

# SCHOOL IS WHERE THE KIDS ARE

## Extraordinary at-sea adventures



*Educating Youth For Life*

**TOPSAIL YOUTH PROGRAM**  
**LOS ANGELES MARITIME INSTITUTE**

### OUR MISSION

Founded in 1992, Los Angeles Maritime Institute (LAMI) serves to empower youth to discover their greater potential through extraordinary at-sea experiences. We envision a thriving community where every young person can look to the future with confidence.



### OUR PROGRAM

TopSail Youth Program is an education and adventure experience aboard a tall ship, designed like an historic vessel from the Age of Exploration. Students raise the sails together, take the helm, and climb the rigging, which nurtures skills such as cooperation, problem solving, decision-making, planning, and self-reliance, and creates life long memories.

TopSail STEM Program includes all of the core components of our traditional program, and adds real world lessons in Science, Technology, Engineering, and Math using the boat and the ocean.

Programs can last part of a day, overnight, or up to a week. The ideal, life changing experience would be a series of day sails over a period of months, each one building on the skills and knowledge from the preceding ones, culminating in a multi-day voyage, sleeping on board, preparing meals, operating the ship, and much more.

Students that sail with us on any program get to experience one of the most active commercial harbors in the world, and the largest, least explored or understood wilderness on our planet... the ocean.

*"TopSail does not train youth for life at sea...  
We use the sea to educate youth for life."*

### AWARDS AND RECOGNITION

#### City of Los Angeles

*"The Official Tall Ships and Maritime Ambassadors of the City of Los Angeles"*

*"Angels Over LA" for Youth and Families*

#### California Parks and Recreation Society

*"Best of the Best Youth Development Programs"*

#### National Maritime Historical Society

*"Walter Cronkite Award" for Education Excellence*

#### Tall Ships America

*"Sail Training ship of the Year"*



### OUR GOAL

Aboard our tall ships, we provide your group with an engaging, active learning environment, and a unique experience that will inspire students to develop confidence, set their goals high, and reach them.

Our programs are aligned with state and national skill and content standards, showing students how classroom learning can be meaningful in the real world, and inspiring them to achieve more in school.



## AT SEA, TECHNOLOGY ISN'T A DISTRACTION, IT'S A NECESSITY

- Communicating with other ships
- Locating hazards with sonar and radar
- Determining location and weather



## APPLYING ACADEMICS TO THE REAL WORLD

- Mathematical Navigation
- Marine Biology
- Ocean Chemistry
- Sailing Physics
- History of Exploration



## PRACTICING LEADERSHIP AND COOPERATION

- Pulling together to succeed
- Sharing with others what you know



## OBSERVE A HARBOR AT WORK

### Keeping it safe



### Moving cargo



### Providing seafood



### Entertaining people



## MEETING OUR NEIGHBORS

### Small



### Medium



### Large



**TOPSAIL YOUTH PROGRAM  
TOPSAIL STEM PROGRAM  
TOPSAIL SUMMER CAMP PROGRAM**

**EDUCATIONAL  
CHARACTER-BUILDING & SCIENCE ADVENTURES  
SAIL TRAINING ADVENTURES FOR YOUTH**

**Book your school, youth group  
or organization to sail aboard  
LA's Official Tall Ships, the twin brigantines  
SSV Irving Johnson and SSV Exy Johnson**

**Sailing programs available  
by the hour, day or week**

**Call or email to reserve  
your time today!**



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*Brigantine  
SSV Irving Johnson*

## FACING YOUR FEARS

- Pushing your limits
- Trying new experiences
- Seeing a fresh perspective

## LEARNING RESPONSIBILITY

- Taking and giving directions
- Driving a 100-ton ship

## EXPLORING

- Future marine job opportunities
- Human impacts on the ocean
- Learning about marine life & ecosystems

*Brigantine  
SSV Exy Johnson*



Los Angeles Maritime Institute Underway Science Stations NGSS & CC Correlated. Voyage of Discovery on a Cruising Classroom.

## BIOLOGY, MARINE BIOLOGY

Using microscopes (dissecting & compound), self made slides, pipettes, observation bowls, and identification sheets, observe samples taken right out of the ocean or growing on our dock.  
✦ Identifying zooplankton and phytoplankton ✦ Prokaryotes vs eukaryotes ✦ Examining cell structures, organelles ✦ Using a robot vehicle (Remote Operated Vehicle) with camera & sensors to observe sea life

## ECOLOGY/ ENVIRONMENTAL SCIENCE, OCEAN PLASTICS

Examine samples of sand taken from local beaches and the stomach contents of deceased Albatross, separating organic matter from plastics like fishing line, bottle caps, etc. ✦ Biodegradation and photodegradation of debris ✦ How plastics and toxins harm marine organisms and humans ✦ Ecosystems: how humans are linked to nature and the ocean ✦ Marine food webs

## CHEMISTRY AND WATER CHEMISTRY ANALYSIS

With the ocean as our laboratory, view turbidity (visibility), temperature/thermocline, acidity (pH), salinity, density, dissolved oxygen (DO), and other metrics that affect the ocean, and why they are important.  
✦ Photosynthesis and chemosynthesis ✦ Ocean acidification and coral reef impacts ✦ Relationship between temperature, oxygen and depth ✦ Ocean chemical imbalance and impacts on marine plants, animals and humans

## MATHEMATICS, GEOGRAPHY, OCEANOGRAPHY

Discover the intricacies and complexities of marine navigational charts, as well as basics such as longitude, latitude, and compass directions. Learn how to use tools to measure and compute distance and direction.  
✦ Geometry and algebra ✦ Fractions and ratios ✦ Geography/maps/chart reading skills

## PHYSICS OF SAILING AND THE OCEAN

Learn how pulleys are used to create mechanical advantage to lift heavy beams and sails, and how we use wind to move huge, heavy ships through the water. ✦ Simple machines & levers ✦ Bernoulli principle/ lift ✦ Transfer of energy; force and motion ✦ Wave and fluid mechanics

## HISTORY

Practice the skills that have been passed down for hundreds of years, used by indigenous pacific populations, Columbus, Magellan, Cook and Cabrillo to travel and chart the world; learn what sailor's lives were like over thousands of years. ✦ Age of Exploration ✦ Advances in marine technology ✦ Anthropology

