



Lookbook | 2012/13

**The Landing School**  
*Educating Future Leaders of the Marine Industry*





# Table of Contents

School History.....	2
Maine Life.....	4
Student Life.....	6
Wooden Boat Building - Small Boats.....	8
Wooden Boat Building - Cruising Boats.....	10
Composite Boat Building.....	12
Yacht Design.....	14
Marine Systems.....	16
Student Testimonials.....	18

Cover image: Kennebunkport, Maine



printed on recycled paper

# School History

## The Landing History

*"The Landing"* is a short stretch of the Kennebunk River where The Landing School is located. It was once an internationally famous shipbuilding area and the home of more than 20 shipbuilding firms between 1766 and 1867. As the economic effects of the Great Depression descended over the country in the early 20th century, the shipbuilding business throughout Maine began to dwindle. In 1942, *The Landing* hosted its last official launching of a commercial vessel, a police cruiser. In December of 1978, three and a half decades later, the first class of students at The Landing School launched a Chamberlain dory-skiff, reviving the boat building trade along *The Landing*.

## How It All Began

The Landing School was established in 1978 by John Burgess and Helen Tupper who each had a passion for boat building and saw a need for others to learn their craft. Their vision to build a school that would keep the tradition of wooden boat building alive culminated in the launching of The Landing School as a nonprofit, post-secondary institution dedicated to providing the highest quality hands-on education in boat building. The first year was attended by nine students who used a cow barn as a classroom and built two dories and two 18-foot sailboats as the curriculum.

Recognizing that The School filled a critical void in the industry where well-trained tradespeople were in high demand, in 1979, John and Helen added a Yacht Design Program to provide the worldwide marine industry with a source of new designers trained specifically in the techniques and aesthetics of yacht and commercial boat design. Two decades later, boatyards worldwide were struggling with a shortage of trained marine systems technicians. In September 1999, The Landing School once again responded to the industry's need by launching the Marine Systems Program. In a few short years, The School transformed from a small group of individuals building boats in a barn to a range of students learning the fine art of small and cruising wooden boat building, marine system maintenance and yacht design.

## Today

In 2007, The School completed a multi-year aggressive growth plan that resulted in a large addition to the facilities, providing room for the curriculum to expand again with the Composite Boat Building Program. Today, The School is an accredited institution that offers diploma and Associate's degree curriculums with concentrations in five areas: Wooden Boat Building (Small Boats), Wooden Boat Building (Cruising Boats), Composite Boat Building, Marine Systems and Yacht Design. The Landing School's driving force is to bridge the gap between theory and practice, providing graduates with the skills and understanding necessary for current employment opportunities and future career growth. In as quickly as 10 months, our students are ready to enter the marine industry workforce with the skills necessary to not only succeed but excel.



# Maine Life

## History

Maine is a state rich in history. Thirteen years before the Pilgrims arrived at Massachusetts, the English established a colony in an area that is now part of the state. However, a severe winter forced most of the settlers back to England in 1608. Augusta, Maine's capital, was built where Pilgrims set up a trading post in 1628. The state was part of Massachusetts for about 200 years before it entered the Union as the 23rd state.

## People

The state of Maine has been the home to countless artists, writers, leaders and builders who found inspiration in the landscape, tradition and people. Oceanside cliffs and barren fields made up the landscapes on the canvases of Winslow Homer and Andrew Wyeth. Tangled woods and tiny towns grew into essential characters in the poems and novels of Henry Wadsworth Longfellow, Sarah Orne Jewett and E.B. White. Those same influences still shape the works of Maine authors, poets and artists such as Stephen King, Richard Russo and Alex Katz.

