University of Plymouth

Faculty of Science and Engineering

School of Engineering

Programme Specification

FdSc Navigation and Maritime Science - 4494

September 2020

Contents

1. FdSc Navigation and Maritime Science

Final award title **FdSc Navigation and Maritime Science**
Level 4 Intermediate award title **Certificate of Higher Education**
UCAS code **J617**
JACS code **J611, J612, J613, J614**

2. Awarding Institution

Awarding Institution	University of Plymouth
Teaching institution	University of Plymouth

3. Accrediting bodies

Maritime and Coastguard Agency (No set period but subject to inspection and audit at short notice)
Merchant Navy Training Board (Annual statement of compliance with regulation)

4. Distinctive Features of the Programme and the Student Experience

The global environment which the Marine Studies scheme seeks to support is driven by oil-based economies, the need to transport large volumes of raw material and goods by sea and a rapid growth in the use of the marine environment as a leisure resource.

This requires the development of academic knowledge and skills required to study the complex interaction of the marine environment, the human element and technology. Such student development is enabled by the combination of academic and professional expertise that the staff team provide. The professional expertise has often been developed in former careers including ship command, as deck and engineer officers in both the Merchant Navy and Royal Navy, in senior company management and hydrographic survey.

The programme will be accredited by the Maritime and Coastguard Agency (MCA) and the Merchant Navy Training Board to provide the underpinning knowledge for the OOW (Reg II/1) Unlimited and Chief Mate
(Reg II/2) Unlimited certificates of competency. Once the mandatory ancillary courses are completed and additional MCA Oral examination is passed then the student can also obtain the relevant certificate of competency to serve as a Deck Officer on merchant ships.

The programme will also enable students who do not achieve the external accreditation requirements to graduate with an honours degree. This programme will also be used for direct entry Stage 2 and 3 students, particularly those from Colleges with articulation agreements, who do not require or are not eligible for external accreditation.

Experiential Learning

It is critical for the development of students on this course to contextualise the taught elements. As such students have access to the following facilities:

1. University boat “TTH” – students undertake a variety of exercises in Plymouth Sound, and once suitably qualified can take the boat without a member of staff being present (following strict Safe Operating Procedures), including cross-channel passages.
2. The students have access to a world class marine simulator.
3. Utilising the above resources there are two, 20 credit, Field and Professional Skills modules (one in stage 1 the other in stage 2) that depend on these facilities, plus the input of a local sailing school. There is also an experiential field work element in stage 1 modules (NMS101, 102, 103 of 20% module weighting each) equivalent to a further 12 credits of study. Giving a total equivalent 52 credits of learning across stage 1 and 2 that are field based.
4. An (optional) industrial placement module (BPIE337) is available for BSc (Hons) students in stage 3, who are not sponsored for sea time as part of the accredited programme, and who have undertaken the placement introduction modules in stages 1 and 2 (students who are sponsored and undertaking seatime, do not need to undertake the stage 1 and 2 introductory modules, but will take the BPIE337 placement module). On completion students will be awarded a Certificate of professional training.

Employer Involvement

The development of a transfer to a FdSc award after stage 2 of the BSc(Hons) programme, is in direct response to the needs of shipping companies in the UK. It is anticipated that all students accessing the course will be able to gain access to sponsorship opportunities. The University already works closely with many companies – the design of the BSc(Hons) Navigation and Maritime Science degree reflects these needs. The transfer deadline is the last day of the second semester.

Accessibility

It is the desire of the Navigation team within the University of Plymouth, to ensure there is an access route to the maritime industry which provides a clear escalator of skills, with a variety of entry and exit points. The programme will allow wider participation and access to University level facilities as a fully integrated programme with a variety of exit points which represent real value to the higher fee paying student, with a clear route to employability, either after stage 3 or 4.

Flexibility

The course is designed to ensure maximum flexibility within the context of the professional accreditation. With students having the possibility of gaining sponsorship, and those not gaining sponsorship having the opportunity to break their study with the award of an industry recognised qualification.

Knowledge, Understanding and Skill

The aims of the course are directly linked to employment opportunities in the maritime industry. This career oriented approach requires a high level of specific knowledge, understanding and skill development within the programme. This is supplemented by additional training to which the FdSc Navigation and Maritime Science links.

Professionally Informed Teaching

The core members of staff on the course all have professional backgrounds in the maritime industry. Either as seafarers, brokers, ship managers or surveyors . The

depth and range of knowledge has directly informed the structure of the program and its content. The staff maintain professional links to the industry and consider that the new course structure is responsive to the needs of industry and the regulatory authorities.

5. Relevant QAA Subject Benchmark Group(s)

The programmes within the FdSc Navigation and Maritime Science best relate to the ES3 subject benchmark statements. The characteristics of the programmes bear strong similarities to the common features of the ES3 areas:

- Focus on the understanding of Earth systems in order to learn from the past, understand the present and influence the future.
- Emphasis on field-based investigation.
- Multi-disciplinarity and inter-disciplinarity of approach.
- Range of spatial and temporal scales that they cover.
- Development of graduates capable of using their powers of observation, analysis and imagination to make decisions in the light of uncertainty.

The prominence given to fieldwork within the benchmark statements is enhanced within this programme by the use of a ship simulator and afloat facilities to provide both an experiential and virtual fieldwork experience.

The FdSc Navigation and Maritime Science programme considers the sustainability element of the benchmark statement "examination of the exploration for, and exploitation of, physical and biological resources in the context of sustainability" they do not however focus on the physical and biological elements.
As the programme intends to have a named exit qualification via transfer to a Foundation Degree it is important to recognise that level 4 and 5 outcomes have also been informed by the Foundation Degree Qualification Benchmark. QAA has produced a qualification benchmark for Foundation Degrees, which is not specific to any particular discipline but sets out a generic framework for Foundation Degrees that serves as a reference point for use in programme design, delivery and review. However it is of concern to the design team that the new programme should fit the ethos of working within a University context. The thorough consideration of the academic requirements and progression of those following this particular programme are to be fully considered.
For the sake of clarity the FDQB benchmarks have been included in the following mapping, and have been used to inform the outcomes, and ensure the FdSc exit qualification sits comfortably with the BSc(Hons) qualification which uses the ES3 benchmarks.

The tables below are to be used for cross referencing purposes.

ES3 Threshold Benchmark Statements and Mapping Document

Code	Threshold benchmark Statement
A	Knowledge based on the directly taught programme. .
B	Basic ability to integrate lines of evidence from a range of sources to support findings and hypotheses

C	Basic understanding of subject-specific theories, paradigms, concepts and principles.
D	Basic ability to consider issues from a range of multi-disciplinary and inter-disciplinary perspectives.
E	Basic ability analyse, synthesise and summarise information.
F	Basic ability to define and solve routine problems.
G	Ability to describe the moral and ethical dimensions of issues and investigations and the need for professional codes of conduct.
H	Basic ability to describe and record materials in the field and laboratory.
I	Basic ability to interpret practical results.
J	Basic ability to use appropriate laboratory and field equipment safely.
K	Ability to use spatial technologies in addressing problems.
L	Ability to plan, conduct and present an independent project with reliance on guidance.
M	Ability to apply a range of methods to solve problems.
N	Basic ability to present results of investigations in a number of formats.
O	Basic ability to relate investigations to prior work and reference appropriately.
P	Ability to communicate to a variety of audiences in written, graphical and verbal forms.
Q	Ability to read and respond to written material.
R	Ability to collect and record data with guidance.
S	Ability to prepare, process and interpret data using appropriate techniques with guidance.
T	Basic ability to solve numerical problems using appropriate techniques.
U	Ability to use the internet for communication and information retrieval.
V	Some ability to contribute to team work.
W	Ability to recognise and respect the views of others.
X	Basic ability to develop the skills necessary for self managed and lifelong learning (e.g. independent study, time management, organisational skills)
Y	Basic ability to identify and work towards targets for personal, career, and academic development.
Z	Ability to be adaptable and flexible.

