

Marine Electrotechnology

Leictriteicneolaíocht Mhuirí

Location: National Maritime College of Ireland, Ringaskiddy, Co Cork

Application: CAO

CAO Code: MT 765

NFQ Level: 7

Award Title: Bachelor of Engineering in Marine Electrotechnology

Duration: 3 years plus approximately 1 year work placement

Places: 20



Entry 2023 SCORE THE NECESSARY CAO POINTS AND MEET MINIMUM LEAVING CERTIFICATE REQUIREMENTS 5 SUBJECTS			
SUBJECTS 06/H7	SUBJECTS H5	MATHS GRADE	ENGLISH OR IRISH GRADE
5	0	06/H7	06/H7

Applicants must pass the approved medical fitness and eyesight tests as specified by the Irish Maritime Administration of the Department of Transport, and are strongly advised to attend a career advisory session. For further information, please visit the Admissions section in this prospectus.

Overview

An Electro-technical officer (ETO) operates, maintains and calibrates all electrical, electronic and ship's equipment. The ETO's role is not restricted to the engine room and they may also work on complex systems located throughout any vessel.

This is an exciting programme to cater for the growing need on board ship for a specialist in electrical/electronic/networking systems.

The course shares its first two semesters with MT 764 BEng in Marine Engineering. Having completed year 1, Marine Electrotechnology students begin specialist electrical and electronic training. As well as lectures, training is provided in a variety of workshops and laboratories. This practical work is given to enhance the students' learning experience. Practical knowledge of fundamental theory is gained in electrical, electronic, communications, and control laboratories. A broad understanding of ships and ships' systems is delivered in electrical workshops and in the College's own engine room.

Students who successfully complete year 1 and 2 are expected to be placed on a commercial ship, for practical training experience, and to gain the necessary 'seatetime' for an internationally recognised Certificate of Competency. While at sea they must complete a comprehensive workplace training programme.

It should be noted that while every endeavour will be made to secure a suitable sea training berth, this is outside the control of MTU/NMCI and the College cannot accept responsibility for difficulties in securing such a berth.

Further Studies

There are opportunities for further study in related fields at honours degree level. Graduates will be well placed to pursue further studies in either electrical or electronic engineering.

Question Time

How do I go about getting a training berth while I am in college?

Securing a cadet berth at sea is a competitive process managed by NMCI in collaboration with shipping companies. Students secure a berth based on their performance at NMCI. The number of cadet berths varies each year, depending on shipping company requirements. NMCI has a strong track record in securing cadet berths, however they are not guaranteed.

If I graduate with this level 7 degree, can I further my studies in MTU as an electronic or electrical engineer at level 8?

MTU has a Recognition of Prior Learning System. Applicants may be exempted from modules in courses which are similar.

Contact Information

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For details, see www.nmci.ie



Career Opportunities

Electro-technical officers of a high standard are particularly sought after within the cruise line industry. There are also a number of opportunities ashore in a wide variety of fields including marine electronic maintenance and aviation instrumentation maintenance industries.



First Year at a Glance

The Marine Electrotechnology degree shares all but one of its first year modules with the Marine Engineering degree as graduates will be part of a vessel's engineering department and must understand the basics of marine engineering.

- Shipboard Management for ETOs: covers work-based practices of an ETO and gives an understanding of maintenance systems, legislation, and safe working practices
- Electrical and Electronic Principles: theoretical and practical principles of basic electrical and electronic components and circuits
- Marine Power Systems: ships' power generation and distribution systems, and practical understanding of wiring basic control systems
- Introduction to Marine Engineering: the principles and practical aspects of marine engineering systems found on board ship
- Physics for Marine Engineers: physics principles underlying all engineering
- Practice Mechanics: basic principles of forces and movements that are fundamental to engineering design
- Mechanical Workshop: a practical workshop module which gives a fundamental understanding of materials and the fabrication of designed components
- Technological Mathematics: offers great support to students in the first year of the engineering programme
- Introduction to Thermodynamics: learn how to apply the First Law of Thermodynamics and distinguish between the concepts of heat and temperature

