

MARITIME, ENGINEERING AND YACHT DESIGN



MARITIME, ENGINEERING AND YACHT DESIGN

You have good numerical skills, a curious mind and a desire to find solutions. Enter a career in engineering and you could join the best-paid graduates in the world.

Our highly qualified and experienced team has excellent working relationships with professionals and organisations.

Our specialised, industry-standard courses – such as acoustic, electronic, mechanical and renewable energy engineering – will put you on the path towards a rewarding and future-proof career.

You'll have the potential to create new products or improve existing ones. You could be an electronic engineer, designing home appliances or life-saving medical equipment.

As a mechanical engineer you could improve infrastructure in cities, develop sustainable energy sources or improve performance in aerospace and automotive engineering.

Our maritime courses reflect Southampton's dockland heritage, as well as the city's vital position as a major international port.

Hugely respected in the industry, our courses cover subjects such as marine underwriting, naval architecture, and yacht and powercraft design. Our graduates go on to work as key players in freight-forwarding businesses, shipping companies and port terminals. Some join teams building racing yachts or high-speed powerboats.





ACCESS TO SPECIALIST FACILITIES

Throughout your studies you will have access to state-of-the-art facilities to support your practical learning. This includes 3D printers to support our engineering courses, and a towing tank to test the stability of model yachts if you are studying yacht design.

Around 40 technical instructors with industry experience provide support and extensive training on the latest equipment and techniques.

As a university we invest on average £1 million a year in maintaining and developing our student-facing specialist facilities.

TAUGHT BY PROFESSIONALS, WITH EXTENSIVE LINKS TO INDUSTRY EXPERTS

Our academics have vast professional experience, and many maintain strong links with industry experts. This helps to ensure that course content is up-to-date with industry needs, and also allows you to benefit from guest lecturers who can share valuable insight.



ENTERPRISE

As a global port, Southampton is home to premier companies, and our strong industry ties and international reputation have fostered a hugely beneficial relationship with the engineering sector. We attract a range of quality speakers, and we visit companies, ports and major maritime organisations.

Warsash Maritime Academy is a world-renowned provider of maritime education and training, with excellent relationships which provide unrivalled opportunities for work experience.

Solent Maritime Society helps students to network and prepare for a career in global shipping.

The China Centre (Maritime) fuses academic excellence with expertise in Chinese maritime affairs, promoting teaching, research and consultancy, a focus for study and a forum for discussion.



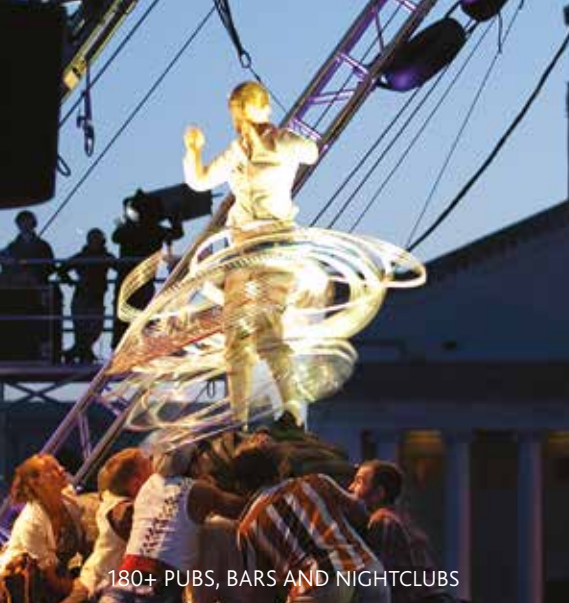
WORLD EXPERIENCE

Work experience is an important aspect of all our courses, and you will be encouraged to carry out placements in the summer period to develop your practical learning further. You also have the option to undertake a work placement year between the second and third years of study. Recent students across our maritime, engineering and yacht design programmes have carried out placements at container terminals, port agencies, SAAB, TUV and yacht design offices.

LIFE IN SOUTHAMPTON



FIVE CITY-CENTRE PARKS



180+ PUBS, BARS AND NIGHTCLUBS



SOUTHAMPTON IS A THRIVING CITY WITH A RICH MARITIME HERITAGE. IT IS THE CRUISE CAPITAL OF THE UK AND HOME TO ONE OF THE COUNTRY'S BIGGEST BOAT SHOWS.

The hovercraft has its origins in Hampshire, and Southampton has a rich maritime history and Titanic connection, told through its SeaCity Museum.

Southampton continues to export and import through its docks and the region hosts premier companies at the top end of engineering opportunity – including Rolls-



Royce, Coopervision, GE Aviation, NATS and the Wessex Round Table of Inventors (WRTI). With more than 7,400 businesses employing around 127,000 people, the region is ideally placed for graduate jobs.

