Just Be Maritime

Supporting Our Maritime Future

INTRODUCTION TO MARINE ETO CADETSHIPS

AUTUMN 2025

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Foreword

Just Be Maritime Ltd ("JBM") is an Officer Cadet management company, providing a range of services related to the recruitment and management of cadets under training in the maritime industries. Led by our Managing Director, Don Millar, the company was established by experienced industry personnel who fully understand the specific and bespoke needs of our Officer Cadets and maritime clients.

JBM's total focus is on the welfare, training and career development of our sponsors' trainees throughout their cadetships, followed by continued mentoring and support during their maritime careers.

The professional expertise and experience gained by JBM's team over several decades of working in various sectors of the maritime industry has enabled us to develop a refreshing and innovative approach in the management and support of our Officer Cadets, from initial recruitment through to successful completion of each cadetship and achievement of both the initial academic qualification and the first professional Certificate of Competency (CoC).

In conjunction with sponsoring organisations, we endeavour to provide each cadet with all necessary support to achieve their professional goals and ambitions, both in terms of making a success of the initial cadet training programme and in preparing them to progress their careers to the highest levels within the maritime industry.

This document has been developed to provide potential recruits with an effective introduction to Marine Electro-Technical Officer (ETO) Cadetships and the associated training programmes. We hope that this information will clarify any queries you may have about undertaking an Officer Cadetship within the maritime industries but please do not hesitate to contact us if you require additional clarification or assistance.

The Maritime Industry

Careers within the global maritime industry offer a wealth of opportunity and provides mariners with the education, training and experience for a lifetime of rewarding challenges, whether at sea or ashore later on. Many new entrants to the maritime industry initially decide to follow training programmes for seagoing positions, gaining experience of onboard operations and achieving their professional certification as Deck (Navigation) Officers, Marine Engineer Officers and Marine Electro-Technical Officers (ETOs).

Career progression depends upon individual aspirations and circumstances. The subsequent achievement of higher-level professional seafaring qualifications can either provide pathways into long term careers at sea as Captain (Master), Chief Engineer and Chief ETO, or alternatively a considerable number of opportunities to pursue maritime careers ashore.

The Maritime Industry

The UK has a proud maritime heritage dating back several centuries, and it maintains an excellent reputation worldwide for the high quality of its seafarers and the commercial shipping fleet, as well as the extensive range of business services provided by the wider maritime industry sectors.

Taken as a whole, the maritime sector is a significant contributor to the UK's economy, with shipping directly contributing over £16 billion Gross Value Added (GVA) in 2024, supporting over £46 billion GVA across the wider maritime sectors, and supporting the employment of over 728,000 in a myriad of related occupations.

The British Merchant Navy can trace its origins back to the 17th Century and, as an island nation, the UK remains heavily dependent upon its merchant ships and seafarers for 95% of all imported goods. Many of the things we all take for granted, such as electrical goods from Japan, oil from the Middle East and bananas from the Caribbean are only available because fleets of ships continuously sail the world's oceans.

An inspiring quotation from Mark Twain captures the essence of choosing a career at sea:

"Twenty years from now you will be more disappointed by the things you did not do than by the ones you did do. So throw off the bowlines, sail away from safe harbour and catch the trade winds in your sails. Explore, dream and discover."


SEAPEAK VANCOUVER


TRINITY HOUSE

The Merchant Navy

The Merchant Navy is the collective name given to the UK's commercial shipping industry, which comprises a substantial number of individual shipping companies engaged in the transportation of goods and passengers, either on a regional or international basis.

There is an enormous variation in the types of merchant ships, their sizes and their trading areas around the world. The UK remains at the forefront of global shipping, with a fleet of modern, technologically advanced vessels and ship's officers play a crucial role in sustaining this important industry.

As an island nation, over 95% of all our imports and exports are delivered by sea, with the maritime sector generating the third largest contributor to UK Plc in terms of revenue generation. The types of merchant ship you may sail upon during your career include:

- Bulk carriers
- Cable layers
- Car carriers
- Cargo ships
- Chemical carriers
- Container ships
- Cruise ships
- Ferries
- Offshore supply vessels
- Oil/Gas tankers
- Royal Fleet Auxiliary vessels

Offshore Oil and Gas

Within the global offshore oil and gas industry, there are significant opportunities for seafarers, who can work aboard a range of diverse vessels in support of the industry. Offshore Support Vessels (OSVs) are typically very sophisticated and include:

- Survey Vessels
- Construction Vessels
- Platform Support Vessels (PSVs)
- Emergency Rescue Recovery Vessels (ERRVs)
- Diving Support Vessels (DSVs)
- Anchor Handling Tug Supply Vessels (AHTSs)

The offshore oil and gas sector is a challenging environment to work in as a mariner but a combination of marine/academic qualifications with the correct skill set enables seafarers to make a transition on to a Fixed Production (FP) offshore installation, a Floating Production, Storage, and Offloading (FPSO) vessel, or a Mobile Offshore Production Unit (MOPU).

There are also a variety of mobile units working in support of the industry, including:

- Drill Ships
- Accommodation Barges
- Exploration Jack-up Rigs
- Semi-submersible Rigs

Superyachts

The world of superyachts provides a range of prestigious and rewarding employment opportunities for professional mariners, supporting crew and hospitality staff. Industry standards and expectations are exceptionally high due to the status of the owners and clients and this is often reflected in the personal and financial rewards for those working aboard.

A superyacht is typically defined as either a privately owned or commercially operated luxury yacht (motor or sail powered), which is professionally crewed and has a length of 24 metres and above. While some yachts may be solely used by their owners and guests, others may be operated either part-time or full-time for commercial charters.

With the superyacht industry having a multi-billion annual turnover globally, there are now over 10,000 superyachts operating worldwide. Recent decades have seen the size of these vessels increase significantly and, by the end of 2023, the number of superyachts over 30 metres in length had risen to 5,695.

This growth in vessel size has led to the use of new terms, such as ‘mega yacht’ and ‘giga yacht’ to recognise those exclusive vessels with a length above 100 metres. The largest privately owned superyacht in the world today is the ‘Azzam’, which is comparable to a small cruise ship with a length of 180 metres, a displacement of 13,000 gross tons and the ability to accommodate up to 36 guests and 80 crew.

The UK plays a significant role in the superyacht sector, from leading naval architects and designers to award-winning manufacturers of yachts and equipment and an extensive range of supporting services. Many superyachts are registered in the UK and comply with the professional certification requirements of the UK’s Maritime & Coastguard Agency (MCA) as this is seen as a world-leading standard.

Marine Renewables

The marine renewables offshore sector is a highly innovative industry, which is evolving rapidly as the demand for renewable power generation increases in line with the UK's targets for reducing CO2 emissions in the fight against climate change.

The original wind farm projects were situated in estuaries, such as the Thames, or within UK territorial waters (i.e. up to 12 nautical miles from the coastline). However, advances in technology and knowledge over recent years has enabled the geographic expansion of marine renewable offshore wind farms, which can now stretch out to the UK continental shelf boundary (i.e. up to 200 nautical miles from the coastline), and facilitated greatly increased turbine size and generation output.

