

by David Burch

When we launched our first online navigation course in 2001, it was like having a party that no one came to. In those days, even the universities were just beginning to take advantage of online communications with students. Few had actual courses. It took eight or nine years to develop. Now there are many online training options, in all fields, and full-featured online courses are a routine part of university education.

to learn to use the sextant.

But there is really no sharp line between practical matters and book matters that might be learned online. I know someone who learned to play the didgeridoo from an online course. And knots! The Internet has revolutionized learning marlinspike seamanship. Keys to hands-on online training include videos, Flash movies and other animations—and, as always, clear, insightful explanations. We can in fact teach the use of a sextant in an online course.

time, and they can do so in a timely manner.

FREE PROGRAMS

The types of format and instructor interaction you get with online training are often indicated by the price of the course. Free training materials are usually self-guided tours with more or less static materials. You proceed at your own pace by clicking through a sequence of web pages. Some offer self-graded quizzes at the end.

A notable example of a free navi-

e-ndless Possibilities

How online learning can save time and money while offering big rewards

Sailing and marine science are no exception.

Online training took a long time to catch on, and we can learn some things from its evolution to help us decide if we want to take part, and how to do so most effectively. The Internet is immense. There are no standards or rating systems. In any field, there is a huge spectrum of options. It is up to consumers to decide what is right for them.

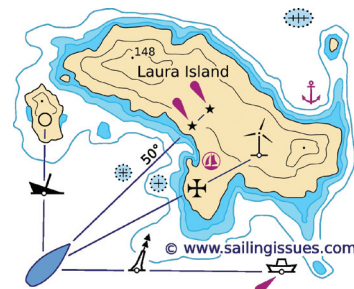
You might think you are restricted to learning the “book work” part of sailing or navigation from the computer screen, and to some extent that is the case. In a sailing course, you would do the classroom part of the course over the Internet and the hands-on sailing on the water. In navigation, you might learn the paperwork of celestial navigation online, then meet with an instructor

CLEAR EXPLANATIONS

You might say that clear explanations are always crucial to training, with or without the Internet, which is of course correct. The big difference is how you store and deliver these clear explanations. In the classroom, there is variation from class to class. No matter how often an instructor presents a topic, some days are better than others. But online presentations, once optimized, remain consistent for all students.

Online content also has an advantage over traditional textbooks, which are typically updated only every year or so. Online, you can not only keep your own materials up to date, but you can also post errata for recent changes in textbooks being used. In short, online training materials in the hands of conscientious instructors just get better with

gation course is the nice work of Diederik Willemsen in The Netherlands. I was struck by his materials when I saw that he covered the piloting by horizontal sextant angles. This is a powerful technique, not covered enough in standard courses.



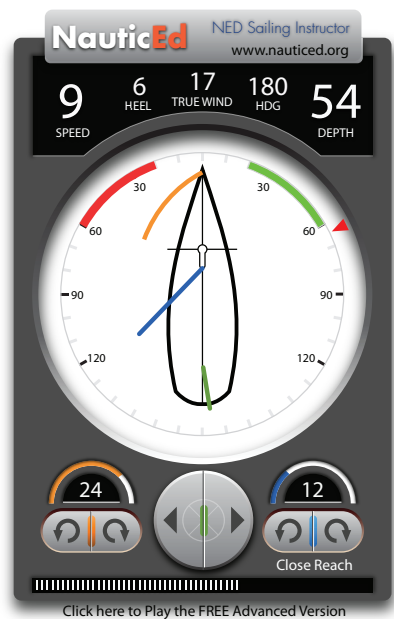
A precise way to obtain a Line of Position without a compass using natural ranges. From SailingIssues online navigation course

The U.S. Sailing Association also has a large list of free online training presentations that they offer in promotion of the sport. They are not intended as courses, but nicely presented individual topics in several areas.

Free programs are often presented to promote the products of their host, which is certainly fair enough, and a nice way to advertise. There are many online training options in this category, with a wide range of content and quality. In this article I mention only a few. If you have a favorite online training program you want to share, please post it on the *Blue Water Sailing* Facebook page.

