

**International  
semester  
- something for you?**

- **An intense, hands-on, maritime technology study in Denmark**
- **6 months, all inclusive, international semester**

**With focus on:**

**SUSTAINABILITY**

**AT SEA**

**You are probably;**

- Studying for Engineer, 5 to 7 semesters into your education OR working in the maritime industry
- Looking for an opportunity to test your theoretical skills in practice
- Aiming to try problem based project solving in a state of the art maritime tech business

57°25'7N, 010°30'3E



## “ONE WEEK – ONE PROBLEM” & SUSTAINABLE AT SEA PROJECT

**This international semester at MARTEC is established in cooperation with local world-leading maritime tech companies**

The Semester is absolutely unique, because the students are invited inside 6-8 companies to solve a company specific problem: ONE WEEK – ONE PROBLEM. Each problem is aligned with the technical curriculum. The semester is graduated by defending a problem based project, solved in cooperation with one or two Danish co-students. Each international student is teamed up with a Danish student.

Semester start: Twice a year (January and august)

**PRICE:** 13.000 euros : Includes: 30 ECTS; accommodation & food; tuition-fee; Not Included: pocket money, materials and books , local transportation (expect: 1.000 euros)

## INTRODUCTION

# “GREEN” MARITIME TECHNOLOGY – DANISH WORLD CLASS EXPERTISE

MAN Energy Solutions and the maritime industry have an obligation to create a better and more sustainable future. Therefore we are proud to be a part of the development of the international semester at MARTEC “Sustainability at sea”.

The semester has been formed through a strong cooperation between the maritime industry in Denmark and MARTEC. The technical knowledge we offer is tied together with cooperation, and aims at a greater goal – to make the international maritime industry more sustainable.

One of the many strength of the semester will be that the students get a broad knowledge of auxiliary service systems and a unique entrance industry leaders as well as the opportunity to build a network within the

maritime industry. MAN Energy Solutions always seek to attract skilled employees, and I see a great opportunity recruiting future employees and training existing employees through this program.

Denmark has one of the world’s largest maritime sector. The industry has a solid position on the world market – not least thanks to high-tech and specialized products and solutions, and the many successful companies in the Danish maritime industry support the maritime world’s pursuit for a more sustainable future.

I am personally proud to work towards – Sustainability At Sea.

Poul Knudsgaard  
Vicepresident, MAN Energy Solutions

### Table of contents:

<b>3</b> “Green” maritime technology – danish world class expertise	<b>8</b> Second part of the semester	<b>12</b> Experience danish culture, art and sights
<b>4</b> Your step towards the future	<b>10</b> About MARTEC Sport and activities	<b>13</b> Closely related to United Nations World goals
<b>7</b> First part of the semester	<b>12</b> Practical information about your stay in Denmark	<b>15</b> Admission and price For further information

MARTEC has created this semester in an unique collaboration with maritime companies and MARCOD



# YOUR STEP TOWARDS THE FUTURE

## This international semester, (30 ECTS), is your unique opportunity to learn and get knowledge about the sustainable solutions for the future for the maritime industry

The international semester “Sustainability at sea” gives you the knowledge – and opportunity – to learn about the sustainable solutions for the future for the maritime industry.

The semester is based on a unique teaching format at the internationally renowned and accredited maritime and polytechnic university college MARTEC in Denmark, where the curriculum has been developed in close collaboration with the participating maritime companies, which all are deeply involved in the process. This means that you will be taught cutting edge technology by the world-leading companies that implement and develop them, combined with skilled and competent teachers from MARTEC, who all have a high level of technical knowledge and industry knowledge.

MARTEC offers an attractive and intimate educational environment, where the international semester is a part of the ‘Bachelor of technology, management and marine engineering’ education at MARTEC. It is a polytechnic education, which includes applied science, technical management and electrical engineering, and meets STCW requirements table iii/3. A total of about 500 Danish engineer students attend this education at MARTEC.

The international semester will be made available for only 10 international students and 10 Danish students, twice a year. Each international student will be teamed up with a Danish student.

