

Programme Specification

NUS-AC-AD-2022-MMTI: Nautical Science (MMTI Delivery)

SQA Advanced Certificate awarded by Scottish Qualifications Authority (FHEQ Level 4)

SQA Advanced Diploma awarded by Scottish Qualifications Authority (FHEQ Level 5)

Programme Status: Approved | Version: 1

Introduction

This programme specification provides a summary of the main features of the Nautical Science (MMTI Delivery) programme and includes the learning outcomes that you as a student are expected to have achieved on successful completion of the programme.

Further detailed information related to this programme and the College can be found in the following resources:

- Programme Handbook
- B&FC Admissions Policy
- Work based and placement learning handbook (for foundation degrees)
- Student guide to assessment and feedback

When undertaken as part of a Degree Apprenticeship additional information is available in the following resources:

- The Programme Delivery Plan
- The End Point Assessment Guide
- B&FC Mentor Guide
- B&FC Apprenticeship Strategy

Key Programme Information

Programme Code	NUS-AC-AD-2022-MMTI
Programme Title	Nautical Science (MMTI Delivery)
Teaching Institution	Blackpool and The Fylde College
Professional, Statutory and Regulatory Body (PSRB) Accreditation	None
UCAS Code	
Language of Study	English
Version	1
Approval Status	Approved
Approval Date	23 March 2023
JACS Code	Other: Other
Programme Leader	Sayed Parvez

Programme Awards

Award	Award Type	Level	Awarding Body
SQA Advanced Certificate	Advanced Certificate	Level 4	Scottish Qualifications Authority
SQA Advanced Diploma	Advanced Diploma	Level 5	Scottish Qualifications Authority

Programme Overview

Blackpool and The Fylde College remains committed to provide a highly responsive curriculum that is employment and future-focused and will enable you to develop the essential knowledge and skills that will prepare you for future success in work and life.

The AdC or AdD in Nautical Science will be delivered at B&FC with learning for the modules supported by the Mumbai Maritime Training Institute (MMTI). A blend of learning styles with Formative (not counted to final grade) Assessments conducted on the College VLE, Canvas will

be employed. At MMTI a two term structure is in place to support all student on this programme to complete the learning for the AdC or AdD modules. Blackpool and Fylde College have a strong, established arrangement with MMTI to assist you on this programme. During your study at MMTI you can attend online clinics during term time, Mon-Thur 18.00-20.00 (UK time), arrange to speak with Fleetwood subject experts and Higher Education Learning Mentors to assist with your learning journey.

The AdC and AdD delivery will be supported at the following location:

Mumbai Maritime Training Institute (MMTI) New Excel House,
41 B, 2nd Floor,
Azad Nagar Road No 2, Off Veera Desai Road, Andheri (W), Mumbai 400053
Tel. (0): 91-22-2673 1362 / 2673 1359
Telefax: (Office): 26731359
Email: mmti.mumbai@gmail.com
Website: www.maritimetraininginstitute.com

AdC and AdD practical and summative (written exams) will be conducted at the following location:

Blackpool & The Fylde College,
Fleetwood Nautical Campus,
Broadwater, Fleetwood, Lancashire,
FY7 8JZ
United Kingdom

You will enrol at MMTI for six months split into two terms; there are opportunities to enrol in both February and August each year. Upon completion at MMTI you will need to **attend** Fleetwood Nautical Campus to complete your AdC or AdD, along with your Certificate of Competency elements (external written exam prep, oral exam prep, STCW short courses etc. See MSN 1856) and a **visitor visa will be required**.

The Advanced Certificate (AdC) Nautical Science programme will provide you with the skills and knowledge required for a career within the maritime industry as a deck officer. The alignment to industry bodies will ensure you meet all the required Nautical Science outcomes to support a career at sea which, when coupled with additional vocational training, will support your eligibility for a career as an Officer of the Watch Unlimited within the maritime industry. This programme is aligned to support your progression through knowledge acquisition at an operational level as directed by the International Convention on Standard of Training, Certification and Watchkeeping (STCW) 1978, as amended. This is achieved by meeting the requirements of the Maritime and Coastguard Agency (MCA). The AdC contributes towards learners obtaining a Certificate of Competency as Deck Officer of the Watch issued by MCA*.

