

**N**ot content with teaching people to build boats, Auckland's Unitec Institute of Technology is about to start teaching people how to sail them as well.

A new Greg Elliott 8.5m keelboat, built by students on Unitec's one and two-year boatbuilding course, was launched in late May as the first step towards the establishment of New Zealand's only tertiary-based sailing school. The first intake is planned for September, with the school in full swing for the start of next year, with a second 8.5 in the water. In three years' time, the plan is to have four training yachts on the water: either a fleet of 8.5s, or maybe some larger yachts, up to 10m.

The head of the automotive and marine technology departments of Unitec's faculty of applied skills, Ashton Dempsey, says the sailing school is designed to augment the other courses offered by the marine technology department. As well as teaching boatbuilding, the department also teaches Coastguard certificate courses such as day skipper and boatmaster.

"With the boats we build, we can either sell them, or can carry on building up a fleet and do something with them. Now we can tie the whole lot up: building boats, teaching the theory, and offering sailing courses. We have a neat package which meets the needs of the recreational



*There is plenty of room in Unitec II's cockpit for six or seven sailors.*

Unitec's own staff, including several qualified instructors, and from outside applicants.

"The big thing for us as an educational facility is to be seen to be providing the best people we can," he says. "They won't necessarily be 'big name' sailors, but they will be very qualified. People who have a huge amount of sailing experience have been in touch with us - there will certainly be no shortage of people."

#### **BOATBUILDING SCHOOL**

second yacht built by boatbuilding trainees at the polytech. The first was a 7.8m trailer yacht, also designed by Elliott, which is frequently used by staff as a "floating billboard" in racing series on Auckland Harbour.

Unitec's Faculty of Applied Skills took over responsibility from the Auckland Institute of Technology for training boatbuilding apprentices in 1981, and started to offer a full-time course in boatbuilding from 1992.

"Up until 1992, it was exclusively apprentice training and special interest

Unitec has spoken with the Royal New Zealand Yacht Squadron, Yachting New Zealand, and the New Zealand Coastguard Federation, "and they all support the idea". From September, the school hopes to be offering training towards three Yachting New Zealand certificates: the crew certificate, day skipper, and yachtmaster.

Dempsey sees Unitec itself as a potential source of trainees for the sailing school, as well as the public at large.

"We have 16,500 students on campus, and quite a large number of fee-paying students from overseas. A lot of them seem keen on learning to sail," he says. "We also want to open up sailing to the general public. We are trying to get people who are interested in learning to sail, but might feel intimidated by going to a sailing club. A number of other sailing clubs also only offer courses in much smaller craft, which might be perceived as wet and uncomfortable, or large craft, where the students might not be so involved in the sailing process.

"We are not trying to turn out a whole bunch of Peter Blakes or performance racing sailors, but are angling more at the recreational weekend sailor - people looking for comfort-zone sailing."

Unitec plans to offer daytime sailing courses during the week and at weekends, and possibly in the late afternoon or evening during summer, to maximise the use of the boats.

Dempsey says tutors for the sailing school will come partly from within



n't support the size of the faculty, so we decided to go full-time. The department has increased in size about 300 or 400 per cent since 1992," says Dempsey. "We are now up to a stage where we have about 150 full-time students, and about 400 people in total on the courses."

The marine technology department has 10 staff, many of them former boatbuilders and mostly keen boaties, from both power and sail backgrounds. The one-year boatbuilding course covers the

theoretical and practical aspects of boatbuilding, including some design theory, workshop practice, and materials handling.

"The first year of the full-time course takes people to the second-stage apprentice level, as far as assessments are concerned. They get some practical experience, so they are useful to an employer straight away," Dempsey says. The optional second year goes into design in more depth, and features business man-

agement papers, computer use and some of the more advanced boatbuilding techniques, he says.

"There is a heavy bias towards practical projects - construction and design from a practical viewpoint," says Dempsey.

Dempsey sees the Unitec course as "an alternative pathway into the industry" to apprentice training.

"The idea is to give students skills that are immediately useful, so that when jobs

27, and the average boatbuilding trainee is in their early to mid 20s. Three are women.

"A lot of them are people who have been out working for a few years or got a degree, and want to do something more focussed," says Dempsey. "A surprising number are not 'boaties' - about 50 per cent have a family boating background, and others just have an interest.

"There are a range of different motivations for doing the course: some enjoy

job.”

Boatbuilding projects run continuously, with yachts taking around 18 months to complete. Currently under construction at Unitec is the second 8.5, and a Pelin Apollo 9.1m launch, to be used as a “mother ship” for the sailing school. At the moment there is just one intake, of around 75 students, at the start of the year, but a half-year intake is planned.

“Eventually we want to be able to take people on at any point during the year,” Dempsey says.

The marine technology department has an interesting demographic: while the average student age nationwide is around 19-20, Unitec’s average student is

the fact that it’s a boat they’re building, because boats are their main interest, not building. Others are interested in the design element.”

Dempsey says the department wants to move into recreational powerboating, for those students who are not interested in yachts and yachting.

Both Dempsey and Fisher see the sailing school as an important partner to the boatbuilding course, allowing the students to discover first-hand how their project has turned out.

“They can find out how the boat handles on the water, and how changes in construction and to the rig can affect the performance of the boat,” says Dempsey.

*Quick work on the main is required to stay upright on a blustery Auckland day.*



"All computer simulation in the world can't make up for a few hours on the water," Fisher adds.

### THE BOAT

Greg Elliott, the designer of such fast and sexy racing boats as Future Shock, Elliott Marine and Hydroflow, as well as the 5.9m yachts used by the Royal New Zealand Yacht Squadron's youth training programme, was initially approached by Unitec to design the 7.8m.