### Subject areas

The education program is implemented as problem-based learning within the following subject areas:

- Autonomous vessel operation
- Sustainable port operation (LNG / land based power)
- Ballast treatment systems
- Propeller and propulsion optimization
- Waste Heat Recovery
- SOx Scrubbers
- Maintenance management
- Non carbon based propulsion

### Transfer Safety Course

During the semester, a transfer safety course is included, where you learn to board a sailing ship on the open sea. The course deals with eg. personal security, use of security equipment and personal survival techniques in the open sea.

### What to gain from the semester

With this semester you get an unique insight into the Danish maritime industry, a large professional network, knowledge and know-how about cutting edge technology, practical and theoretical experience in combination, and abilities to enter into jobs within the maritime business segments. This semester will expand your career opportunities abroad and at home. This applies to both international and Danish students. This semester will boost your career opportunities, expand your cultural understanding, your cooperation skills and expand your technical knowledge.

At the end of the semester you get a certificate of completion, a personal statement from the company you have written your project assignment with, and a certificate of the Transfer Safety Course.

## The Danish maritime industry

The maritime industry is one of Denmark’s absolute areas of strengths. It is an old and tradition-based industry which has managed to maintain and expand its global leading position – through constant research, development and innovation.

Denmark’s maritime cluster is called ‘The Blue Denmark’ and it consists of shipyards, suppliers and designers of ships, maritime equipment, maritime products, maritime service and shipping companies.

‘The Blue Denmark’ employs approx. 130,000 people directly and indirectly, and provide 25 % of the total Danish export market.

The Danish merchant fleet is a central part of ‘The Blue Denmark’, and ranked no. 6 measured by tonnage worldwide. The total world fleet consists of more than 100,000 vessels – and most of these vessels have Danish equipment on board.

VMS Group



## World Class Maritime Services

VMS Group covers all aspects of service, such as repair and maintenance, spare parts delivery, sales of complete propulsion systems and engineering projects within the maritime and offshore industries.

### With years of experience and professional expertise, VMS Group offers:

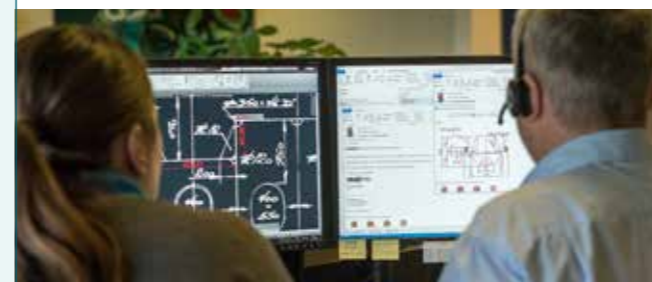
- Comprehensive service of all types of diesel engines and turbochargers
- Service and overhaul of gears, propellers, shafts and drilling equipment
- Supply of original spare parts as well as parts from the best OEM brands
- Extensive stock of reconditioned marine parts
- Sales of complete propulsion systems
- Design, engineering and project management

Our team of experienced service engineers and project managers assist in all project phases from feasibility studies to the final commissioning worldwide.

We emphasize the importance of a trust-based relationship with our customers as well as high-quality products at competitive prices, ensuring fast delivery – 24 hours a day, 365 days a year.

With service facilities in Denmark (Frederikshavn and Skagen) and Brazil, VMS Group employs more than 150 people.

[www.vms.dk](http://www.vms.dk)



# DESMI

DESMI is a global manufacturer of pumps and systems for liquid handling, ballast water management and equipment for oil spill response. DESMI was founded in 1834 and is therefore one of Denmark’s oldest companies having a long history of supplying good, reliable solutions, maintaining an innovative approach and utilising the opportunities on the global market.

DESMI is specialised in the development and manufacture of pump solutions for marine, industry, oil spill combating, defence and utility both locally and globally.

Within Marine & Offshore, DESMI supplies energy-efficient centrifugal pumps, systems for energy optimization of pumps, ballast water management systems, spare parts kits and much more.

DESMI has offices in 30 countries including China, Germany, the United Kingdom, and the United States and through a global network of subsidiaries, distributors and agents; DESMI’s solutions are sold in more than 100 countries. DESMI employs more than 700 people worldwide.