*(two additional Advanced Units, Marine Emergency Response and Communication and Marine Law and Management: An Introduction are also required for the Certificate of Competency along with the Advanced Certificate)

Successful completion of this level will enable you to:

1. Apply core concepts and underpinning theoretical principles of navigation, ship stability and cargo operations demonstrating safety practices during shipboard operations.
2. Analyse the complexity of planning and conducting shipboard operations in different meteorological and navigational circumstances.
3. Analyse the effectiveness of management techniques in regard to the processes, procedures and practices of shipboard safety management systems.
4. Plan and implement shipboard operations with due regard to national legislation and international standards related to safety of life at sea, safety of navigation and protection of marine environment.
5. Demonstrate the use of electronic safety navigation equipment and other IT systems and specialist industry software.
6. Analyse the international maritime business environment including commercial and legal sectors.
7. Critically analyse the importance of the human element for shipboard operations including cultural, linguistic and ethical factors.
8. Communicate effectively in academic, professional and shipboard environments.
9. Research and embed information from a variety of traditional and digital sources to support personal and professional development, lifelong learning and achievement.
10. Reflect on personal learning progress and effectiveness of shipboard operations.

Elements required for a Certificate of Competency (external written exam prep, oral exam prep, STCW short courses etc. as per MSN 1856) will be offered at Fleetwood Nautical Campus, these costs are **not** included in the AdC or AdD fees.

The Advanced Diploma (AdD) Nautical Science aims to provide you with the fundamental knowledge and key study skills required to allow further study at a Higher Education Level. You will achieve good understanding of Marine Navigation, Ship Stability, Shipboard Operations, Shipmasters Business and Shipboard Management and solve problems from a management perspective. You will also develop practical skills through Bridge Simulation and Cargo/Stability programmes.

Successful completion of this level will enable you to:

1. Apply core concepts and principles of Navigation, Ship Stability and Management of Bridge and Vessel Operations demonstrating judgement in the application of tools and techniques.
2. Critically evaluate the global context of maritime operations incorporating cultural, legal, ethical and environmental factors.
3. Plan, implement and appraise shipboard operations with due regard to industry legislation, regulatory frameworks and standards.
4. Analyse complex problems in order to identify appropriate methods to formulate mathematical models and solutions.
5. Develop and evaluate logical arguments, justifications and conclusions associated with complex issues identifying underlying assumptions and critical factors.
6. Critically analyse and evaluate processes, procedures and practices of effective Shipboard Management.
7. Reflect on the appropriateness of different approaches to solving problems.
8. Appraise and interpret complex emergency scenarios in simulated environments and apply self-management, leadership and supervision skills.

Elements required for a Certificate of Competency (external written exam prep, oral exam prep, STCW short courses etc. as per MSN 1856) will be offered at Fleetwood Nautical Campus, these costs are **not** included in the AdC or AdD fees.

Admission Criteria

MMTI AdC Direct Entry

You must have completed a minimum of 36 months' sea time with a minimum of 6 months watch keeping supported by testimonials issued by the ship's master, entries in CDC and supported by documents issued company representatives.

Please refer to MSN 1856 <https://www.gov.uk/government/publications/msn-1856-mf-uk-requirements-for-master-and-deck-officers>

Proficiency in English Language equivalent to IELTS Overall score 5.5 (Academic, General or UKVI) is required for this course.

MMTI AdD Direct Entry

You must hold a valid OOW Unlimited, STCW II/I Certificate of Competency from a UK or recognised Country.

Have completed a minimum of 12 months' watch keeping service while holding an OOW unlimited, STCW II/I Certificate of Competency.