QAA Foundation Degree Threshold Benchmark Statements

Code	Threshold Benchmark Statement
A	knowledge and critical understanding of the well-established principles in their field of study and the way in which those principles have developed;

B	successful application in the workplace of the range of knowledge and skills learnt throughout the programme
C	ability to apply underlying concepts and principles outside the context in which they were first studied, and the application of those principles in a work context
D	knowledge of the main methods of enquiry in their subject(s), and ability to evaluate critically the appropriateness of different approaches to solving problems in their field of study and apply these in a work context
E	an understanding of the limits of their knowledge, and how this influences analyses and interpretations based on that knowledge in their field of study and in a work context.
F	use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis in their field of study and in a work context;
G	effectively communicate information, arguments, and analysis, in a variety of forms, to specialist and non-specialist audiences, and deploy key techniques of the discipline effectively in their field of study and in a work context.
H	qualities and transferable skills necessary for employment and progression to other qualifications requiring the exercise of personal responsibility and decision-making;
I	the ability to utilise opportunities for lifelong learning.
J	undertake further training, develop existing skills, and acquire new competences that will enable them to assume responsibility within organisations;

6. Programme Structure

Brief Description of Programme

The FdSc Navigation and Maritime Science is to be delivered by University of Plymouth, via the School of Engineering, under the Faculty of Science and Engineering.

Subsequent to the University approval it will be put forward for accreditation by the Maritime and Coastguard Agency via a Merchant Navy Training Board approval – it should be noted however that the Merchant Navy Training Board have been advised of the proposals and the feedback has been very positive. A two or three stage FdSc programme or three or four stage BSc programme, for our sponsored students it will combine periods of academic study within a University environment, with periods of field work in the form of working on board sea going vessels, and for non-sponsored students there will be an enhanced fieldwork provision for the same module. This therefore constitutes two modes of delivery,

Students starting on the BSc route will have the opportunity to transfer prior to completion of stage 2 to the FdSc Navigation and Maritime Science. Students completing the FdSc route will be able to transition straight to stage four of the BSc programme. For the avoidance of doubt stages 1 and 2 of both programmes are exactly the same.

The student will also have the opportunity to complete further ancillary courses alongside the programme and achieve a Merchant Navy Officer of the Watch (Unlimited) Certificate of Competence.

Pathways

Within the two programs are two pathways to provide the student with flexibility, and ensure the program is also suitable for delivery to International students.

These are defined as follows:

Pathway 1 – FdSc MNTB Accredited Route for OOW (Unlimited)

Accredited by the Merchant Navy Training Board and the Maritime Coastguard Agency. The student can join the FdSc and complete the requirement outlined in Figure 1. This pathway is for those wishing to go to sea in a professional watch keeping capacity. The FdSc is a 3 stage program. After stage 3 the student may graduate with a FdSc. In order to complete this pathway students must complete the placement year and all work associated with the Certificate of Industrial Experience.

Pathway 2 – FdSc non-accredited pathway.

This is not accredited by the Merchant Navy Training Board.
This is aimed at the student who does not want to go to sea in professional capacity but may want to move into non watch keeping roles or the shore side administration and management of the industry.

The modules taken are the same as pathway one. The Placement year may also be taken if desired, but can be in any sector of the maritime industry. It is however not compulsory.

Modular Profile of Pathways

Note: Those students following Pathway 1 MUST complete all zero rated modules to achieve the award and complete their portfolio for their Certificate of Competency.

Pathway 1 – FdSc MNTB Accredited Route.

Stage 1

NMS101	Coastal Navigation	20
NMS102	Marine Operations	20
NMS103	Voyage Planning and Meteorology	20
NMS108	Field and Professional Skills	20
NMS109	Marine Techniques	20
NMS106	Management and Leadership 1	20
NMS107	Accreditation 1	0

Credits at Level 4 **120**
Exit Point – Certificate in Higher Education

Stage 2

NMS209	Voyage Planning and Collision Avoidance	20
NMS202	Marine operations and Construction	20
NMS204	Management and Leadership 2	20
NMS205	Field and Professional Skills 2	20
NMS207	Ocean Navigation	20
NMS203	Law	20
NMS208	Accreditation 2	0

Credits at Level 5 **120**

Stage 3

BPIE337	Navigation and Maritime Science related Placement	0

Pathway 2 – FdSc non accredited pathway.

Stage 1 Level 4

NMS101	Coastal Navigation	20
NMS102	Marine Operations	20
NMS103	Voyage Planning and Meteorology	20
NMS108	Field and Professional Skills	20
NMS109	Marine Techniques	20
NMS106	Management and Leadership 1	20
BPIE116	Stage 1 Navigation Placement Preparation	0

Credits at Level 4 **120**
Exit Point – Certificate in Higher Education

Stage 2

NMS209	Voyage Planning and Collision Avoidance	20
NMS202	Marine operations and Construction	20
NMS204	Management and Leadership 2	20
NMS205	Field and Professional Skills 2	20
NMS207	Ocean Navigation	20
NMS203	Law	20
BPIE216	Stage 2 Navigation Placement Preparation	0

Credits at Level 5 **120**
Exit Point – FdSc Navigation and Maritime Science

Stage 3

BPIE337	Navigation and Maritime Science related Placement (optional)	0

Exit Point – FdSc Navigation and Maritime Science (with certificate of industrial experience)

Introduction	
The course will lead to a FdSc Navigation and Maritime Science alongside this is the opportunity for accreditation by the MCA as part of the route to a Certificate of Competency as an Officer of the Watch (Unlimited).	
Part 1 Academic Programme	
What the University will provide : All modules in year 1, 2 and 3 will contain the knowledge required for accreditation the MCA - this is known as "Underpinning Knowledge" or UPK. Stage 4 of the BSc course does not contain any	**What extra you need to do** : In addition to passing modules at 40% to pass the University course you need to achieve a minimum of 50% in all modules in stages 1,2 Within certain modules there are elements that you need to pass at either 60% or 65% to achieve the accreditation. In stage 4 you need to achieve the University pass rate only.
Part 2 Short Courses	
You will also need additional short courses to become eligible for your MCA Certificate. These are listed below. They are all required for your MCA Certificate and are typically paid for by your sponsoring company. **Prior to going to sea:** Personal survival techniques Elementary first aid Personal safety and social responsibilities Fire prevention and firefighting Proficiency in Security Awareness **Subsequent courses after initial sea time (6 or 12 month at sea required**): Proficiency in survival craft and rescue boats other than fast rescue boats Human Element Leadership and Management (Helm (O))	