[www.desmi.com](http://www.desmi.com)





## Propeller and propulsion optimization

MAN Energy Solutions 'Propeller & Aft Ship' division located in Frederikshavn, Denmark is MAN's competence center concentrating on research & development, production, sales, service and license of propulsion solutions for outputs up to 50 MW. Our scope includes FP and CP propeller systems, shaft-line and stern tube equipment, energy efficiency devices, electronic propulsion control and maneuvering systems.

Globally, MAN Energy Solutions is the world's leading provider of large-bore diesel engines, turbomachinery and integrated power systems. We produce four-stroke and two-stroke engines (diesel, gas and dual fuel) for marine and stationary applications, turbochargers, propellers and aft ship systems. Our system expertise is focused on emission reduction, complete propulsion packages - diesel-mechanical, diesel-electrical and hybrid propulsion systems and digitized services.

It is our goal to optimize propulsive efficiencies and minimize fuel consumption while complying with the most advanced emission regulations.

With headquarter in Augsburg, Germany, MAN Energy Solutions employs around 14,000 people at more than 120 sites globally. Our after-sales brand, MAN PrimeServ, offers an extensive worldwide network of service centers to our customers.

[www.man-es.com](http://www.man-es.com)



## The Port of Frederikshavn is a modern, commercial port with a ferry harbour, freight harbour as well as a versatile service industry

At the Port of Frederikshavn you will be in the centre of the Northern European shipping industry with a favourable logistic location between the North Sea and the Baltic Sea. Since 2016 the Port of Frederikshavn has been expanding its facilities and capabilities. The port has invested nearly DKK 1 Billion in the expansion which includes 500,000 m<sup>2</sup> hinterland area, 1,000 metres of quay, 14 metres water depth, a skidding area and a ship ramp.

The port expansion means increased and new business opportunities within offshore, oil, gas, wind, biomass and environmentally-friendly recycling of ships and drilling rigs. The expansion gives the Port of Frederikshavn perfect conditions to fulfil the port's visions within recycling, green energy and circular economy. A number of agreements have already been made with large national and international businesses, who will be moving in on the newly established port areas.

For instance, Stena Oil will be establishing an innovative, new terminal for marine fuel and will establish an environmental protection agency in Frederikshavn, as well. M.A.R.S. Europe will soon open a custom-built recycling site, where they expect to recycle approx 200,000 tons of steel per year – with the intention of making Frederikshavn the centre of green recycling of Panamax-ships and large oil installations. Also, local legacy-company – Orskov Yard – will be investing in a new floating dock, 180 metres in length.

[www.pof.dk](http://www.pof.dk)

# FIRST PART OF THE SEMESTER

The first ten weeks of the semester the students work with 'One week – one problem'. During the first week they are given a thorough introduction to the different working methods, so everyone is well prepared for the coming weeks "problems".

Every week in the following seven weeks, the students are presented to and solving problems: "One week – one problem". The students work with

different themes in collaboration with the companies involved. This is done by the students being assigned to a new company every week. They are presented with real challenges and issues in a realistic setup that the company works with.

The final two weeks, of the course, are dedicated to compiling your portfolio. The examination will be an oral examination based on your portfolio.



## 3 highlighted topics – first part of the semester



3,5 ECTS

### PBL – Problem Based Learning

The problem is the starting point for learning, where you independently handle solutions to the problem. PBL combines problem orientation and participant management.



1 ECTS

### Nordic Culture Awareness

Introduction to the Nordic culture. How do we behave; How do we act here, what do we expect, how do we negotiate and what do we demand of each other.



10 ECTS

### "One week – one problem"

This project is designed to provide students with an ongoing opportunity to work with different issues. Each week, the students will meet a new company and work with a new problem.

## "One week – one problem"

The program for a week with "one week – one problem" could look like this:

### Monday:

Visit company – presentation and tour of the company.

### Tuesday:

Presentation of the case and working with method focus.

### Wednesday:

*Danish students:* common subjects with parallel semester.  
*International students:* Work with ship technology.

