

Bachelor of Science in Nautical Science

CAO Code **CR094**



(3 Years Ab-Initio)

→ Bachelor of Science Honours in Nautical Science (add-on)

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 Nautical Science?

Nautical Science has three main elements.

- It is concerned with navigation and ship handling or manoeuvring, in other words, the conning and control of a ship. This is the knowledge and technical skill required to navigate safely from one port to another.
- Secondly, Nautical Science deals with the safe operation of a ship, including the protection of life and the environment.
- The third element is 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.



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 the next ten years. This is generating a great demand for high-quality personnel to manage and operate today's technically sophisticated ships.

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. There is always a need for high quality personnel. At present there is a shortage of ships' officers and there is an expectation that those starting now should rise quickly to senior positions.

A career at sea does not mean a lifetime at sea. Positions ashore include harbour masters, pilots in the major ports of the world, marine equipment producers/ suppliers, marine law and insurance, ship classification societies, marine and ship surveying with the Department of Transport, management, cargo handling, training and education.

Government Aid for Training of Seafarers

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

This course is designed for those who wish to pursue a career as a Deck Officer aboard ship, providing a comprehensive education in navigation and other shipboard activities.

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 navigation discipline you will train on computer controlled radar and navigation simulators at the College.



Course Programme

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

Stage I (36 weeks NMCI Based)

Core Topics: Mathematics, Applied Nautical Science, Practical Navigation and Meteorology, General Sea Knowledge, Seamanship, Rules of the Road/Collision Regulations, Communications, Coastal Navigation, Shipping Management/Business & Law, Basic Safety Training and Instruction.

Stage II (15 months Sea Service Training aboard ship)

At present, the arrangements are: Students who successfully complete Stage I are expected to be placed in a commercial ship, for practical training experience, and to meet the necessary 'sea time' requirements for an "Officer of the Watch" (OOW) Certificate of Competency. In addition they must complete a Task Book, Projects, Journal and Task Reports.

Stage III (35 weeks NMCI Based)

Core Topics: General Ship Knowledge, Coastal Navigation, Ocean Navigation, Meteorology, Seamanship/Collision Regulations, Principles of Navigation. Proficiency in Survival Craft, Efficient Deck Hand, Navigation, Radar and Automatic Radar Plotting Aids (NARAS-O), Advanced Fire-fighting, Global Maritime Distress Safety System (GMDSS), Medical First Aid, Communication (Visual Signals) and Bridge Watchkeeping.

To enable students to pursue a career at sea, Certificates of Competency are required. These certificates are issued by the Maritime Safety Directorate of the Department of Transport upon successful completion of all the prerequisite phases of training and examination.

Further Studies

BSc Honours in Nautical Science

Entry requirements for this 3 Semester Add-on Honours Degree programme is a Bachelor of Science in Nautical Science, or equivalent qualification from another Maritime College, or the Officer of the Watch (Deck) qualification with appropriate bridging studies to equate to the B Sc in Nautical Science, or Naval Watchkeeping Certificate issued by the Irish Naval Service with appropriate bridging subjects to equate to the BSc in Nautical Science. (Semesters 1 & 2 fulfill the course requirements for the Chief Mate / Master D.O.T written examinations).

Course Programme

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

Semester 1 (16 weeks)

Navigation Instrumentation, Engineering and Control Systems, Ship Construction, Ship Stability, Passage Planning and Navigation, ARPA and Radar Simulation, Oceanography.

Semester 2 (16 weeks)

Ship master's Business and Law, Personnel Management, Command Navigation, Shipboard Operations, Meteorology, Maritime Law.

Semester 3 (15 weeks)

Accounting and Finance, Management and Organisation Studies, Economics, Business Planning, Dissertation.

Q&A

What are the most helpful Leaving Cert subjects for the course?

- Mathematics, Science subjects, Engineering and 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. However 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: 30

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, the placement arrangements involve spending the second year on board ship, gaining fifteen months sea time. Location is world-wide.

GRADUATE PROFILE

Sinéad Reen

MASTER MARINER

In 1991 Sinéad Reen, from Cork, commenced her academic studies in CIT's Nautical Science course. She joined her first ship in 1992 to carry out work experience and in 1993 she graduated with her qualification in Nautical Science. For some years Sinéad worked on ships as a Navigating Officer (OOW) and returned to CIT to obtain qualifications as First Mate.

In 2002 Sinéad qualified as a Master Mariner when she successfully completed her Department of Transport 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. Another first for Sinéad is her election to the Council of the Irish Institute of Master Mariners (IIMM).

Sinéad has recently served in a British Petroleum supertanker of some 307,000 tonnes cargo carrying capacity as a Deck Officer. This is the "British Purpose", a VLCC (Very Large Crude Carrier). The ship's programme included port calls in the Arabian Gulf, Red Sea, Mediterranean and North-West Europe although with the fickle nature of tanker trading this could all have changed by the time she left the ship several months later!

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