Please refer to MSN 1856 <https://www.gov.uk/government/publications/msn-1856-mf-uk-requirements-for-master-and-deck-officers>

If you hold UK Certificate of Competency this will be sufficient evidence of your proficiency in English Language.

If you do not hold a UK CoC, we will require a copy of your IELTS Certificate - Overall score 5.5 (Academic, General or UKVI).

Career Options and Progression Opportunities

Advanced Certificate Nautical Science

A career at sea does not always mean working on board a merchant vessel. On completion of this programme, you can either continue your study onto the Advanced Diploma in Nautical Science or switch to shore-based jobs. For instance, there are opportunities to undertake a shore-based job with a shipping company that manages and controls all aspects of their own ship's operations or on behalf of other ship-owners. In some cases, these roles may require individuals to have seagoing experience. Ship management roles might include Fleet Operations, Fleet Director (Commercial Director), Fleet Manager, Fleet Assistant Staff, Fleet Personnel, Personnel Manager (Human Resources Manager), Training Manager (Head of Training), Personnel Officer, Training Officer General Operations, Operations Manager (Safety Manager, Quality Manager), Safety Officer (Quality Officer) Marine Operations and Marine Superintendent.

Advanced Diploma Nautical Science

This Higher Education programme contributes to the Education and Training requirement for Chief Mate (Unlimited) Certificate of Competency. Learners who have achieved the Advanced Diploma qualification and Chief Mate Certificate of Competency, after gaining the additional required sea-time, can progress on to the Masters Orals course, studying towards their final MCA Certificate of Competency.

The Advanced Diploma and Chief Mate Certificate of Competency qualifications will enable you to work at sea as Chief Officer (a management level position on board ships). It is during this

service period at sea that you will have the opportunity to accumulate the further sea service required to progress to the Master (unlimited) Certificate of Competency.

Higher Education progression routes are varied; details and guidance are freely available on request through course leaders. Fleetwood Nautical Campus offers a BSc (Hons) Maritime Operations Management (Nautical Science) award validated by the Lancaster University, for which you will be eligible to enrol onto should you successfully complete this programme and undertake a pre-entry module.

Programme Aims

General aims of the qualifications:

- To develop the ability to analyse and plan tasks commonly encountered in the workplace.
- To develop approaches to problem solving and critical thinking.
- To develop an evaluative and reflective approach to work and studies.
- To develop the ability to work and communicate effectively with others.
- To develop the ability to plan and organise studies and research.
- To develop skills for employability and progression to higher qualifications.
- To enable the learner to consolidate knowledge and skills to enhance career progression.
- To enable the learner to develop skills to enhance their own personal development.
- To develop Core Skills which are capable of being transferred to any type of employment.

Specific aims of the AdD:

- Develops the skills required to manage and control the safe navigation of the vessel in all conditions.
- Develops the skills required to manage and control vessel operations in compliance with current legislation.
- Develops a sound understanding of shipboard management issues and techniques.
- Develops a sound understanding of the ship Master's role with respect to the legal aspects of managing the navigation and operation of the vessel.
- Develops an understanding of the vessels propulsion maintenance and engineering requirements.
- Prepares learners for the MCA written and oral examinations at Chief Mate level.

Programme Learning Outcomes

Level 4

Upon successful completion of this level, students will be able to:

1. Apply core concepts and underpinning theoretical principles of navigation, ship stability and cargo operations demonstrating safety practices during shipboard operations.
2. Analyse the complexity of planning and conducting shipboard operations in different meteorological and navigational circumstances.
3. Analyse the effectiveness of management techniques in regard to the processes, procedures, and practices of shipboard safety management systems.
4. Plan and implement shipboard operations with due regard to national legislation and international standards related to safety of life at sea, safety of navigation and protection of the marine environment.
5. Demonstrate the use of electronic safety navigation equipment and other IT systems and specialist industry software.
6. Analyse the international maritime business environment including commercial and legal sectors.

