Westlawn Institute—Distance Learning for Marine Professionals

By Dave Gerr

From time to time, The Exchange has written about various educational opportunities available to marine professionals. In this issue, the Exchange invited Dave Gerr, the Director of the Westlawn Institute of Marine Technology, to write about the school’s Design Lite program, which teaches the basics of naval architecture to marine professionals.

Call it the Exchange “Naval Architecture extravaganza”: Jack Hornor, a marine surveyor and naval architect, also takes a look at some of the ways a marine surveyor can benefit from a basic understanding of boat design.

For 78 years the Westlawn Institute of Marine Technology has been training many of the nation’s top boat designers, including Jack Hargrave, Rodger Martin, Rod Johnstone, Tom Fexas, Bill Shaw, Ted Brewer, and Bruce King. Indeed, Westlawn has trained more practicing boat designers than any of several other schools in the world combined.

Many people are not aware that Westlawn—in addition to its design program—offers a wide assortment of continuing education courses specifically aimed at the needs of other professionals in the marine industry—marine surveyors, adjustors, investigators, marina managers, production boatbuilders, boat captains and engineers, and anyone who needs to understand the principles of boat design in their daily work.

The core program in Westlawn’s selection of continuing education courses is Yacht Design Lite. (The course name will be changing to Elements of Technical Boat Design as of January 2009 to better reflect the course content.) Yacht Design Lite (Elements of Technical Boat Design) covers a broad spectrum of the topics marine professionals need to know including hydrostatics, stability, resistance, hull lines, interior design, and composite structural design.

These are the critical subjects central to so many issues or problems related to accidents, failures, or evaluating safety, condition, or seaworthiness. Hydrostatics are fundamental to questions regarding loading, adequate freeboard, and flotation and trim. Stability considerations are vital and often paramount, as are issues concerning fiberglass structure: Is the boat properly built with suitable scantlings and appropriate construction details? Hull lines ultimately govern all these things (they are the heart of a design), and understanding lines as well as the basics of safe and proper interior design round out your “tool kit” for evaluating many problems that you may be called on to review. This knowledge also prepares you to work productively with naval architects and engineers who may be consulting on complex cases.

Where the full Westlawn Yacht & Boat Design Program takes about four years and 3,300 hours of study (a major commitment in time and effort), Yacht Design Lite/Elements of Technical Boat Design averages about 270 total hours of study, with a year to complete the course. It has a very high completion rate as a result of this much more modest demand on study time. Yacht Design Lite graduates have found the program greatly enhanced their careers. For instance, Charles Bursk at Tiara Yachts said:

“Since I have added Yacht Design Lite to my resume, I have had several job offers from different com
Technical Information Exchange for Marine Professionals

WESTLAWN INSTITUTE, from page 1

companies and even a promotion with the company I am employed with now. If anyone is wondering if it would be beneficial to complete the program, I would say YES."

Yacht Design Lite/Elements of Technical Boat Design consists of lessons taken from Westlawn’s full four-year program. Accordingly—if you decide to continue on to the full program—you can transfer into it with no additional cost and no repetition of any course material. There’s not one bit of additional study over that required if you’d started in the full Boat & Yacht Design Program to begin with.

Further, Westlawn’s parent company is the American Boat & Yacht Council (ABYC) whose standards are so vital to safe boating that they are part of Westlawn courses. Students who are not ABYC members receive a special one-year, no-cost student membership in ABYC once they complete lesson five in Yacht Design Lite, as it’s essential to have the ABYC standards for reference. If you are already an ABYC member, then you receive discounts on Westlawn tuition ranging from 5% for ABYC members at minimum levels to 10% for business-level members, up to 15% for multiple enrollments from ABYC corporate member companies. (Contact ABYC membership or Westlawn for the discount rate applicable to your membership level.)

ABYC and Westlawn will be announcing an important selection of joint course offerings in a few months. These joint courses will combine Westlawn’s Yacht Design Lite/Elements of Technical Boat Design (or other Westlawn continuing education courses) with specific ABYC technician certifications for advanced training.

Besides Yacht Design Lite/Elements of Technical Boat Design, other Westlawn continuing education courses are available to meet the needs of professionals in the marine industry including: Metal Corrosion in Boats (the ideal preparation for ABYC’s corrosion certification course), Advanced Fuel Systems for Boats (the next step after ABYC diesel certification), Fiberglass Boatbuilding Materials & Methods, Fiberglass Boatbuilding Production Methods, and Interior Design Methods for Yacht Design and the Boatbuilding Industry (the only course of its kind in the world). In addition, Westlawn offers joint courses combining Westlawn programs with SUNY Maritime programs for advanced certificates. (See the Westlawn website for details: www.westlawn.edu.)