<table>
<tr><td colspan="2">Advanced firefighting Medical first aid
GMDSS General Operator Certificate
Navigation and radar simulator training at
Navigation aids, equipment and simulator training (NAEST(O))
Efficient Deck Hand
Signals certificate
Orals preparation</td></tr>
<tr><td colspan="2">Part 3 Sea-time Placement Year</td></tr>
<tr><td colspan="2">In order to achieve your MCA Certificate of Competency you will need a minimum of 12 months good quality sea time and, for those wanting an Unlimited Certificate of Competency (MNTB accredited); this includes work based assessments. During this time you also need to complete your Training Record Book, this contains all the tasks you are required to complete prior to gaining your certificate, these task will be signed off by an officer on board the vessel on which you are completing your sea time. The Training Record Book is not part of your assessment, but is required for your MCA Certification.</td></tr>
<tr><td>What the University will provide :
The University cannot provide sea-time, but will be able to provide advice</td><td>What extra you or your sponsor need to do :
If you are sponsored or in receipt of a bursary, your provider may provide you with sea-time opportunities. If you are looking for your limited certificate (yachts) the onus will be on you to identify appropriate sea-time opportunities.</td></tr>
<tr><td colspan="2">Part 4 How do I get my certificate of Competency</td></tr>
<tr><td colspan="2">Once you have completed parts 1, 2 and 3 to the required standard and can evidence this in a portfolio of work, you can apply to the Maritime and Coastguard agency for your Notice of Eligibility. Once received you can book an Oral Exam with an MCA examiner. If you pass the oral test you will receive your Certificate of Competency.</td></tr>
</table>

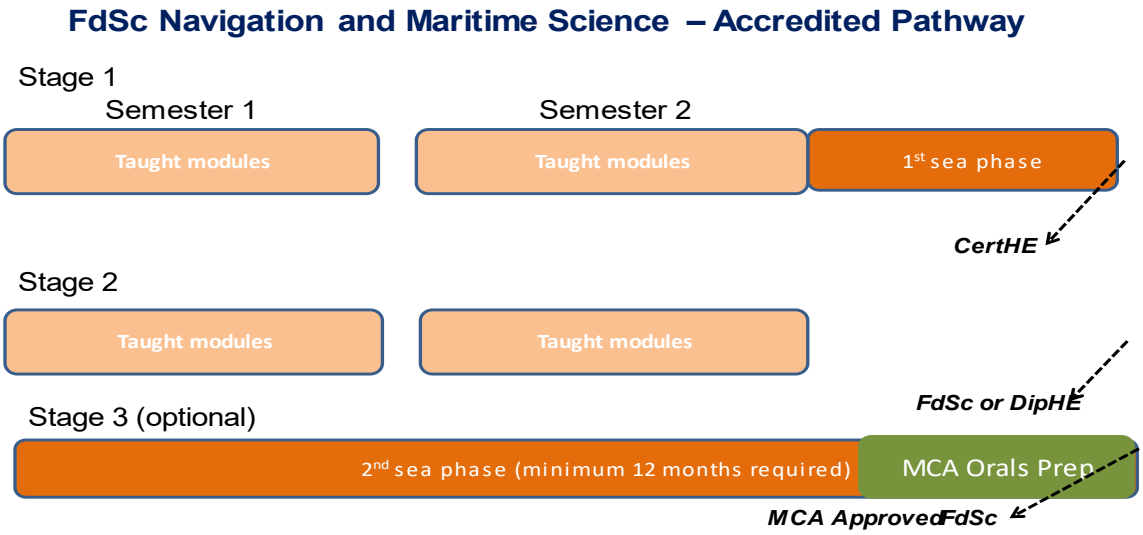
The primary difference between the above pathways are the MNTB/MCA requirements, which include higher pass thresholds a clear requirement for ship board learning via the Field and Professional Skills/ Accreditation modules and the Placement module.

The following table highlights the additional requirements for Pathway 1 - leading to Certification. This is an increased workload for the student and also incurs extra expense on short courses – listed below.

Route to Certification – Pathway 1.

The course will lead to a FdSc Navigation and Maritime Science alongside this is the opportunity for accreditation by the MCA as part of the route to a Certificate of Competency as an Officer of the Watch (Unlimited).

Pathway 1 – Leading to Certification



Students on Pathway 1 are expected to be sponsored for their sea-time. University of Plymouth does not provide sea time.

In addition, those students intending to achieve an MCA Certificate of Competency must complete the following additional ancillary courses:

Prior to going to sea:	
Personal survival techniques	STCW A-VI/1-1, 1 day
Elementary first aid	STCW A-VI/1-3, 1 day
Personal safety and social responsibilities	STCW A-VI/1-4, 0.5 days
Fire prevention and firefighting	STCW A-VI/1-2, 2 days
Proficiency in Security Awareness	STCW A-VI/6, 0.5 days

Subsequent courses after initial sea time (6 or 12 month at sea required):

Proficiency in survival craft and rescue boats other than fast rescue boats	STCW A-VI/2-1 5 days
Human Element Leadership and Management (Helm O)	STCW A-111/1 3 days
Advanced firefighting	STCW A-VI/3 4 days
Medical first aid	STCW A-VI/4-1 3 days
GMDSS General Operator Certificate	10 days
Navigation and radar simulator training at Navigation aids, equipment and simulator training (NAEST(O))	A-II/1 (part) 8 days
Efficient Deck Hand	5 days
Signals certificate	

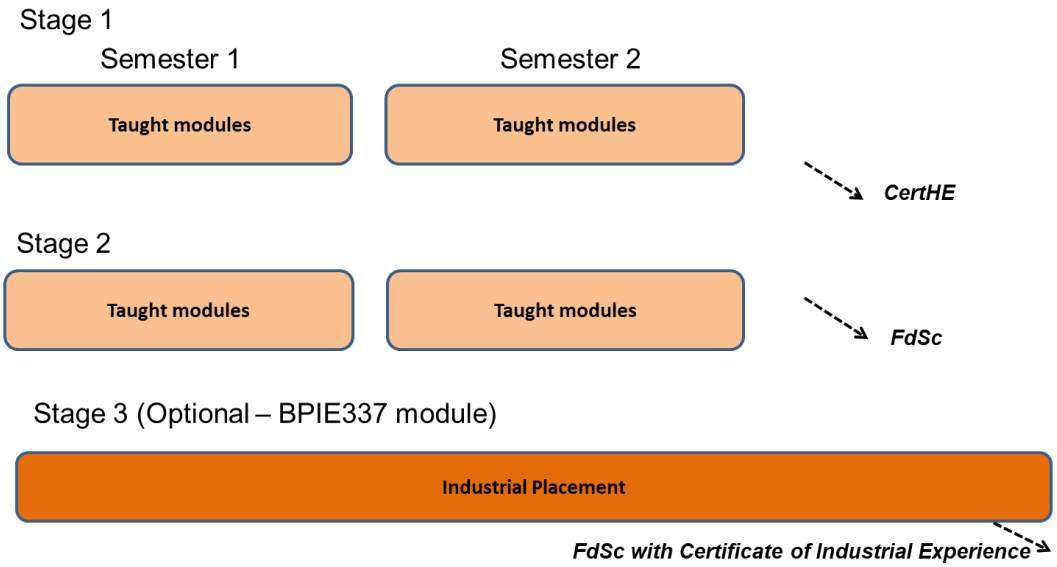
Students following pathway 1 will also have to complete a Training Record Book (TRB), and complete the portfolio of work required for the field work modules, and placement year module.
In order to complete sea time students will be expected to have sponsorship.

