

# BIOL150L: Introduction to Marine Biology

Hands-on approach utilizing facilities at local marine laboratory, field trips, and group projects to learn biological concepts relevant to marine biology. Emphasis on local organisms and ecology. This class will include students from multiple sections. (NS)

## Course Student Learning Outcomes

1. Apply fundamental ecological principles to explain biodiversity, ecosystem processes, and human effects on ecosystems processes in the marine environment
2. Explain common life processes of metabolism, photosynthesis, and homeostasis as applied to the marine environment.
3. Differentiate among various taxonomic groups of marine autotrophs, invertebrates and vertebrates based on physical characteristics.
4. Interpret observations of form of various marine organisms across taxonomic ranks in light of their function (physiological and ecological) and evolutionary history.
5. Identify common fundamental methods of scientific inquiry (e.g. observation; hypothesis creation; simple study design; development and implementation of study protocols; data collection and analysis; drawing conclusions; and communicating scientific findings) within existing marine biology research examples.
6. Apply fundamental scientific inquiry to a novel question in marine biology that produces a complete study including presentation of results (written and oral presentation).
7. Demonstrate how physical properties of the ocean (geology, physical oceanography) affect marine organisms and how they help define marine ecosystems.
8. Critically evaluate current information surrounding a regional marine environmental issue in order to present an informed point of view on that topic, along with possible realistic solutions.

Credits: 5

Prerequisites: Eligibility for both ENGL& 101 and MATH 090/091

Program: **Biology**