Marine Engineering Programme

Engineer Officer of the Watch (EOOW)
Combined 2nd and Chief Engineer Officer

FREDERICK UNIVERSITY

Engineer Officer of the Watch (EOOW)

International and National law and regulations require the licence qualification of "Engineer Officer of the Watch" (EOOW) for all those who serve as sea-going Engineer Officers on ships.

The qualification has International recognition and is highly regarded by employers of shipping organisations. It is also an asset for those wishing, after some sea experience, to work shore-side and assume executive and managerial responsibilities.

This training programme is designed to offer the required specialized knowledge, skills and competence to prepare prospective officers to successfully pass the required EOOW licence examination.

Combined 2nd and Chief Engineer Officer

International and National laws and regulations require that all those serving as sea-going Engineer Officers on ships to be licenced.

There are 3 progressive levels of licencing:
- Engineer Officer of the Watch (EOOW)
- 2nd Engineer
- Chief Engineer

These qualifications have International recognition and are also highly regarded by employers of shipping organizations. They are also an asset for those wishing to work shore side and assume executive and managerial responsibilities.

This training programme is designed and specifically tailored to offer the essential specialised knowledge, skills and competence and hence to prepare prospective officers to progress from either:
- EOOW license to 2nd Engineer licence, or
- 2nd Engineer licence to Chief Engineer licence

Engineer Officer of the Watch (EOOW)

PROGRAMME OVERVIEW

The programme includes academic lectures and practical training in specialised workshops, as well as on-board training on ships. This latter training period on-board ship is subsidised by the Government of Cyprus. Both the course under-pinning knowledge and the associated practical training are based on the requirements of the Model Courses of the International Maritime Organisation (IMO). The programme meets the requirements of the IMO International Convention on Standards of Training, Certification and Watch keeping for Seafarers (STCW). The programme is approved and accredited by the Cyprus Ministry of Transport Communications & Works, Department of Merchant Shipping (DMS). The programme is administrated and supported by the Department of Maritime Studies (Limassol) and the Department of Mechanical Engineering (Nicosia) of Frederick University.

LEARNING OUTCOMES

- The programme builds on students' existing engineering knowledge with the aim to equip them with the specialised knowledge and competence needed for the EOOW professional qualification as well as the practical experience to work as engineers in the maritime industry ashore.
- The programme aims to equip students with theoretical and practical knowledge on operational principles of Marine Engineering, Electrical Engineering, Naval Architecture and Ship Construction.
- Following completion of the programme and sea-going training the student should be prepared for the final oral examination for the EOOW licence.

ADMISSIONS REQUIREMENTS

- A BSc degree in Mechanical Engineering from any recognised University (or appropriate equivalent).
- Each candidate will be given a short acceptance interview by staff members of the University.
- Depending upon existing qualifications applicants may be exempt from certain of the required written examinations for the EOOW licence. During the application process each candidate will be assessed on a case by case basis. Documentary evidence of any existing qualification(s) or previous training is essential.

Note: If a prospective student does not possess any relevant Degree, then the attendance on a 2-year (4 semesters) additional engineering course is necessary prior to the commencement of the EOOW programme.

PROGRAMME STRUCTURE

This intensive fast-track 12-months programme is designed for BSc graduates of any suitable engineering discipline. It is composed of the following training blocks:

3 Months at the University facilities – lectures, laboratories and practical training - on the following core areas:
- Marine Engineering
- Electrical and Electronic Engineering
- Naval Architecture and Ship Construction

At the end of the University academic period the student will be examined by written examinations, which count towards the EOOW licence requirements. Besides the requirement for written examinations the student is also required to sit an oral examination, normally given by DMS examiners. Preparation for this oral exam will be given towards the end of the programme at the University.

3 Months practical training in the specialized workshops of the University, or in other workshops approved by the University as appropriate.

6 Months sea-service on-board a vessel assigned by Frederick University, or selected by the trainee.

Before the sea-service period each trainee is required to attend the STCW Basic Training, which is a **group of 4 short courses**:
- personal survival;
- fire prevention and fire-fighting;
- elementary first aid; and
- personal safety and social responsibilities.