Route to Certification – Pathway 2.

The course will lead to a FdSc Navigation and Maritime Science alongside this is the opportunity for an optional industrial placement year at stage 3 (BPIE337). Students choosing the placement year will need to complete the BPIE116 and BPIE216 modules in stages 1 and 2.

Pathways 2 – Not leading to Certification

FdSc Navigation & Maritime Science – Non-Accredited Pathway



Funding implications of following the route toward certification (with sea time)

Students opting to take the placement module and not suspend studies will able to apply for funding over their three or four year program.

Integrated Programme

At the FdSc exit point the student could also benefit from :

- Deck officer certificates: full exemption for all written examinations up to and including Chief Mate/Master level.

Providing that the following special provisions relating to Professional Body requirements regulations have been met:

- The MCA/MNTB require the successful completion of all modules on pathway 1 (with a percentage mark of >50%.
- Successful completion of required sea time (12 months)
- Completion of the MNTB Training Record book
- Successful completion of all required ancillary courses.
- In addition there are some elements of assessment to be passed at 65% or 60% to allow progression to professional examination for STCW 95 II/2 Certification of Competency. All elements with this higher threshold are pass/fail assessments within the appropriate module. They do not however constitute a barrier to academic progression.
- MCA Oral Examination

It will be noted that there are ancillary courses to be taken alongside the academic modules within the programme. These are added to the students portfolio of skills, which then enable the student to apply to the MCA for a notice of eligibility subsequent to appropriate performance in the FdSc Navigation and Maritime Science, after appropriate sea time has been accrued. This allows the student to apply to the MCA for an oral assessment, successful completion of which will lead to award of an MCA Certificate of Competency. The ancillary courses are as listed below:

Certificated learning available alongside the core curriculum;

Personal survival techniques	STCW A-VI/1-1, 1 day
Elementary first aid	STCW A-VI/1-3, 1 day
Personal safety and social responsibilities	STCW A-VI/1-4, 0.5 days
Fire prevention and firefighting	STCW A-VI/1-2, 2 days
Proficiency in Security Awareness	STCW A-VI/6, 0.5 days
Proficiency in survival craft and rescue boats other than fast rescue boats	STCW A-VI/2-1 5 days
Human Element Leadership and Management (Helm O)	STCW A-111/1 3 days
Advanced firefighting	STCW A-VI/3 4 days
Medical first aid	STCW A-VI/4-1 3 days
GMDSS General Operator Certificate	10 days
Navigation and radar simulator training at Navigation aids, equipment and simulator training (NAEST(O))	A-II/1 (part) 8 days
Efficient Deck Hand	5 days
Signals certificate	

Sea-time clarification.

University of Plymouth cannot provide the sea time for pathway 1. This is provided by a sponsor, If a student has the opportunity for sea time, the support for same will be provided for via the sea time tutors, who are there for contact and support throughout any sea time phase. The support system can be found in the approval document.

7. Programme Aims

Aims at Certificate Level

1. Develop the academic knowledge and skills required to study the complex interaction of the marine environment, the human element and technology.
2. Encourage students to be independent and adaptable learners.
3. Provide students with a range of problem-solving skills.
4. Enable students to enter the international maritime industry as a qualified deck officer and/or participate effectively in the management of shore-based marine industries.

Aims at Foundation Degree Level

5. Provide a scientifically-based and intellectually stimulating programme of study incorporating theoretical, quantitative, practical and applied aspects of the marine and maritime environment.

6. Enable students to acquire transferable, technical, enterprise and professional skills appropriate to both personal and career development.
7. Develop a scientific approach to the investigation of problems suitable for a wide range of subject-specific and generic career pathways.

8. Programme Intended Learning Outcomes[1]

Certificate Level

Knowledge and Understanding

On completion of this programme the students will be able to demonstrate a knowledge and understanding of:

- The scope of the complex interaction of the marine environment, the human element and technology.
- Basic navigation techniques.
- The underlying concepts and principles associated with their area of study, and an ability to evaluate and interpret these within the context of that area of study.

Cognitive and Intellectual Skills

On completion of this programme the students will be able to:

[1] Whilst driven by the ES3 benchmarks for HE, these are also informed by the Foundation Degree Qualification Benchmark to ensure that any transfer at stage 2 is deemed to also meet the FDQB requirements. Note : QAA has worked closely with the sector to produce a qualification benchmark for Foundation Degrees, which is not specific to any particular discipline but sets out a generic framework for Foundation Degrees that serves as a reference point for use in programme design, delivery and review

- Recognise the importance of planning before carrying out a task.
- Collect, analyse and evaluate information.
- Demonstrate an ability to present, evaluate, and interpret qualitative and quantitative data, to develop lines of argument and make sound judgements in accordance with basic theories and concepts in their subject area.

Key Transferable Skills

On completion of this programme the students will be able to:

- Make use of appropriate ICT, including standard business applications and the internet.
- Write short structured reports.
- Organise their own learning.
- Evaluate the appropriateness of different approaches to solving problems related to their area of study and/or work.
- Communicate the results of their study/work accurately and reliably, and with structured and coherent arguments.

Practical Skills

On completion of this programme the students will be able to :

- Conduct basic navigation tasks

Employment Related Skills and Other Professional Skills

The aims 1, 2 and 3 are career oriented, therefore many of the skills described above may be considered as employment related.
On completion of this programme the students will be able to:

- Recognise the need to establish a management framework for dealing with situations where problem-solving is a key requirement.

Foundation Degree Level

Knowledge and Understanding

On completion of this programme the students will be able to :

- Execute the requirements of the core technical and academic knowledge and skills for STCW deck officer certificates of competency.
- Draw on the taught information and concepts to prove their competency in the specific areas of underpinning knowledge required by the accrediting body.
- Demonstrate knowledge and understanding of calculations and methodologies required for marine position determination and prediction.
- Identify decision support methodologies appropriate to the marine environment, including passage planning, collision avoidance.
- Recognise and explain the principles and theories relevant to naval architecture, engineering and stability.
- Identify the planning, safety and commercial considerations relating to cargo and service ship operation.
- Demonstrate the development of an appreciation of a range of positioning instrumentation, and analysis of the derived data.

Cognitive and Intellectual Skills

On completion of this programme the students will be able to:

- Analyse their own capabilities set against the MNTB Occupational Standards and related documentation.

- Independently organise information and develop their own personal development plans.
- Critically evaluate marine navigation techniques and shipboard practice.
- Solve problems based on critical safety related scenarios.
- Apply appropriate navigational methodology to a variety of problems and scenarios.
- Understand the limits of their knowledge, and how this influences their analysis of a situation and influences decision making, both in the context of their academic work and in their contextual application at sea.

Key Transferable Skills

In addition to the marine specific skills, a typical student will have acquired the ability to:

- Make further extended use of appropriate ICT, the internet and specialist software.
- Effectively communicate information, arguments and analysis in a variety of forms, including oral.
- Appreciate the group dynamics encountered in teamwork situations.
- Recognise the benefits if undertaking further training and development, both in respect of learned and new skills.

