Programme Specification

NUS-HND-2017: Nautical Science HND

SQA Higher National Diploma awarded by Scottish Qualifications Agency (FHEQ Level 5)
Programme Status: Approved | Version: 1
Programme Overview

Blackpool and The Fylde College remains committed to providing 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 HND 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 in the field of as a Chief Mate within the Maritime industry.

This programme is aligned to support your progression through knowledge acquisition at operational level as directed by the Standard of Training, Certification and Watch keeping (STCW) 1978, as amended 2012. This is achieved by meeting the requirements of the Maritime and Coastguard Agencies (MCA) and approved by the Merchant Navy Training Board.

Introduction

This programme specification provides a summary of the main features of the Nautical Science HND programme and the learning outcomes that you as a student might reasonably be expected to achieve and demonstrate 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 Student Handbook
• B&FC Admissions Policy
• Work based and placement learning handbook (for foundation degrees)
• Student guide to assessment and feedback

Key Programme Information

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<thead>
<tr>
<th>Programme Code</th>
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<tr>
<td>Programme Title</td>
<td>Nautical Science HND</td>
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<tr>
<td>Teaching Institution</td>
<td>Blackpool and The Fylde College</td>
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<tr>
<td>Professional, Statutory and Regulatory Body (PSRB) Accreditation</td>
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<td>UCAS Code</td>
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<td>Approval Date</td>
<td>07 September 2018</td>
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<tr>
<td>JACS Code</td>
<td>Other: Other</td>
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<tr>
<td>Programme Leader</td>
<td>Anindya Banerjee</td>
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Programme Awards

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<td>Higher National Diploma</td>
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In addition to this programme providing a level 5 academic qualification, you will work closely with shipping companies and undertake a cadet training programme that runs alongside the academic award. You will cover topics such as Global Maritime Distress Safety System (GMDSS), STCW advanced training: Medical First Aid (MFA) and Advanced Firefighting (AFF), Navigation Aids Equipment and Simulator Training (Operational) (NAEST(M)). Signals, Human Elements Leadership and Management (Operational) (HELM (M)).

To enhance the industry links, student membership is available to all cadets through the Nautilus International organisation.

**Admission Criteria**

**HND:**

Typically you will complete your Level 4 HNC Nautical Science at Fleetwood Nautical Campus and undertake time at sea prior to the start of the HND programme.

**HND Direct Entry**

Students who can provide an MCA approved unlimited officer of the watch (OOW) certificate of competency and have also completed 12 months seagoing service as an OOW will be eligible to join the HND Nautical Science programme.

**Career Options and Progression Opportunities**

Achieving the Chief Mate (Unlimited) Certificate of Competency leads to employment as a Chief Officer in the Merchant Navy, responsible for operating and managing commercial ships. A range of shore-based opportunities are also available, in ship management and in areas such as maritime law, ship surveying, and maritime education and training.

However, a career at sea does not always mean working on the water; 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 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
- Marine superintendent

**Programme Aims**

General aims of the qualifications:

- To develop the ability to analyse and plan tasks commonly encountered in the work place.
- 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 HND:

- 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 vessel’s propulsion maintenance and engineering requirements.
- Prepares learners for the MCA written and oral examinations at Chief Mate level.

Programme Learning Outcomes

Level 5

Upon successful completion of this level, students will be able 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.
9. Communicate in a variety of forms to a range of audiences.
10. Prepare and interpret complex loading, discharging and stress data by utilising IT systems and specialist industry software.
11. Research and embed information from a variety of traditional and digital sources to support personal and professional development, lifelong learning and achievement.
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<tr>
<th>Pathway</th>
<th>Module</th>
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<th>Practical</th>
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### Course Options

There are no optional modules on this programme.

### Study Workload

The programme is delivered across 2 semesters which takes place at Fleetwood Nautical Campus. This will provide you with the opportunity to gain theoretical knowledge which can then be applied in practice.

During the undertaking of units at College, you will undertake learning through a combination of lecturers, seminars, group tutorials, workshops and independent study.

### Programme Delivery: Learning and Teaching

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 teaching, learning 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 modules.

Resources
The resources to support you in your studies include books, e-books and journals, as well as the colleges Moodle platform (see below). The Loop 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 publications and regs4ships. Videotels Networked Video on Demand (NVOD) is used in the classroom to provide access to a repository of information videos designed for training industry professionals.

Moodle 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.

Simulation of nautical environments and operations are conducted in the Bridge Simulator. The simulator is used in several of the modules to provide a basis for application of theories such as those studies in Bridge watchkeeping and Electronic Navigational Systems and to support your studies when considering bridge operations.