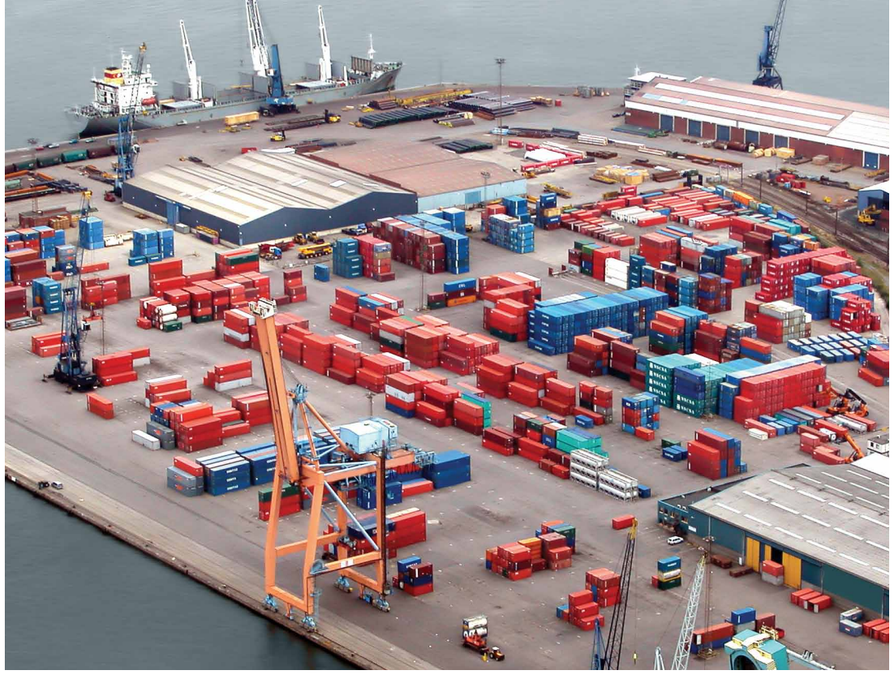
At some point in time during the University training period each trainee is required to attend the Engine Room Resource Management (ERM) [Operational level] short courses (4 days) This will be arranged by the University.

FIELD WORK / PROFESSIONAL EXPERIENCE

As and when the opportunity arises, field visits will be made to ships and other relevant industrial locations to enhance the work experience. Students will be encouraged to join Professional Learned Institutions / Societies as applicable.

CAREER OPPORTUNITIES

- Worldwide there is a growing shortage of well-trained sea going engineers. As a consequence, career prospects are very promising with high salaries on-board and ashore.
- After sea service, the prospects of employment ashore are excellent as shipping/ ship management companies have a high demand for well-educated and trained marine engineers (especially in Cyprus).
- The marine trained engineer is highly favoured for employment in other associated marine industries, such as company superintendents, surveying, insurance and shipbroking.
- The marine trained engineer is also highly favoured for other employment and career paths in industry besides the shipping industry. Amongst many, these include power stations, hospital engineering, and production line engineering.



Combined 2nd and Chief Engineer Officer

PROGRAMME OVERVIEW

The overall programme comprises academic lectures coupled with laboratory work at the University, as well as ongoing sea service on-board ships. The emphasis of the course is geared towards the managerial level, with a refresher at the operational level.

Both the course under-pinning knowledge and the associated practical training are based on the requirements of the Model Courses of the International Maritime Organisation (IMO).

The programme meets the requirements of the IMO International Convention on Standards of Training, Certification & Watchkeeping for Seafarers (STCW).

LEARNING OUTCOMES

- The programme builds on students' existing engineering knowledge with the aim to equip them with further specialised knowledge and competence needed for the progression to the higher levels for professional qualification at managerial level applicable and relevant to sea-going and shore-side employments.
- The programme aims to equip students with theoretical and practical knowledge on managerial principles of Marine (motor and/or steam) Engineering Knowledge and General Engineering Knowledge.
- At the end of the fully completed course and after obtaining the necessary sea-going service the student should be prepared for the final oral examination which will lead to the required senior license.

PROGRAMME STRUCTURE

The academic programme comprises the following training blocks:

For candidates studying towards the 2nd Engineer licence:

12 weeks at the University facilities – lectures, laboratories - on the following core areas at managerial level:

- Marine Engineering (motor and/or steam) Knowledge
- General Engineering Knowledge

At the end of the University academic period, the student will be taking written examinations, which count towards the 2nd Engineer license requirements. In addition to the requirement to pass written examinations, the student is also required to take an oral examination, normally administrated by DMS examiners. For the above mentioned oral exam, students will be able to undertake preparatory work towards the end of the course, at the University.

For candidates studying towards the Chief Engineer licence:

12 weeks at the University facilities – lectures, laboratories - on the following core areas at advanced managerial level:

• Marine Engineering (motor and/or steam) Knowledge
• General Engineering Knowledge

At the end of the University academic period the student will be taking written examinations, which count towards the Chief Engineer license requirements. In addition to the requirement to pass written examinations the student is also required to take an oral examination, normally administrated by DMS examiners. For the above oral exam, students will be able to undertake preparatory work towards the end of the course, at the University.

Each trainee is required to attend the STCW training **short courses** and produce valid certificates for: ***personal survival, fire prevention and fire-fighting, elementary first aid, personal safety and social responsibilities, advanced fire-fighting, medical first aid***

Within the training period trainees are now also required to attend the **Engine Room Resource Management (ERM) [Management level] short courses** (5 days). This will be facilitated by the University.