### Thursday:

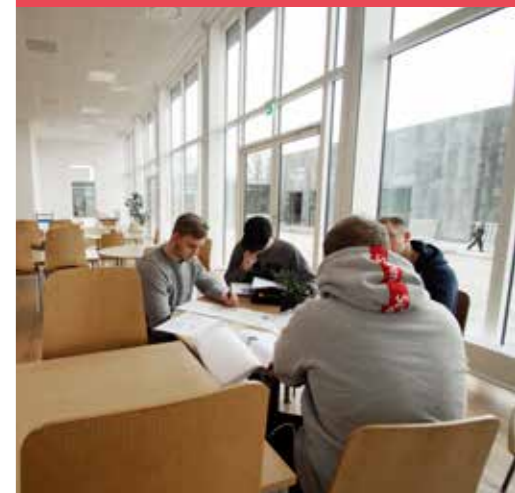
Work with case.

### Friday:

Work with case, and handing over the case.

### Week after:

Feedback from supervisor and company on case.





## SECOND PART OF THE SEMESTER

The second part of the semester also consists of 10 weeks. During this part we will work with one large self-chosen project. The project is prepared in groups of 2 or 4 students with mixed nationality, and in cooperation with a selected company.

The students select the company they want to work with, based on the contacts they have established during the first part of the semester.

The topic of the self-chosen project can be anything from management, sales, development or a technical challenge.

One of the mandatory subjects in the second part of the semester is Maintenance Management. The subject deals with the various maintenance philosophies and concepts, as well as calculations and proof of best and cheapest maintenance operation.

In addition, students will work with sustainability in general – and be introduced to the maintenance solutions used successfully in Denmark.

The sustainability curriculum will include study trips, visiting district heating plants, geothermal plants, solar cell plants, heat pump systems, remote cooling plants, wind turbines, waste incineration and bio plants.

### 3 highlighted topics – second part of the semester



7,5 ECTS

#### Project, self-chosen

The self-chosen project is prepared in groups and in collaboration with a selected company. The topic can be anything from management, sales development or a technical problem.



2 ECTS

#### Maintenance Management

The subject deals with the various maintenance philosophies and concepts, as well as calculations and probes of best and cheapest maintenance operation.



2,5 ECTS

#### Sustainability in Denmark

We will be working with an introduction to the maintenance solutions we use in Denmark. This teaching will mainly take place as study trips, where we visit selected companies.

**BALLARD**

## Power to change the world

**Ballard Europe is the European headquarter of Ballard Power Systems Inc., a world leader in the development, manufacture, sale and servicing of Proton Exchange Membrane (PEM) hydrogen fuel cells. We offer a complete range of proven commercial power products from stacks to complete fuel cell systems as well as engineering services.**

Ballard's fuel cell products are designed to meet the power needs of our customers through the delivery of high value, clean energy solutions that offer superior performance at a reduced operating cost.



Headquarter of Ballard Power System Inc.

At Ballard, we enable fuel cell electric mobility with our products and technology solutions for a number of markets and applications.

Hydrogen fuel cells are at the forefront of zero-emission technologies for shipping. Limiting greenhouse gas (GHG) emissions through the use of hydrogen fuel cells is of particular interest in port cities, where

significant multi-mode transportation opportunities exist to share centralized hydrogen fueling infrastructure. This includes the presence of marine vessels, drayage trucks, trains, forklift trucks, and other transport vehicles at a single port facility.



[www.ballard.com](http://www.ballard.com)

**MEPRODUCTION**  
EFFICIENCY THROUGH SIMPLICITY



At ME Production we provide a varied range of products, services and solutions to clients from a wide range of sectors including the maritime sector, the food industry, the cement industry as well as the offshore and energy sectors.

Our headquarter is in Frederikshavn on the north-east coast of Denmark, and our organization includes research and development, design and engineering, production, sales and technical support services.

We are a manufacturer of customized emission reduction systems for marine applications (scrubbers). Our advanced solutions ensure compliance with stringent national and international marine emission standards – now and in the future.

Furthermore, we are a leading market supplier of marine reduction gearboxes, Controllable Pitch Propulsion (CPP) systems and service solutions for marine gearboxes. We design and manufacture marine gearboxes and deliver either the gearbox only or the complete propulsion package including controllable pitch propeller and remote-control system.

Overall, we offer solutions that fit all diesel engine types, sizes, speeds and fuel types, and our services cover the complete project from start to finish including consulting, sizing, design, manufacturing, supervision and commissioning.