The type of marine craft suitable for transfer operations has also changed because of the evolving commercial environment. Smaller vessels are now being replaced by purpose-built catamarans with accommodation for crew.

Operating at greater distances from the UK coastline and a safe haven requires support vessels to be significantly larger, with many vessels now exceeding 24 metres in length. Some craft may spend a number of shift days on station at a wind farm site, only returning when necessary to replenish supplies and change crew members.

Ports

As the second largest in Europe, the UK ports industry handles 500 million tonnes of freight traffic annually. It also supports over 60 million cruise and ferry passenger journeys and directly employs some 100,000 people.

Depending upon the markets they serve, the types of port vary but they typically fall into three main categories: private, municipal or trust. UK ports are run independently as standalone, self-financing businesses, with over 95% of imports/exports by volume and 75% by value passing through our ports each year.

The goods entering and leaving Britain through our ports are mainly in the form of raw materials or finished goods. Raw materials are the commodities needed to fuel the economy, such as oil, petroleum, chemicals, ores and grains, while finished goods include steel, timber, building materials, machinery, vehicles, fresh foods and consumer goods, amongst others.

The ports industry also offers a range of other services, such as maintaining ferry links to island communities and supporting the offshore energy, fishing and leisure/recreation industries. The cruise ship sector has been a particularly high growth area over the past twenty years and this growth has been matched by the excellent facilities now available in many specialist ports, such as Southampton.

Ports also play a key role within their local and regional communities, offering significant employment opportunities, leisure activities such as yachting, and many other contributions to their local economies.

Careers Ashore

Many seafarers initially follow a career at sea to gain professional certification alongside operational experience at sea before then later choosing to seek shore-based employment. The qualifications and experience gained at sea open numerous opportunities for career advancement ashore, whether working within a shipping company's head office or in an extensive range of maritime-related occupations.

Some examples of these shore-based career opportunities include:

- Ferry services
- Ship management and planning
- Fleet operations
- Ship surveying and repair
- Marine auditing
- Ship pilotage, either deep sea or for ports/harbours
- Roles within the maritime regulatory authorities (e.g. MCA)
- Ports and harbour management
- Marine law and arbitration
- Marine insurance
- Ship classification societies
- Ship or yacht broking and finance
- Marine leisure industry
- College/university lecturer


Trinity House


SAGA


WARNING

Careers at Sea

For those looking to pursue careers at sea, the maritime industries offer a unique and adventurous lifestyle – definitely not a typical 9-to-5 routine! Whether you are looking to embark on a career within the UK's Merchant Navy, or work in the offshore oil and gas, superyacht and marine renewables sectors, there are enormous opportunities to further your career within these fast-growing and proactive industries with excellent remuneration packages.

As an island nation, it is critical for the UK's imports and exports that we maintain capable and efficient maritime services to ensure that our trade continues to flow and our supply lines are secured. With an increasing worldwide shortage of certificated ship's officers, this is an exceptional time to be joining the maritime industries, as there are excellent prospects for early career progression to higher ranks.

Personal Qualities & Attributes

Working as a professional seafarer on deep sea vessels brings a number of personal challenges, not least working away from home, family and friends for months at a time, working and living in close proximity to fellow crew members, and coping with the stresses of a working environment that operates on a 24-hour basis, 7 days a week.

To succeed in a career at sea requires a number of personal qualities & attributes, some of which will inevitably be developed further during your cadetship and onward service aboard vessels. Also, Officer Cadets and junior officers must accept higher-level responsibilities at an early age, such as leading and directing other crew members, than their contemporaries in other professions ashore may be required to do.

These personal qualities and attributes include but are not limited to the following:

- an interest and ability in appropriate STEM subjects
- excellent timekeeping
- ability to interact with others (diverse cultures)
- tolerance for others, especially in such a close environment
- effective communication skills (written and verbal)
- self-discipline and self-reliance
- integrity and initiative
- versatility and decisiveness
- attention to detail and ability to handle complex information

- creative approach to problem-solving
- ability to work to deadlines, either on your own and as part of a team
- willingness to obey orders when given
- remaining calm under pressure, especially in emergency situations
- good leadership and management skills
- inspiring confidence in others

Lifestyle and Benefits

Working at sea is unique in many ways, as is the lifestyle and benefits to be gained from a career at sea. After the initial college phase, Officer Cadets are given an early opportunity to experience these aspects first-hand, when they join their first ship.

The lifestyle at sea will inevitably be influenced by the type of ship and its trading arrangements but you will normally experience an adventurous and challenging work environment, great camaraderie with your shipmates, excellent accommodation and food, a range of onboard leisure facilities and the opportunity to get ashore to explore the local sights when in port.

Once qualified, you will normally work aboard for four months before having a two-month leave period. The benefits of working at sea can vary between companies and maritime sectors but salaries and leave periods are normally very generous, as is your tax-free status if you comply with the UK's requirements for working abroad.

Other benefits include the following:

- excellent career prospects
- continuous professional development
- development of transferable skills
- worldwide employment opportunities
- immense job satisfaction
- opportunities for worldwide travel
- expanding your cultural horizons
- incredible experiences aboard and ashore

Operational Departments & Routines

There are three main technical operational departments aboard ship, which work closely together to ensure the safe, efficient and effective operation of the vessel, whether on a voyage at sea or alongside in port.

The Deck department is responsible for the safe operation of the vessel at sea and in port. At sea, the department ensures safe navigation of the vessel using the latest technology and computer-based systems, while in port they oversee cargo operations as well as maintaining the safety and security of the ship, its cargo, crew and passengers.

The Marine Engineering department is responsible for the safe running of the ship's main engines, propulsion systems, power generation and distribution, cooling systems, control systems and all other mechanical systems on board.

The Marine Electro-Technical department provides specialist support to the Engineering department, with responsibility for the effective maintenance and operation of the ship's electrical, electronic and communications equipment.

Operational routines will vary by vessel and trade but vessels generally operate for 24 hours a day, seven days a week when at sea, with similar routines in port. Many technical officers and crew are engaged in watchkeeping duties each day, typically using a system of four hours on watch and eight hours off. Other staff will be engaged in daywork duties, such as administrative tasks, equipment maintenance and forward planning for ship operations.

Full Sponsorship

One highly attractive aspect of undertaking an Officer Cadetship is that they typically attract full sponsorship from their sponsoring shipping companies or charitable organisations. This compares very favourably with those individuals' starting college and university-based programmes ashore, where students normally have to bear significant tuition fees, accommodation and living costs themselves.

By contrast, Officer Cadets typically receive a monthly training allowance (bursary), while their college tuition fees and travel expenses to/from colleges and ships are usually paid for by their sponsoring organisations. In addition, there are no accommodation or subsistence costs payable by cadets when they are working aboard a ship. This means that newly qualified officers should be embarking on their seagoing careers without carrying forward the monetary debts held by their counterparts ashore.

Entry Requirements

To embark upon an Officer Cadetship, prospective candidates must pass the industry's medical examination and meet the academic entry requirements for the training programme concerned, as well as any company-specific requirements.

