

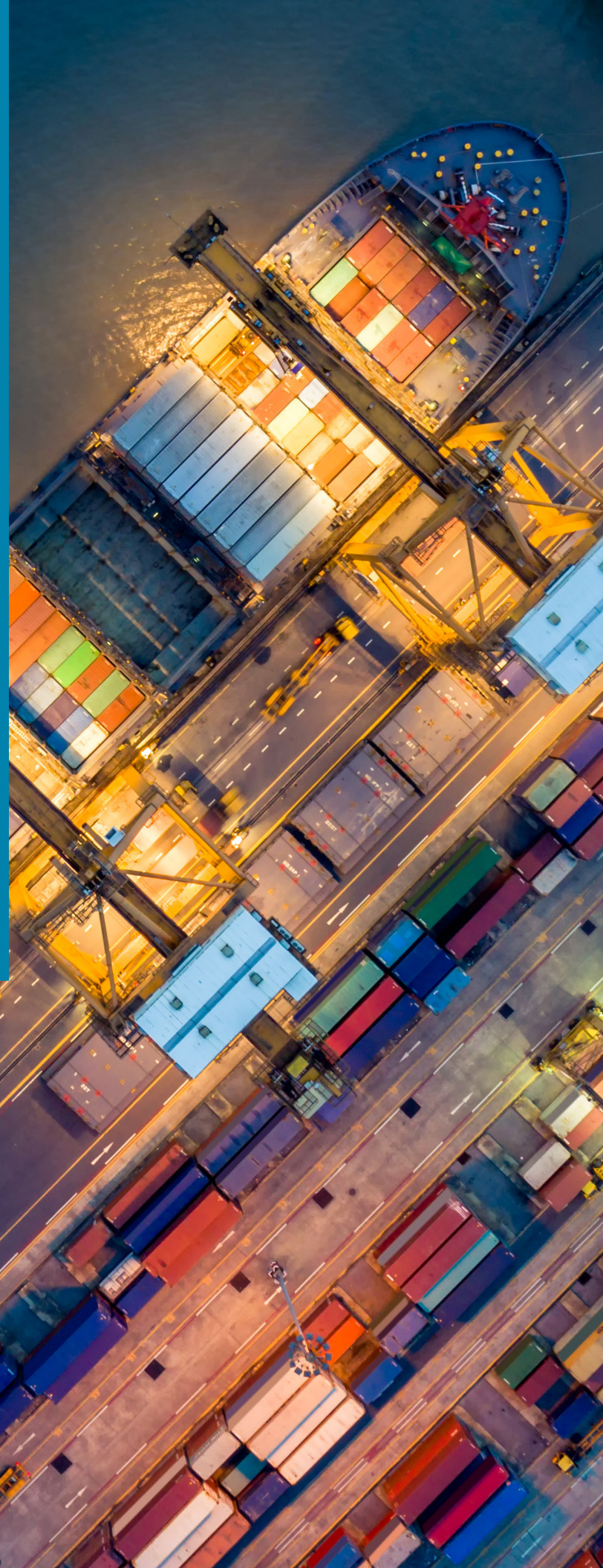


PORT HOUSTON<sup>SM</sup>

PORT HOUSTON

# MARITIME EDUCATION GUIDE

The  
future  
looks  
**bright!**





“Port Houston drives regional prosperity through jobs, world commerce and collaboration. I invite you to learn more about maritime career paths and how you can become a part of this industry through the maritime education program.”

Roger Guenther  
Executive Director



ABOUT PORT HOUSTON

For more than 100 years, Port Houston has owned, managed and operated the public wharves and terminals along the Houston Ship Channel, including the area’s largest breakbulk facility and two of the most efficient container terminals in the country. Port Houston is the advocate and a strategic leader for the Channel. The Houston Ship Channel complex and its more than 200 public and private terminals, collectively known as the Port of Houston, is the nation’s largest port for waterborne tonnage and an essential economic engine for the Houston region, the state of Texas and the U.S.

Port Houston Facts:

- Authorized and established in 1911
- Handles more than 69% of the US Gulf container traffic
- Creates jobs and facilitates economic development

Houston Ship Channel Facts:

- A 52-mile-long channel, with more than 200 public and private facilities alongside it
- Busiest waterway in the nation
- Supports nearly 3.2M jobs nationwide

As a major source of jobs for the region, Port Houston has a strategic stake in the development of a robust maritime workforce. We commit to this development through several activities including:

Maritime Education Program

In recent years, Port Houston has invested more than \$5 million dollars in the maritime education program through collaboration with local academic partners. Benefits of the program include dual credit courses, industry-specific certifications, field trips, workshops, seminars, internships, and scholarship opportunities.