ADMISSION REQUIREMENTS

For candidates studying for the 2nd Engineer licence:
The candidate must hold a valid EOOW licence

For candidates studying for the Chief Engineer licence:
The candidate must hold a valid 2nd Engineer licence

The regulations concerning qualifying to take the licence written and oral exams are in fact more complex than those already outlined. Consequently:

- Each candidate will be invited for a short interview, in the presence of staff members of the University.
- Previous academic qualifications, such as a BSc degree in Me chanical Engineering from any recognised University (or appropriate equivalent) may exempt candidates from the requirements of certain written examinations. During the application process, each candidate will be assessed as an individual case.
- Documentary evidence of any existing and valid qualification(s) and/or previous training experience, would need to be submitted to Frederick University, as required.

Note: If a prospective student does not possess any relevant qualification, then the opportunity to attend additional engineering courses may be available at the University.

FIELD WORK / PROFESSIONAL EXPERIENCE

As and when the opportunity arises, field visits may be made to ships and other relevant industrial locations to enhance the work experience. Students will be encouraged to join Professional Learned Institutions / Societies as applicable.

CAREER OPPORTUNITIES

- Worldwide there is a growing shortage of well-trained sea going engineers. As a consequence, career prospects are very promising with high salaries on-board and ashore.
- After sea service, the prospects of employment ashore are excellent as there is a high demand for qualified and trained marine engineers by shipping / ship management companies (especially in Cyprus).
- The marine trained engineer is highly favoured for employment in other associated marine industries, such as company superintendents, surveying, insurance and shipbroking.
- The marine trained engineer is also highly favoured for other employment and career paths in industry besides the shipping industry. Amongst many, these include power stations, hospital engineering, and production line engineering.

Why Shipping Education and Training at Frederick?

There are numerous reasons why shipping education and training at Frederick University brings exceptional opportunities to prospective students. Here are just some of those reasons:

Currently this program is unique worldwide and aims to address the needs of the national and international shipping industry in view of the rapid technological advances in ships technology, maintenance and operations, both at sea and shore-side.

This fast-track program is innovative in that the entry requirement is a BSc degree in Mechanical Engineering from any recognised University (or appropriate equivalent).

The University has built a strong shipping network and collaborates with a number of the world's largest shipping companies to offer and efficiently support the training and working positions onboard merchant vessels.

By following the new bridging courses, with an entry requirement of a BSc Mechanical Engineering degree (or appropriate equivalent), the candidates will be exempt from certain theoretical knowledge examinations required for the Certificates of Competency, such as mechanics, thermodynamics and engineering drawing.

Our engineering laboratories offer modern facilities and computerised equipment for teaching and research purposes. Very soon advanced engineering equipment will further enhance the workshop facilities.

The School of Engineering and Applied Sciences of Frederick University has a strong commitment to teaching and research with academic programmes reflecting the state of the art in engineering. All School programmes are accredited by the Cyprus evaluation and accreditation committee and are recognised by the Cyprus Chamber of Science and Technology (ETEK) allowing for the registration and practice as a qualified engineer in Cyprus.

The Department of Maritime Studies collaborates with a number of local trading and shipping organizations in order to provide students with practical experience as well as excellent employment prospects. Already, more than 95% of our graduates are in full time employment, more than 70% within the Shipping Industry.

Why Shipping Education and Training in Cyprus?

There are numerous reasons why shipping education and training in Cyprus brings exceptional opportunities to prospective students. Here are just some of those reasons:

Cyprus is one of the biggest ship management centres worldwide with a total of around 130 ship owning, ship management and ancillary shipping-related companies, which maintain premises in the country and undertake international operations from the island. Approximately 5,000 shore-based people are employed within the Cyprus maritime cluster.

Among the ship management companies established and operating from the Republic of Cyprus, 87% are controlled by Cypriot and EU interests. These companies employ almost 85,000 seafarers of whom 10 per cent are EU nationals.

According to the Central Bank of Cyprus, despite the global financial crisis, the industry contributes in total approximately 1 billion euros each year to the economy, accounting for over 6% of GDP (including auxiliary services). The Shipping Industry along with the energy sector is expected to be the dynamic driving force towards development and economic recovery.

The geographical position at the crossroads of three continents, on the path of all major shipping routes with minimal deviation and its proximity to the Suez Canal has long promoted many aspects of shipping in Cyprus. The privatization of the operations of the Limassol Port is expected to further benefit the sector. The port is set to expand by 220,000 m2 of land, its berths by an extra 500 m and its draught increased even further; Limassol will become a strong player in regional logistics and trans shipments. The widening and deepening of the Suez Canal could also increase traffic in the region and bring more opportunities to Cyprus, in terms of trade and associated activities such as break bulk imports, fuel bunkering, as well as maintenance and repair.

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