Seafarer Medical Examination (ENG1)

To work at sea, all Officer Cadets must have good health and pass the Seafarer Medical Examination (ENG1). It is advisable to undertake this ENG1 medical examination before starting to apply to sponsoring organisations, to ensure that you are fit to work at sea.

Many sponsoring organisations will later reimburse the examination fee if a receipt is retained and provided to them. The list of doctors in the UK approved by the Maritime & Coastguard Agency (MCA) to conduct ENG1 seafarer medical examinations is available at: **UK Doctors approved by MCA for ENG1 Exams**

Academic Qualifications

To be accepted on Higher National Diploma (HND), Foundation Degree (FD), Scottish Professional Diploma (SPD) or Bachelor's Honours Degree (BSc/BEng Hons) training programmes, applicants need to hold the following minimum academic qualifications:

Higher National Diploma (GCSE level or equivalent)

- Four GCSEs (or equivalent) at grade 9 to 4, including Mathematics, Science (with significant Physical Science content), English and one other subject **or**
- Passes in these four subjects at Scottish National 5 level **or**
- Passes in these four subjects in the Northern Ireland Grammar School Senior Certificate Exam (as above)

Scottish Professional Diploma/Higher National Diploma – Scotland

- Scottish Highers (or equivalent) at grade C or above in Mathematics and Science (with significant Physical Science content)
- Plus four National 5/GCSEs or equivalent in Mathematics, Physical Science, English and one other subject

Foundation Degree (A-Level or equivalent)

- Minimum of 48 UCAS tariff points (including a numerate subject for Engineering/ETO)
- A minimum of 48 UCAS tariff points (including a numerate subject for Engineering/ETO)
- Plus four GCSEs at grade 9 to 4 (A* to C), including Maths, English and Science (with significant Physical Science content)

BSc/BEng (Hons) (A-Level or equivalent)

- Minimum of 104 to 120 UCAS tariff points (including a numerate subject for Engineering/ETO)
- A minimum of two A-levels, a BTEC Extended Diploma at DMM or BTEC Diploma at D*D or equivalent, which comply with the minimum entry requirements of 104 UCAS points.
- Plus four GCSEs at grade 9 to 4 (A* to C), including Maths, English and Science (with significant Physical Science content

The maritime industry uses the UCAS tariff points system for ease of checking that your qualifications meet the entry requirements. The 48 UCAS points required for the Foundation Degree route can be made up of any combination of qualifications.

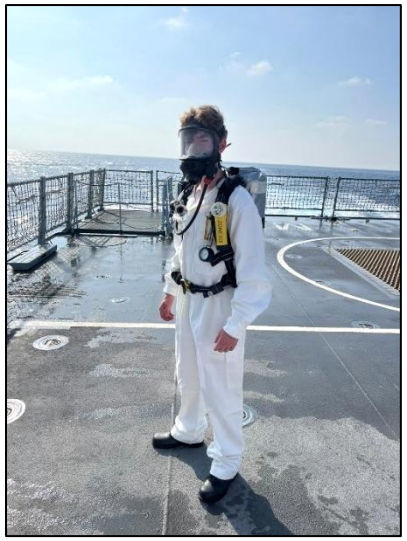
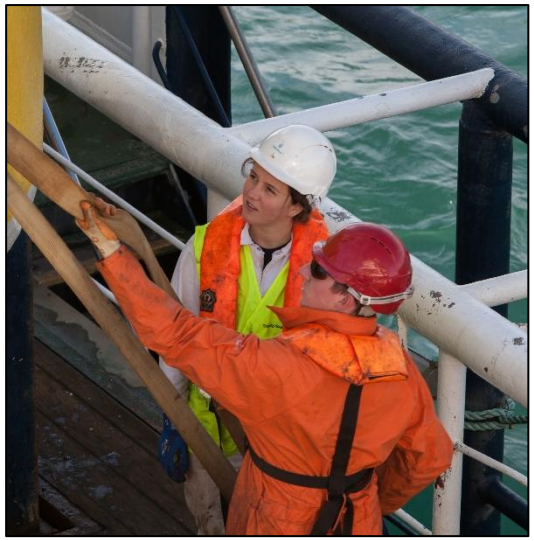
Other eligible qualifications for the Foundation Degree route may include BTEC qualifications, AS Levels, A Levels, Scottish Highers, Welsh Baccalaureate and International Baccalaureate. UCAS tariff points are then calculated on the grades achieved in these qualifications.

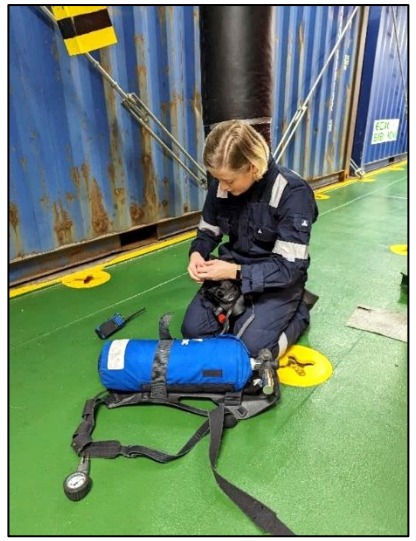
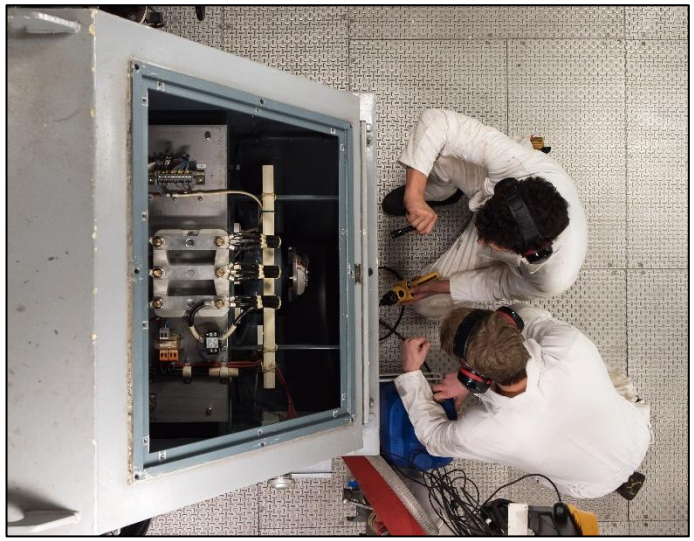
Applying for a Cadetship

Before submitting your application to us for an Officer Cadetship, please review the information provided in this document so that you have a good understanding of what is involved in a career at sea, as well as the structure of the training programme you would like to embark upon. Having reviewed this information, please also ensure that you meet the academic entry requirements for the training programme you wish to embark upon.

Please note that UK-based cadetships are currently only open to UK and European Economic Area (EEA) nationals who have been resident in the UK for a year prior to application.

Once you are ready to apply for a cadetship, please email your application letter and Curriculum Vitae (CV) to us at **applications@justbemaritime.com**, confirming your preferred training discipline (i.e. Marine ETO Cadetship) and the sponsoring organisations you wish to be considered for.

Cadet Sponsors

Just Be Maritime is proud to work closely with a unique group of maritime organisations and companies, who provide training sponsorship for Officer Cadets. We collaborate closely with their designated training managers to optimise the professional development of its cadets aboard vessels and ensure that they are fully prepared for their first job as a certificated officer.

