



## MARINE TRADES CAREER GUIDE

For Yacht Designers, Marine Systems Technicians, Composite Boat Builders and Wooden Boat Builders

### Hands on Education in a High Tech World

Obtaining a post-secondary degree after completing high school is no longer a foregone conclusion for many students in America. Skyrocketing tuition costs, fewer loan options and the lack of a guaranteed job upon graduation is leading many to seek alternatives to the standard four-year degree.

In addition, the vast majority of post-secondary programs feature classroom learning typically found in community colleges, career colleges and universities across the country. But not everyone fits the standard educational mold. As such, many students are leery of racking up large debts in a course of study that doesn't truly suit them.



While technology is moving forward at an astounding rate, what's needed is for educators to stop and look back at on how people used to earn a degree or learn about a trade before the advent of digital communication. Although some believe looking back only slows down progress, there are those who are working to keep a long-established approach to learning alive and well and they're finding that they're in good company.

The Landing School is a post-secondary educational institution that most people outside of the marine industry have never heard of. But the faculty and staff here are quietly keeping an age-old tradition alive in education. The students at this school are building boats and maintaining marine systems all by hand. Meanwhile, students are also designing yachts using the latest CAD programs. These real world experiences are priceless to students who value a "learn by doing" approach.

John Burgess and Helen Tupper started The Landing School in 1978 with the desire to keep the fine art of building Maine wooden boats alive at a time when the technique was being passed over for faster and more efficient forms of production. Little did they know that the school that had its first class in a cow barn was to become one of the finest marine trades education institutions in the country.

Although the wooden boat building programs were successful in the early years, John and Helen heard the industry's call for more diversity in the technical skills of their graduates. So they responded. The Landing School now provides courses of study in Wooden Boat Building, Yacht Design, Marine Systems and Composite Boat Building with the option to obtain a diploma or Associate's degree. And popularity for these programs is growing.

In spite of the fact that The Landing School is small when compared to its university counterparts, students at The School experience a great deal of diversity. The student body ranges in ages from 18 to 64. Some students come having already obtained a four-year degree. Others are just out of high school. Some are from Maine, others are from as far away as Korea. And the faculty is just as diverse. On any given day, you'll find a former Naval Architect from England working side by side with a faculty member who's been building boats for so long, he can do it from memory. What brings the students and faculty members together is an unyielding passion for the marine world and a love of the finer details that come with working with your hands.

While technology will continue to move forward at a lightening fast pace, The Landing School will keep their approach to learning. And the faculty, staff and students wouldn't have it any other way.

## Industry Careers

### Boat Building

The U.S. boat building industry includes about 1,000 companies with a combined annual revenue of about \$5 billion. Major product segments are outboard motorboats (40 percent of revenues); inboard motorboats (30 percent); and inboard-outboard boats (20 percent). Other product types include sailboats and canoes. Some boat builders also do repair work, operate marinas, and sell auxiliary equipment and supplies on premises. Students who graduate with a diploma or degree in Wooden Boat Building may find a career in Wooden Boat Building or in an alternative such as:

Boat crew	Boat restorer	Cabinet and furniture construction
Component design	Consultant	Finish carpenter
Interior design	Musical instrument design	Teacher
Technical/lumber sales	Watercraft panel design	Writer
Youth boat building		

### Yacht Design

Yacht Designers are involved in the design, construction, and maintenance of boats and related equipment. They design and supervise the construction of various kinds of yachts from racing and cruising to power and sailing. Yacht Designers work on every aspect of a boat including shape, stability, structure, systems, powering and, above all else, safety. Careers for Yacht Designers include finding a position with a yacht design firm or becoming self-employed. Other areas that a Yacht Designer may work in include vessel safety, technical consultancy and design of fast ships, workboats and powerboats. Students who graduate with a diploma or degree in Yacht Design may find a career in Yacht Design or in an alternative such as:

3D modeling	Boat crew	Component design
Consultant	Government work	Military
Project manager	Sail making/design	Teacher
Technical sales	Writer	

### Marine Systems

Marine Systems Technicians work on the propulsion, steering, and other systems of boats. They apply knowledge from a range of fields to the entire process by which water vehicles are designed and produced. Other workers who operate or supervise the operation of marine machinery on boats and other vessels may be called marine engineers or, more frequently, engineers. Students who graduate with a diploma or degree in Marine Systems may find a career in Marine Systems or in an alternative such as:

Auto repair	Boat crew	Component design
Consultant	HVAC technician	Military
Phone company technician	Remote switching station operator	Rigging design
Systems design	Teacher	Technical sales
Wind turbine technician	Writer	

### Composites

U.S. composites manufacturing is a \$13.7 billion industry in which some 110,000 people were employed in 2010, according to the American Composites Manufacturers Association. The marine industry uses composites for commercial, pleasure and naval boats and ships, moorings, buoys, marine docks, floats, outboard motors, sterndrives, water skis/wakeboards, cruising boats, sailboats, PWC's and Jet boats. There are a variety of applications within the composites industry as follows:

Construction: 41%   Corrosion: 22%   Marine: 19%   Transportation: 10%   Other/Aircraft: 3%   Consumer: 3%   Electrical: 2%

Students who graduate with a diploma or degree in Composite Boat Building may find a career in Composite Boat Building or in an alternative such as:

Aeronautic construction (space shuttle, airplanes, etc)	Auto racing crew	Boat crew
Building architecture	Consultant	Furniture construction
Military	Rigging design	Sports equipment design
Teacher	Technical sales	Writer

### Resources

American Composites Manufacturers Association (ACMA): [www.acmanet.org](http://www.acmanet.org)  
 Marine Industry Training and Education Council (MITEC): [www.mymitec.com](http://www.mymitec.com)  
 Society of Naval Architects and Marine Engineers (SNAME): [www.sname.org](http://www.sname.org)  
 U.S. Department of Labor Occupational Outlook Handbook: [www.bls.gov/oco/](http://www.bls.gov/oco/)  
 U.S. Department of Transportation, Maritime Administration: [www.marad.dot.gov](http://www.marad.dot.gov)

## The Landing School Career Assistance

The Landing School provides career counseling and career portfolio development services to all current students. The school maintains close communication with marine companies throughout the United States and abroad and companies regularly post job openings on the alumni job page on The School website.

Students meet individually with the career counselor at the beginning of the school year to express job preferences and locations, and as openings develop, students are directed to the appropriate contacts at various companies. The School maintains an Employment Resource Guide and provides it to students several times during the year. Students also attend seminars during the year on the career placement process, resume preparation, job interview preparation and other topics that will aid them in securing employment upon graduation.

Graduates of The Landing School's programs are actively employed in the marine industry worldwide as professional designers, builders, systems technicians, crew members and repairers. Some go into related fields such as sail making, spar design, marine surveying and yacht sales. Many start their own shops and design offices.

The Landing School has a board of professional industry advisors who provide feedback on the curriculum in order to ensure that students are graduating with practical and marketable skills necessary for successful employment in the marine industry. The School's alumni report back great success in their careers.

The Landing School does not guarantee employment for graduates but does provide information about open positions in the marine industry around the world to our alumni through regular newsletters, a website and informal correspondence. The School maintains extensive contacts throughout the marine industry and regularly assists students in establishing relationships with potential employers.

## The Landing School by Numbers

Below you'll find graduation, employment and salary statistics for Landing School graduates. The salaries for each program are based on a survey taken from students during their first year of employment after graduation.

### Yacht Design

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.

### Marine Systems

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.

### Composite Boat Building

The Composite Boat Building Program instructs students in the construction of modern boats and related parts using composite materials such as fibers, resins and core materials.

### Wooden Boat Building

The curriculum prepares students to work with traditional or modern vessels and instructs students in the construction of both traditional and modern boats using wood as the principal material.

For the Class of 2011	Marine Industry Technology Associate's Degree	Composite Boat Building Diploma	Marine Systems Diploma	Wooden Boat Building Diploma	Yacht Design Diploma
Students Available for Graduation	4	9	22	16	17
Withdrawn/Terminated	0	2	0	2	3
Graduates - Further Education	0	4	5	7	5
Graduates - Unavailable for Employment	0	0	0	0	0
Graduates - Available for Employment	4	3	17	7	9
Graduates - Employed in Field	4	3	14	5	7
<b>EMPLOYMENT RATE</b>	<b>100%</b>	<b>100%</b>	<b>82%</b>	<b>71%</b>	<b>78%</b>
Graduates - Unrelated Occupation	0	0	1	0	1
Graduates - Unemployed	0	0	0	0	1
Graduates - Unknown	0	0	2	2	0
<b>AVERAGE STARTING SALARY</b>	<b>\$33,280 - \$37,440</b>	<b>\$34,800 - \$36,400</b>	<b>\$31,200 - \$41,600</b>	<b>\$30,160 - \$36,400</b>	<b>\$24,960 - \$41,600</b>

## Tips for a Successful Career in the Marine Industry

1. Network. Get to know the people who work at a local marina, yacht club or boat yard. Even if they don't have any current job openings, they may have a lead on someone who does.
2. Get online. Twitter, Facebook and LinkedIn are great sites that offer the chance for online networking. Many companies use social media sites to post jobs that aren't posted elsewhere.
3. Use your school. Wherever you graduated from, your school likely has a career services department that can help point you in the right direction for job openings and internships.
4. Use your alumni network. Alums may not have graduated with you, but very often they will hire students who went through the same program they did. So use alums to your advantage.
5. Keep your options open. Maybe you hadn't thought of relocating, but obtaining a new job in a new location can be an exciting and rewarding endeavor. So be sure to look for jobs outside of your immediate area.
6. Don't overlook part time jobs. While you're looking for full-time employment, you may be able to take a part time or volunteer job at a local boat yard, marina or other location. This will help you keep your skills sharp.
7. Keep training. Even if you have a degree or diploma in a marine trade, be sure that you keep your job skills sharp by going back for training periodically, either online or in a classroom. This will help you stay sharp and provide an added edge to your resume.
8. Look at horizontal job opportunities. Perhaps you have a degree in Boat Building but maybe there are few jobs in your area. Look at other areas such as cabinet building, surf board construction or other professions where you can use your skills with great success.
9. Share your experiences. Once you've become a seasoned professional, don't forget those who are just starting their careers. They will benefit from your advice and expertise.
10. Enjoy! Always remember why you chose a career in the marine trades. Your passion drove you to a career in this industry. Make sure that you never lose site of what brought you here in the first place.