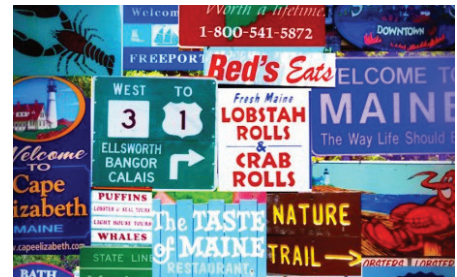
Maine's pine-covered mountains and rugged coast not only inspired great artists but also men and women whose courage and leadership shaped our country. Those individuals included Brig. Gen. Joshua Lawrence Chamberlain, the Civil War hero and former governor; Margaret Chase Smith, the first woman to serve in both houses of the U.S. Congress; and Edmund Muskie, the former U.S. senator and secretary of state.

## Landscape

Maine is famous for its rugged coastline. Lighthouses, sandy beaches, fishing villages, and thousands of offshore islands offer the postcard scenes that thousands of visitors flock to see every year. The array of activities including surfing, fishing, boating, and skiing, to name a few, has made recreation an important industry and a tremendous draw for locals and tourists alike.

Forests cover 90 percent of Maine's land ensuring no shortage of opportunities to hike, camp or mountain bike in pristine wilderness. Water, including lakes, rivers, the Atlantic Ocean, islands, inlets, and harbors, also makes up part of Maine's landscape. The power of the state's rivers and waterfalls is used to provide electricity to its industries. Industry makes up an important part of Maine's economy. Commercial fishing is important to the state; more lobsters are caught in Maine than in any other state.

Portland offers many opportunities for cultural activities such as touring art museums, sailing in Casco Bay or simply people watching in the Old Port. This fun and lively city offers a small town feel that offers big city variety. Portsmouth, NH, another New England gem, is only 45 minutes away while Boston is a mere hour and thirty minute driving, offering countless opportunities for exploration no matter where your interests lie.



# Student Life

## Diversity in Learning

One of the primary focuses at The School is to provide students with a variety of learning situations. Students will attend classroom study each morning and in the afternoon apply what they've learned in the lab, working as individuals and in teams to execute their newfound knowledge. By mixing up the curriculum with classroom work and hands-on experience, students learn both theory and practice and understand the value of making quick decisions on their own balanced with the importance of being able to work as a team. This ensures that students walk away from their education fully prepared to tackle any situation.

Students will also spend time in each of the other programs The School offers so that they can see how the work they do fits in with other aspects of boat building, maintenance and design. By offering each of these programs under one roof, students need only walk down the hall to experience a variety of marine industry trades. Because of the diversity of our student body which includes adult learners, second career seekers, international students and veterans, students also have the opportunity to learn from each other's individual experiences.

## Focus on the Student

Students at The School spend upwards of 40 hours per week learning their craft, unlike traditional schools where students have class only a few hours per day. Because of the amount of time students spend in the classroom and in the shop, they get to know our faculty very well. Students receive individual attention from instructors who are experts in their field and have a wide variety of knowledge to offer. This highly concentrated approach to learning and easy access to instructors ensures that students have the best possible chance to graduate with the greatest amount of knowledge that can't be obtained anywhere else.

## School Events

The faculty and staff of The Landing School also believe in a balanced approach to learning and encourage student interaction through regularly sponsored activities both as part of the curriculum and as extra-curricular activities. Students have the opportunity to join school committees that drive school sponsored functions. Social events such as barbecues, holiday parties and potlucks are held several times during the year. Students celebrate the christening and launching of completed boats. Field trips to regional boat building businesses and educational functions are interspersed throughout the curriculums for each of the programs. Additionally, The School hosts lectures and marine industry gatherings to which students are invited. These events provide students with the opportunity to meet and speak with professionals in the marine industry and potential employers.

The result of diverse yet focused learning and close interaction among students and faculty brings students the chance to excel in their program and graduate with the confidence they need as they enter a new career in the marine industry.





# Wooden Boat Building - Small Boats

## Program Benefits

The Small Boat option within the Wooden Boat Building Program instructs students in the construction of both traditional and modern boats using wood as the principal material. The curriculum prepares students to work with traditional or modern vessels. A graduate can assume a career as a boat builder, boat repairer, boat restoration professional, joiner or finishworker.