Independent learning
Effective learning is more likely when you are given, and accept responsibility for your own learning and have some control over the learning context. Each unit has been designed to support small group work structured to facilitate cooperative learning and enable some autonomy. Many units include problem based learning where a group works collaboratively to solve a particular problem, then reflects on the outcomes in order to apply them at sea or in further tasks. You will develop an ability to define problems, identify and acquire the skills and knowledge needed to solve them, and then work through the solution. You will be required to take responsibility for your own and the groups learning.

Academic support
If you have subject specific issues or would like a focused learning environment to work, clinics are available each evening from Monday to Thursday. Typically there are at least two staff members available each evening providing support for a range of subjects and levels. This is used to provide support where you may be struggling or want to further develop skills and knowledge. This is in addition to the Partners for Success framework where subject lecturers and personal tutors can identify support mechanisms for entire groups or yourself as an individual to support and ensure that you are provided with the best possible opportunities to engage fully with your learning experience and the full life of the college. You will be able to access a wide range of additional enhancements during your studies to support you in your learning and ultimately with your employment prospects. The College works to provide a supportive ethos and an enabling culture which builds individuals, communities and economic prosperity.

Blended Learning:
Following enrolment to a set of units, your teaching and learning will be supported by learning materials which have been created by the blended learning team. These resources provide an outline of each unit, a recommended reading list and provide details of the unit’s syllabus and learning outcomes. Each section of the hard copy book is supplemented by links on Moodle to a combination of resources, these include, but are not limited to, Marine Notices, Power Points, useful web links to industry publications, Excel spreadsheets, video tutorials, clinics, e-books and DVD’s.
Programme Delivery: Assessment

Assessments will be set to test your understanding rather than your ability to memorise and reproduce knowledge or processes. This will be an opportunity for you to reflect on your progress throughout the programme and consider your next step of working towards Chief Mate Certificate of Competency.

Assessments have been developed to measure your successful completion of all elements of the programme, and as you progress between units you will complete assessments to demonstrate your achievement of the learning outcomes stated in the unit specifications. Formative and summative assessments provide a wide ranging indication of your progress and development, and include traditional examinations as well as coursework exercises. The majority of the units you undertake will be summatively assessed by examination, as this methodology is recognised by industry bodies. By completing these examinations, you will be exempt from the academic subjects when studying towards Chief Mate Certificate of Competency. In addition to examinations, you will be undertake coursework assignments which include the use of ship loading software, essays on topics such as principles and application of UK legislation, safety management and calculating cargo quantity within the constraints of prevailing legislations and contact of carriage.

Blended Learning and MMTI:

Formative assessment will take place as your work through the unit material provided by the blended learning team. It will take the form of Self-Checking Questions & Multiple Choice Questions which will test your knowledge and identify revision areas for you to focus on. Once you have worked through a full unit and have received guidance from specialist subject tutors, you will be required to undertake a Tutor Marked Test, which you will submit online. You will be required to successfully pass these tests before being able to undertake a Pre-College Test. Pre College Tests will measure your knowledge and understanding of the units and will take the form of a closed book examination and the timings of which will be based on the unit’s summative assessment. You will receive extensive feedback and be required to pass these tests before undertaking the units summative assessment by attending a MCA approved campus, such as Fleetwood Nautical Campus.

Summative assessments are predominantly examination based which are time constrained and closed book and conducted on College or an MCA approved premises, however you will also undertake some coursework exercise such as project work and essays. You do not need to attend college for coursework assignments but you must adhere to the submission time frame. Examinations are conducted by B&FC directly under invigilated conditions conforming to MCA written exam conditions. Summative exams also consist of additional papers termed as Graded papers. The Graded Units consist of examinations only and are do no features any delivery hours as taught / delivered modules.
Programme Delivery: Graduate Skill Development

The programme helps you to develop;

**A commitment to lifelong learning and career development**

The HND 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 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. Working collaboratively, you will analyse your peer’s performances and review the necessary roles and responsibilities of the exercises undertaken.

**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 Higher National 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 liaised with international maritime companies likes 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 are expected to provide your own day-to-day stationary items, e.g. pens, pencils, notebooks, etc.). Any specialist stationery items will be specified under the Additional Costs tab of the relevant module profile. 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 and Casio FX-85GT Plus. 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 and free for students to use Monday to Friday.

Study Costs: Additional Costs

To enhance your professional development and guarantee support in social and labour context it is recommended that you join Nautilus International as a seagoing officer, for a cost of £23.15 per month.

Related Courses

Fleetwood Nautical Campus offers the following programmes;

- FdEng Marine Engineering (awarded by Lancaster University);
- FdEng Marine Electrical and Electronic Engineering (awarded by Blackpool and the Fylde College);
- FdSc Nautical Science (awarded by Liverpool John Moores University);
- HNC/D Marine Engineering (awarded by SQA)
- HND Nautical Science (awarded by SQA)

These programmes all work in alignment to deliver focused education and training to address the needs of the Maritime industry.