Potential applicants for an Officer Cadetship can obtain information about each of our cadet sponsors as follows:

- Borchard Lines
- Corporation of Trinity House
- Crystal Cruises
- Döhle Yachts
- Fred. Olsen Cruise Lines
- Hill Robinson Group
- Hurtigruten Expeditions
- The Marine Guild
- Maritime London Officer Cadet Scholarship
- Red Funnel Ferries
- Saga Cruises
- Seapeak
- Unity Maritime
- Worcester MNCS
- Zodiac Maritime

Principal Roles of Marine ETO Officers

A Marine Electro-Technical Officer (ETO) is a maritime professional holding responsibility for the safe operation of all electrical and electronic systems on a vessel, including maintenance and repair of equipment, diagnostics of faults, and overseeing communications and navigation systems.

ETOs are responsible for everything from engine room control systems and auxiliary electrical machinery to ship services such as electrical supply and communications, both audio and visual. They also have responsibility for the bridge navigational equipment, such as radars, other electronic aids to navigation and alarm systems.

As part of the engineering department, ETOs work closely with the marine engineers. Together, they work to prevent future issues through proper maintenance procedures and risk assessments. Depending on ship type, maintenance tasks may also include entertainment equipment, IT, extensive hotel services and ship-specific technology relating to the operation of the vessel.

The role has several levels of seniority, typically including the Chief Electro-Technical Officer and Marine Electro-Technical Officers at various levels, with each position having different responsibilities as follows:

Chief Electro-Technical Officer (CETO)

The Chief Electro-Technical Officer is head of the ship's Electro-Technical section of the engineering department, normally reporting direct to the Chief Engineer. They hold overall responsibility for effective maintenance and operation of the ship's electrical, electronic and communications equipment, as well as the management and safety of ETO officers and crew.

Marine Electro-Technical Officer (ETO)

Marine Electro-Technical Officers are directed by and report to the Chief Electro-Technical Officer in respect of onboard maintenance and operation of ship's electrical, electronic and communications equipment. This may include Bridge navigation equipment, electrical generators, electronic control systems, and communications equipment, amongst others. They may also be responsible for the effective training of METO Cadets.

Marine Electro-Technical Officer (ETO) Cadet

A Marine Electro-Technical Officer Cadet receives onboard training and experience in line with their approved training programme and MNTB Training Record Book, learns how to become an operational Marine Electro-Technical Officer, and normally sails as a junior Marine Electro-Technical Officer (ETO) once qualified.

ETO Ratings

Apart from the officers, the ETO crew consists of ratings, such as a Fitter or Electrician. These crew members assist with maintenance and repair of ETO equipment and plant.

Marine ETO Cadetships

A Marine ETO Cadet follows a dedicated training programme, which leads to initial certification as an Marine Electro-Technology Officer by the UK's Maritime & Coastguard Agency (MCA) as well as an academic qualification to Higher National Diploma (HND), Foundation Degree or BSc (Hons) degree level.

Officer Cadet Training Programmes

The training programmes for Officer Cadets are usually three years in duration and comprise five training phases, rotating between periods at college for academic and professional studies, and periods working at sea to gain practical experience and complete the Merchant Navy Training Board's (MNTB) Training Record Book. These five phases can be summarised as follows:

Phase 1 (College)

The training programme commences with an initial college phase, which provides Officer Cadets with the necessary preparatory knowledge and understanding before the first sea phase. Electrical and electronic workshop skills training and a Basic Safety Training Week (BSTW) must also be successfully completed before a new seafarer can join a ship, while some other optional courses may be undertaken during this first phase.

Phase 2 (Sea)

Officer Cadets join their first vessels to attain practical operational experience and complete the first stages of their MNTB Training Record Book, as evidence of task completion and competency. Cadets will work under the supervision of their department's training officers, to put theory learnt at college into practice and develop practical operational skills.

Phase 3 (College)

Officer Cadets return to college to consolidate the experience and knowledge they have gained at sea, advance their academic and professional studies to Level 4 standard and complete any scheduled 'Standards of Training, Certification and Watchkeeping for Seafarers' (STCW) professional training courses. By the end of this phase, they will normally have attained the underpinning academic knowledge required for initial certification by the UK's Maritime & Coastguard Agency (MCA).

Phase 4 (Sea)

During this second sea phase, Officer Cadets consolidate the academic and professional knowledge gained during Phase 3, complete the higher-level tasks contained in their MNTB Training Record Book, and work towards operational competency in watchkeeping duties and other responsibilities.

Phase 5 (College)

During this final college phase, Officer Cadets complete all outstanding elements and examinations for initial certification by MCA, including remaining STCW training courses. In addition, they will complete additional academic studies and examination to Level 5 standard, which provides certain academic exemptions towards the second certification stage after further experience and required sea time is gained as a junior officer

UK Nautical Colleges

Officer Cadets may be allocated to one of the four main UK colleges for shore-based training, namely City of Glasgow College, Fleetwood Nautical Campus, South Shields Marine School or Warsash Maritime School.

Examples of Marine ETO Cadet Training Programmes

For examples of typical Marine ETO Cadet programmes, please refer to ***Appendices 1, 2 and 3*** which provide the following indicative outlines for the HND, Foundation Degree and BSc (Hons) degree pathways:

- Course Outlines
- Programme Schematics
- Career Progression Charts

My ETO Cadetship

To gain a fuller understanding of what a cadetship actually entails, please refer to the personalised accounts from some of our former cadets at: 'My ETO Cadetship'

These personalised accounts will hopefully enhance your understanding of what may be experienced during the college and seagoing training phases before you apply for a cadetship or commence your training programme.

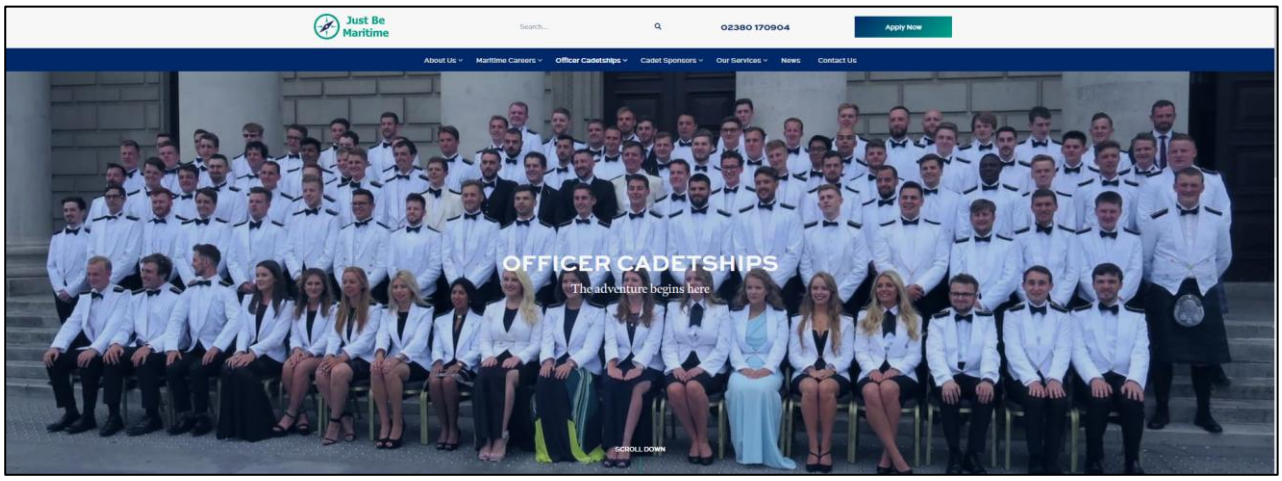
Post Cadetship Career Progression

After achieving the initial Certificate of Competency (CoC) from the MCA, former cadets will return to sea to gain watchkeeping and operational experience, as well as the requisite sea service and watchkeeping time, before returning to college for higher levels of certification.