## Classroom and Shop Experience

Students who select the Small Boat option are taught construction methods through formal lectures, field trips and hands-on projects. Students are divided into teams to build several small boats under the supervision of an instructor. These teams are responsible for all aspects of construction from lofting to sea trials.

There are two boat construction projects during the year. One construction project is a small (13' to 16') epoxy-glued lapstrake boat. Students loft, or draw, these craft at their full size in order to develop the shapes and angles needed to build the stem, keel and molds. Each team of builders constructs a mold, planks a boat, builds and installs all parts—rudder, keel, tiller, breasthooks, spars etc. Students also fit out the boat with hardware and rigging and paint and/or varnish the interior and exterior.

The second construction project teaches an alternative building method, carvel construction. The boats are built using carvel planking on steam-bent frames.

While boat models vary from year to year, the building materials typically include white pine, Western red cedar, white oak, mahogany, Sitka spruce, ash and marine plywood complemented with bronze fasteners and hardware.

## Hands-on Projects

Instructors of The Landing School's Wooden Boat Building Program select the designs for the project boats based on the depth of information and skill that students can gain from their construction. Some of the designs built by students in the past include:

- Haven Class 12 1/2'
- Beach Pea
- Catspaw Dinghy
- Downeast Peapod



# Wooden Boat Building - Cruising Boats

## Program Benefits

The Cruising Boat option within the Wooden Boat Building Program instructs students in the construction of modern boats using wood as the principal material in conjunction with composite materials and resins. The curriculum prepares students to work with traditional or modern vessels. A graduate can assume a career as a boat builder, boat repairer, boat restoration professional, joiner or finishworker.

## Classroom and Shop Experience

Students who select the Cruising Boat option are taught construction methods through formal lectures, field trips and hands-on projects. Students are divided into teams to build boats under the supervision of an instructor. These teams learn the comprehensive boat construction process from the loft floor all the way to the water with an eye toward quality and efficiency.

The course begins with lofting, or drawing, the parts of the boat and follows with mold-making and construction of the keel, stem and transom. The boat is then set up to form the specific hull shape to which the layers of planking are affixed.

The hull and deck are cold-molded using epoxy and a vacuum bag to ensure a high-quality laminate. Several different wood types and composite materials are incorporated into the boat based on structural and educational needs. Students then spend a substantial amount of time fairing the hull and deck to achieve an even, efficient surface.

A variety of modern, durable finishes are applied to the boat's exterior and interior using varying techniques. Students also learn the basic components of electrical, mechanical, steering and propulsion systems that are installed on a small recreational boat.

## Hands-on Projects

Instructors of The Landing School's Wooden Boat Building Program select the designs for the project boats based on the depth of information and skill that students can gain from their construction. Some of the designs built by students in the past include:

- LS-26 weekender sloop
- Arundel 27 weekender powerboat
- LS-30 performance daysailer
- LS-22 Flyfisher 22



# Composite Boat Building

## Program Benefits

This curriculum prepares students to work with modern composite vessels. A graduate can assume a career as a boat builder, boat repairer or composite technician in the marine industry, or use his/her skills in other manufacturing fields including transportation, infrastructure and energy.

## Classroom and Shop Experience

The Composite Boat Building Program provides a broad education in the rapidly evolving field of composite construction. The course is taught through lecture, labs, field-trips and construction of one or more composite boats. Students learn how to use modern composite materials and construction processes to create boats of varying sizes.

Students study the strength, stiffness and structural mechanics of many different materials, so they are knowledgeable about the range of choices available to today's boat builders. They are given instruction in the fabrication of those materials, from hand layup to vacuum-infusion and pre-preg part-making in both open- and closed-molding environments.

In the lab-based segment of the curriculum, students work on the construction of one or more composite hulls, decks and related boat parts. Student-builders construct one or more plugs and molds, starting with the lofting process and including fairing and finishing. Equipment such as ovens, vacuum bags, testing machines and woodworking tools are used in the processes.

Throughout the school year, students examine the effects of the various composite materials on the production methods, assess their structural strengths first-hand and witness how the choice of materials interfaces with the design and production of a boat. Design and systems elements are also incorporated into the curriculum so students have a foundation in the entire boat building process, from concept through final construction.