Southampton boasts Premier League football, world-class sailing and international cricket. It has a wealth of live music venues, theatres and exhibitions, with a brand new Cultural Quarter, testament to the city's continuing growth.



OVER 42,000 STUDENTS,
IN A POPULATION OF
ALMOST 255,000

SPECIALIST FACILITIES AND EQUIPMENT



RAPID PROTOTYPING



STABILITY TANK



INSTITUTE OF CHARTERED SHIPBROKERS (ICS) AND THE CHARTERED INSTITUTE OF LOGISTICS AND TRANSPORT (CILT) ACCREDITATIONS

ENGINEERING STUDENTS HAVE A CHANCE TO BE PARTNERED WITH A COMPANY

ENGINEERING STUDENTS WILL CARRY OUT AN ASSESSED CONSULTANCY PROJECT WITH A RELEVANT COMPANY IN THE FINAL YEAR

ENGINEERING

- 3D printing equipment and laser cutters
- Rapid prototyping and non-destructive testing kit
- Dedicated labs for applied mechanics, materials, electronic engineering, manufacturing and robotics
- Specialist equipment – PSpice/NI MultiSim software and microcomputer and microcontroller development systems, digital multi-meter signal generators, FLIR cameras and digital signal processing (DSP) boards
- Yacht design workshops
- Stability tank
- 60-metre towing tank with computer-controlled wave generator for testing boat designs

MARITIME

- Dedicated ship-handling centre at Timsbury Lake and specialist bridge and engine room simulators
- Survival craft facilities, including lifeboats, fast rescue boats, RIBs and lifting equipment
- Purpose-built live fire training facility with a three-storey steel ship/offshore unit

WARSASH MARITIME ACADEMY

Our Warsash Maritime Academy is a world-leading provider of maritime education and training. With a teaching staff mostly made up of current or former seafarers from diverse maritime backgrounds, the academy has provided first-class education and research services to the shipping, commercial yacht and offshore industries for 70 years.

Our students also benefit from a range of specialist training facilities, from our fire school and ship-handling centre to bridge and engine room simulators, survival craft and training pool, and much more.



HENRIK SOLLIE KLOKK

BSc (Hons) Maritime Business
Graduated 2017



How did university prepare you for your career?

The course consists of a comprehensive collection of units, introducing you to most segments of this wide industry. From weather routing to financial analysis, you are provided with crucial knowledge from various aspects which you can build upon. The University creates assignments similar to real industry situations and challenges, giving you a 'hands-on' experience within your studies, which definitely prepares you for a career within the maritime industry.

What is your favourite Solent memory?

One of my best Solent memories is our trip to Antwerp and Rotterdam, where we were able to visit the immensely large port

facilities, which unveils the importance of seaborne trade. The trip also strengthened the relationships within our class, something I believe may be something you benefit from significantly further down the road in your career. Being awarded the degree classification I aimed for is also one of my greatest Solent memories.

Tell us about your career story

Along with my studies, trying to get as much and as diverse industry insight as possible was my top priority. This allowed me to complete four internships in three years within various industry segments in countries such as Hong Kong, Cyprus and Norway. These internships not only provided me with knowledge and insight, but also

enabled my CV to reflect that I was a young and eager student who demonstrated great interest in the industry. I do not believe I would have been called to interview at many of the companies I applied for if it was not for my internships and extracurricular activities at the University, such as the Solent Maritime Society. I believe all the above, combined with my academic background, is why I am employed by one of the largest dry bulk and tanker owners in the world.

I am currently employed as a trainee for a company called D/S NORDEN AS, located in Copenhagen. I work in the dry bulk department, but the company also operates tankers, resulting in a total fleet of about

270 ships. Being a trainee, I will be rotated around the various departments within the company. By doing so, one really learns how a shipping company is built from the inside. In addition to working full-time at NORDEN, we are put through a commercial shipping course established by the Danish Shipowners' Association, with modules provided by organisations such as BIMCO. The working days are quite hectic, full of knowledge and learning. You are given a lot of responsibility, which makes you feel that the company really believes in you, something I greatly appreciate.

Tell us about your career highlight

I think it is hard to find a particular career highlight, but if I have to choose, I would say that receiving a job offer from my current employer is my highlight so far. It is a company with a great history and a formidable reputation, and being able to get a position there straight after graduation was beyond my expectations.

What tips would you give to someone wanting to start a career in your industry?

My top tip is to be hungry and show great motivation, while remaining humble. Show employers that you are willing and flexible, something that this industry greatly values due to its international nature. Continuously ask yourself 'Why should they hire me?', and then act in a way that can answer this

question. On a final note, there is a saying that I think applies particularly to shipping, which one should always keep in mind: 'Be kind to the people you meet on your way up, because you will meet them on the way down.'