[www.meproduction.dk](http://www.meproduction.dk)



# WORLD-CLASS POLYTECHNIC AND MARITIME EDUCATION IN DENMARK

MARTEC is a maritime and polytechnic university college located in northern Denmark. We strive to deliver high quality education and training for the international maritime and industrial sector on different levels – ranging from bachelor-level programs to a wide array of professional courses and training within maritime subjects, offshore safety and technical skills and knowledge to individual certificates. MARTEC also operates the Danish national Training ship DANMARK.

MARTEC's primary goal is to supply the industry with the workforce needed to succeed in a competitive global market. This requires close industry cooperation, which we achieve through e.g. internship programs, company visits, external lecturers and industry events. As a higher education

institution, we also invest in research and development and continuously strive to develop our programs and training facilities, adapting to the ever-changing business environment.

“  
**We look forward to welcoming you to our school and to our international semester**  
 ”

MARTEC has approximately 11.000 m<sup>2</sup> of modern facilities at our disposal, distributed on three different sites, where education is carried out with focus on combining classroom lectures, group assignments, projects and practical training, using our many, well-equipped training facilities.



*Pia Ankerstjerne, CEO, MARTEC*

Over the years MARTEC has grown to become a world-class certified course and training provider with a long list of safety training courses according to the internationally acknowledged standards and our graduates are in high demand.



## FACTS ABOUT MARTEC

MARTEC has laboratories for high voltage, energy and environment exercises, two large workshops, control room simulation facilities, firefighting facilities, lifeboats for freefall, fast rescue and ordinary lifeboat training and a newly added indoor training facility for working at heights safety training.

MARTEC also has access to pool facilities for helicopter underwater escape training (HUET) and other emergency courses, whereas Training ship DANMARK is the ultimate classroom during a 10-12 week voyage on the seven seas for all ship's assistant trainees.

Besides degree programs, MARTEC offers a catalogue of training programs for the maritime, offshore and wind sector, focusing on mandatory safety courses and certificates. MARTEC also offers a number of standard and customer-specific technical courses related to e.g. cooling, electrical systems and welding.

Birgit Hansen,  
 Mayor of  
 Frederikshavn



## Welcome to the Top of Denmark

Frederikshavn municipality is the centre of Blue Denmark. More than 100,000 ships each year ply the blue motorway, where the North Sea meets the Baltic Sea. Expansion of the ports in both Frederikshavn and Skagen provides space for existing companies to expand and new companies to establish themselves.

We have growth in the maritime industry, and the demand for skilled labour is high - it applies not least for marine and technical engineers. We are one of the main centres for industrial production in Denmark, and there are exciting job and career opportunities here on both land and at sea. And the whole world can become your workplace.

We offer a fantastic education with new opportunities at an educational institution that works closely with the industry. MARTEC trains you for reality and for the future. We look forward to welcoming you on board.

Kind regards, Birgit S. Hansen, Mayor

## Sports and activities nearby the school in Frederikshavn

There are many sports and activities in Frederikshavn. Here you can see a selection of leisure activities that you can choose to participate in.

Frederikshavn is also a trade town with soul, visited annually by approx. five million people. The city lights will meet you when you arrive by ferries or by motorway into Frederikshavn, and there is a wealth of activities and things to experience.



### Football

There are several football clubs in Frederikshavn, so if you want to play football in your spare time there are good opportunities for this.



### Running – training and half marathon

There is a beautiful nature around Frederikshavn, where you can find many good running routes. There are also several races in the area during the year, and MARTEC holds its own half marathon every year in February.



### Mountainbike

Mountainbike is a popular sport and there are many great routes through the forest and along the water where you can train.



### Ice rink and hockey

Frederikshavn has an ice rink where you can skate or try ice hockey. The city league team also plays matches here that you can go and see.



### Water sports

Frederikshavn is a coastal town, and there are many activities on the water to choose from, fx paddleboards, sea kayaking, sea swimming, windsurfing and much more.



### Golf

Frederikshavn Golf Club lanes are located on Lerbæk Hovedgård's land in the northern edge of the city. You play in beautiful surroundings with forest, many lakes and large trees. The track is easy to walk as the terrain is flat.



### Floorball

Frederikshavn has a long tradition as floorball city, and you can try playing floorball during your stay. Frederikshavn has been the home of the annual national event in Floorball 12 times - The National Assembly has the participation of up to 1,500 floorball players from all over Denmark.