FINDING PROGRAMS

One way to find training information these days is do a search on YouTube for the subject you want. Many



online training sites use this option for their internal videos, so you have indirect access to them this way. If you have not yet seen it, Google YouTube for “German Coast Guard trainee” to see a creative example of

online training advertised.

Weather is a subject that has been covered extensively in free online

courses from Atmospheric Sciences departments of several universities and the NWS. Again, you will see many levels of sophistication in the format, as well as many levels of subject matter.

A new and attractive online training option is the NauticEd program of Grant Headifen and his associates. They have sail training courses online and a long list of supporting clinics. The training is self-directed, but it is a good example of modestly priced courses with excellent content and high quality presentation. They offer a sailing certification program that combines online training with on the water training from affiliate organizations.

WEBINARS

Another new type of online training, often in the modest price range, is called a “webcast” or “webinar.” These are typically two- or three-hour seminars presented in real time on the Internet. There are various levels of format sophistication, depending on the software or services owned or hired by the host. It could be as simple as all participants logging on to the same webpage with a purchased password, and then listening to live streaming audio from the instructor while a PowerPoint presentation is shown on the screen. This could be followed by questions from participants typed into a form, which are then answered by the speaker for all to hear.

Or the event could be much more elaborate, including embedded video, shared application use, or even active white boards so one participant



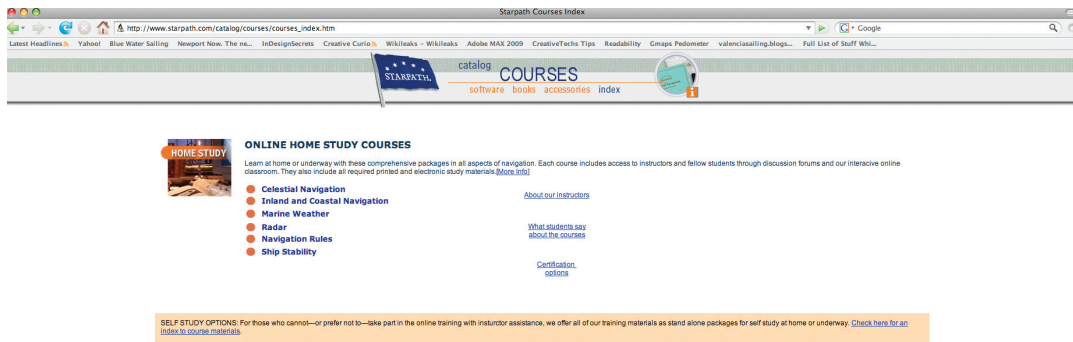
could draw a sketch with his mouse on his screen and everyone else would see it. A live video feed of the instructor at the blackboard during the presentation is a common option. There is exciting potential here, but technical troubles can haunt any live presentation. The Seven Seas Cruising Association has a diverse program of webinars called Seven Seas U, presented by experts on the topics.

Full online training courses with the goal of matching or surpassing what can be done in the classroom are inevitably in a higher cost category, though usually they cost less than corresponding classroom courses. There are several facilities offering this type of course now, and quite a few are in development around the country.

KEY BENEFITS

We have taught online courses at Starpath for more than eight years, after teaching classroom courses for over 25 years. We have consequently learned a lot about this format that might benefit those in the planning stage. Some things we learned were expected, while others were not. We have identified several notable advantages to online training compared to comparable classroom courses.

First, with online training, students work on their own schedule. No more long drives to the classroom after a long day at work to meet at specific times. And students work at their own pace. Some like to go faster, others slower. It was always a balancing act in the classroom to meet the needs of the full class, but this is no longer an issue online.



Second, we can provide much more content online than we could with only printed materials. Black and white printing is expensive. Color printing is very expensive. Now we can provide PDFs of documents

tion courses can use real skies—and it does not matter if the sky is overhead in the Chesapeake Bay or Sydney Harbor.