BSC (HONS) MARITIME BUSINESS IS FOR YOU IF YOU WISH TO PURSUE A HIGHLY INTERNATIONAL AND MULTICULTURAL CAREER THAT FEW, PERHAPS NO OTHER, INDUSTRIES CAN OFFER.

AS SHIPPING ACCOUNTS FOR 90–95 PER CENT OF TOTAL GLOBAL TRADE, IT IS ONE OF THE MOST IMPORTANT INDUSTRIES IN TODAY'S SOCIETY, DRIVING FINANCIAL MARKETS, GLOBALISATION AND DEVELOPMENT. IN OTHER WORDS, IF YOU WANT TO CONTRIBUTE TO AN ENHANCED GLOBAL TRADE, THIS IS THE RIGHT COURSE FOR YOU."



JOSH PAYNE

BSc (Hons) Maritime Business

Graduated 2015

Port Manager – Southampton, Inchcape Shipping Services





BSC (HONS) MARITIME BUSINESS
IS FOR YOU IF YOU ARE LOOKING
FOR A COURSE THAT CONSIDERS
THE WHOLE INDUSTRY AND THE
DIFFERENT SECTORS WITHIN IT.
YOU'RE SURE TO MAKE A LOT OF
GREAT FRIENDS WHO, WHEN YOU
LEAVE, WILL ALSO BECOME SUPERB
INDUSTRY CONTACTS."

How did university prepare you for your career?

University allowed me to join a workplace with the same knowledge as somebody who had been there for several years. Also, with that knowledge, it allowed me to bring a different perspective to some situations.

Tell us about what you are doing now and what it involves – a typical working day

A typical day could involve boarding a container ship in the morning to undertake arrival formalities with the captain. Then return to the office, look at time reports on container vessels calls and identify ways we can turn these vessels around more quickly

while in port. An afternoon may then involve booking 20 cars and five diggers onto a ship down to South America and completing the necessary documentation.

What's your career highlight so far?

My career highlight so far is being made port manager only two years after leaving university.

What tips would you give to someone wanting a career in your industry?

Work hard and always keep up-to-date on industry news.

ELLE WATSON

Phase three Merchant Navy deck officer cadet training
at Warsash Maritime Academy



What made you decide to become a Merchant Navy deck officer?

For as long as I can remember, I've always had a keen interest in navigation, cartography and generally knowing my way around, to the extent that I was nicknamed 'Pigeon' at a young age, because my sense of direction was like that of a homing pigeon. I also come from a seafaring background, as both my parents are ex-Royal Navy medics and are now high up in the local Royal Naval Association, so I have grown up with tales of life at sea.

In 2005, at the age of 10, I visited an open day at BAE Systems in Barrow-in-Furness, which is close to my home, where I met a Merchant Navy officer. At this point I knew that I wanted a career in navigation, and when I heard what this officer did, I knew that it was the career path I wanted to go down. And here I am, 11 years later, just starting my second year at Warsash Maritime Academy.

Being away from home for the first time, for some, can be quite daunting – were there any activities to help you get to

know others in the cohort when you got to Warsash?

Every phase one cadet has to live on campus. This not only makes it easier for us all to get to know each other, but it's also normal to share cabins on board ship, so it gets you used to sharing a sleeping and living space with someone. On the first night we arrived there was a band performing in our campus bar. We had morning muster every day for the first few weeks which took place at 8am and involved everyone in the phase. Our first week was induction and was mostly introductions and safety presentations, but



I'M VERY MUCH LOOKING FORWARD TO SOME OF THE SUBJECTS WE STUDY, ESPECIALLY METEOROLOGY, MARITIME LAW, VOYAGE PLANNING, CARGO, AND STABILITY AND RADAR PLOTTING."

our first Friday was the day we really got to know each other better, starting with paintball and ending with a night out in Southampton organised by Solent SU.

What type(s) of ship were you on when you were at sea?

I was on two ships during my sea phase, spending about three months on each. My first ship was the Trinity House vessel *Galatea*, which is a buoy tender operating around the UK coast. The second was Condor Ferries' *Commodore Goodwill*, a ro-ro freight ferry operating between Portsmouth and the Channel Islands. While on board the *Galatea*, along with tendering to buoys, I also took part in lighthouse and helicopter operations, as well as seabed surveying.

How did you find your first sea phase? Was it what you expected?

I think my sea phase was both exactly what I expected and yet completely different. Coming from a seafaring background, I'd

been told many stories about what life at sea is like, so I did have an idea of what to expect. The two ships had completely contrasting environments, primarily in terms of crew nationality. I had no issues with this, especially as I adore learning about different languages and cultures, but it did prove to be harder circumstances to work in, with language barriers and different views coming into play.

What are you looking forward to in your next phases at Warsash and then again at sea?