"He is a recognised designer, who pro-

seven people to be directly involved with the sailing process. Accommodation down below was not an issue, but a certain measure of performance was required. The boat also had to be built to survey, as it was for commercial use.

"We didn't want a dull boat," says Dempsey. "We could build a basic boat to teach people to sail in, but they'd be bored to death."

Elliott says there is nothing "tricky" about the design of the 8.5.

"It's very straight-forward in design

to six people, so the cockpit is relatively big, so it can accommodate that many people.

"The helmsman has plenty of room to be able to do their job as well. In a lot of little boats, people can get in the way of the helmsman when tacking or gybing."

The yacht has a fin keel, and a straightforward rig.

"It's only got one set of spreaders, and six stays - it's not souped up at all. You can still teach sailing easily, with enough inherent speed to make it enjoyable."

panel, engine controls and the VHF. The forepeak sail storage area is open to the cabin, with a large hatch above. There is standing headroom for a short (1.62m) person.

The large cockpit, almost half the yacht's length, is more cruising keelboat than racing sportsboat style, with moulded seats and coamings. In keeping with Unitec's signature colours, it is cream coloured, with a dark green floor.

The rudder is through-hull, rather than transom hung, with an attractive curved

vided what we wanted the first time, and was happy to do that again," says Dempsey. "We now have a good working relationship with him, and he seems happy with us."

The brief was for an easy-to-sail boat, with a large cockpit to enable six or

and concept. It is easy to build, and it should have good to average performance. It doesn't need to rip around the race course," he says.

"It shouldn't have any vices at all, and should be easily handled by three or four people. Unitec is talking about taking up

The boat has minimal facilities downstairs, in line with her intended purpose as a day sailer, with two-burner stove and sink to port at the base of the companionway steps, an enclosed head compartment to starboard, and settee berths on either side. Above the sink is the switch-

tiller and ladder-style extension. The traveller runs right across the width of the cockpit at the stern, in front of the backstay blocks. Adjustment lines for both these run forward, along the side of the cockpit then through the seat lockers, to emerge at cleats mid-cockpit.

There are only four winches: two small self-tailers on the coamings, and another pair on the cabintop, aft of the keyboards, with four jammers each side. The vang comes down to a cleat in the centre of the cabintop, for'ard of the companionway.

There is a compass mounted to starboard on the aft cabin bulkhead, with instruments on the port side.

Sponsors and suppliers of the Unitec project include A Foster and Co, which supplied the rig and much of the chandlery, BEP Marine, Rosenfeld Kidson, Power and Marine, which provided the Yanmar engine, Dorlon, and sailmakers Doyle Bouzaid.

## OUR SAIL

Our first date to sail Unitec II has to be called off at the last minute, due to inclement weather. Although there are erratic "gusts" of bright sunshine, we decide it is too squally to have a decent sail, and besides, no-one really wants to get covered in hail on a Friday afternoon.

The weather is not greatly improved for our second appointment. There is not a cloud in the sky, but it is still blowing

minutes to get the hang of things - there are some vicious squirts coming down off the city - but we soon get into a rhythm and the boat sails well.

By the time we reach the Devonport Naval Base, however, it has become obvious that there is no point in sailing any further in this direction. The strong southwesterly is screaming out of the Orakei Basin and across the harbour, so we decide to head over into the lee of the city.

The helm is extremely well-balanced. Elliott tells me afterwards that the rudder is quite small, but it has plenty of bite, never showing any sign of letting go even when we are almost on our ear a couple of times. It never loads up, and the boat responds quickly to changes in the helm.

Even with the number three on, it is a case of constantly feathering to sail upwind, so we give up and reach back down towards Westhaven, a much more comfortable angle.

We decide to put the number two jib on for photographic purposes, a rather big ask in the gusty conditions, and enjoy some more reaching around off the Westhaven breakwater. The yacht is easy to tack and gybe, with plenty of room for everyone to do their thing.

Although we are all feeling invigorated, we decide it is probably time to head back in before either a) it gets windier or b) we break something.



*Top: Unitec II has a large, open cockpit and stylish, curved tiller.  
Bottom: The simple galley, with VHF switchpanel and engine controls handy.*



pretty hard. In the marina, setting up the boat, we cast anxious glances as gusts whistle and ping through the rigging around us. We discover upon motoring out of the confines of Westhaven that it is, in short, snorting.

We have a tentative plan to sail down to Devonport and Orakei, in order to take photographs without the city wharves in the background, so we hoist the main and the number three jib. There are only four of us on this outing - Dempsey, Fisher, Rob Shaw from the marine technology department, and myself - so we are a little short-handed, but we manage to hoist the sails and get underway without too much difficulty.

The main has a 4:1 purchase, making is easy to handle even in the gusts to more than 20 knots, and the number three jib can be sheeted around a winch without needing a grinder. It takes us a few

#### CONCLUSION

The Unitec school of marine technology has a very important role to play in New Zealand's burgeoning marine industry, providing competent staff for a very important business sector. Building and sailing such yachts as Unitec II produces a steady stream of well-trained people who will continue to reinforce this country's reputation for creating the best boats in the world.

The new sailing school will nicely complement the construction side of the marine technology department. Unitec II looks to be an excellent boat for a sail trainer: easy to handle, simply set up, but with plenty of responsiveness and a fair burst of speed and excitement when required.



## THE VITALS

Designer .....	Greg Elliott
Builder .....	Unitec marine technology students
Construction.....	fibreglass over cedar strip, ply cabin
LOA.....	8.5m
LWL .....	8m
Beam .....	3.0m
Draft .....	1.8m
Displacement.....	2300kg
Ballast.....	720kg