

# National Maritime College of Ireland

at a glance

## CAO Courses

## Page

### Level 7

- |   |     |
|---|-----|
| - CR 094 BSc in Nautical Science          | 118 |
| - CR 095 BEng in Marine Engineering       | 120 |
| - CR 805 BEng in Marine Electrotechnology | 122 |

## Follow on Honours Degrees

### Level 8

- BSc (Honours) in Nautical Science





# National Maritime College of Ireland

The National Maritime College of Ireland (NMCI) is located on a 10 acre campus in Ringaskiddy, Co. Cork and provides training and education for the Merchant Marine and the non-military needs of the Irish Naval Service (INS).

The NMCI provides education services of the highest quality. Specialist spaces including survival facilities, seamanship and shipwrights' workshops, fire-fighting/damage control, jetty and lifeboat facilities, and engine room are provided. The College also provides specialised simulation equipment in the areas of navigation, bridge training, communications, engineering machinery operations, liquid cargo handling/damage control and vessel traffic systems. These facilities fully comply with the most up-to-date international standards and requirements. A multipurpose hall, sporting facilities, and an all-weather pitch, are also included in the College. The College also undertakes refresher and short courses for STCW re-validation. See website for further details on these courses [www.nmci.ie](http://www.nmci.ie).



## Careers at Sea

Life at sea has always appealed to people who want to combine travel with a challenging career offering exciting future prospects within the associated marine industries. This is the life for those who relish the challenge of working with the sea.

Ships carry 95% of world trade and seaborne traffic is forecast to increase significantly. This is generating a great demand for high-quality personnel to manage and operate today's technically sophisticated ships. Apart from seagoing duties, 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 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 supertanker, a container ship, a cross-channel ferry, a cruise liner, a specialised vessel servicing the offshore oil industry or on a cargo ship. Opportunities at a senior level in management, marine administration, and many other marine related areas are plentiful and experienced marine personnel are always sought for such positions.

The NMCI is the designated National Centre for education and training for careers in the maritime sector.

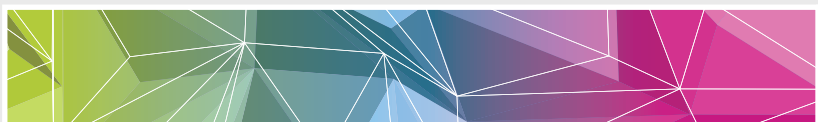
In addition to theoretical studies, students gain practical experience in safety, personal survival, first aid and firefighting. All students train with experienced seafarers at the NMCI and aboard merchant vessels worldwide. Whether the choice is Nautical Science, Marine Engineering, or Marine Electrotechnology, the student will experience the most modern resources in the world of seafarer training. There are also opportunities to advance to higher postgraduate degrees.



See video: [www.nmci.ie/video](http://www.nmci.ie/video)

## Student Life

Students are at the heart of any college. Here at NMCI it's no different. Due to the nature of life at sea, our students come from very diverse backgrounds and have a very broad age profile. Most come directly from second level schools and colleges, however, many are seasoned seafarers returning to gain further qualifications so that they can advance in their careers at sea.





## General Facilities

There is a cafeteria where breakfast, lunch, and hot meals are served. NMCI has a hall for indoor sports, an all-weather pitch, and a gym equipped for weight training. NMCI students registered with Cork Institute of Technology (CIT) are entitled to avail of facilities and sports clubs on the main campus in Bishopstown. There are very active diving and sailing clubs which use the facilities at NMCI, as well as soccer and rugby clubs.

The Learning Resource Centre (LRC) is a focal point for students outside the classroom environment. Here students can use the open access computers, read at individual study spaces and browse in the library.

Currently, the library has a book stock of approximately 4,000 volumes and this collection will be developed on an ongoing basis with support from CIT and the Irish Naval Service as well as donations of funds and materials from external organisations. The library has a maritime focus

and subjects covered range from law, meteorology and marine engineering to seamanship and navigation.

As a constituent college of CIT, NMCI students can request materials from other CIT Libraries and can access online databases.

## Student Accommodation

There is purpose built student accommodation available locally at Ferryview Park in Ringaskiddy which is approximately 10 minutes' walk from NMCI.

