

## Marine Technical Specialist

Program information: 631/667-6000, x320  
[www.wilsontech.org/marine](http://www.wilsontech.org/marine)

Endorsed by:



**ABYC**<sup>®</sup>  
Setting Standards for Safer Boating



**National Marine  
Electronics Association**



Wilson Technological Center is the career and technical education division of Western Suffolk BOCES.

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Wilson Technological Center  
17 Westminster Ave.  
Dix Hills, NY 11746

# A Career for Boating Enthusiasts



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# Recreational Boating Creates Jobs

# Marine Technical Specialist



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The recreational boating industry, both on Long Island and nationally, requires qualified marine technicians who can service boat engines and operate marinas. Rapid advances in marine propulsion technology demand a high level of competency and training. Those earning a certificate from Wilson Tech will be well-prepared for employment opportunities in boat yards, marinas, engine repair facilities, as well as on fleets of boats used for consumer fishing, police and government agencies.

Modules I to VI taken in order will provide both basic theory and hands-on training. The second six modules will help you be versatile in all aspects of boat service operations. After successfully completing all 12 modules, the student must complete an internship in a local boat yard or marina to earn the Tech certificate. Students who successfully complete coursework can take industry standard certification tests to become certified in Yamaha and/or Mercury products.

Those looking to strengthen their knowledge on a specific topic can take

individual modules with the approval of the instructor who will evaluate relevant experience or background.

Instructors are experts from the recreational marine industry on Long Island. A basic set of hand tools, multi-meter and basic diagnostic tools, costing approximately \$2,000, are students' responsibility. A supply list will be provided per module and is available at [www.wilsontech/marine](http://www.wilsontech/marine). Textbooks additional.

**Marine Technical Specialist** – Modules vary by semester. Program totals 584 hours (504 hours in class, 80 hours in internship).

**Dates:** Classes meet Tuesday and Thursday evenings.

**Location:** Tech's Manor Plains campus, 200 Little Plains Road, Huntington.

**Tuition:** \$319/module.\* Each module is 42 hours.

## COURSE OF STUDY

### Outboard Technology I (Module 1)

This first module covers the breakdown of the two and four stroke internal combustion engine operating theory with modern computer engine controls. Cooling systems are also covered. Course #2901

### Basic Marine Electrical Systems & Wiring (Module 2)

Learn DC theory and wiring, battery systems. Use of American Boat & Yacht Council and National Marine Electronics Association standards. Course #2907

### Fuel Systems (Module 3)

Advance to carburetor theory, fuel and fuel delivery, fuel pumps, lubrication, boat fuel systems, standards and recommended practices. Course #2902

### Ignition Systems (Module 4)

Gain in-depth information on how ignition systems work. Learn CDI and electronic ignition theory and troubleshooting using modern test equipment. Course #2903

### Electronic Fuel Injection (Module 5)

Gain a thorough understanding of computerized electronic and direct injection engine operating systems. Heavy emphasis on hands-on computer diagnostic operations. Course #2906

### Drive Systems (Module 6)

Study all drive systems in the industry today. Class includes outboard lower units, stern drive, and inboard transmissions diagnosis and rebuilding including shimming procedures. Course #2905

### Outboard Technology II (Module 7)

Expand on the knowledge gained in Outboard Technology 1, including advanced systems troubleshooting for both 2 and 4 stroke engines. Course #2904

### Electronics Installations (Module 8)

Proper installation of electronics is essential to navigation and safety. Learn to install navigation and communication systems. Course #2908

### Rigging and Performance (Module 9)

Learn proper installation of outboards and stern drives to optimize engine performance. Students will de-rig and repower a typical boat and perform on water testing of the completed boat. Course #2909

### Marina Management (Module 10)

This class is a MUST for anyone entering or currently working in the marine industry. Learn excellent customer service skills, how to be a service writer and gain an overview of the marina as a business. Students will earn their apprentice boat bottom painting and fork truck drivers certificates. Course #2910

### Diesel Theory (Module 11)

Learn basic theory and maintenance of the diesel engine. Course #2911

### Systems Troubleshooting (Module 12)

This module offers an in-depth approach to diagnostics utilizing the latest tools and methods. Special attention will be given to electrical failure diagnostics and a systematic approach to trouble shooting. Course #2912

### Boat Yard Operations–Internship

In this final segment of your training, you will spend 80 hours at a local boat yard or marina so you can practice hauling and launching, blocking, bottom painting, fork and travel lift training. Course #2915 Days and times vary (80 hrs, 8 CEU)

## ELECTIVES

Although these classes are not required, they are highly recommended to enhance your employability. The cost of electives is not included in the full tuition.

### Fiberglass Technology

Learn how to perform basic fiberglass hull and cosmetic repairs.

### Heliarc (Tig)

Learn theory and practical applications of heliarc welding and positions and properties of various metals. Students must provide gloves, goggles, helmet.

**More info, course dates & times: 631/667-6000, x320 • [www.wilsontech.org/marine](http://www.wilsontech.org/marine)**

\*Tuition listed is for modules taken in 2009–10 academic year. Tuition is subject to change.