for Marine Biology**

My goal for this class is to expose students to a variety of issues in marine biology. The first portion of the course is focused on an overview of organisms and resources found within the marine environment and an introduction to the physical features of the ocean. The second portion of the course is a broader view of the ocean edges, looking at specific habitat types. The last portion of the class will focus on environmentally relevant topics such as global warming, fisheries, harmful algal blooms, and pollution as seen through the lens of our watershed and how it affects the Gulf of Mexico. A dynamic syllabus and list of topics covered is found below:

### **I. Ocean features**

- A. Physical features
- B. Chemical features
- C. Ocean basins, erosion
- D. Interaction of ocean water and fresh water systems
- E. Interaction of marine organisms & phys. Environment

### **II. Marine Environments of the Texas Coast**

- A. Zones of the marine environment
- B. Marine communities and ecosystems
- C. Sandy beach communities
- D. Jetties
- E. Estuaries
- F. Salt marshes
- G. Mud flats
- H. Oyster reefs
- I. Lagoon
- J. Mangrove community
- K. Seagrass beds
- L. Coral reefs
- M. Offshore bottom ecosystem

### **III. Human Impact on Marine Environments**

- A. Watershed of Gulf Of Mexico
- B. Pollution & Policies
- C. Fisheries
- D. Harmful algal blooms