For further information please view [www.ferryviewpark.com](http://www.ferryviewpark.com) or email [accommodation@cit.ie](mailto:accommodation@cit.ie)

Irish Naval Service students have accommodation provided at the Naval Base in Haulbowline.

## Admission

CR 094 Nautical Science  
CR 095 Marine Engineering  
CR 805 Marine Electrotechnology

For admission to a programme, standard applicants must score the necessary CAO points, meet the minimum entry Leaving Certificate requirements, and note the following:

**Note 1:** The programme is normally available only to Irish citizens and EU citizens who are ordinarily resident in Ireland.

**Note 2:** Applicants must pass the approved medical fitness and eyesight tests as specified by the Maritime Safety Directorate of the Department of Transport, Tourism and Sport and are recommended 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.

**Note 3:** Applicants, other than those indicated in Note 1 above, will need to be sponsored by an approved internationally trading shipping company, provide an IELTS score of 6.5, and also meet the medical requirements for a sea going career.

**Note 4:** Applicants should note that in order to qualify for an Officer of the Watch Certificate of Competency (CoC), the Department of Transport, Tourism and Sport has set additional criteria with respect to minimum pass marks, academic progression, and students with dyslexia. See Marine Notice No. 65 of 2013. [www.dttas.ie/content/clarification-dyslexia-policy-examination-and-assessment-procedures-0](http://www.dttas.ie/content/clarification-dyslexia-policy-examination-and-assessment-procedures-0)

**Note 5:** Applicants who are non-Irish citizens should ensure that they qualify for the issuance of a Seafarers Discharge Book in their home country.

## Courses for Professional Seafarers Certificates of Competency

(Post Degree)

Certificates of Competency are required under the Merchant Shipping Acts for personnel in positions of responsibility on board ships. NMCI offers preparatory courses for the mandatory certification examinations which are conducted by CIT on behalf of the Department of Transport, Tourism and Sport. Courses for senior or post degree personnel and other short courses are available for those who require to progress from the Officer of the Watch level to the Chief Engineer or Master level of Certificate of Competency.



# Nautical Science

## CR 094 Level 7 Award

► Progression to Level 8 Honours Degree & Master Mariner

**Application:** CAO  
**Award Title:** Bachelor of Science in Nautical Science  
**Duration:** 3 and a half Years including seetime  
**Places:** 48  
**Location:** National Maritime College of Ireland, Ringaskiddy, Co. Cork.

CAO Points in 2015	Round 1
CR 094	310*

\*Please note that the points above were calculated under the Pre-2017 Leaving Certificate grading scale. Points for entry in September 2017 will be calculated under the new Leaving Certificate grading scale. Details of the new grading scale can be found at [www.transition.ie](http://www.transition.ie)

### Admission

For admission to a programme, standard applicants must

- score the necessary CAO points and
- meet the minimum entry requirements

#### Entry 2016

#### Minimum Entry Requirements

Leaving Certificate in 5 Subjects

Subjects D3 (O/H)	Subjects C3 (H)	Maths Grade	English or Irish Grade
5	0	D3 (O/H)	D3 (O/H)

#### Entry 2017

#### Minimum Entry Requirements

Leaving Certificate in 5 Subjects

Subjects O6/H7	Subjects H5	Maths Grade	English or Irish Grade
5	0	O6/H7	O6/H7

Applicants must pass the approved medical fitness and eyesight tests as specified by the Maritime Safety Directorate of the Department of Transport, Tourism and Sport and are recommended to attend a career advisory session.

See Page 117 for further admission information.

### What is Nautical Science?

Nautical Science has three main elements: Navigation, Cargo Operations, and Ship Handling, in other words, the conning and control of a ship; the safe operation of a ship, including the protection of life and the environment; Shipboard administration, and the handling, loading and care of cargoes which may be as diverse as petroleum products, general cargo, or thousands of new cars or passengers.

### Helpful Leaving Certificate Subjects

Mathematics, Physics, English, and Engineering.

### Work Placement

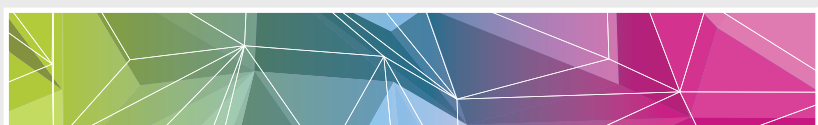
There is a mandatory work placement of 12-15 months seetime in Year 2.