## Hands-on Projects

Instructors of The Landing School's Composite Boat Building Program select the designs for the project boats based on the depth of information and skill that students can gain from their construction. Some of the designs built by students in the past include:

- Landing School Dinghy (10')
- Lightning class sailboat
- F-82R trimaran
- LS-20 sportboat



# Yacht Design

## Program Benefits

The Yacht Design curriculum is designed to provide students with a structured learning environment in which they can become knowledgeable and proficient in the practical application of the fundamental principles of small craft naval architecture, design, strength, construction and systems and develop the skills to communicate effectively with other industry professionals by verbal, written and graphical means.

## Classroom, Drawing and Computer Experience

The Yacht Design Program teaches the technical design process for both power- and sailboats from concept through preliminary design. While the curriculum is engineering-based, the aesthetic aspects of yacht design are also an important element. The fundamentals of hydrostatics and hydrodynamics form the basis for hullform design. The keels and rudders, rigs, engines, propellers, ergonomics and aesthetics are all considered in the development of interior arrangements, out-board profiles and deck plans.

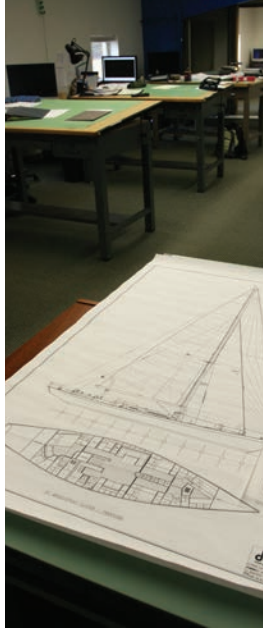
Structural design and layout is founded on the fundamentals of engineering statics, strength of materials and structural mechanics within industry standards. Students also study system design and installation including engines, shafts, steering systems, tanks, piping, ventilation and electrical systems.

Students begin the first quarter of the program employing manual drafting skills in order to gain appreciation for drawing appearance and layout. The remainder of the year they use CAD software using a networked PC at each student's workstation. Students use industry-standard software for calculations, two-dimensional drafting, three-dimensional hull fairing and general three-dimensional modeling.

Throughout the year the scope of the studies is supported and extended by lectures by industry experts, field trips and reviews of case studies on business practices and client relations. Students spend much of their time preparing preliminary designs for safe and practical small craft. As a final project, each student prepares a complete set of plans and calculations covering all aspects of the design for his or her own choice of a sailboat, powerboat or commercial craft. A student's designs comprise a portfolio that he or she may use to demonstrate his or her skills and experience when seeking employment.

The Yacht Design Program is very demanding. The material covered in a school year usually takes at least two academic years to complete at other institutions. Students devote a substantial amount of time outside of lab and lecture periods to completing school assignments and projects.





# Marine Systems

## Program Benefits

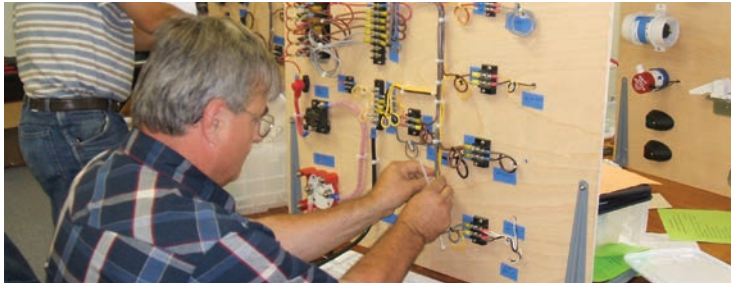
The Marine Systems Program teaches the skills and knowledge necessary to install, maintain and repair today's increasingly complex boat systems using established industry standards. The curriculum prepares students to work as marine systems technicians for manufacturers, service yards, custom builders and yacht owners.

## Classroom and Shop Experience

Students in the Marine Systems Program learn to install, maintain and repair marine electrical and mechanical systems through formal lectures, labs, field trips and hands-on work on actual vessels and vessel systems.