I'm very much looking forward to seeing all my friends from Warsash again, because we all know no matter where you go it's the company that makes or breaks a place. I'm also very much looking forward to some of the subjects we study this phase, especially meteorology (the study of weather), which the geography geek in me can't wait to start! We're also going to be doing maritime law, voyage planning, more cargo, and stability and radar plotting. I don't know what my

next sea phase will bring – I hope I do get to go deep sea and explore some far-off ports! I'm interested in the science behind reefer shipping, and would also like to look more into survey vessels – I was very interested in what happened on the *Galatea* when we surveyed a fishing wreck.

The number of female ship's officers is still very small, although we are seeing more women enter the industry. What advice would you give to any aspiring female deck or engineering officers?

Do it! And stick with it! I've seen both positive and negative aspects of being a female at sea, such as being treated slightly better than the male cadet I was with because I was in the minority, not in the sense of respect, but because those providing training wanted me to succeed more as I was female and I was proving that females can be officers – and good ones at that.

NADIA LELE

BEng Yacht and Powercraft Design

Graduated 2017

Structural Engineer, Olesinski Naval Architects



Favourite Solent memory?

It's hard to select a special uni moment, as there were so many. Every person on my course (including our tutors and lecturers) had one thing in common – a strong love of boats; and having a common interest is what makes the course like a big family, which is quite unusual. For our final first-year assignment we had to design a model boat to a box rule using basic principles of naval architecture, build it in the fibre-reinforced plastic (FRP) workshop, and race our little yachts in Gosport. It was a really cool challenge, everyone was really competitive

from the beginning and we all had a lot of fun.

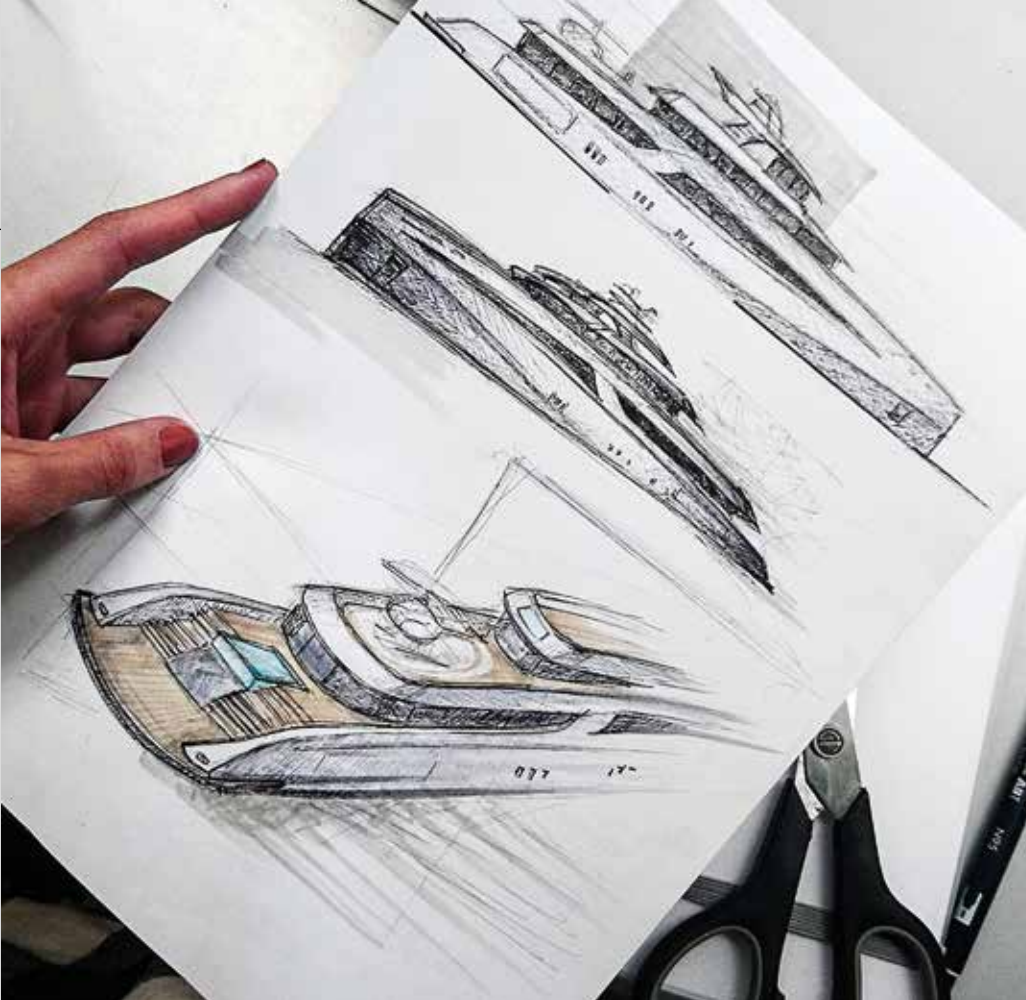
How did university prepare you for your career?