### Potential Areas of Employment

- Ship's Officer (from Junior Ranks to Captain)
- Harbour Master/Pilot
- Marine Surveyor
- Maritime Studies Lecturer

### First Year at a Glance

- Navigation & Meteorology: an introduction to both celestial and terrestrial navigation, together with an understanding of meteorology, as it relates to the seafarer
- General Ship Knowledge: elements of ship construction, stability and cargo operations
- Applied Nautical Science: the application of science and physics as it relates to the marine environment
- Seamanship: the theory and practice of seamanship, having regard to safe working practices
- Introduction to Shipboard Safety: includes short-course elements relating to fire-fighting, sea survival, and first aid training
- Bridge Watchkeeping: an introduction to the theory and practice of keeping a safe navigational watch, having regard to the International Regulations for the Prevention of Collisions at Sea





## About the Course

This course is designed for those who wish to pursue a career as a Deck Officer aboard ship. It provides a comprehensive education in navigation and other ship board activities. Students who successfully complete Year 1 are expected to be placed in a commercial ship in Year 2, gaining fifteen months seetime for practical training experience, and to gain the necessary 'seetime' for the Department of Transport, Tourism and Sport Certificate of Competency. In addition, they must complete a comprehensive workplace training programme including training records, journals and other documents associated with the training programme, as specified from time to time.

**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.**

## Further Studies

For details, see [www.cit.ie](http://www.cit.ie) and [www.nmci.ie](http://www.nmci.ie)

Suitably qualified graduates are eligible to apply for entry to the one year add-on  
> Bachelor of Science (Honours) in Nautical Science

## Career Opportunities

Graduates first become Officer of the Watch on a vessel after graduating and passing relevant examinations. They can advance to Chief Mate or Ship's Captain with further study, examinations, and seetime. Careers exist on all different type of ocean going vessels: bulk carriers, oil tankers, container ships, cruise and ferry vessels. There are also careers on specialist vessels, such as seismic and exploration ships, pilot vessels, tugs and mega yachts.

## Contact Information

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## Question Time

**How successful is the College at securing work placement?**  
Very successful. Suitable qualified personnel with relevant qualifications are always in demand in the industry.

**How do I go about getting a training berth to sponsor me while I am in College?**  
The College endeavours to place all students on vessels. To date it has been successful.

**Do I have to work for the training berth once I graduate?**  
The commitment from the sponsoring companies usually ends upon graduation. However, a significant number of graduates go on to work as an officer with their sponsors.

**How much sea going experience do I need before I can apply to sit for a Master's Ticket?**  
A minimum of 36 months sea-service is required to progress to Ship's Captain. With leave and further study requirements, this generally takes six to seven years to complete.



## Graduate Profile

**Sinéad Reen**  
Master Mariner

After Sinéad completed the Nautical Science Degree course, she worked on ships as a Navigating Officer to gain experience before returning to CIT to obtain qualifications as First Mate. Sinéad qualified as a Master Mariner when she successfully completed her Department of Transport, Tourism and Sport professional examinations. She has the proud distinction of being the first woman to be issued with a Certificate of Competency as Master Mariner in Ireland. Sinéad is President of the Irish Institute of Master Mariners and lectures at the NMCI.

# Marine Engineering

## CR 095 Level 7 Award

► Progression to Chief Engineer Officer

**Application:** CAO  
**Award Title:** Bachelor of Engineering in Marine Engineering  
**Duration:** 4 Years including 1 year work placement  
**Places:** 40  
**Location:** National Maritime College of Ireland, Ringaskiddy, Co. Cork.