By supplementing the printed books with ebooks and software

that can be downloaded, students can start working immediately once they purchase the course. They do not have to wait a week or so for books to be delivered. This is especially nice for students in Australia, for example.

These are all benefits we anticipated. What we did not anticipate was the best bonus of all. Students actually get far more individual attention in an online course than they could ever get in a classroom course. It is not even close. We have no classroom time limits here, so

e-mail communications.

What makes this great service feasible is an accumulated online database of classroom discussions. This is fundamental to the success of online courses. After several years of student's questions with answers given, we eventually have most of them documented. Each question presented can be answered in great depth, with cross links and references. The time can be spent doing it right, because that question never has to be answered again! I must have answered questions on compass deviation hundreds of times over the years. Now if such a question comes up, we say just hit the search engine with keyword "deviation" and every possible question on that topic is at their fingertips with a detailed answer.

There is no saturation in sight. The databases are always growing. Every course still generates new and interesting discussions and more questions. Some detail we had considered obvious for many years was actually not so obvious. It just took the right person to question it.

So the next key step is having well qualified instructors standing by to answer the questions. The more, the better, and the more time zones they span, the better it is. Students are from all over the world, so having instructors from different time zones is beneficial. When students post a question or submit a quiz to be graded, the instructors get an e-mail with a link that takes them right to the place online they need to be to address it. The process can be very efficient and the student benefits from this.



Starpath marine weather course. They also offer online courses in celestial navigation, coastal navigation, radar and the Navigation Rules

and students can decide themselves if they want printed copies. This is a huge savings for the students, the schools and the planet! Plus, we can include multimedia materials at essentially no extra cost. We can also provide live content for the course. Weather courses can use real weather maps; coastal nav courses can use real charts (all e-charts are free downloads); celestial naviga-

tion courses can use real skies. And with encouragement, they can ask very hard questions or very easy ones. There is no longer any reason for a student to be delayed in their training for want of help over a hurdle. If something is not making sense or holding a student up for any reason, they can simply ask a question, which is typically done by posting in a discussion forum. Some courses also use



Another new and crucial aspect of online training relates to instructor-student interactions. They cannot see each other, so there are no facial expressions, tones or body language to assist the communications. In this sense, classroom teaching is much easier. Purely written communications must therefore be correspondingly more cautious. The careful listening that we do in the classroom must be converted to careful reading in the online classroom. It is also to the student's and instructor's benefit that the student learns how to use the search engines as early as possible in the course.

MISSING FACTORS

The main thing missing in the online classroom is the social life of getting together in the evenings and what some feel is the motivation they get from classroom deadlines. These are valid considerations. The best solution is to make it social again. That is, take the online course with your partner or crewmate.

Most schools let you share one login if you are sharing expenses to begin with. Then the only difference is that you must ask your questions under one login name, and you can only submit one quiz. So print out the quizzes, work them independently, meet to discuss your answers, place your bets on who has it right, and submit one set of answers to be graded. It is a very good way to take an online course. Again, your own experiences or questions about

online learning can be posted on the *Blue Water Sailing* Facebook page.

WAVE OF THE FUTURE

Preparation courses for USCG Captain's Licenses are an area of online marine education that has taken off recently. Pioneers in this application include Capt. Gary Kulibert's Explorer's Guide program and Capt. Bob Figular's Mariner's School. These courses have (in one sense) by definition met the requirements of replacing a traditional classroom course, because the USCG says so! They include all of the advantages and features of successful online courses outlined above.

The Explorer's Guide program teamed up with a university to take advantage of its established online classroom infrastructure. The Mariner's School, like Starpath, developed its own versatile software for this job. When we started, we did not have many options. Most of the programming had to be from scratch. But this is no longer required. Now a school wishing to add online training can partner with numerous services that provide a complete online course structure. Or there are open source (free) software packages, such as those at moodle.org, with an extensive support community.

There is little doubt that online learning will be a major part of education in the future. The advantages are just too numerous. There are even online courses on how to make an online course. ~

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