This course absolutely meets the demands of the modern yachting and shipbuilding industry. Access to the towing tank, stability tank, FRP workshop and CAD room full of the most advanced programs was vital. It is an engineering course – that is why, apart from knowing the rules, maths and physics, it is important to understand how things work. Group projects are also industry-

driven, and reflect real company dynamics. Plus the lecturers have an enormous amount of experience, which inspires you a lot, and they make clear how the industry works. By the end of the course I had a bit of everything – naval architect, structural engineer, and stylist knowledge. It was a hard choice what to do next.

Tell us a little about your career story so far

In my second year I was representing Solent University at the London Boat Show and won a couple of days' work experience at



BENO (HONS) YACHT AND POWERCRAFT DESIGN IS FOR YOU IF YOU HAVE A PASSION FOR YACHTS, SAILING AND THE MARITIME WORLD. UNIVERSITY HELPED ME GET CLOSER TO MY DREAMS, AND I WISH YOU THE SAME."

Olesinski Naval Architects, a yacht design company based on the Isle of Wight. This was a prize for second place in the Young Designer Competition held by Superyacht UK and British Marine. Now I work in the company as a structural engineer. We have all three disciplines in-house – design, naval architecture and structural engineering – which is quite rare.

Tell us about what you are doing now and what it involves – a typical working day
In structures we make things work. One

day it is a development of the entire hull structure, another day it is an analysis of a particular part of the boat, like a giant sliding roof or cleat support laminate. The tasks are so varied and challenging. Mainly we work with composite structures, so it is never boring. We do hand calculations, design lay-ups, create a full representation of all structural elements using 3D modelling and drafting, and complete finite element analysis (FEA) – thanks to the yacht and powercraft course I was absolutely ready to complete all these tasks.

MATT PONSFORD

BEng (Hons) Yacht Production and Surveying
Graduated 2015



How did university prepare you for your career?

Education can teach you many things, but university in particular teaches you skills and techniques beyond pen and paper. The course prepared me and others for the careers we have gone on to, more than I could have asked. I was able to graduate to a professional working environment with relative ease, and finding job applications with various recruitment agencies was also a simple process due to the course name itself being well respected in the industry.

Favourite Solent memory?

Graduation! No matter how many nights out, socials, fun days and so on, nothing will trump that feeling when your name is called and you take possession of your degree certificate on stage!

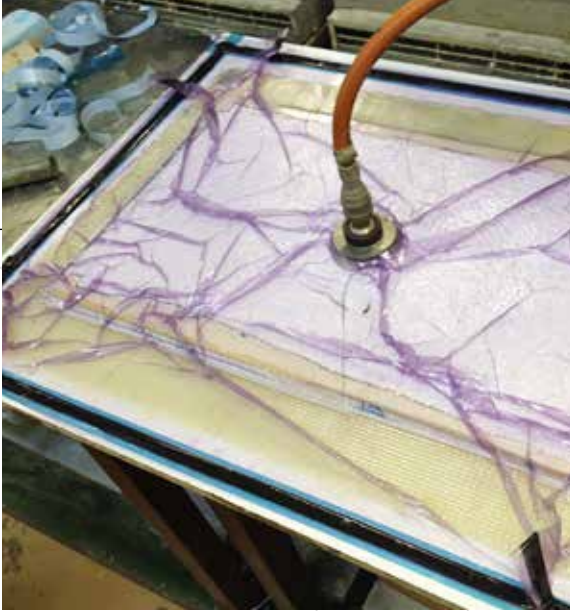
Tell us a little about your career story so far

My career has been unlike I expected so far. I started with a very well known yacht designer in Southampton for three months before being given an amazing opportunity at a new company with a friend of mine. I am now able to head up the design process –

this includes everything from initial designs and rapid prototyping to mould-making and final production. Although we are a small business, we are already selling products worldwide, with products being shipped as far as Australia.

Tell us about what you are doing now and what it involves – a typical working day

A typical working day does not really exist for us! While I enjoy a structured week as much as the next person, our business revolves around custom composite design and production, including the production of our own hydrofoiling dinghy (International



IF YOU HAVE A WIDE INTEREST
IN ALL THINGS MARINE,
WHETHER IT IS THE DESIGN OR
THE PRODUCTION OF SAIL AND
POWERCRAFT ALIKE, YOU WILL
NOT BE DISAPPOINTED."

Moth). A typical week can begin with creating a set of carbon fibre hydrofoils and end with building a mould tool to produce carbon fibre car panels. I love the variety, especially as the scope for design and production techniques allows for a lot of free/outside-the-box thinking.

What's your career highlight so far?

My career highlight so far is hopefully about to be realised as we near completion of a new International Moth of my own design. Fingers crossed!