To achieve professional certification for senior ETO positions normally takes about five years, with officers gaining higher-level qualifications, experience and competency along the way before finally being promoted to the highest rank of Chief Electro-Technical Officer.

Additional Information

In designing JBM's website (https://www.justbemaritime.com/), our overriding priority has been to provide potential recruits with relevant and comprehensive information about maritime careers and Officer Cadetships so they can make informed decisions about pursuing such a unique career and how they can either progress to higher ranks aboard ship or to senior roles ashore.



Comprehensive information is readily available on the JBM website, with three principal sections as follows:

- **'Maritime Careers'** – overview of industry sectors and career options, with comprehensive information on what an Officer Cadetship entails (e.g. entry requirements, sponsorship, lifestyle etc.)
- **'Officer Cadetships'** – detailed information on training programmes for Deck, Marine Engineer and METO Cadets, along with career progression to either higher ranks or eventual roles ashore
- **'Cadet Sponsors'** – specific information about our current sponsoring companies and organisations

Additional information about careers at sea is also available from the following industry sources:

MNTB Careers at Sea

Maritime UK Careers

If you would like more information about any aspects of an Officer Cadetship, please contact our team at:

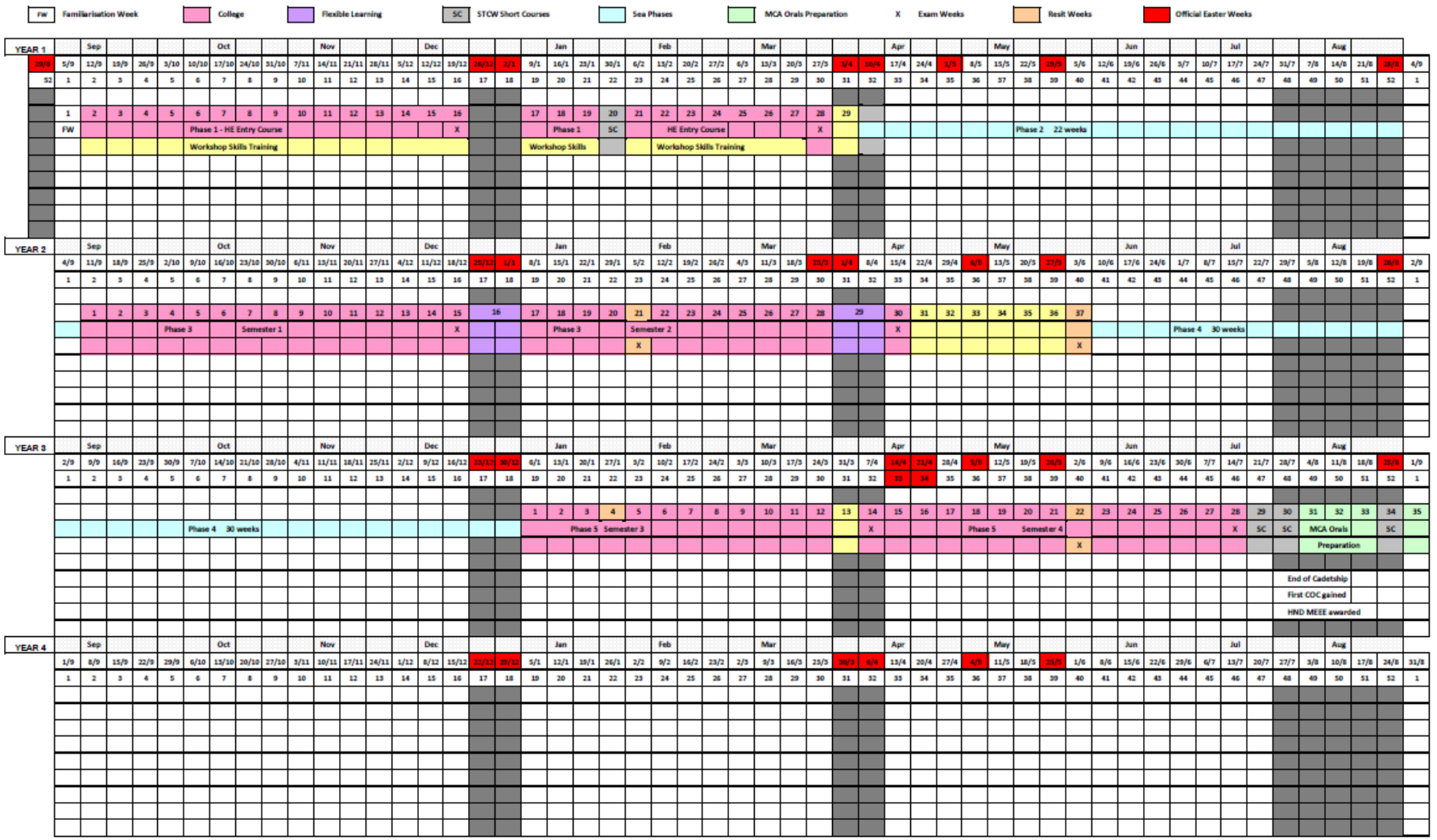
E. info@justbemaritime.com

T. 02380 170904

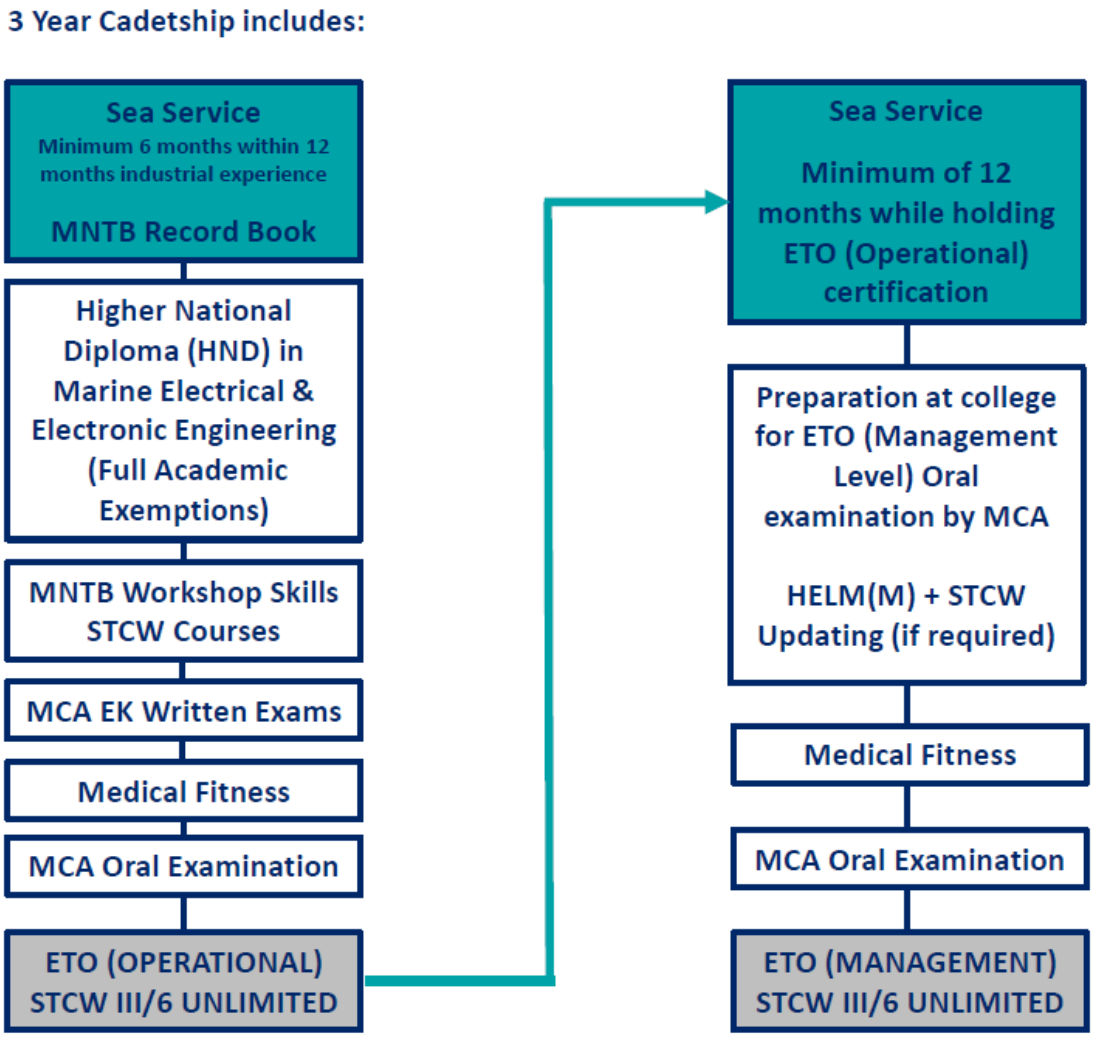
Appendix 1 – Example of ETO Cadet Training Programme (HND)

COLLEGE PHASE	DURATION	CONTENT
Induction	3 weeks	Familiarisation week / General induction to shipping industry STCW short courses – PST, BFF, EFA, PSSR, PSA / EES / HV(O) Entry into Enclosed Spaces / Designated Security Duties (1 day)
