# **Marine Electro Technology**

# What is Marine Electro Technology?

The function of an Electro Technical Officer is to operate, maintain and calibrate all electrical, electronic and control equipment. Most modern vessels are controlled by electronic or computer based systems which have to be maintained, an Electro Technical Officer is part of the Engineering department and works alongside engineers to keep a ship running, the ETO's role is not restricted to the engine room and they will often find themselves working on complex systems located throughout the vessel. This course aims to provide a sound knowledge base for Electro Technical Officers.

Bachelor of Engineering in Marine Electro Technology (3 Years Ab-Initio) Course code not available at this time.

### **About the course:**

The course shares its first two semesters with the Degree in Marine and Plant Engineering. After this first year Marine Electrotechnology students will begin specialist electrical and electronic training.

### Stage 1 (at NMCI)

Semester 1

CIT Module

Mathematics

Marine Eng Practical & General

Studies

Mechanics

**Technical Drawing** 

**Engineering Science** 

#### Semester 2

Mathematics

Applied Thermodynamics

**Electrical and Electronics** 

Mechanics

**Technical Drawing** 

Workshop Practice & Theory

### Stage 2 (at NMCI)

Semester 3

Mathematics

Marine Analogue Electronics

Digital Systems for Marine

**Electrical and Electronics** 

Maritime Communications

Marine Automation

### Semester 4

Mathematics

Marine Power Systems

Marine diagnostics

Shipboard Management

Industrial Control

Marine Instrumentation

# Stage 3 (at Sea)

Semester 5
Marine Work Placement

Semester 6
Marine Work Placement

# Stage 4 (at NMCI)

Semester 5

Marine Radio Maintenance

**Electrical Control Engineering** 

Marine Electrical Auxiliaries

Marine Electrical Power

Marine Power Electronics

Mathematics

### Semester 6

Marine Radar Maintenance

Marine Electrical Propulsion

Marine Navigation &

Communications Systems

Marine Data Networks

Research & Design Project

Mathematics

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 theories is gained in electrical, electronic, communications and control laboratories. While a broader knowledge of ships and ships systems is learned in electrical workshops and the colleges own engine room.

During the BEng degree students will undertake basic safety training and instruction prior to taking up seagoing work-placement with a shipping company.

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

# **Exemptions**

At time of going to print there was no Certificate of Competence available for Electro Technical Officers. However the International Maritime Organisation (IMO) are involved in securing a Certificate of Competence, the latest available information was used in creating the Marine Electro Technology Programme in such a way that expected necessary exemptions will be covered.

### **Further Studies**

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

### **Contact**

Admissions Office, National Maritime College of Ireland, Ringaskiddy, Co. Cork, Ireland.

Tel: +353 (0) 21 4970 643 Fax: +353 (0) 21 4970 696 E-mail: <u>admissions@cit.ie</u> Website: <u>www.nmci.ie</u>

### **Career Opportunities Marine Electro Technology**

Career prospects for Electro Technical Officers are good with shipping companies at this time and are expected to become better as time goes on. 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.

## **Q & A > Marine Electro Technology**

What were the 2009 CAO points? Not available as the course in new.

What are the most helpful leaving certificate subjects for the course? Mathematics, Physics, Engineering.

What Standard of Mathematics is required for the course? D3 at ordinary or higher level.

Are there any other special requirements?

Applicants for this course must be capable of passing the approved medical fitness and eyesight tests and are requested to attend a career advisory session. The offer of a place on the course will be subject to passing the medical and eyesight tests at the time of offer.

Where can I find more information for the subjects for this course? Complete information on subjects in all courses can be found on: http://modules.cit.ie

What are the typical student numbers in first year? First year expected class size: 30

Is there work placement in Ireland or abroad during the course? The third year of the course is dedicated to work placement, students are expected to spend nine months at sea within one calendar year. There is limited work placement within Irish waters, much of the work placement will be internatinal in nature.

What starting salary can I expect when I graduate? (General guidelines only)
After graduation salaries can be in the region of €30,000 - €40,000.

Courses for professional Seafarers certificates of competency

Qualifying Sea Service – Electro technical

At time of publication there was no requirement for sea time to become an Electro Technical Officer as the certificate of competence has not been approved. However should the expected requirement come into existence then such requirement is covered within the course.