7. Critically analyse the importance of the human element for shipboard operations including cultural, linguistic, and ethical factors.
8. Communicate effectively in academic, professional, and shipboard environments.
9. Research and embed information from a variety of traditional and digital sources to support personal and professional development, lifelong learning, and achievement.

Level 5

Upon successful completion of this level, students will be able to:

10. Apply core concepts and principles of navigation, ship stability and management of bridge and vessel operations demonstrating judgement in the application of tools and techniques.
11. Plan, implement and appraise shipboard operations with due regard to industry legislation, regulatory frameworks and standards.
12. Critically evaluate the global context of maritime operations incorporating cultural, legal, ethical and environmental factors.
13. Analyse complex problems in order to identify appropriate methods to formulate mathematical models and solutions.
14. Develop and evaluate logical arguments, justifications and conclusions associated with complex issues identifying underlying assumptions and critical factors.
15. Critically analyse and evaluate processes, procedures and practices of effective shipboard management.
16. Reflect on the appropriateness of different approaches to solving problems.
17. Appraise and interpret complex emergency scenarios in simulated environments and apply self-management, leadership and supervision skills.
18. Communicate in a variety of forms to a range of audiences.
19. Prepare and interpret complex loading, discharging and stress data by utilising IT systems and specialist industry software.
20. Research and embed information from a variety of traditional and digital sources to support personal and professional development, lifelong learning and achievement.

Programme Structure

Module	Level	Credits	%	Category	Description	Length/Word Count	Grading Method
Stage 1							
HW6E47: Navigational Mathematics and Science (Mandatory)	4	8	100%	Written Exam: Formal Written Examination	Examination	120	Percentage Grade
HW6G47: Bridge Watchkeeping (Mandatory)	4	8	100%	Written Exam: Formal Written Examination	Examination	120	Percentage Grade
HW6H47: Marine Cargo Operations (Mandatory)	4	12	100%	Written Exam: Formal Written Examination	Written exam	120	Percentage Grade
HW6J47: Ship Stability: An Introduction (Mandatory)	4	12	100%	Written Exam: Formal Written Examination	Examination	120	Percentage Grade
HW6K47: Naval Architecture: Ship Construction (Mandatory)	4	8	100%	Written Exam: Formal Written Examination	Examination	120	Percentage Grade
HW6M48: Celestial Navigation (Mandatory)	5	16	100%	Written Exam: Formal Written Examination	Examination	120	Percentage Grade
			-	Practical: Practical Skills Assessment	Practical	20	Pass/Fail
HW6N47: Nautical Science: Graded Unit 1 (Mandatory)	4	8	100%	Written Exam: Formal Written Examination	Examination	180	Percentage Grade
HW6P47: Chartwork and Tides (Mandatory)	4	16	100%	Written Exam: Formal Written Examination	Examination	120	Percentage Grade
HW6R47: Marine Meteorology: An Introduction (Mandatory)	4	8	100%	Written Exam: Formal Written Examination	Examination	120	Percentage Grade
			-	Practical: Exercise	Practical/Assignment	30	Pass/Fail
HW7247: Marine Emergency Response and Communication (Mandatory)	4	8	100%	Written Exam: Formal Written Examination	Examination	120	Percentage Grade
			-	Practical: Practical Skills Assessment	Signal	90	Pass/Fail
HW7347: Marine Law and Management: An Introduction (Mandatory)	4	8	100%	Coursework: Assignment	Assignment	1200	Percentage Grade
Stage 2							
HP6L47 MMTI: Information Technology: Applications Software 1 (MMTI) (Mandatory)	4	8	-	Coursework: Portfolio / e-Portfolio	Portfolio	2000	Pass/Fail
HW7448 MMTI: Marine Passage Planning (MMTI) (Mandatory)	5	12	50%	Coursework: Project	Project	2000	Percentage Grade
			50%	Written Exam: Formal Written Examination	Examination	120	Percentage Grade