Phase 1	26 weeks	ETO Workshop Skills Training HE Entry Course - Study skills, Maths, IT skills, UPK for 1st sea phase, plus intro to: Marine Electrics, Electronic Systems & Principles, Marine Auxiliaries, Electro-Mechanical Plant, Marine Legislation and Ship Construction
	1 week (Optional)	Optional STCW tanker short courses: Tanker Fire Fighting, Basic Tanker Cargo Operations
Phase 2 (At Sea)	22 weeks	MNTB ETO Training Record Book Consolidation of UPK (underpinning knowledge)
Phase 3	37 weeks	Higher National Diploma (HND) Level 4 units: Marine Engineering Principles for ETOs Engineering Science / Mathematics Marine Electrics / Electrical Power Systems Marine Auxiliaries Introduction to Electronics, Instrumentation and Control Electronic Principles and Systems Electro-Mechanical Plant Operation and Diagnostics ETO Workshop Skills Training
Phase 4 (At Sea)	30 weeks	MNTB ETO Training Record Book Consolidation of UPK (underpinning knowledge) Guided Studies (HND Level 5; MCA EK Written and Oral exams)
Phase 5	35 weeks for completion of ETO CoC and completion of HND Part 2 (academic exemptions to CETO level)	STCW short courses: MFA, PSC&RB, AFF, HV(M), HELM(O) ETO Workshop Skills Training / ENEM / GMDSS Radio Maintenance Preparatory courses for MCA EK Written & Oral examinations *Successful completion of HND Level 4 units, MCA EK written and oral examinations and STCW short courses leads to the award of the initial* ***MCA Certificate of Competency*** *and end of cadetship.* Higher National Diploma (HND) Level 5 units: Electrical Legislation and Management Further Mathematics Advanced Marine Electrics Instrumentation & Control Systems Maintenance Electronic Navigation Systems / Electrical Machines Navigation Systems Fault Diagnostics Radio Communication Engineering *Successful completion of HND Level 5 units leads to the award of the initial* ***Higher National Diploma (HND) in Marine Electrical and Electronic Engineering***

Example of Programme Schematic (HND in Marine Electrical & Electronic Engineering)



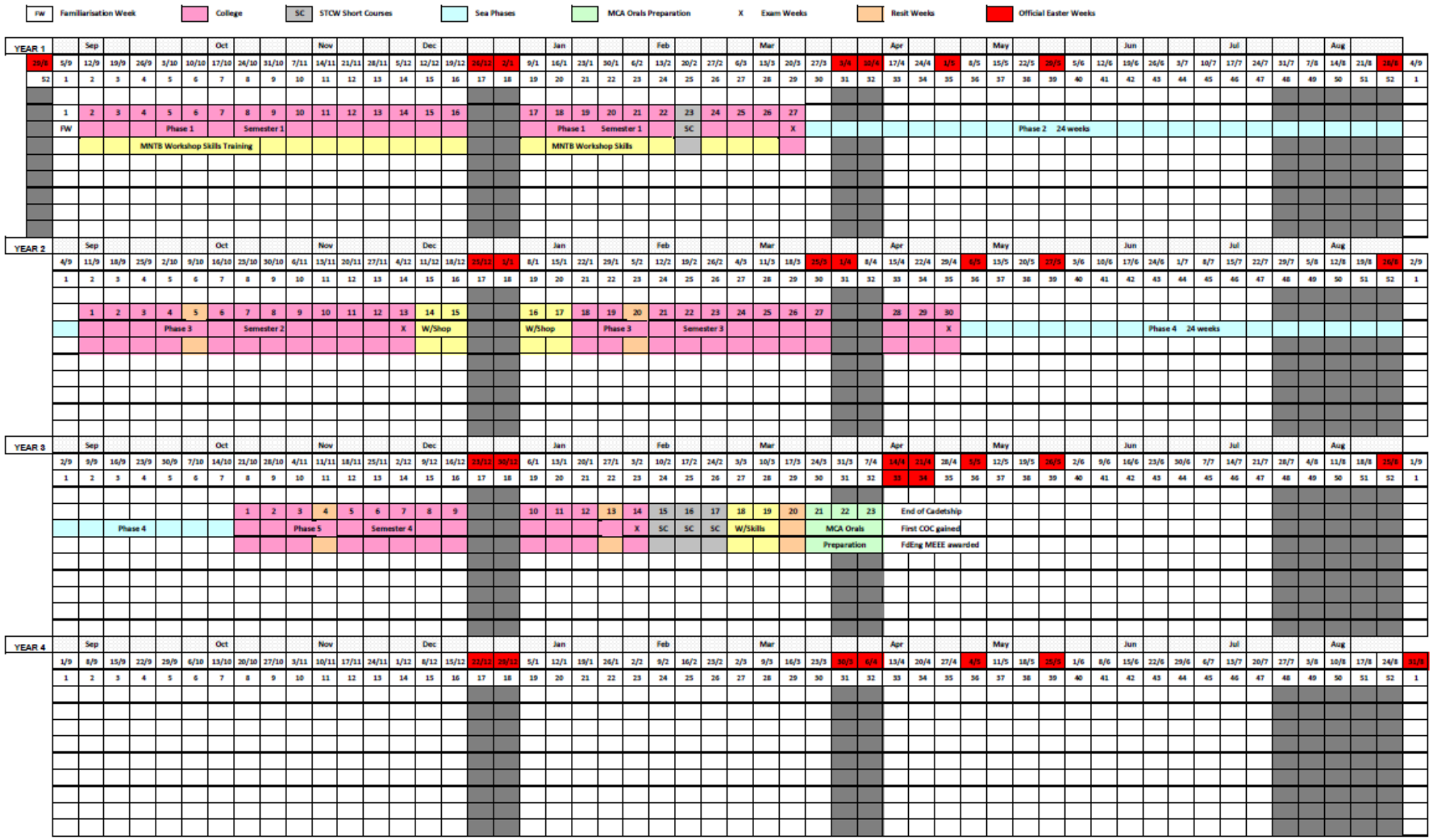
Career Progression Chart (Marine Electro-Technology Officer – HND Route)