Practical Skills

A typical student will be able to :

- Acquire and use weather information.
- Determine risk of collision and take appropriate action.
- Determine a vessels position.

Employment Related Skills and Other Professional Skills

The aspiration of the programme is career oriented, therefore many of the skills described above may be considered as employment related.

The following skills are also developed:

- Perform a supporting role in the management of situations where problem solving is a key requirement.
- Appraise the factors affecting trim, stability and stress for a variety of vessel types.
- Appraise the factors affecting the loading, carriage and discharge of cargo.
- Undertake further training, develop existing skills and acquire new competencies that will enable them to assume significant responsibilities within organisations.
- Qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision making.

9. Admissions Criteria, including APCL, APEL and DAS arrangements

Acceptance by the University will be based upon the following table:
Students wishing only to participate in the FdSc elements of the programme must comply with the following entry requirements:

FDSC Navigation and Maritime Science	**Entry Qualifications**
Qualifications accepted	**Level required**
A-Level/AS Level/ Vocational A-Level	*48 UCAS points. This will normally be expected to include a relevant science subject, excluding General Studies.*
GCSE or equivalent	GCSE in English and Mathematics (at grade C) or equivalent are required.
General Studies A-Level	Not accepted as part of a points offer.
AVCE Double Award: 12 unit	48 points including points in a science-based subject. Additional units/A-Level subject may be required.
BTEC National Certificate/Diploma	BTEC National Diploma/QCF Extended Diploma PPP in a relevant subject
Access to Higher Education	Pass Science related Access Course. Must have GCSE English and Maths grade C/4 or above or equivalent
National Vocational Qualification (including Advanced Modern Apprenticeships)	An appropriate NVQ at Level 3 will be considered with other information that demonstrates your ability to successfully complete the programme you have selected.
Scottish Qualifications Authority	48 points including suitable science content.
Irish Leaving Certificate	Minimum DDDDD including a grade D in a science-based subject.
International Baccalaureate	International Baccalaureate: 24 overall to include 4 at Higher Level Science
European Baccalaureate	Offers will be based on a minimum of 50% including suitable science content.
Greek National Apolytirion	Minimum average of 15 out of 20 to include a science, plus English language proficiency.
Apolytirion of Lykeio (pre 1999)	Minimum average of 15 out of 20 to include a science, plus English language proficiency. .

Key Skills

We encourage the attainment of Key Skills at a high level to enhance performance on a higher education programme. Although key skills tariff points do not count towards the admissions tariff score, they will enhance the performance of the student on the BSc(Hons) programme.

Accreditation of Prior Certificated Learning (APCL) and Assessment of Prior Experiential Learning (APEL)

The University's regulations for Accreditation of Prior Certificated Learning (APCL) and Assessment of Prior Experiential Learning (APEL) are set out in the 'University Academic Regulations'. We may also consider admission on the basis of work or life experience.

We welcome evidence of prior learning and experience from applicants.
Due to the range and mixture of prior qualification and experience applications presenting such evidence will be considered on an individual basis by the Admissions Tutor in consultation with the Programme Team.

English language requirements

If you have not obtained or do not expect to obtain your entry qualifications in the English language, you are required to produce evidence of English language ability. This will normally be the equivalent of:

- GCSE Grade C or above in English language.
- IELTS average score of 6.0 or above with a score of at least 5.5 in the listening, reading, speaking and writing elements.
- Equivalencies are detailed in 'Admissions Information and Procedures' issued by the University Secretariat.

Progression from HND to degree.

Achievement of a HND to a good standard in one of the University's Partner Colleges may permit progression to Stage 2 of this degree. Details are set out in the current University Prospectus.

Science Foundation Degrees.

Applications from students in receipt of a science foundation degree following approved articulations and agreements are welcome and permit entry into Stage 4.

Support for students with disabilities.

Students with disabilities are welcome in line with University of Plymouth accessibility policies. However for those students wishing to gain MCA certification it should be noted that a valid seafarers medical certificate (often referred to as an ENG1) is required. This is beyond the control of the University, and it is strongly advised that an ENG1 is obtained prior to application. It should however be note that the inability to achieve a seafarers medical certificate does not preclude an applicant from joining the University and following Pathway 2.

The role of sponsorship.

There is no need for sponsorship within this programme, but it should be noted that the first three stages are designed to address the needs of industry and their education and training requirements.

Stage one of the programme has therefore been constructed to allow for sponsored students to meet the sea time requirements defined by the Maritime and Coastguard

agency and for the non-sponsored students to engage with experiential learning during this period. This defines the need for two modes of delivery to achieve the same learning outcomes during this period.

It is not the role of the University to assist in sea time opportunities, other than to mentor those at or preparing to go to sea through their academic study.

10. Progression criteria for Final and Intermediate Awards

Final award Title

Successful completion of 240 credits in stage 1 and 2 will lead to the award of FdSc Navigation and Maritime Science.
Students achieving the award of FdSc Navigation and Maritime Science when coupled with a pass mark of =>50% for each module, and passed all assessment thresholds for accreditation by the Maritime and Coastguard Agency will be recorded as having passed the Accreditation modules. These modules will be noted on the students transcript, and HEAR statement once in effect. Please note these are modules of accreditation only and not modules of learning.
After completion of all required ancillary courses and sea time the student having achieved a FdSc (Hons) Navigation and Maritime Science with the Accreditation modules will also have achieved the level of competence to enable Notice of Eligibility to be submitted to the MCA for approval as a Merchant Navy deck officer subsequent to successful completion of an oral examination by the MCA.
Students achieving the non-accredited award will not be able to apply for a Notice of Eligibility from the MCA.

11. Exceptions to Regulations

The exception below was approved ARSC on the 12th May 2014.
All students enrolled on BSc Navigation and Maritime Science (4493) and FdSc Navigation and Maritime Science (4494) are subject to in year referral.
The referral relates to the elements of a module (typically examination and/or coursework) not individual pieces of coursework. Therefore staff will select a represented referred assessment for that entire element.

The university module pass mark is 40%. For credit rated modules MNTB and MCA accreditation purposes the overall module pass mark is 50%. Failure to reach a module pass mark of 50% or above, will result in the student being removed from accreditation. All NMS referrals will be capped at 50%. Students following the accredited pathway must, in addition to meeting the 50% module average, pass certain individual safety critical assessments at higher thresholds (60% or 65%)[2] to satisfy the MCA/MNTB these are recorded as Pass/Fail in zero credit rated modules. Students have a maximum of 3 attempts to pass individual safety critical assessments, these safety critical assessments are known as MCA exams.

[2] • 50% in all modules
• 60% in all relevant stability assessments
• 65% in all relevant navigation assessments

Students may have two attempts attempt to pass each module with 20 credits or more. Students attempting in year referral must be aware that the referred mark replaces the initial mark so a subsequent poor performance may result in a lower recorded mark.