HW7548 MMTI: Management of Bridge Operations (MMTI) (Mandatory)	5	12	60%	Practical: Presentation	15 minute presentation and 1500 report	15	Percentage Grade
			40%	Practical: Presentation	15 minute presentation and 1500 report	15	Percentage Grade
HW7648: Applied Marine Meteorology (Mandatory)	5	12	70%	Coursework: Report	n/a	2500	Percentage Grade
			30%	Practical: Presentation	n/a	15	Percentage Grade
HW7748 MMTI: Ship Stability: Theory and Practical Application (MMTI) (Mandatory)	5	12	100%	Written Exam: Formal Written Examination	Examination	180	Percentage Grade
HW7848: Shipmasters Law and Business (Mandatory)	5	16	100%	Coursework: Essay	Essay	3000	Percentage Grade
HW7948: Shipboard Management (Mandatory)	5	8	100%	Coursework: Report	n/a	120	Percentage Grade
HW7A48: Marine Vessels: Structures and Maintenance (Mandatory)	5	8	70%	Coursework: Report	n/a	2000	Percentage Grade
			30%	Practical: Presentation	n/a	15	Percentage Grade
HW7C48 MMTI: Management of Vessel Operations (MMTI) (Mandatory)	5	16	50%	Practical: Presentation	PPT with narration	15	Percentage Grade
			50%	Practical: Presentation	PPT with narration	15	Percentage Grade
			50%	Practical: Presentation	Presentation and a 2000 word report	15	Percentage Grade
			50%	Practical: Presentation	Presentation and a 2000 word report	15	Percentage Grade
HW7E48: Nautical Science: Graded Unit 2 (Mandatory)	5	8	100%	Written Exam: Formal Written Examination	Examination	180	Percentage Grade
HW7F48: Nautical Science: Graded Unit 3 (Mandatory)	5	8	100%	Written Exam: Formal Written Examination	Examination	180	Percentage Grade
HW7J48: Marine Engineering Systems (Mandatory)	5	8	100%	Coursework: Report	n/a	2500	Percentage Grade

Study Workload

This programme requires considerable commitment to time management, determination, work-life balance, and focus on the work in hand.

Programme Delivery: Learning and Teaching

You will attend MMTI for six months where a two term structure is in place to support all students on this programme to complete the learning for the AdC or AdD modules.

Throughout your programme you will learn and be assessed in a range of ways to support the overall aims and outcomes of the programme in order to equip you with the appropriate skills for roles within the maritime industry. Employers will be looking for a range of skills and competencies, including innovation and initiative. They will be keen to employ strong communicators and team players. The programme is designed to promote the development of these qualities alongside core technical competencies and academic knowledge.

Units

Each unit has its own learning, teaching and assessment strategy to suit specific aspects of the curriculum. You will progress through the units via a range of learning and assessment styles, and the supportive structure of the programme allows you to build on knowledge developed in earlier units.

Resources

The resources to support you in your studies include books, e-books and journals, as well as the college Canvas, the college's virtual learning environment (VLE). Canvas provides an online platform for programme resources, allowing you to access materials 24 hours a day, 7 days a week. The Learning Resource Centre provides access to all relevant publications, as identified on the reading lists. You will receive access to maritime specific documents and eBooks with membership to Witherby connect and Regs4ships. Access to the Ocean Learning Platform is available with a library of videos designed for training industry professionals. Canvas provides an online platform for programme resources, allowing you to access materials to supplement your classroom based studies 24 hours a day, 7 days a week.

Programme Delivery: Assessment

Formative Assessment will take place as you work through the unit material provided by the blended learning team. It will take the form of self-checking questions and multiple-choice questions, which will measure your progress and knowledge and identify areas of weakness for you to focus on further revision or research. Once you have completed a Learning Outcome, you will undertake a Formative Assessment, which you will submit online via Canvas, the college VLE. You will be required to successfully pass these assessments before being able to undertake a Pre-College Test. Pre-College Tests will measure your knowledge and understanding of the Learning Outcomes and will take the form of an online closed book examination and the timings of which will mirror each unit's Summative Assessment. You will receive extensive feedback on your PCT submission and be required to pass, before you will be entered for the Summative Assessment (written exam) at Fleetwood Nautical Campus. Summative Assessments at college are time constrained and closed book, however you will also undertake some coursework exercise such as project work, essays and assignments. You do not need to attend college for coursework and or assignments, but you must adhere to the submission time frame. Written examinations are conducted by B&FC directly under invigilated conditions conforming to MCA written exam conditions. The AdC and AdD qualification also consists of additional units termed as Graded Units. The Graded Units consist of written examinations only and do not feature any delivery hours as taught / delivered units, but rather rely on your comprehensive knowledge of the associated modules.