Further, all Westlawn courses have

"Where the full Westlawn Yacht & Boat Design Program takes about four years and 3,300 hours of study (a major commitment in time and effort), Yacht Design Lite/Elements of Technical Boat Design averages about 270 total hours of study, with fully a year to complete the course. It has a very high completion rate as a result of this much more modest demand on study time."

always been taught entirely via distance learning, which is the most cost effective way to advance your career or to train your employees. There is no travel, little or no time lost from work, no onsite or off-site setup, no facility rental, no visiting instructors, and modest tuition costs. You can start when you want and study at your own pace. Westlawn is also both nationally accredited by the Distance Education and Learning Council (DETC) and state approved, by the Connecticut Department of Higher Education. Westlawn accreditation is recognized by both the U.S. Department of Education and by the Council for Higher Education Accreditation.

Westlawn and ABYC are very tightly integrated together—and to meet industry needs—we are working on a new joint program combining Yacht Design Lite/Elements of Technical Boat Design with specific ABYC technician certifications (and possibly one or two other elements) to create a new unique education program specifically for marine surveyors. This is still in the planning stage; stay tuned for developments. In the meantime, Yacht Design Lite/Elements of Technical Boat Design remains one of the best courses for marine surveyors, and all past graduates of Yacht Design Lite will be able to apply their certificate to this new program when it is implemented.

Visit Westlawn’s website www.westlawn.edu for more information on all Westlawn courses. This is an extensive website so take your time exploring. Also, be sure to sign up for Westlawn’s free Internet newsletter, The Masthead, which contains technical articles as well as information about Westlawn and Westlawn students and alumni. Click on the link “Newsletters” at the bottom of the Westlawn home page.

**********


Westlawn Institute of Marine Technology
c/o Maine Maritime Museum
243 Washington Street
Bath, Maine 04530 USA
Tel: 800-832-7430 or 207-853-6600
Fax: 207-747-0084
Email: info@westlawn.edu
Web: www.westlawn.edu
Is a Little Knowledge Dangerous?
By Jack Hornor

Probably realizing that all of his baby boomer patients were getting of an age when they were going to need the service, my dentist recently informed me he was discontinuing his general practice in order to specialize in restorative dentistry. I wasn’t surprised: it’s just another reminder of the age of specialization we increasingly find ourselves living in.

With yacht surveyors, most still concentrate on pre-purchase, condition and value or claims survey assignments: there isn’t much financial incentive yet to make a living specializing beyond these broad categories. For the near-term, yacht surveying remains a profession of general practitioners who, in order to be competent, must have a broad knowledge of all things related to a vessel’s systems, construction, repair and service. Conscientious surveyors must study just to keep abreast of new technologies as they relate to these essentials.

So if you, as a surveyor, never intend to design a boat, why would you clutter your already chucked-full brain with more minutia about the sometimes art/sometimes science of naval architecture?

For many, it’s simply that they can never get enough knowledge about a subject for which they are passionate. However, I believe a good case can be made that a program such as Westlawn’s Yacht Design Lite (Elements of Technical Boat Design) can be a considerable asset to a marine surveyor’s career. First and foremost among the useful information to be gained is an understanding of the symbols, abbreviations and the lexicon of boat builders, designers and naval architects. Nearly all surveyors will at sometime in their career be called upon to understand or explain these to a client. No doubt just about any surveyor already knows simple basics such as LOA and LWL but how many know that (T) signifies draft, what is meant by the term Length Between Perpendiculars (LBP) or that BM has nothing to do with the boat’s sanitation system.

Wouldn’t it be cool to explain to your friends why size really doesn’t matter? Which is, by the way, the purpose and importance of dimensionless numbers such as the sail/area displacement and displacement/length ratios.

Most surveyors have a basic understanding of the importance of the vertical center of gravity, particularly as it relates to the stability of a sailboat. However, many could benefit from a better understanding of how the center of buoyancy and center of gravity relate to one another, how they change locations with speed and trim and how their positions may effect the operational characteristics of a boat.

Another example would be an understanding of how buoyant and non-buoyant volumes affect the trim of a partially submerged vessels, which is essential to surveyor who, as part of his or her practice, investigates the cause and origin of vessel sinkings.

So, is a little knowledge dangerous? Quite the contrary: when the limits are properly understood, I think Westlawn’s Lite course (Elements of Technical Boat Design) helps the surveyor spot potential problems he or she might otherwise have missed. The surveyor can then advise their clients when it’s time to call in the next level of expertise.