# PRACTICAL INFORMATION

## ABOUT YOUR STAY IN DENMARK

MARTEC is known for a high level of professionalism and the quality of teaching is given high priority at the school. The study environment at MARTEC is characterized by the close contact between the teacher and the students. It is a close social environment where we would like our students to feel at home and comfortable. Here we say good morning and thank you for today, and the facilities are open and available around the clock. In the afternoons it is possible to study after-hours assisted by co-students and teachers.

### Accommodation

During the semester the international students will stay on campus at MARTEC's "School home". Each international student will be accommodated in a private room – sharing kitchen, livingroom and bathrooms with their fellow students.

The international house includes bathrooms, kitchen, living room, TV room, terrace, free WIFI and free access to laundry room. The school has its own chef and canteen, where the meals of the day will be served. Special dietary needs are accommodated.

### Leisuretime

At the School Home there is free access to the gym and fitness area, and plenty of outdoor space for activities, and the beach is right outside the door with a large range of possible water activities. Because the students live together, there is usually a close social bond, which also benefits in spare time, where the students can arrange activities and excursions together. MARTEC has a well-attended Friday bar, "West End", which is managed by students. Here the schoolweek often ends with music and a beer. "West End" is also a co-organizer of several activities, such as barbecue parties, beer pong tournaments, etc.

### Guidance and help

During the stay at MARTEC, all students will be assigned with a contact person, who can help with the practical things associated with the stay, such as accommodation, access to laundry, daily transport, medical visits, contact for leisure activities etc. In addition, MARTEC's administration is naturally associated with the semester. They are happy to assist with visa application, as well as arrival and transfer in connection with the stay.



### Frederikshavn in North Jutland, Denmark

MARTEC is located in Frederikshavn, 50 kilometers from the airport in Aalborg, which is about 40 minutes drive by car.

There is public transport by bus or train to Frederikshavn, a taxi can also be booked for the trip.



## EXPERIENCE DANISH CULTURE, ART AND SIGHTS

### Frederikshavn



Frederikshavn, which is often called "The Little Big City", is the gateway to the Nordic countries and an international traffic hub. Here are activities and experiences all year round. Here you will find shops offering well-known branded products as well as small cozy specialty shops, and restaurants, where you can take a break from the shopping.

Every year, palm trees are planted in the sand on the Palm Beach, where you can play volleyball, petanque, or just relax and enjoy the sun and take a dip in the water.



Downtown Frederikshavn, there are concerts, fairs and sports events all year round, both indoors and outdoors, where you can experience national and international artists, stand-up, theater and, for example, the beer and tattoo festival "Nordic Ink", which is held every autumn.

### Skagen



Skagen is Denmark's northernmost city, and worldknown for the famous Skagen painters. In the summertime Skagen is a major tourist attraction with lots of activities in the cozy harbor area. Midsummer is celebrated with bonfire Sankt Hans evening at the tilt lighthouse, and Denmark's oldest music festival is held in Skagen. The northern tip of Denmark is called "Grenen". Here the oceans Kattegat and Skagerrak meet and you can sweep with one foot in each sea. Grenen is visited every year by 1.5 to 2 million tourists.



For further information [www.visitnordjylland.dk](http://www.visitnordjylland.dk)

### Aalborg

Aalborg holds an 8th place on the New York Times list of places to visit in 2019. Here you will find restaurants with specialties, cozy streets, a large selection of shops, award-winning architecture and a wealth of cultural experiences, concerts, festivals and art exhibitions, as well as Aalborg Carnival, Northern Europe's largest carnival parade.



Jomfru Ane Gade in Aalborg is the largest party street in Scandinavia, where you can find everything from apres ski-inspired places to cocktail places, sports bars and classic pub-inspired bars.



### Nature

The nature of the North Jutland is versatile, raw and wild. Hilled, lush and green. Framed by 1,450 km of coastline of white sandy beaches and roaring blue waves.



### Gastronomy

The North Jutland pantry abounds with unrivaled delicacies ranging from freshly caught seafood to fragrant, wild snaps and the most delicious potatoes.



