

# CTE PROGRAMS

[www.newyorkharborschool.org](http://www.newyorkharborschool.org)

In addition to our academic offerings, New York Harbor School's eight NYS certified Career and Technical Education (CTE) Programs provide a unique college and career preparatory program built upon maritime experience.

**AQUACULTURE** students work towards understanding the fundamentals of water chemistry, organism biology, business, and marketing. Sophomores work with local species of New York Harbor. Juniors learn the dynamics of monospecies culture. Seniors apply their knowledge growing oysters for the Billion Oyster Project.



**MARINE AFFAIRS** explores Urban Agriculture as a tool to solve emerging issues such as resource management, environmental conservation, and economic, legal, and policy challenges. Students examine the roles of citizens, communities, educators, and governments in shaping and implementing laws, local restoration efforts, and discuss sustainable development.



## MARINE BIOLOGY RESEARCH PROGRAM

uses Phenomena-Based Learning to teach ecology, research, GIS, and oceanography. Scholars design and present original projects that address real environmental issues, working closely with mentor scientists and collaborating with organizations such as the EPA, HRF, ESRI, ConEdison, SUNY, and CUNY.



## MARINE SYSTEMS TECHNOLOGY

prepares students for careers in building, maintaining and repairing boats, and culminates in an American Boat and Yacht Council's Marine Systems Technician Certificate. Students can use the skills to get an intro level job in a boatyard or mechanic shop, or to apply to a top level college engineering program.



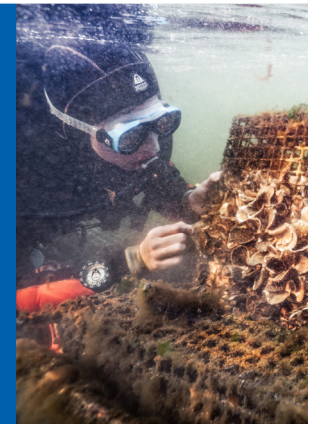
## OCEAN ENGINEERING

introduces students to engineering in an ocean environment. They design, build, and operate Remotely Operated Vehicles that can be used to collect data and monitor Billion Oyster Project's oyster reefs. Ocean Engineering students also design the 3D structures used in oyster reef building.



## PROFESSIONAL DIVING

is the only program of its kind in the United States that trains public high school students as scientific SCUBA divers who work on real environmental restoration projects, preparing them for careers in commercial and recreational diving and hands-on work with the Billion Oyster Project installing and inspecting reef structures.



## VESSEL OPERATIONS

equips students for careers as licensed deck crew and advanced training toward management roles, offering hands-on experience in navigation, boat handling, seamanship, safety, and industry standards as they operate vessels supporting Billion Oyster Project's oyster hatchery, nursery, and reef sites.



## WELDING & FABRICATION

offers an entryway into highly technical and high demand career fields. Students learn welding safety, four arc welding processes, three thermal cutting processes, reading welding symbols, weld inspection and are connected to internships, apprenticeships and programs at SUNY Maritime and City Tech.

