National Maritime College of Ireland

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Coláiste Náisiúnta Mara na hÉireann

Bachelor of Engineering in Marine & Plant Engineering

CAO Code **CR095**

(3 Years Ab-Initio)

CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ

Nautical Studies

The National Maritime College of Ireland is a constituent college of Cork Institute of Technology in partnership with the Irish Naval Service and Focus Education. The College, which is situated in Ringaskiddy, Co. Cork, is the designated national centre for the education and training of personnel for the Merchant Navy and is Ireland's only Maritime College.

What is Marine Engineering?

The function of the Marine Engineer is to operate and maintain the engines, boilers, generators and other systems of ships. Most of the mechanical equipment aboard ship is operated and maintained by Marine Engineers.

Careers at sea

Life at sea has always appealed to young people who want to combine travel with a challenging career offering exciting future prospects. This is the life for those who relish the challenge of working with the sea - one of Nature's most powerful and temperamental elements.

Ships carry 95% of world trade and seaborne traffic is forecast to double in ten years. This is generating a great demand for high-quality personnel to manage and operate today's technically sophisticated ships. Apart from seagoing duty, the maritime industry also involves shipbuilding and ship repair, marine equipment companies, ports, surveying, administration services, insurance and law.

This major industry is looking for capable and enthusiastic young people who are ready for responsibility and hard work, and who enjoy using the latest technology. You will become a key member of a highly qualified team, whether on a giant super-tanker, a container ship, a cross-channel ferry, a cruise liner, a specialised vessel servicing the offshore oil industry or on a small cargo ship.

Career Prospects

Career prospects are excellent with shipping companies at this time and there are opportunities in a wide range of shore based industries, in addition to sea going careers. Many of our graduates, after time at sea and acquiring qualifications, have taken up positions of responsibility in chemical and process plants, refineries, hospitals and utilities. Other careers include Surveying; the Naval Service; Department of the Marine and the Department of Transport.

Government Aid for Training of Seafarers

This scheme provides limited financial support for trainee engineering and officer cadets and for other junior officer training. The current scheme provides limited financial support to merchant marine trainees at the National Maritime College of Ireland and is funded by the Department of Transport. These grants cover the cost of mandatory courses and fees that are not covered by the Department of Education and are needed to bring a trainee to his or her 'Officer of the Watch' Certificate of Competency.

There is also a grant payable when you are at sea during your training. The administration of all the grants is conducted by The Irish Maritime Development Office (IMDO) www.imdo.ie

Please note: The programmes described may be subject to modifications to ensure continued compliance with the Convention on Standards of Training, Certification and Watchkeeping for seafarers, STCW 95.

Minimum Entry Requirements

Leaving Certificate with Grade D3 in five subjects at Ordinary or Higher level including Mathematics and either English or Irish. 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. Offer of a place on the course will be subject to passing the medical and eyesight tests at the time of offer.

What you will study

CIT is in the process of changing to a semesterised and modularised course structure. In addition to theoretical studies, students gain practical experience in safety, personal survival, rescue and fire-fighting. All students train with experienced seafarers at the National Maritime College of Ireland and aboard ships in Europe or further afield. In the engineering discipline you will work in the training ship's engine room and specialised laboratories and workshops at the College.

This course aims to provide a sound knowledge of marine engineering and all aspects of maritime affairs. Additionally it provides a comprehensive engineering education as required by Marine Engineering Officers.

Course Programme

The following is an indication of the topics to be covered in each year of the course.

Year 1 (36 Weeks)
Core topics: Mathematics, Mechanics, Applied Heat, Technical Drawing, Engineering Science, Engineering Workshop Theory, Engineering Workshop Practice, Electrical & Electronic Principles, Marine Engineering Practice, General Studies.

Year 2 (36 Weeks)
Core topics: Mathematics, Applied Mechanics, Thermodynamics, Engineering Drawing and Design, Electrotechnology, Engineering Workshop Theory, Engineering Workshop Practice, Applied Science & Instrument Technology, Marine Engineering Practice & Technology, Legislation & Supervisory Studies, Naval Architecture.

Year 3 (38 Weeks)
Core topics: Mechanics, Heat, Marine Systems & Equipment, Electrotechnology, Control Engineering, Applied Electronics, Legislation and Supervisory Studies, Projects.
Current Electives Topics (Choose one): Naval Architecture, Industrial Management.

Training in Marine, Electrical, Welding and Mechanical Workshops, supplemented with Practical Work in the College Engine Room and by Simulation in the Machinery and Cargo Handling Simulation suites.

Students must undergo courses in Basic Safety Training and Instruction prior to taking up seagoing duties.

Exemptions

Bachelor of Engineering in Marine & Plant Engineering, together with one further year spent at sea, constitutes the full programme for the Marine Engineer Officer's Cadet Training Scheme. Success in the Degree Examination merits consideration for exemption from certain parts of the Department of Transport, Second Engineer Officer and Chief Engineer Officer Certificates of Competency.

Further Studies

There are opportunities for further study in order that cadets will progress from the Officer of the Watch Level on to the Second Engineer Officer Certificate of Competency and in due course to the Chief Engineer Officer Certificate of Competency with a combination of Sea-Service, further study and examinations.

Progress is being made in the submissions for an Honours Degree in this field of study and will be advised via the NMCI Website www.nmci.ie

c o n t a c t

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Q&A

What are the most helpful Leaving Cert subjects for the course?
- Mathematics, Science subjects, Engineering, English.

What standard of Mathematics is required for the course?
- D3 or higher at Ordinary or Higher Level.

Are there any other special requirements?
- There are NO Early Application Procedures. 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. Offer of a place on the course will be subject to passing the medical and eyesight tests at the time of offer.

What are the typical student numbers in first year?
- First year course/class size: 35

How is time generally allocated in the first year timetable?
- Theory: 70% Practical: 30%

Is there work placement in Ireland or abroad on the course?
- At present, there is no work placement during the course, however, students undertake practical work experience at the National Maritime College of Ireland. Completion of cadetship takes place post degree for approximately one year.

GRADUATE PROFILE

Eoin O'Sullivan
SENIOR MARINE ENGINEER

Eoin graduated from CIT with a Diploma in Marine & Plant Engineering (now the Bachelor Degree) in 1996. He is currently serving as a Second Engineer with Shell on a liquid natural gas carrier. In 2005, Eoin obtained the Chief Engineering Certificate of Competency (Steam).

"Choosing CIT was an easy choice for me. It was the only college that ran the course I wanted to do and I've always had an interest in a career at sea. Although none of my immediate family has worked in the marine industry, living on the coast had ignited an interest in me."

Eoin has travelled extensively with his career and has spent some of his career in the Middle East. "I've really enjoyed my time at sea. I was made very welcome onboard and there is a great deal of satisfaction in problem solving and maintaining a tight ship. There is no substitute for the training you receive onboard. I'm currently overseeing operational and maintenance requirements as well as the mechanical and electrical systems. This includes generating electrical power, propulsion systems, producing fresh water, air conditioning and general management of the engine room."

Eoin has made long term friendships from his time in CIT and finds the facilities on offer at the National Marine College of Ireland second to none. "Most of the lecturers have spent time at sea and use their experience to teach their skills. The standard of education is very high."

Eoin hopes to obtain his Chief Engineering Certificate of Competency (Combined Steam & Diesel) which will enhance his prospects of promotion to Chief Engineer.