

TRAINEES WHO MAKE A DIFFERENCE

Open the door to the Bachelor of Technology
Management and Marine Engineering



“ We have had a very positive experience. Jakob's work with the development project was very determined and independent, and you could feel his commitment. Subsequently we chose to hire Jakob in our development department so he could finish his project among other things, Managing Director at Green Instruments Oluf Sigh says. ”

COMPANY INTERNSHIP PROGRAMME

Connecting theory and practice

The workshop training school ensures a solid theoretical foundation for the students to be able to make a difference in the companies

Students with a diploma from a Danish gymnasium (which corresponds to high school in the US and upper secondary school in the UK) have to complete nine months of training school and nine months of work experience in order to qualify for the theoretical part of the Bachelor of Technology Management and Marine Engineering.

At the workshop training school the students have completed courses in materials science and plan reading, electrical installation and fault detection, diesel engines, safety, protective gear as well as project work. The students are thus able to undertake a variety of technical tasks from day one in the company.

The purpose of the company internship programme is that the students are to further develop their craftsmanlike skills. Companies are not required to pay the students as they receive their State education grant for the entire duration of the work experience.

A work experience which led to an open invitation

He is 22 years old and he has only just started his education. Nonetheless, marine engineering student Thomas Skov has already received an offer to spend his bachelor internship at the manufacturing company LOGSTOR.

This is especially due to the results achieved during his work experience where he had to analyse deviations in raw material usage. Thomas Skov would then provide the company with a suggested solution of how to reduce the largest discrepancies. Following the analysis and a presentation of the results it was decided that he was to implement one of the proposed solutions himself.

A maritime career is launched

Having completed a combined course of workshop and work experience Thilde Hedegaard signed on the oil tanker the *Nord Swan* in Tangier, Morocco. Subsequently she had her first experience of life at sea for three months.

As she was a newcomer to the field and has very little maritime experience, Thilde has a variety of tasks on board with the 1st assistant engineer. She checks for leakages, samples oil and performs different security checks. Moreover, she has focused quite a lot on centrifuges and auxiliary engines. These challenges have provided her with a great insight into the variety of tasks facing a marine engineer at such an early stage in her education.

"I cannot imagine a better job than being on a ship. It is a miniature society in which everything has to work. As marine engineers we get to work with every aspect of what we learn in school. Obviously, the engines have to work, but electricity must be generated for the entire ship as well. We are the ones responsible for fixing it if we suddenly run out of clean drinking water or if the refrigerator stops working. We have to be able to do it all," Thilde states in order to explain her fascination of life as a marine engineer within the maritime industry.

As a trainee at a shipping company Thilde is paid throughout the entire period at sea. Furthermore, she has signed a contract as a trainee officer with the shipping company Norden. She expects to return to Norden during her ninth semester when it is time for her bachelor internship.

“ Our trainee, Mikkel Klaris, has just finished the training school at the marine engineering college. None the less he is already producing objects in the machine shop which would normally be the job of a skilled machinist. This is after a mere seven months of practical training. On an everyday basis he works independently with tasks usually performed by a skilled industrial designer. ”

Carsten Corfitz,
Maintenance manager, Novozymes.

BACHELOR INTERNSHIP

Students combine theory and practice in companies

During the bachelor internship, students utilise their theoretical knowledge and practical skills when performing tasks in companies. For their final project the students analyse a problem in the company and the results of their research are often quite profitable for the company in question.

For the student the purpose is to combine theoretical knowledge and practical skills by grappling with projects relevant to their future profession as marine engineers. To companies it is an opportunity to gain assistance in identifying and analysing problems. Something they might otherwise be too busy to do on an everyday basis.

The students often take their starting point in their bachelor project on challenges encountered during the preceding work experience. This means that the companies will usually end up benefiting from useful solutions for technical problems. Sometimes they also get input for optimization or suggestions for cost reductions.

The final semester at school marine engineering students have a ten-week work experience followed by a project period which lasts ten weeks as well.

Companies are not required to pay the students as they receive their State education grant for the entire duration of the work experience.

Intelligent energy conservation at hospital

Vejle Hospital is situated at the base of a hill. To avoid flooding of the basement large amounts of rain water and drainage water were continuously pumped from the site previously. Today, however, the water is used for cooling nearby machines. This chance originated in a bachelor project by two marine engineering students, Michael Brejner and Jesper Johansen. The recommendations in their project turned out to be profitable and lead to significant energy savings in the hospital.

” On day two of his internship, Sune solved a problem with our ventilation system which others had tried to solve in vain. Fortunately, Sune kept delivering the goods to such a degree that soon we could not get by without him. In fact two divisions wanted to hire Sune permanently, but the electricity division won in the end, the factory manager at Aasted, Axel Petersen, says. ”

Potential for millions at Toms

Chocolate production requires a variety of thermal processes. Therefore the Toms Group in Ballerup has a large cooling plant utilizing ammonia for cooling in their boiler plant. Simon Dige Olsen's bachelor project consisted in making a preliminary analysis to pave the way for the replacement of a series of evaporative condensers due to wear as well as requirements concerning noise.

Apart from a significant environmental gain, the analysis made in Simon's bachelor project revealed a massive potential for cost reductions of just under DKK 2.2 million. This came as quite the surprise for Toms. The great result of Simon's project was the direct reason why today he is employed as the production and maintenance coordinator at Toms.



Innovative interns with extensive technical knowledge

The bachelor of technology management and marine engineering is the most versatile technical education in Denmark. BTecMan are in charge of operation and are behind many of the ideas and technical solutions which have given Denmark a leading position within e.g. the shipping industry, power plants, wind turbine technology, wastewater treatment

and the intelligent electricity network. They manage work in the offshore sector with the valuable extraction of oil and gas, and they are responsible for the essential technology at the Danish hospitals. In brief, the BTecMan is a multifaceted technical leader who is useful in a number of key tasks within the fields of management and technology.

Please do not hesitate to contact the schools for more information



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“During his bachelor internship Kristian did a market analysis of the procedure within the oil field which has subsequently provided us with still more tasks. Today we have chosen to permanently employ him, Chris Durhuus, Senior Project Manager at Safe Ocean Service, says.”