What tips would you give to someone wanting a career in your industry?

You are likely to be working for the next 40 years or more, so make sure it is doing something you love! The marine industry is very easy to get into, with a vast array of careers available, almost more so than any other industry. Keep your options open – take any opportunities that come your way as it is better to say that you gave it a go than to regret and not know what could have been.

JOSH BOWEN

BEng (Hons) Electronic Engineering
Graduated 2015



How did university prepare you for your career?

I have seen a lot of universities where academic standing and proprietary research has a much higher priority than their students' studies. Solent has it right however, with industry focused courses and lecturers with diverse working backgrounds and experience, I felt confident what I was learning would give me a good starting point in my career, which it has. The staff are extremely accommodating and easy to openly talk to whether it be university related or not, making Solent University a very comfortable learning environment.

Favourite Solent memory

I met some good friends while studying at Solent, both students and staff. My entire time at Solent was an enjoyable memory

because of them, most prominently the amusing conversations we had when working on our group projects and the good results we achieved because of our team work.

Tell us a little about your career story so far?

I started my career during the summer breaks when I worked for a defence engineering firm. This gave me a good standing for when I graduated to then be selected to be involved in a Knowledge Transfer Partnership, a government scheme between the university and an outside private company – He-Man Dual Controls, a small company dedicated to producing dual control pedals for driving tuition vehicles. I was involved in using the combined expertise of both parties to develop innovative new products. I have since been taken on by the company after they were



BENG (HONS) ELECTRONIC ENGINEERING IS FOR YOU IF YOU ENJOY INDULGING IN YOUR PASSION FOR EVERYTHING TECHNICAL. WITH A FIRMLY GROUNDED FOUNDATION IN MATHS AND PHYSICS, THE INDUSTRY FOCUSED CONTENT COVERED WILL GIVE YOU THE KNOWLEDGE NEEDED TO HIT THE GROUND RUNNING WHEN YOU START YOUR CAREER."

pleased with my progress and wanted to continue after the project ended. I am still constantly involved with Solent University as I find the staff members extremely friendly and open to collaboration and consultation.

Tell us about what you are doing now and what it involves

As the electronic engineer for He-Man Dual Controls, a typical working day includes overseeing the entire design/development cycle of any new electronic products as well as developing our other experimental projects. I am also involved in technical sales logistics which includes the testing of our products to pass different international market standards.

What's your career highlight so far?

Each stepping stone in my career has been

memorable so far from one exciting point to the next, with a new set of challenges and a new opportunity to indulge my passion for engineering. Every challenge helps me learn something new that I can use on subsequent projects and with my current open ended career the possibilities of what can be designed and accomplished are endless.

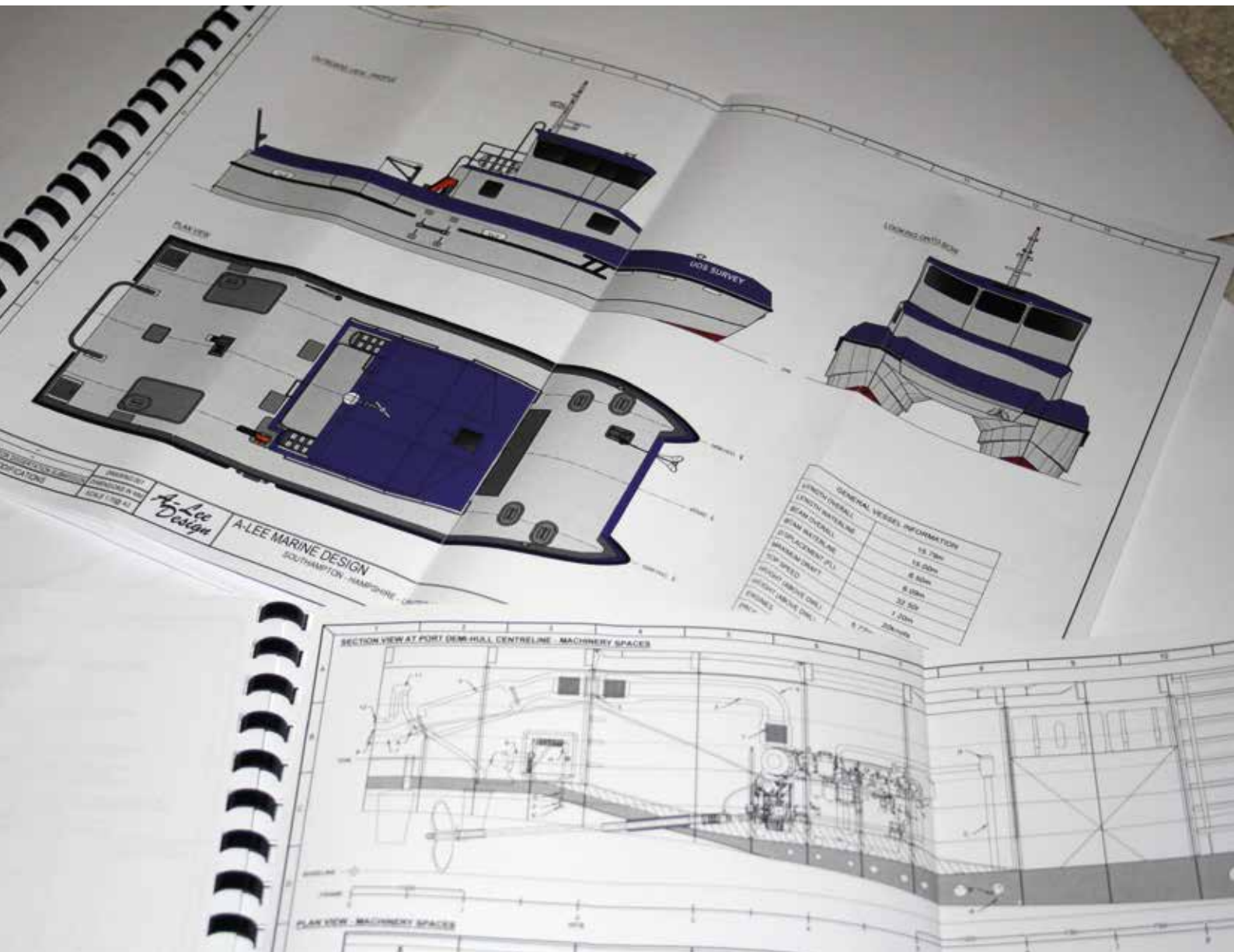
What tips would you give to someone wanting a career in your industry?