Exceptions to CEP Design Guidelines

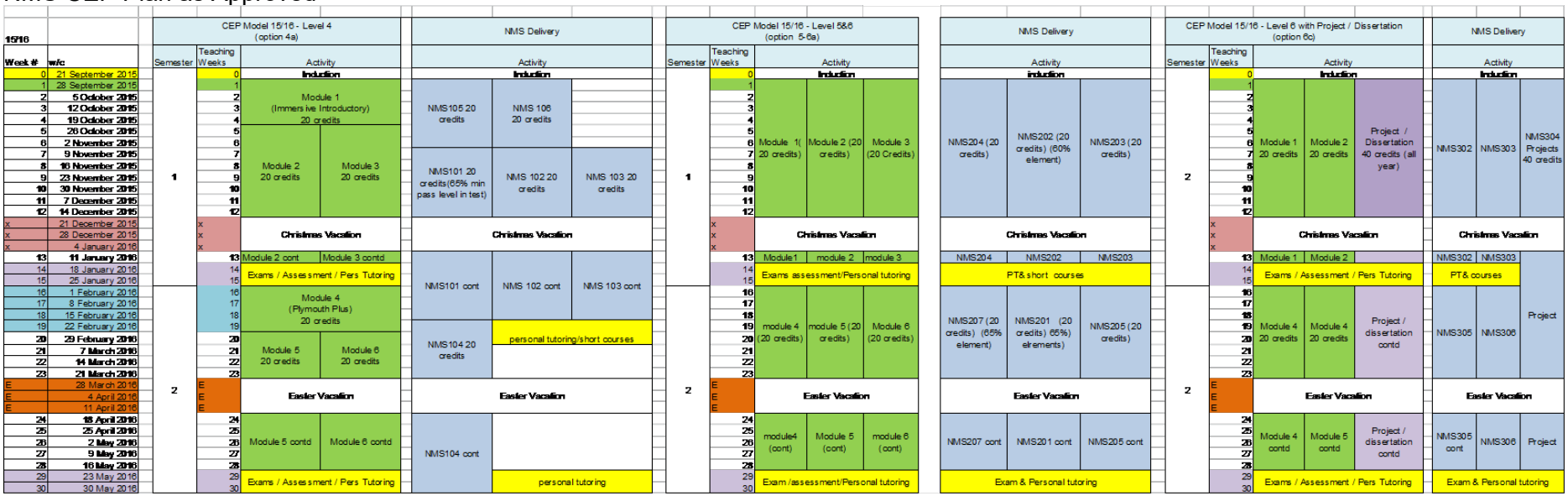
The exception below was approved by David Coslett (Deputy Vice Chancellor) 7th July 2014.

Due to external accreditation and regulation the NMS programmes (FdSc and BSc) will retain their long thin 20 credit year-long modules whilst delivering in “short fat CEP style” blocks

Stage 2 and the final stage will be timetabled within these blocks to fit the CEP model shown in the diagram over

Stage 1 will be exempt from Plymouth Plus and will be delivered as per the diagram over.

NMS CEP Plan as Approved



15/16		CEP Model 15/16 - Level 4 (option 4a)			NMS Delivery			CEP Model 15/16 - Level 5&6 (option 5-6a)			NMS Delivery			CEP Model 15/16 - Level 6 with Project / Dissertation (option 6c)			NMS Delivery		
Week #	w/c	Semester	Teaching Weeks	Activity				Semester	Teaching Weeks	Activity				Semester	Teaching Weeks	Activity			
0	21 September 2015		0	Induction					0	Induction					0	Induction			
1	28 September 2015		1						1						1				
2	5 October 2015		2	Module 1 (Immersive Introductory) 20 credits	NMS105 20 credits	NMS 106 20 credits			2	Module 1(20 credits)	Module 2 (20 credits)	Module 3 (20 Credits)	NMS204 (20 credits)	NMS202 (20 credits) (60% element)	NMS203 (20 credits)	2				
3	12 October 2015		3						3						3				
4	19 October 2015		4						4						4				
5	26 October 2015		5	Module 2 20 credits	Module 3 20 credits				5						5				
6	2 November 2015		6						6						6	Module 1 20 credits	Module 2 20 credits	Project / Dissertation 40 credits (all year)	NMS302	NMS303	NMS304 Projects 40 credits
7	9 November 2015		7						7						7				
8	16 November 2015		8						8						8				
9	23 November 2015	1	9		NMS101 20 credits(65% min pass level in test)	NMS 102 20 credits	NMS 103 20 credits	1	9						9				
10	30 November 2015		10						10						10				
11	7 December 2015		11						11						11				
12	14 December 2015		12						12						12				
x	21 December 2015		x	Christmas Vacation	Christmas Vacation				x	Christmas Vacation			Christmas Vacation			x	Christmas Vacation		Christmas Vacation		
x	28 December 2015		x						x							x					
x	4 January 2016		x						x							x					
13	11 January 2016		13	Module 2 cont	Module 3 contd				13	Module1	module 2	module 3	NMS204	NMS202	NMS203	13	Module 1	Module 2		NMS302	NMS303	
14	18 January 2016		14	Exams / Assessment / Pers Tutoring					14	Exams assessment/Personal tutoring			PT& short courses			14	Exams / Assessment / Pers Tutoring			PT& courses		
15	25 January 2016		15						15							15						
16	1 February 2016		16	Module 4 (Plymouth Plus) 20 credits					16							16						
17	8 February 2016		17						17							17						
18	15 February 2016		18		NMS101 cont	NMS 102 cont	NMS 103 cont		18							18						
19	22 February 2016		19						19							19						
20	29 February 2016		20	Module 5 20 credits	Module 6 20 credits				20	module 4 (20 credits)	module 5 (20 credits)	Module 6 (20 credits)	NMS207 (20 credits) (65% element)	NMS201 (20 credits) 65% elements)	NMS205 (20 credits)	20	Module 4 20 credits	Module 4 20 credits	Project / dissertation contd	NMS305	NMS306	Project
21	7 March 2016		21						21							21						
22	14 March 2016		22		NMS104 20 credits	personal tutoring/short courses			22							22						
23	21 March 2016		23						23							23						
E	28 March 2016	2	E	Easter Vacation	Easter Vacation			2	E	Easter Vacation			Easter Vacation			E	Easter Vacation		Easter Vacation		
E	4 April 2016		E						E							E						
E	11 April 2016		E						E							E						
24	18 April 2016		24	Module 5 contd	Module 6 contd				24	module4 (cont)	Module 5 (cont)	module 6 (cont)	NMS207 cont	NMS201 cont	NMS205 cont	24	Module 4 contd	Module 5 contd	Project / dissertation contd	NMS305 cont	NMS306	Project
25	25 April 2016		25						25							25						
26	2 May 2016		26		NMS104 cont				26							26						
27	9 May 2016		27						27							27						
28	16 May 2016		28						28							28						
29	23 May 2016		29	Exams / Assessment / Pers Tutoring	personal tutoring				29	Exam /assessment/Personal tutoring			Exam & Personal tutoring			29	Exams / Assessment / Pers Tutoring			Exam & Personal tutoring		
30	30 May 2016		30						30							30						

12. Transitional Arrangements

N/A

13. Teaching and assessment strategies

The teaching and learning strategy is such that level 4 and 5 lectures are used to build a factual knowledge base, introduces the theoretical base underpinning the subject area, develops conceptual frameworks and develops learning skills. In stage 1 of the programme the emphasis then moves to field work and experiential learning, with sponsored students utilising their sea time opportunity and non-sponsored students using the University facilities to enhance and develop their taught underpinning knowledge. This is an intense period of student centred learning with the development of taught skills through on campus or remote tutelage in order for the students to complete a portfolio of work.