CAO Points in 2015	Round 1
CR 095	270*

\*Please note that the points above were calculated under the Pre-2017 Leaving Certificate grading scale. Points for entry in September 2017 will be calculated under the new Leaving Certificate grading scale. Details of the new grading scale can be found at [www.transition.ie](http://www.transition.ie)

## Admission

For admission to a programme, standard applicants must

- score the necessary CAO points and
- meet the minimum entry requirements

### Entry 2016

#### Minimum Entry Requirements

Leaving Certificate in 5 Subjects

Subjects D3 (O/H)	Subjects C3 (H)	Maths Grade	English or Irish Grade
5	0	D3 (O/H)	D3 (O/H)

### Entry 2017

#### Minimum Entry Requirements

Leaving Certificate in 5 Subjects

Subjects O6/H7	Subjects H5	Maths Grade	English or Irish Grade
5	0	O6/H7	O6/H7

Applicants must pass the approved medical fitness and eyesight tests as specified by the Maritime Safety Directorate of the Department of Transport, Tourism and Sport and are recommended to attend a career advisory session.

See Page 117 for further admission information.

## 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. This course aims to provide a sound knowledge base of Marine Engineering.

## Helpful Leaving Certificate Subjects

Mathematics, Physics, Engineering, and English.

## Work Placement

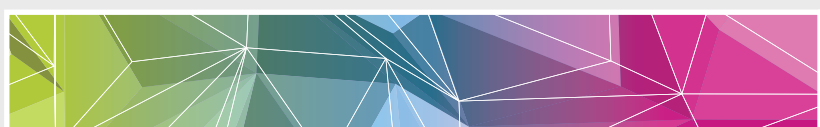
On completion of Year 2, students partake in work placement at sea for a minimum of 9 months in a 14 month period.

## Potential Areas of Employment

- Ship's Officer (from Junior Ranks to Chief Engineer)
- Marine Superintendent
- Marine Consultant/Surveyor
- Power Plant Engineer

## First Year at a Glance

- Introduction to Marine Engineering: The principles and practical aspects of Marine Engineering systems found on board ship
- Physics for Marine Engineers: Giving an enhanced understanding of the physics principles underlying all engineering practice
- Mechanics 1: Basic principles of forces and movements that are fundamental to engineering design
- Mechanical Workshop 1: 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





## About the Course

As well as lectures, training is provided in marine, electrical, welding and mechanical workshops, supplemented with practical work in the College engine room and simulation exercises in the machinery and cargo-handling simulation suites.

Students who successfully complete Year 1 and 2 are expected to be placed in a commercial ship, for practical training experience, and to gain the necessary 'seatime' for the Department of Transport, Tourism and Sport Certificate of Competency, in their third year. In addition while at sea, they must complete a comprehensive workplace training programme including training records, journals and other documents associated with the training programme, as specified from time to time.

**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.**

## Further Studies

For details, see [www.nmci.ie](http://www.nmci.ie)

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 (CoC) and in due course to the Chief Engineer Officer Certificate of Competency with a combination of Sea-Service, further study and examinations.

## Career Opportunities

Graduates first become Officer of the Watch on a vessel after graduating and passing relevant examinations. They can advance to Second Engineer or Chief Engineer with further study, examinations, and sea service. Careers exist on all different type of ocean going vessels: bulk carriers, oil tankers, container ships, cruise ships, and ferry vessels.

## Contact Information

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W: [www.nmci.ie](http://www.nmci.ie)

## Question Time

**How do I go about getting a Shipping Company to sponsor me while I am in College?**

The College endeavours to place students with shipping companies and has been successful to date.

**Do I have to work for the Shipping Company once I graduate?**

The commitment from the sponsoring companies usually ends upon graduation. However, a significant number of graduates go on to work as an officer with their sponsors.

**How much sea going experience do I need before I can apply to sit for a Chief Engineer's Certificate of Competency?**

The minimum is approximately three years on suitable vessels and voyages.



## Graduate Profile

**Eoin O'Sullivan**  
Senior Marine Engineer

Eoin graduated in Marine & Plant Engineering (now titled Marine Engineering). He is currently serving as a Chief Engineer on a speciality vessel (FPSO) in the production and storage area of exploration off the coast of Brazil, working one month on and off.

Eoin obtained the Chief Engineering Certificate of Competency. Eoin found the College facilities excellent. "Most of the lecturers have spent time at sea and use their experience to teach their skills. The standard of education is very high."



# Marine Electrotechnology

## CR 805 Level 7 Award

► Progression to Electro Technical Officer on ocean-going vessels

**Application:** CAO  
**Award Title:** Bachelor of Engineering in Marine Electrotechnology  
**Duration:** 3 Years + approximately 1 Year work placement  
**Places:** 20  
**Location:** National Maritime College of Ireland, Ringaskiddy, Co. Cork.