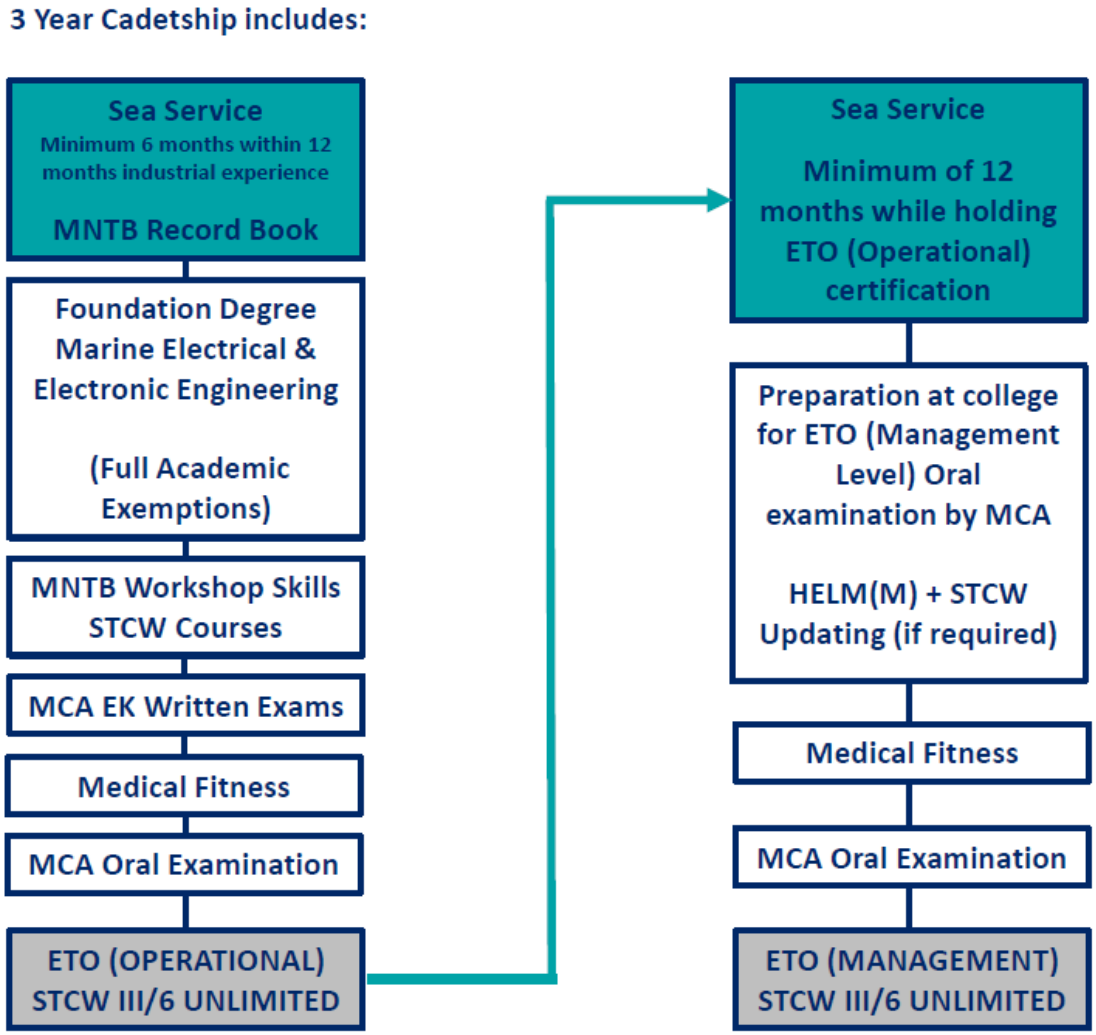
Appendix 2 – Example of ETO Cadet Training Programmes (F/Degree)

COLLEGE PHASE	DURATION	CONTENT
Induction	3 weeks	Familiarisation week / General induction to shipping industry STCW short courses – PST, BFF, EFA, PSSR, PSA / EES / HV(O) Entry into Enclosed Spaces / Designated Security Duties (1 day)
Phase 1	24 weeks	ETO Workshop Skills Training Foundation Degree (FdEng) Level 4 units: Marine Engineering Principles for ETOs Engineering Science / Mathematics Marine Electrics (with work based learning) Electrical Power Systems Introduction to Electronics, Instrumentation and Control
	1 week (Optional)	Optional STCW tanker short courses: Tanker Fire Fighting, Basic Tanker Cargo Operations
Phase 2 (At Sea)	24 weeks	Work Based Learning (Operations Level) MNTB ETO Training Record Book
Phase 3	30 weeks	Foundation Degree (FdEng) Level 4/5 units: Electrical Legislation and Management / Marine Auxiliaries Electro-Mechanical Plant Operation and Diagnostics Electronic Principles and Systems / Further Mathematics Advanced Marine Electrics Instrumentation & Control Systems Maintenance with WBL Work Based Electrical Engineering Project ETO Workshop Skills Training
Phase 4 (At Sea)	24 weeks	Work Based Learning (Management Level) MNTB ETO Training Record Book Guided Studies (FdEng Level 5; MCA EK Written and Oral exams)
Phase 5	23 weeks	STCW short courses: MFA, PSC&RB, AFF, HV(M), HELM(O) ETO Workshop Skills Training / ENEM / GMDSS Radio Maintenance Preparatory courses for MCA EK Written & Oral examinations *Successful completion of FdEng Level 4 units, MCA EK written and oral examinations and STCW short courses leads to the award of the initial* ***MCA Certificate of Competency*** *and end of cadetship.* Consolidation of Work Based Learning Foundation Degree (FdEng) Level 5 units: Electronic Navigation Systems / Electrical Machines Navigation Systems Fault Diagnostics Radio Communication Engineering Work Based Electrical Engineering Project - Completion *Successful completion of all FdEng academic assessments leads to the award of* ***Foundation Degree (FdEng) in Marine Electrical and Electronic Engineering***