The curriculum begins with the basics of mechanical fastenings and the use of hand tools. The student's ability to assemble and disassemble equipment grows as their hand skills develop. Instruction continues with lectures and labs designed to create a comprehensive understanding of gasoline and diesel engines, basic composite construction and repair, electrical theory, wiring, pumps and plumbing. Students learn about bilge and sanitary systems, electrical systems, propulsion systems, sailboat rigging, steering and controls, refrigeration and air-conditioning, and how these systems are integrated. Students gain confidence that they will be able to service, troubleshoot, and install all of the equipment common in a modern yacht. The Marine Systems Program simulates a work environment in a real world boat shop with an emphasis on developing a professional work ethic.

The Marine Systems Program also offers students the opportunity to prepare for and take industry recognized certification exams from organizations such as ABYC, NEMA and others.



## Student Testimonials

"To learn from boating professionals and interact with students every day is a long held desire. I believe that the work at The Landing School is very important because the faculty and staff are doing their part to develop the best workforce possible which will in turn lead to industry growth while continuing the proud tradition of Maine's leadership in American boat building. I consider it an honor to be part of The Landing School family."

~ *Marcus Asante, Marine Systems Class of 2012*

"I suppose I could have lived in the 'burbs and commuted to an ordinary job, just to enjoy a week off every year. Instead, I decided I'd rather enjoy doing something I love, in places most people visit on vacation. The Wooden Boat Building Program at The Landing School gave me the foundation I needed to build a career in building boats. Every summer I watch the world converge for their one week off and I relish in what I'm doing every day."

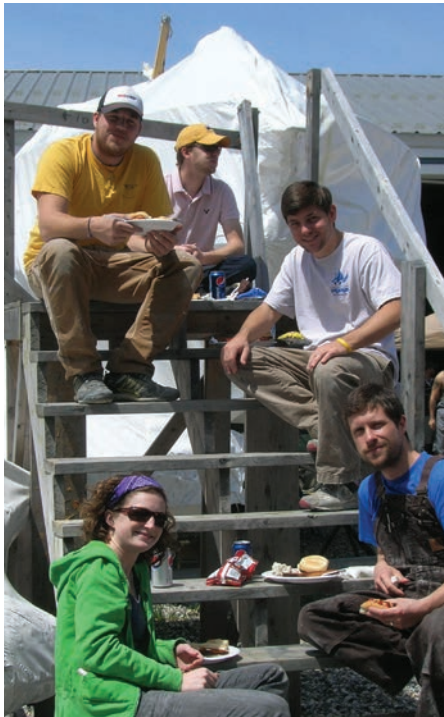
~ *Megan Holtham, Wooden Boat Building Class of 2005*

"During my education, I was exposed to a variety of disciplines and approaches to marine work and was surrounded by an atmosphere that emphasized professionalism and an attitude of doing things to the highest standard of quality every time. Because of my decision to attend the school, I have arrived exactly where I had hoped to be. My experience at The School gave me the tools necessary to pursue my dreams and the competitive edge to achieve them."

~ *Stephen Nolf, Composites and Yacht Design Class of 2009*

"The Landing School stood out among its peers for me because it offers hands-on training, a friendly environment, and a down-to-earth, honest approach to hard work and success. I enrolled in the Wooden Boat Building program where I realized one goal immediately - how to make square things round! This course became the basis of my foundation in the marine industry by teaching me the fundamentals of how a boat comes together. As an industry leader, The Landing School is responsible for giving its students, young and old, the foundation of craftsmanship and professionalism most desired by the marine industry."

~ *Chris Audy, Boat Building Class of 2007*







# The Landing School

*Educating Future Leaders of the Marine Industry*



286 River Road, Arundel ME 04046

CL0010 22012

p: 207.985.7976 | f: 207.985.7942 | e: [info@landingschool.edu](mailto:info@landingschool.edu) | w: [www.landingschool.edu](http://www.landingschool.edu)