Career Exploration & Workforce Development

The maritime industry has numerous high-wage, high-demand regional job opportunities. Career exploration allows us an opportunity to assist students in discovering their interests and matching them with opportunities available to them after graduation. In addition, students learn what level of education, work experience, and professionalism they need to succeed in their chosen career.

Port of Houston Partners in Maritime Education (PHPME)

For the past decade, Port Houston has led an alliance of industry, business, community, and academic stakeholders, as well as local state and federal entities, to address the need for a well-trained talent pool of future maritime leaders.

With these initiatives, our primary goals are:



Introduce

an increasing number of youth and young adults to maritime career opportunities in port-related industries



Encourage

higher education in the Maritime Science, Logistics, Transportation, Distribution, and other related fields of study, such as Security, Environment, and Global Supply Chain



Develop

partnerships between industry and academic institutions to create relevant education programming that is consistent with industry needs

Academic partners include:

- |                             |                                  |
|-----------------------------|----------------------------------|
| • Houston ISD               | • Lone Star College              |
| • Pasadena ISD              | • Texas Southern University      |
| • Galena Park ISD           | • Texas A&M University Galveston |
| • La Porte ISD              | • University of Houston          |
| • Houston Community College | • University of Houston Downtown |
| • San Jacinto College       |                                  |





# What is Maritime?

**Maritime is something connected to the sea or waterways throughout the world, especially in relation to navigation, shipping, and marine engineering.** Any land adjacent to the sea can also be considered maritime. Our everyday lives are affected by maritime and the industries that support the movement of cargo and waterborne commerce.

## FOUR SECTORS OF THE MARITIME INDUSTRY



### PORTS & LOGISTICS

Ports and maritime-related transportation logistics move everything we use as a society from the location of raw materials, to areas of production and finally to market where the goods are sold. Our ports and transportation systems are intermodal—moving from ship to train to the roads on semi-trailers and back again. We move raw materials and finished goods to be sold to all corners of the globe. The transportation and logistics industry are dynamic places to work where change is the constant.



### MARINER & SEA-GOING

There are many careers that will allow you to have an interesting and dynamic career—while traveling the world on the high seas. Everything from maintaining massive engines that power large ships, to piloting vessels or cooking meals for those on board. Some jobs require specific Coast Guard certifications and study through our nation’s maritime institutions while others require a passport, security clearance and a willingness to work.



### CRUISE SHIPS & RECREATIONAL BOATING

The cruise industry is a highly profitable international activity, and the fastest growing sector of the travel, tourism and leisure industry. The area of recreational boating is no different. There is a large industry in the United States that designs, produces, repairs and maintains cruise ships and yachts. Mechanics, designers, engineers, service technicians and marina personnel all work to keep the cruise and recreational boating industry moving to destinations all over the world.



### SHIPBUILDING & SHIP REPAIR

The shipbuilding and ship repair industries are some of our nation’s largest and most dynamic employers. These industries build and repair all types of sea-going vessels from aircraft carriers to submarines, from cargo ships to tugs and barges. This industry takes on large-scale projects that need a workforce that is flexible, dynamic and motivated. Careers in shipbuilding and ship repair provide skilled workers with an excellent wage and career opportunities.

# Your Path to Success

1

### OBTAIN

new skills that will benefit your future.

2

### TRAIN

for a career you’re passionate about.

3

### CONNECT

with the right people and resources.

## JOBS FOUND AT PORT HOUSTON

### Accounting

- Accountant
- Auditor
- Payroll Manager
- Customer Billing Services Specialist
- Revenue Database Analyst

### Asset Management

### Business Analytics

- Business Process Manager
- Grants Program Manager
- Project Controls Analyst

### Business Development

- Trade Manager
- Real Estate Manager
- Economic Development Manager

### Business Equity

- Business Equity Manager
- Supplier Diversity Manager
- Training Coordinator
- Certification Specialist
- Outreach Coordinator

### Channel Development & Improvement

### Community Relations

### Compliance & Legal

- Compliance Analyst
- Attorney
- Paralegal
- Records Manager

### Construction & Project Management

- Project Manager
- Construction Manager
- Construction Inspector
- Surveyor

### Emergency Management

- Police Officer
- Telecommunications Officer
- Firefighter
- Customs and Border Protection Officer
- Facility Security Officer

### Engineering

- Production Engineer
- Field Engineer
- Electrical Engineer

### Environmental Affairs

- Environmental Compliance
- Sustainability Manager
- Environmental Planning Analyst