### Historical sights

There are many historic castles, manor houses and museums, which are open to guests, who give a unique insight into the old history of North Jutland.

## A ferry company that looks out for nature

From the Danish port of Hirtshals Fjord Line ferries several hundred thousand passengers to our neighboring country Norway. With daily departures to Langesund, Stavanger and Bergen all-Year round, and to Kristiansand in the summer, Fjord Line services all of southwest Norway. The summer Route between Hirtshals and Kristianssand is with a crossing that takes just 2 hours and 15 minutes the route is the most efficient way of connecting the 2 Nordic countries. Fjord Line also operates the route Sandefjord-Strömstad between Norway and Sweden.



### Award winning ferries protecting the environment

The routes to Stavanger, Bergen and Langesund are operated by the award winning ferries MS Stavangerfjord from 2013 and MS Bergensfjord from 2014. They are the first, largest and most environmental friendly of their kind as they are completely driven by LNG.

By switching to LNG Fjord Line have achieved a 92% reduction in NOx emissions, 100% sulfur elimination and a 98% particle reduction. This remarkable achievement have resulted in several awards from transport and tourist organizations

## Solutions for vessel performance



Alfa Laval builds on a century-long commitment to lifetime vessel performance, providing solutions to key challenges vessel-wide – and peace of mind globally. We help ship owners and operators secure confident compliance with marine legislation, both through dedicated compliance technologies and by supporting the move to new fuels. Keeping reliability and ease of use in focus, we increase productivity, protect the engine, boost energy efficiency and minimize waste, contributing to higher earnings and lower lifecycle cost. Within and across equipment lines, and worldwide through service and connectivity, we help customers optimize and achieve smarter operations for increased vessel efficiency.

Whether customers build ships or sail them, they need solutions that put them ahead. Alfa Laval partners with customers to secure efficient and reliable operation, compliance and productivity. In short, our solutions increase performance – throughout the lifetime of the vessel.

- We offer a broad range of proven equipment that covers most of the critical operations on board
- We have knowledge and practical expertise to incorporate equipment into full applications and innovative solutions
- We can boast more than a century of marine service and decades of work with shipyards providing future-proof solutions

Alfa Laval Test & Training Centre in Aalborg



# CLOSELY RELATED TO UNITED NATIONS WORLD GOALS

In 2015, world leaders agreed to 17 goals for a better world by 2030. Guided by the goals, it is now up to all of us, governments, businesses, civil society and the general public to work together to build a better future for everyone.

The Sustainable Development Goals are a call for action by all countries to promote prosperity while protecting the planet.

They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.



Obtaining a quality education is the foundation to creating sustainable development. In addition to improving quality of life, access to inclusive education can help equip locals with the tools required to develop innovative solutions to the world's greatest problems.

The content of the international semester in Denmark matches the 17 world goals, and the cooperation between the involved maritime companies and MARTEC strives to optimize and promote sustainability at sea, helping to build a better world.



## Admission and price

The admission requirements for the international semester at MARTEC are:

- You must be in your senior years of your technical engineering study
- OR
- You have already graduated your bachelor in applied science or engineering
- AND
- You must be able to speak, read and write English.

Upload justified application, English TOEFL test and relevant documents in the application form at [www.martec.dk](http://www.martec.dk).

MARTEC offers the international semester with start of study twice a year, for January and August. The application deadline will be April 1<sup>st</sup> to start in August, and October 1<sup>st</sup> to start in January.

### Price for international students

The semester	10,000 euros
Boarding and lodging*	3,000 euros
Recommended pocket money	1,000 euros
Price in total	14,000 euros

\* The price contains boarding and lodging at MARTEC's school home.

## For further information

If you have any questions about MARTEC, our international semester or if you would like further information, you are welcome to contact our international coordinator Nano Rasmussen by email.



Nano Rasmussen  
International coordinator  
Email: [nan@martec.dk](mailto:nan@martec.dk)



**martec**  
57°25'7N, 010°30'3E  
MARITIME AND POLYTECHNIC COLLEGE

Haanbaekvej 54 • DK-9900 Frederikshavn  
Telephone +45 96 20 88 88 • [martec@martec.dk](mailto:martec@martec.dk)  
**[www.martec.dk](http://www.martec.dk)**