If you have the freedom to choose your career, then you should do something you love, ask yourself the question, would you still do it if you didn't get paid? As with me I love electronics and am constantly volunteering my own time for out of work activities as well as my own projects. If you are looking for a career in engineering, as with any industry, you shouldn't need a

reason to give 100% and by doing this, you will be on the road to success while never having worked a day in your life.

ALEXANDER JAMES LEE

BEng (Honours) Yacht Design and Production
Graduated 2017





THIS COURSE IS FOR YOU IF YOU
HAVE A PASSION FOR DESIGN,
ENGINEERING AND ALL THINGS
BOATS!"

How did university prepare you for your career?

The yacht engineering courses at Southampton Solent University provide you with the knowledge and software familiarity required to step into the industry and continue your professional development. Going into the superyacht industry, I have been equipped to deal with a range of tasks from preliminary design to production drawings for boats almost ten times the length of my dissertation!

Favourite Solent memory?

Taking part in the model yacht race at the end of first year. I loved designing and manufacturing my model but seeing it race was fantastic. One of the best things about this line of work is seeing something you design come to fruition.

Tell us a little about your career story so far

After finishing university I was awarded the RINA - BAE Systems Student Naval Architect Award for the best final year project and the RINA and IMarEST Southern Joint Branch prize for the top final year student in the same year. This led to my employment at Laurent Giles Naval Architects, where I complete preliminary design work, 3D modelling and production drawings for large yachts and superyachts.

Tell us about what you are doing now and what it involves – a typical working day

Three hours of design (preliminary or for production), three hours of 3D modelling, two hours of report writing and don't forget lunch! Every day is different though!

What's your career highlight so far?