For each module there is a requirement to complete and pass the:

- Formative Assessments (FAs) – to check your understanding and for us to provide feedback, but does not count towards your final grade
- Pre-college tests (PCTs) – mock exams
- Coursework, projects or assignments must be submitted online through Canvas
- Summative Assessments (written exams) which are held at Fleetwood Nautical Campus.

Programme Delivery: Work Based and Placement Learning

While there is no specific unit dedicated to Work Based Learning or Placement, experience onboard ships is essential for obtaining OOW and Chief Mate CoC.

Programme Delivery: Graduate Skill Development

The programme helps you to develop;

A commitment to lifelong learning and career development

The AdC/ D Nautical Science supports lifelong learning through learning mobility which aims to attain new competences and knowledge as identified by the International Convention on Standard of Training, Certification and Watchkeeping for Seafarers (STCW) certification for Officer of the Watch and Chief Mate/ Master on board vessels.

Collaborative teamwork and leadership skills

During the undertaking of the Marine Law and Management unit, Bridge Watchkeeping unit and Electronic Navigations Systems short course, you will be expected to work towards common goals and partake in leadership roles as required.

Personal and intellectual autonomy

We support your development of independence in academic and practical skills on the programme, most prominent in the assignments and projects where you will be responsible for managing your work.

Ethical, social and professional understanding

Mapping of the programme content to the requirements of a the Advanced programme set by Merchant Navy Training Board (MNTB) ensures that the units delivery and assessment considers legal, social and ethical issues to enhance learners professional development.

Global citizenship

To build your global skills and competency, the programme was developed liaising with international maritime companies like Princess Cruises, BP, Chiltern Maritime, Shell and V ships. The department also has close links with Kuwait Shipping Companies. The programme is delivered by faculty, from the Nautical Science department who have different ethnic and cultural background. By bringing faculty together from different academic background students explore global markets in marine industry, marine laws, and marine technological developments globally.

Study Costs: Equipment Requirements

You will be required to purchase the following items for your course, these can be purchased from any supplier therefore prices may vary:

Compass, Parallel rule, Dividers, Drawing instruments, Pens, Pencils, Erasers

Candidates will need calculators as specified by the rubric of individual module and as permitted by the College. The College approved models are Casio FX- 70, Casio FX- 85GT Plus and Casio FX 115 MS. These may be purchased from any source. You will require access to a computer or laptop with internet access.

Learning Resources are provided on-site at Fleetwood Nautical Campus and free for students to use within normal college working hours. You should check with MMTI for information on recourses and timings when available.

Notice of Eligibility for MCA Orals exam must be applied for by the students' directly prior arrival at Fleetwood for SQA exams and short courses.

There is a cost of £220 (22/23) for the Notice of Eligibility, please see [MSN 4274](#)

Study Costs: Additional Costs

There are no additional costs involved.

Related Courses

You can enrol at Fleetwood Nautical Campus for all the required ancillary technical and safety training short courses for Certificate of Competency as per MSN 1856:

Personal Survival Techniques

Fire Prevention and Fire Fighting

Elementary First Aid

Personal Safety and Social Responsibility

Proficiency in Survival Craft and Rescue Boats

Advanced Fire Fighting

Medical First Aid

Medical Care

NAEST (operational)

NAEST (management)

Efficient Deck Hand (EDH)

HELM (operational)

HELM (management)

GMDSS (GOC)