**********

Westlawn Continuing Education Courses

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Course Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elements of Technical Boat Design (Formerly Yacht Design Lite)</td>
<td>Elements</td>
</tr>
<tr>
<td>Metal Corrosion In Boats</td>
<td>TT 500</td>
</tr>
<tr>
<td>Advanced Fuel Systems For Boats</td>
<td>TT 501</td>
</tr>
<tr>
<td>Fiberglass Boatbuilding Materials &amp; Methods</td>
<td>BC 401</td>
</tr>
<tr>
<td>Fiberglass Boatbuilding Production Methods</td>
<td>BC 402</td>
</tr>
<tr>
<td>Interior Design Methods For Yacht Design And The Boatbuilding Industry</td>
<td>ID 201C</td>
</tr>
</tbody>
</table>

Visit the Westlawn website for details

www.westlawn.edu

Technical Information Exchange for Marine Professionals
What Students and Industry Say About Westlawn

From an Employer

“IT was a wonderful day for me personally to be able to present a second diploma to a Westlawn graduate since taking over the Hargrave company. I want to thank Westlawn for making all this possible not only for Greg Boyko, but for the entire Hargrave family. We take great pride in our company’s long history with Westlawn, and the list of honored recipients to receive a Westlawn diploma who not only played an important role in our company, but in the yachting industry overall is impressive indeed. Keep up the great work!”
Michael Joyce – July 2007
CEO Hargrave Custom Yachts

In addition, Hargrave Custom Yachts carries on the distinguished tradition of the famous naval architect Jack Hargrave, who himself was a Westlawn graduate.

“Westlawn gave me the training, background and confidence to make the jump from a yacht carpenter to a yacht designer. I have worked as Chief Engineer at Mako Marine, designing flats boats to cabin cruisers, as the Designer and Prototype Manager for Pursuit, and have been at Jamestown Metal Marine Sales for the past 10 years.

I started in the marine industry 30 years ago, as a carpenter building plank-on-frame sport fishing yachts in South Florida. Today, I am a Project Engineer for a major outfitting company. Some of my projects include the SBX, part of our missile defense system, the DDG program at Bath, the new Woods Hole Ferry under construction at Halter, polar tankers constructed at Avondale, articulated tug barges under construction at Bender.

As a Project Engineer I supervise a staff of designers who have attended various institutions. None match the background and depth I got from Westlawn. I would like to find Westlawn students interested in ship interiors, outfitting, and/or HVAC to employ here at Jamestown.

The training I received Westlawn has been responsible for my career, not only the knowledge in vessel design, but also the work habits of self motivation and extra effort.

Has my Westlawn training been useful?

Yes, worth every penny, every hour of extra effort.”
D. C. Reiher – November 2006
Project Engineer
Jamestown Metal Marine Sales, Inc.
Boca Raton, Florida

“Occasionally someone will ask, “How did you get into yacht design?” It’s not an easy question to answer to the layman as I’m sure your story and others are as detailed as mine. One thing is sure, Westlawn provided me with the advanced knowledge and inspiration I needed to pursue career interests. In hindsight, without the technical yacht design experience Westlawn taught me it would have difficult at best to even get a foot in the door. This industry, especially then, is tight-nit and requires very specialized trades to participate. Westlawn uses a practical approach to teaching and this is reflected in the course material. It is a great tool for designing because of its practicality. I use it quite often in my designs as there is no one resource that has as much information and tools available for that specific purpose. The bonus is the historic designs and designers that are often referred to in the material. All of these things are reasons why it is a valued yacht design reference.”
Geoff van Aller - February 2006
Chief Designer
Trinity Yachts
Gulfport, MS

“My initial contact with Team Shosholoza [the South-African America’s Cup team] came about with the help of Westlawn. The head of the campaign, Salvatore Sarno, is a former Westlawn student. As a Westlawn student myself, I contacted Westlawn and through this Sarno. I flew down to South Africa and got the job on the design team. During the spring of 2005, I resigned from the full-time design-engineer position with Team Shosholoza, and am now independent consultant engineer and designer, based out of Bielefeld Germany.”
Alexander Friess – August 2005
Bielefeld, Germany
www.teamshosholoza.com

“I have enjoyed the Westlawn course enormously. It’s an excellent program that I know you are working hard to make even better. When I look back and think about how little I know about yacht design when I started, I am astounded at how much I’ve learned and at how much fun if has been.”
Robert W. Buck – May 2006
Swampscott, MA

Westlawn Institute of Marine Technology

c/o Maine Maritime Museum • 243 Washington Street
Bath, ME 04530 USA
Tel: 800-832-7430 or 207-747-0088 • Fax: 207-747-0084
Email: info@westlawn.edu