### Facility Planning

### Financial Planning

- Financial Analyst
- Treasury Manager
- Cash Manager

### Freight Mobility

### Government Relations

### Human Resources

- Employee Development & Engagement
- Benefits Administrator
- Corporate Strategy
- Talent Manager

### Information Technology

- Systems Developer
- Network Engineer
- IT Administrator
- Security Engineer
- Support Technician

### Maintenance

- Electrician
- Plumber
- Mechanic
- Laborer
- Landscaper
- HVAC Technician
- Welder

### Marketing & Communications

- Digital Marketing
- Graphic Designer
- Events & Sponsorship Specialist
- Communications Specialist
- Public Relations Manager

### Maritime Operations

- Vessel Coordinator
- Merchant Mariner
- Barge Planner
- Maritime Operations Trainer
- Seaman/Deckhand

### Port Operations

- Crane Operator & Crane Technician
- Container Operation
- Gate Manager
- Logistics Coordinator
- Customer Service Specialist
- Terminal Operations & Systems Manager
- Longshoreman

### Procurement Services

- Contract Manager
- Contract Administrator
- Procurement Analyst

### Research & Forecasting

- Market Researcher
- Economic and Data Analyst

### Risk Management

- Risk Manager
- Claims Analyst
- Terminal Safety Manager

### Transportation

- Truck Driver and Loader
- Rail Car Operator
- Radio Technician
- Dredge Boat Operator
- Vessel Pilot
- Transportation Clerk

Whether you decide to enter the workforce, get an apprenticeship, or attend college or university, there is a pathway for you.

# POST-HIGH SCHOOL OPPORTUNITIES

Your path is yours to choose!

## HIGH SCHOOL

Choose your path

### PATHWAY 1

#### MARITIME ACADEMY

Attend one of the local High School Maritime Academies within Houston, Pasadena, Galena Park, La Porte, Texas City, Goose Creek, and Channelview.

#### Programs Focus On:

- Marine Science
- Transportation, Distribution, and Logistics
- Shipboard Engineering
- Port Operations

#### Port Operations Benefits:

- Dual Course Credits
- TWIC Card
- CPR Certification
- Forklift Certification
- Basic Boating Certificate
- OSHA 10 Hour General Safety Certification
- Certified Logistics Associate (CLA) Certification
- Field Experiences
- Paid Internships
- College Scholarships

### PATHWAY 2

#### CAREER & TECHNICAL

Enroll in one of the following Career and Technical Education (CTE) programs within your local school district. Some programs may offer certificates upon completion.

#### CTE Program Options

- Transportation, Distribution, and Logistics
- Mechanic / Diesel Technology
- Drafting / Design
- Construction Technology
- Electrical
- Robotics
- Welding
- Culinary
- Information Technology
- Business Management
- Criminal Justice
- Engineering

### PATHWAY 3

#### DUAL-CREDIT

Each school district offers a variety of S.T.E.A.M. dual-credit courses. Make sure that the Dual-Credit courses you are taking are transferable to the college/university of your choice. Talk to your counselor about your Dual-Credit options.

#### Dual-Credit Courses

- Algebra I
- Algebra II
- Biology
- English Composition I
- English Composition II
- Chemistry
- Computer Science
- Geometry
- Business Math
- Psychology



#### ENTRY-LEVEL WORKFORCE

Enter the workforce in one of the four Maritime Industry Segments:

- Port Operations and Logistics
- Shipbuilding and Ship Repair
- Mariners and Sea-going
- Cruise Ship and Recreational Boating

#### Some Entry Level Opportunities Include:

- Deckhand
- Ordinary Seaman
- Utility Worker
- Steward Assistant
- Forklift Operator
- Freight/Material Mover
- Logistics Coordination
- Longshoreman
- General Labor
- Inventory Clerk



#### APPRENTICESHIP

Registered Apprenticeship Programs

#### Port Houston

(On-the-Job Training and Classroom Instruction)

- Electrician
- Mechanic

#### Paul Hall Center of Maritime Training & Education

(One-year Training Program/First Job Guarantee)

- Able Seafarer-Deck
- Engineer
- Steward



#### COLLEGE

Certificate/AAS Degree/AS Degree



#### UNIVERSITY

BA/BS/BAS/Master's/PhD



#### MARITIME ACADEMY

The USMMA and six maritime academies meet the need by educating young men and women for service as officers in the United States Merchant Marine, U.S. Armed Forces, and Nation's Intermodal Transportation System:





To learn more about Port Houston's  
Education Outreach initiatives,  
please contact:

**Call** 713-670-2806

**Email** [MaritimeEd@porthouston.com](mailto:MaritimeEd@porthouston.com)

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**[www.porthouston.com](http://www.porthouston.com)**