Example of Programme Schematic (Foundation Degree in Marine Electrical & Electronic Engineering)



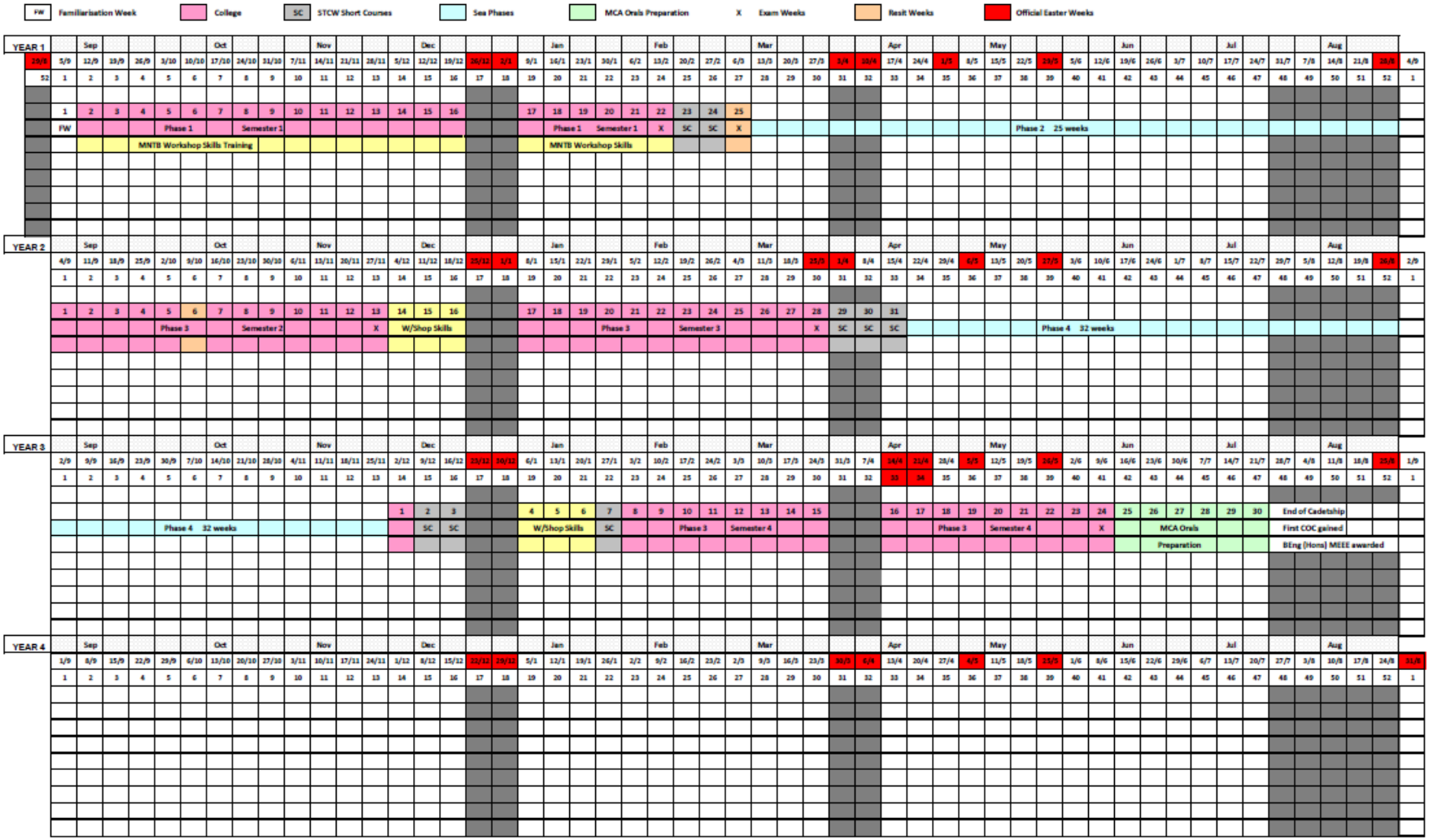
Career Progression Chart (Marine Electro-Technology Officer – Foundation Degree Route)



Appendix 3 – Example of ETO Cadet Training Programmes (BSc Hons)

COLLEGE PHASE	DURATION	CONTENT
Induction	3 weeks	Familiarisation week / General induction to shipping industry STCW short courses – PST, BFF, EFA, PSSR, PSA Entry into Enclosed Spaces / Designated Security Duties (1 day)
Phase 1	22 weeks	Marine Engineering Principles / ETO Workshop Skills Training BEng (Hons) Level 4 units (20 credits each): Engineering Mathematics Marine Electronics & Control Systems Marine Engineering Systems General Engineering Science Marine Electrical and Electronic Principles Work Based Engineering Operations
	1 week (Optional)	Optional STCW tanker short courses: Tanker Fire Fighting, Basic Tanker Cargo Operations
Phase 2 (At Sea)	25 weeks	Work Based Engineering Operations / Electronics (Guided Studies) MNTB ETO Training Record Book
Phase 3	31 weeks	BEng (Hons) Level 5 units (20 credits each): Electronic Navigation Systems Marine Power Systems Marine Engineering Management Navigation Systems Fault Diagnosis Radio Communication Engineering Work Based Engineering Project ETO Workshop Skills Training STCW short courses: AFF, MFA, HV(O)
Phase 4 (At Sea)	32 weeks	Work Based Engineering Project MNTB ETO Training Record Book Guided Studies (MCA EK Written and Oral exams)
Phase 5	30 weeks	STCW short courses: HV(M), HELM(O), PSC&RB ETO Workshop Skills Training / ENEM / GMDSS Radio Maintenance Preparatory courses for MCA EK Written & Oral examinations *Successful completion of BEng(Hons) Level 4 units, MCA EK written and oral examinations and STCW short courses leads to the award of the initial* ***MCA Certificate of Competency*** *and end of cadetship.* BEng (Hons) Level 6 units (20 credits each): Principles of Accident Investigation Leadership and Management Marine Surveying & Insurance Fundamentals of Engineering System Design Dissertation (40 credits) *Successful completion of all BEng(Hons) academic assessments leads to the award of* ***BEng (Hons) in Marine Electrical & Electronic Engineering***

Example of Programme Schematic (BSc Hons in Marine Electrical & Electronic Engineering)



Career Progression Chart (Marine Electro-Technology Officer – BSc Hons Degree Route)