CAO Points in 2015	Round 1
CR 805	210*

\*Please note that the points above were calculated under the Pre-2017 Leaving Certificate grading scale. Points for entry in September 2017 will be calculated under the new Leaving Certificate grading scale. Details of the new grading scale can be found at [www.transition.ie](http://www.transition.ie)

## Admission

For admission to a programme, standard applicants must

- score the necessary CAO points and
- meet the minimum entry requirements

### Entry 2016

#### Minimum Entry Requirements

Leaving Certificate in 5 Subjects

Subjects D3 (O/H)	Subjects C3 (H)	Maths Grade	English or Irish Grade
5	0	D3 (O/H)	D3 (O/H)

### Entry 2017

#### Minimum Entry Requirements

Leaving Certificate in 5 Subjects

Subjects O6/H7	Subjects H5	Maths Grade	English or Irish Grade
5	0	O6/H7	O6/H7

Applicants must pass the approved medical fitness and eyesight tests as specified by the Maritime Safety Directorate of the Department of Transport, Tourism and Sport and are recommended to attend a career advisory session.

See Page 117 for further admission information.

## What is Marine Electrotechnology

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

## Helpful Leaving Certificate Subjects

Mathematics, Physics, Engineering, and English.

## Work Placement

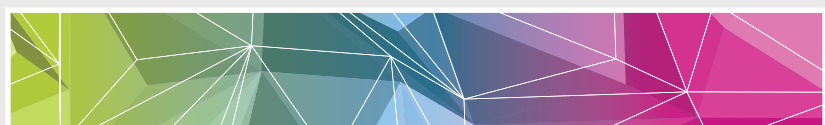
On completion of Year 2, students partake in work placement at sea for a minimum of 9 months.

## Potential Areas of Employment

- Electro-technical Officers
- Marine Electronic Maintenance

## First Year at a Glance

- Introduction to Marine Engineering: The principles and practical aspects of Marine Engineering systems found on board ship
- Physics for Marine Engineers: Giving an enhanced understanding of the physics principles underlying all engineering practice
- Mechanics 1: Basic principles of forces and movements that are fundamental to engineering design
- Mechanical Workshop 1: This is a practical workshop module which gives a fundamental understanding of materials and the fabrication of designed components
- Shipboard Management for ETOs (Electro Technical Officer): Introduces the student to the work based practices of an ETO and gives an understanding of maintenance systems, legislation and safe working practices





## About the Course

This is an exciting programme to cater for the growing need on board ship for a specialist in electrical/electronic/networking systems. There is currently a shortage of these professionals and large shipping companies sponsor our students early in their programmes to meet the shipping company's manning requirements.

The course shares its first two semesters with the CR 095 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 'seaservice' 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 suitable sea training placement, this is outside the control of CIT/NMCI, and the College cannot accept responsibility for difficulties in securing such placement.**

## Further Studies

For details, see [www.nmci.ie](http://www.nmci.ie)

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.

## 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.



### Graduate Profile

**Daire Organ**  
Electro Technical Officer

## Contact Information

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W: [www.nmci.ie](http://www.nmci.ie)

## Question Time

### How successful is the college at securing work placement?

The College endeavours to place students with shipping companies and has been highly successful to date.

### If I graduate with this Level 7 degree, can I further my studies in CIT as an Electronic or Electrical Engineer at Level 8?

CIT has a Recognition of Prior Learning System, detailed information at [www.cit.ie/rpl](http://www.cit.ie/rpl). Applicants may be exempted from modules in courses which are similar.



"In June 2015, I graduated with a BEng in Marine Electrotechnology at the NMCI after four years which included nine months sea going experience as a Trainee Electro-technical Officer (ETO).

I am employed as an ETO with BP plc, which is one of the world's seven "supermajor" oil and gas companies. BP also sponsored me for the last two years of my degree at the NMCI. I'm passionate about my job and enjoy working with new technologies and facing new and exciting challenges.

I really enjoyed my time studying at the NMCI and look forward to exploring new opportunities in the future and meeting new and interesting people."