All sponsored students will be expected to establish a reliable way of communicating whilst on board and maintain contact with their allocated shore side tutor for guidance whilst off shore.

Levels 4 and 5 are designed to effectively prepare the student for the Level 6 work, where independent learning comes to the fore. The freedom from any accreditation requirements allows the tutors and students to really focus on the evaluative and reflective practices that run throughout the Level 6 modules.

In order to implement this strategy an innovative range of assessments are utilised across all four stages which take into account differing student learning styles. A mixture of examination and coursework is used, typical coursework elements include:

- Practical Application / Simulation: enables the student to demonstrate that theoretical knowledge can be applied in context and that the subject-related skills have been developed in a strictly controlled environment.
- Calculation: enables the student to demonstrate that the correct methodology can be identified and applied.
- Reports: enables the student to demonstrate effective written communication commensurate with the expectations of employers.
- Oral and Visual Presentation: enables the student to demonstrate effective oral and visual communication commensurate with the expectations of employers
- Peer Assessment: used for both formative and summative elements to enable students to develop their team working and management skills again commensurate with the expectations of employers.

This is achieved through a mixture of individual and group assessments. The group elements develop and enhance team operation and management skills typically required for graduate career progression.

It should be noted that due to the sea time requirements of the programme, there will be an opportunity for students to submit work via a tiered formative assessment. This

will allow a student to receive formative feedback on submitted work, and gain the opportunity to develop the work further until the required threshold is achieved to the satisfaction of the module leader. Such process will be formally recorded, and reported through the Programme Review process.

Table 1 overleaf indicates the types of assessment currently undertaken to prove compliance with the learning outcomes.

· **Table 1. Assessment techniques.**

attributes and skills	**examples**	**developed through**	**rationale for approach**	**assessed through** (formative and/or summative)
knowledge / understanding	• factual knowledge • basic precepts • comprehension • theories • methodologies	• lectures and hand-outs • tutorials • seminars • practicals • problem-based learning • project work	Principles and theory are explained in lectures and demonstrated in practicals and simulations, encouraging ownership of learning.	• coursework and examination • calculations • reports • projects • simulation • group work
cognitive / intellectual skills	• application of methodology • critical analysis • synthesis • evaluation	• project work • problem-solving • case studies • debate • critiques	The use of realistic scenarios to stimulate the assimilation and development of relevant intellectual processes.	• coursework and examination • calculations • reports
key / transferable skills	• communication • numeracy • teamwork • learning to learn	• oral and visual presentations • practicals • seminars • report writing	The use of and active learning approach in the application of theory in a variety of situations.	• self-assessment • peer assessment • simulation • posters • oral and visual presentations • group work • reports
practical skills (subject specific)	• appropriate selection of methodology • position determination • navigation strategies	• fieldwork • practicals	Linking theory to practice and working through examples.	• Simulations • calculations • reports
employment-related skills	• working with others	• reflection on practice	To provide the skills required in the industries linked to the	• group work • peer assessment

attributes and skills	**examples**	**developed through**	**rationale for approach**	**assessed through** (formative and/or summative)
	• project management • personal development planning • reflection on practice and own development • career awareness and planning	• group work • report writing • Professional Development Planning	career paths from the Marine Studies scheme.	• reports • projects

Table 2 has been developed to assist the tutors in the marking criteria required for level 4 and level 5 outcomes. This should be considered in relation to the definitive module records, as this table will define the generic marking criteria for each module

	Level 4	Level 5	Level 6
Outstanding 86-100%	Comprehensive coverage of relevant issues. Extremely well informed knowledge base relevant to assignment. Very clearly written, logically structured and presented. Critical discussion of current issues and their influence on practice. Excellent application of underpinning knowledge. Consistent application of exemplary techniques, relevant to the level of safety required for that task.	Consistently logical and critical analysis though out. Exemplary linkage of underpinning knowledge to application. Demonstrates consistent independent thought on relevant issues. Incorporates evidence of rationalised, safe, practice.	Original logical, analysis and critique. Comparing and contrasting the links between UPK, application and associated theory. Absolute clarity of original thought, backed up by valid up to date references to peer reviewed papers.
Excellent 70-85%	Thorough coverage of relevant issues. Well informed knowledge base relevant to assignment. Clearly written, logically structured and presented. Discussion of current issues and their influence on practice.	Well-argued presentation and critical analysis throughout. Identifies and discusses relevant underpinning knowledge and its application. Evidence of independent thought, clearly expressed.	Full critique showing clear analytical skills, and up to date referencing from peer reviewed sources. Evidence of a knowledge base that is fully complete that allows appropriate analysis of navigational

	Excellent application of underpinning knowledge. Consistent application of suitable techniques, relevant to the level of safety required for that task.	Comprehensive and wide ranging knowledge base of underpinning theory. Evidence of safe application of techniques.	techniques and maritime applications.
Good 60-69%	Descriptions based upon a broad range of relevant knowledge and reading. Theory consistently applied to relevant scenarios. Describes relevant issues. Awareness of current issues and their influence on application of navigation techniques. Clearly and logically presented and structured. Incorporates evidence of safe navigation practice.	Balanced arguments and presentation. Accurate application of relevant theory to practice. Evidence of safe and good practice. Provides a sound rationale for all navigation techniques and decisions made. Evidence of ability to critically analyse information. Well-structured and logical presentation.	Evidence of clear analytical thought processes based on good knowledge of subject area. Good referencing of peer reviewed papers. Some independent thought backed up by a sound understanding of techniques. Good critical analysis of complex issues.
Satisfactory 50-59%	Utilises appropriate and relevant theory. Consistent application of theory. Incorporates evidence of a safe approach to issues. Well-structured and developed presentation.	Sound knowledge of subject matter. Evidence of ability to apply knowledge to new situations. Analysis of current issues appropriate. Some arguments introduced.	Evidence of sound underpinning theory with some evidence of analysis and critique, backed up with appropriate referencing. Some of the thinking my be flawed, but the

	References and/or supporting material generally accurate. Meets the criteria and requirements of the module assessment. Meets relevant module learning outcomes.	Correct citation of references and literature used. Structured and clear presentation. Meets relevant module learning outcomes.	process of analysis is clear, with good structure, and meets all module outcomes.
Achieved 40-49% but not at a level to allow MCA certification in level 4 and 5.	Does not fully meet the criteria and requirements of the module assessment. Does not meet module specific criteria or relevant learning outcomes. Limited range of relevant theory. Errors in referencing. Structure lacking in logical continuity and structure.	Does not fully meet the criteria and requirements of the module assessment. Does not meet module specific criteria or relevant learning outcomes. Limited evidence of reading, below average knowledge of underpinning knowledge. Poor application of underpinning knowledge. Overly descriptive in analysis and lacking in critical analysis.	The module outcomes are evidenced but the analysis of concepts is flawed. An adequate level of core navigational knowledge is in evidence, but development of original thought and critique is average. References should be appropriate and up to date. Structure of the work is adequate.
Clear Failure to achieve. Less than 40%	Unreferenced or no supporting material. Lacking in theoretical content. Poorly organised presentation. Difficult to read and follow.	Limited and inaccurate referencing and or supporting materials. Lack of understanding of key issues relating to underpinning knowledge.	Lack of knowledge base with which to inform independent thought. Poor critique. Lack of, or inappropriate, referencing. Poor structure.