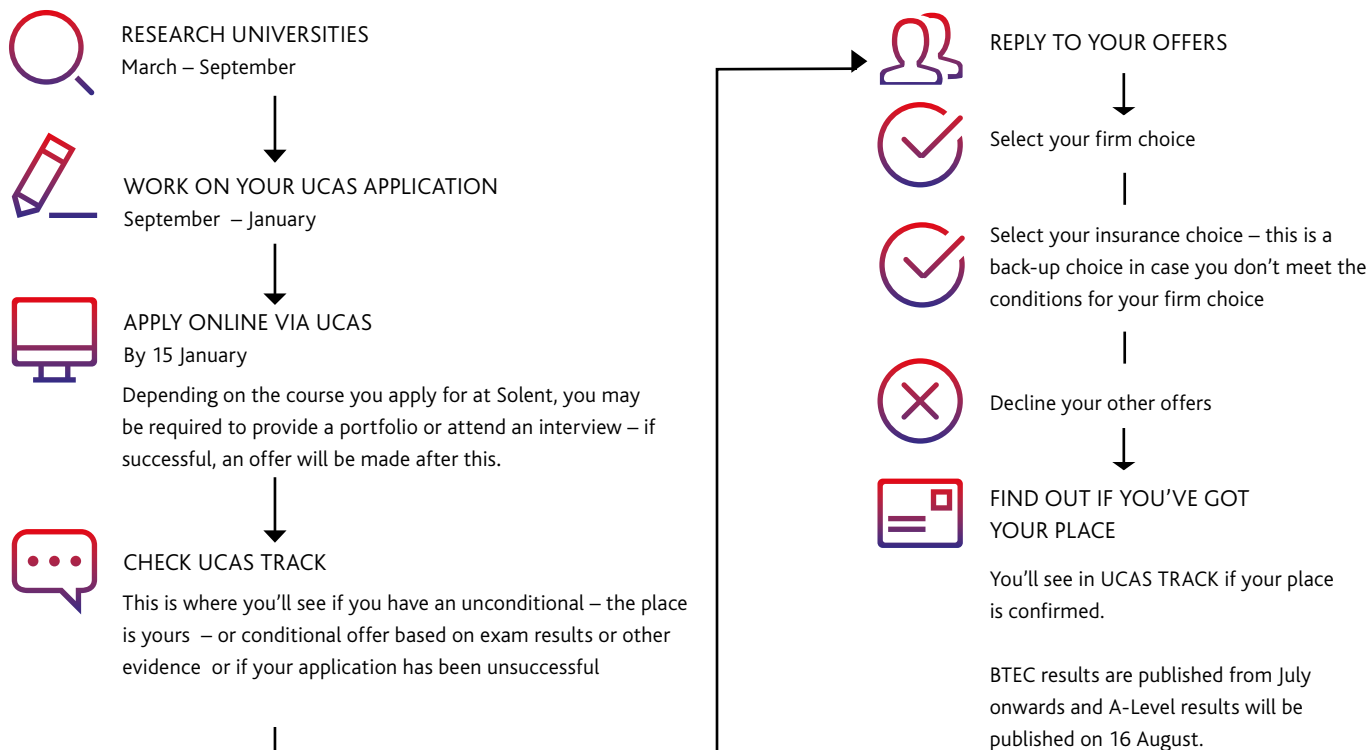
I recently visited one of our projects in build, which was fantastic to see because it brings all of the drawings produced to life. I also attended the Fort Lauderdale International Boat show, which was an incredible experience.

What tips would you give to someone wanting a career in your industry?

Work hard and be open minded. I started off the degree with a love for sailing and sailing yachts but quickly discovered the wonder of the engineering behind the motor yacht.

HOW TO APPLY

Southampton Solent University code name: **SOLNT** Southampton Solent University UCAS code: **S30**



PREPARE FOR UNIVERSITY IN LESS THAN AN HOUR EACH WEEK WITH OUR TIPS, GUIDES AND QUIZZES.

www.solent.ac.uk/52-things






OUR STUDENT RESIDENCES

We have well-equipped student residences, with fantastic study-bedrooms, right in the city centre and only a short walk from the main campus. For more information, visit www.solent.ac.uk/accommodation

UNDERGRADUATE

BSc (Hons) Engineering Design and Manufacture	112	Y	Y
BEng (Hons) Electronic Engineering	112	Y	Y
BSc (Hons) Maritime Business	112	Y	Y
BSc (Hons) Maritime Law and Business	112	Y	Y
BSc (Hons) Maritime Transport and International Logistics	112	Y	Y
BSc (Hons) Maritime Management (Top-up)	*	Y	
FdEng Marine Electrical and Electronic Engineering	*	Y	
FdEng Marine Engineering	*	Y	
FdSc Marine Operations	*	Y	
BEng (Hons) Marine Engineering and Management (Top-up)	*	Y	
BSc (Hons) Marine Operations Management (Top-up)	*	Y	
BEng (Hons) Mechanical Engineering	112	Y	Y
BEng (Hons) Renewable Energy Engineering	112	Y	Y
BSc (Hons) Shipping and Port Management	112	Y	Y
BSc (Hons) Sustainability Science	112	Y	Y
MSci Sustainability Science	128	Y	Y
BEng (Hons) Vehicle Engineering	112	Y	Y
BEng (Hons) Yacht and Powercraft Design	112	Y	Y
BEng (Hons) Yacht Design and Production	112	Y	Y

* Contact admissions for entry requirements

-  UCAS tariff points
-  Work placement opportunity
-  Foundation route available

POSTGRADUATE

MSc Shipping Operations (Distance Learning)
MSc Superyacht Design
MSc International Maritime Business
MBA International Maritime Management
MSc International Shipping and Logistics



FEES AND FINANCE

Worried about the cost of going to university? There's plenty of support on offer to ensure that financial circumstances don't stop you from gaining a higher education. For more information, visit www.solent.ac.uk/finance

Southampton Solent University
East Park Terrace
Southampton
SO14 0YN

T. +44 (0)23 8201 3000
E. ask@solent.ac.uk

www.solent.ac.uk



solentuniversity



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