



MSc in Marine Engineering and Management

Approximately 90% of the international trade in goods by volume is currently carried by sea, despite the development of other means of transport. Today's seas are dotted with oil, cargo and passenger ships that are magnificently huge and complex. Most, if not all, countries with strong economies have bustling and modernised ports. It is therefore imperative that stakeholders ensure the safe and efficient operation of ships; any technical failure or human error can cause a delay in shipment arrival dates and affect the business reputation and profit margins, and -more importantly- it can cause precious lives. Moreover, the radical technological developments alongside increased environmental regulations require ship operators and managers with advanced technical as well as leadership and managerial skills and knowledge.

This MSc Program in Marine Engineering and Management of Frederick University is unique to Cyprus and one of the few of its type globally. The degree combines marine engineering and management and provides you with the necessary skillset to work in executive posts in the modern maritime and industrial world. It is a major step towards the provision of an integrated approach to engineering and management education. More specifically, the core curriculum covers major marine engineering and management subjects and offers options for specialised shipping and commercial knowledge.

Importantly, your study at the MSc program contributes towards the required qualifications for the acquisition of the professional international license of the "Engineer Officer of the Watch (EOOW)" thereby acquiring valuable professional marine qualifications and experience which is highly regarded by shipping companies.

The program develops your skills and knowledge to enable you to:

- comprehend the operation and functions of marine engineering systems
- assess and solve operational marine engineering problems in practice
- design, analyse and select marine propulsion, auxiliary and transmission systems
- design, select and analyse control systems for marine machinery
- apply mathematical and computer modelling of marine machinery and engineering systems
- use mathematics and physics appropriate for the analysis of marine technology systems
- test design ideas using laboratory work or simulation with technical analysis and critically evaluate results
- integrate information from various sources concerning aspects of marine engineering and management
- apply business skills required in management roles within the maritime and associated industries

ADMISSION REQUIREMENTS

Academic Requirements:

- An undergraduate degree in Mechanical Engineering, or Marine Engineering or Naval Architecture (or any appropriate equivalent) from a recognised university
- A relevant postgraduate degree
- An equivalent international qualification

English Language Requirements:

If you are studying or have completed your entire degree in a non-English speaking university, you must demonstrate satisfactory knowledge of English language. Suitable qualifications may include:

- TOEFL, IELTS, GCSE, IGCSE, Cambridge Certificate of Proficiency in English or equivalent or
- High School Leaving Certificate where the language of instruction is English, or
- A pass (>50%) at the English Placement Test of our University

COURSE CONTENTS

First semester modules:

- Fundamentals of naval architecture and marine engineering
- Marine systems monitoring, automation and control
- Ship machinery and systems
- Ship electrical systems and components
- Ship performance at sea

Second semester modules:

- Maritime safety and regulatory framework
- Commercial management of ships
- Research skills for MSc thesis preparation and proposal
- Elective*

*Students should select one elective module from the following:

- International maritime law and carriage of goods
- Logistics and supply chain management
- Ship management

Third semester module:

- Dissertation

The award of the MSc requires the successful completion of a 15,000-word dissertation. This is a substantial individual project-based research into a topic of choice (subject to approval), working under the supervision and support of a member of the Faculty.

CAREER OPPORTUNITIES

A wide range of opportunities in demanding and challenging posts is available to graduates. Transport, industrial and trade sectors include many hundreds of large, medium and small firms (and many thousands operating internationally) all of them relying in varying degrees upon skilled and versatile professionals.

The MSc Program has been carefully considered and designed to produce professionally competent and skilful marine engineers with adequate managerial knowledge that are able to assume technical management and executive professional responsibilities. The prospect of employment for our graduates is high because, especially in Cyprus, transport, shipping and industrial companies have a high demand for well-educated engineers with good managerial skills. Graduates of the MSc in Marine Engineering & Management will have a plethora of career options within the ship owning and ship management sectors; marine engineering firms, offshore oil and gas installations, shipbuilding and repair, port operation, marine consultancy and survey agencies, adjusting, insurance and shipbroking. They are also highly favoured for employment in other career paths. These may include the manufacturing and industrial sectors, energy, construction, mining, logistics, hospitals, hotels and many others.



FREDERICK UNIVERSITY

1st

Maritime academic program in Cyprus

96%

of graduates with full time employment

Trainings & seminars

in collaboration with  DNV

1st

Marine engineers from a Cypriot academy

Maximum exemptions