	Unsafe application of navigation and management techniques.	Unsafe application of techniques in a safety critical area of study. Serious misconceptions and basic errors of underpinning theory.	

14. Mapping and Appendices:

Appendix 1 Learning Outcomes Map

BSc(Hons) Navigation and Maritime Science - ES3 Benchmarks and QAA Foundation Degree Benchmark Statements (for transfer clarity).

Certificate Level

Attribute/Skills	Aim	Benchmark Statement		Related Core Modules
Knowledge and Understanding		**FDQ B**	**ES3**	
The scope of the complex interaction of the marine environment, the human element and technology.	1,3,4	A	A,B,D	NMS103 NMS106
Basic navigation techniques.	1,2	B	B,F,K,M,T	NMS101 NMS108
Knowledge of the underlying concepts and principles associated with their area of study, and an ability to evaluate and interpret these within the context of that area of study.	3,4	C,D	A,C,	NMS109 NMS102 NMS108
Cognitive and Intellectual Skills				
Recognise the importance of planning before carrying out a task.	1,3	B,E	D,G,S,X	NMS103, NMS102 NMS106
Collect, analyse and evaluate information.	2,4	F	B,E,H,I,J	NMS103 NMS109
Demonstrate an ability to present, evaluate, and interpret qualitative and quantitative data, to develop lines of argument and make sound judgements in accordance with basic theories and concepts in their subject area.	1,2,4	F,G	E,H,I	NMS109, NMS101
Key Transferable Skills				
Make use of appropriate ICT, including standard business applications and the internet.	3	H	U,P	NMS106
Write short structured reports.	3	G	P,N,Q	NMS102 NMS103 NMS108
Organise their own learning.	3	H,I,J	Y	NMS108 NMS106
Evaluate the appropriateness of different approaches to solving problems related to their area of study and/or work.	1,2	F	M,G,V	NMS101

Communicate the results of their study/work accurately and reliably, and with structured and coherent arguments.	4	G	P	NMS109 NMS106
Practical Skills				
Conduct basic navigation tasks	1,2	A,B	F	NMS101 NMS108
Employment Related Skills and Other Professional Skills				
Recognise the need to establish a management framework for dealing with situations where problem-solving is a key requirement.	3,4	D	W,V	NMS106

Foundation Degree Level

Attribute/Skills	**Aim**	**Benchmark Statement**		**Related Core Modules**
Knowledge and Understanding		**FDQ B**	**ES3**	
Execute the requirements of the core technical and academic knowledge and skills for STCW deck officer certificates of competency.	1, 6	A,B, E	A,C,F, K,T,J	NMS206
Draw on the taught information and concepts to prove their competency in the specific areas of underpinning knowledge required by the accrediting body.	1,2, 6	A,F, G	A,C,F, K,T	NMS206
Demonstrate knowledge and understanding of calculations and methodologies required for marine position determination and prediction.	1,2,5, 7	A,B, G	A,C,M	NMS209 NMS205 NMS206
Identify decision support methodologies appropriate to the marine environment, including passage planning, collision avoidance.	2,3,6	E,F	C,D,E ,F,M	NMS209 NMS204
Recognise and explain the principles and theories relevant to naval architecture, engineering and stability.	1,2,4, 7	A,C, G	C,D,S	NMS202
Identify the planning, safety and commercial considerations relating to cargo and service ship operation.	1,2,5	A	A,D,F	NMS202 NMS203
To develop an appreciation of a range of positioning instrumentation, and analysis of the derived data .	1,4	D	B,E,K, M,S	NMS209 NMS204
Cognitive and Intellectual Skills				
Analyse their own capabilities set against the MNTB Occupational Standards and related documentation.	3	E,I,J	X,Y	NMS204

Independently organise information and develop their own personal development plans.	2,4	H	X,L,G	NMS204 NMS205
Critically evaluate marine navigation techniques and shipboard practice.	4	C,D	B,D,Q	NMS209 NMS202 NMS205
Solve problems based on critical safety related scenarios.	1,3	A,D	K,F,M	NMS204
Apply appropriate navigational methodology to a variety of problems and scenarios.	1	A,D	B,M,T,Q	NMS209 NMS205 NMS206
Understand the limits of their knowledge, and how this influences their analysis of a situation and influences decision making, both in the context of their academic work and in their contextual application at sea.	2,4	E	W,V	NMS204 NMS205
Key Transferable Skills				
Make further extended use of appropriate ICT, the internet and specialist software.	2,3,6,7	H	H,S,T,U	NMS202
Effectively communicate information, arguments and analysis in a variety of forms.	1,3,7	G	P,N,O	NMS204 NMS205 NMS203
Appreciate the group dynamics encountered in teamwork situations.	3	G,H	G,V,W,Z	NMS204 NMS205
Recognise the benefits if undertaking further training and development, both in respect of learned and new skills.	2	I,J	X,Y	NMS205
Practical Skills				
Acquire and use weather information.	1	A	E,R	NMS205
Determine risk of collision and take appropriate action.	1,2	A,B	A,M	NMS209 NMS204
Determine a vessels position.	1	A,B	A,C,F,S	NMS209
Employment Related Skills and Other Professional Skills				
Perform a supporting role in the management of situations where problem solving is a key requirement.	3,4	F,H	V,P,Z	NMS204 NMS205
Appraise the factors affecting trim, stability and stress for a variety of vessel types.	1,2	A,B	E,H,I,Q,R	NMS202 NMS205
Appraise the factors affecting the loading, carriage and discharge of cargo.	1,2	A,B	E,H,I,Q,R	NMS202 NMS205

Undertake further training, develop existing skills and acquire new competencies that will enable them to assume significant responsibilities within organisations.	2,3,7	I,J	X,Y,Z	NMS203 NMS206
Qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision making.	3,6	H	X,Y,Z	NMS204 NMS205

Appendix 2 MNTB approved changes 2014

The following changes were noted on the annual approval form and approval was subsequently granted.

MNTB Programme re-approval process, May 2014

Submitting Institution – ***(University of Plymouth)***
Programme name – ***(FdSc Navigation and Maritime Science)***

Nature of the change	Rationale for the change/Notes
Temporary staff changes	Alastair McCallien and Neil Northmore are replacing Chris Pollard (who has taken a career break) From Sept 2013-Sept 2014 Alastair is an experienced hydrographic surveyor Neil is an experienced maritime solicitor.
Permanent staff changes	Andrew Eccleston has retired without replacement
WBL module titular change (second sea phase)	The BPIE module is now chargeable at a cost of £900.00 per cadet. To give a zero cost option the WBL in the second sea phase will now be managed from within the Orals prep and EDH Course structure for FdSc cadets with no extra cost to the student of company. BPIE will remain an option for any unfunded/unsponsored students as it allows access to loan facilities but it is not envisaged that any sponsored cadets will take that option.

NB – if there are no changes to the programme from last year, please state this above.

I confirm that this programme meets the requirements of STCW as mapped in the 2013 submission against the STCW 2010 Manila amendments.

Signed:

Job title: Associate Head Navigation and Maritime Science

Date: 21/05/2014