PROGRAMME SPECIFICATION

Programme Title: **HNC Professional Super Yacht Engineer**

University of Plymouth Programme Code: FT 6606

Partner Faculty: **Academic Partnerships, University of Plymouth**

Partner Delivering Institution: **Cornwall College, Falmouth Marine School**

Start Date: **September 2019**

First Award Date: **June 2020**

Date of Approval: **12/2/19**

Date(s) of Revision(s) to this Document: **October 2018/Dec 18/31 July 19/20 Sept 2024**

1. Contents

2. Programme Details

Awarding Institution:	University of Plymouth
Partner/Teaching Institution:	Cornwall College, Falmouth Marine School
Accrediting Body:	N/A
Language of Study:	English
Mode of Study:	Full Time
Final Award Title:	HNC Professional Super Yacht Engineer
Intermediate Award Title:	N/A
UCAS Code:	FPSY
HECoS Code:	100190
Relevant QAA Benchmark Groups:	This programme has been produced in line with the FHEQ and the Foundation Degree Characteristics. It has also been aligned to the QAA Benchmark for Engineering (2015)
Date of Programme Approval:	12 February 2019

3. Distinctive Features of the programme and the Student Experience

This text is definitively approved at programme approval and therefore may be directly used for promotion of the programme without the need for further confirmation:

The proposed HNC Professional Super Yacht Engineer programme has been developed with a view to meet a number of specific needs; these being for learners:

- To study for a range of specialist academic and commercial qualifications and commence employment in the Superyacht industry through the Falmouth Marine School Professional Superyacht Engineer Cadetship Programme.

- To enrol to a Cadetship programme jointly delivered with the support of a commercial yachting organisation, gaining the skills and qualifications required to commence a career working towards employment as a Marine Engineer within the Small Commercial Vessel sector (Superyachts, Off-shore Workboat, Fishing, Towing (Tugs), Standby, Seismic Survey, Oceanographic Research and Government Patrol Vessels).

- To undertake an HNC programme which will support the Cadetship programme with a mix of marine engineering related practical and academic study to support the development of the skills and knowledge required to commence employment within the marine engineering sector, thus meeting the skills requirement for future employment as an engineering officer within this sector.

- To study in Falmouth and the South West of England in an area renowned for its' Superyacht and Commercial vessel support industries, to participate in site visits and undertake marine engineering related research with the guidance from those employed within these local industries in support of their studies.

- To undertake a programme of study with the support of a range of subject specialists and guest speakers, representing the latest developments within the marine industries relevant to the Superyacht and Small Commercial Vessel sectors.

- To meet the academic requirements of Maritime Coast Guard Agency (MCA) Marine Information Notice (MIN) 524 Engineer Officer Small Vessel Certificate of Competency, thus enabling those learners that achieve the HNC programme to apply for accelerated progression to Second and First Engineer Officer within that industry.

- To meet the academic requirements of MCA MIN 511 The Alternative Route for Qualified Engineers and Engineering Graduates to Obtain an Engineer Officer of the Watch (EOOW) Unlimited Certificate of Competency through the study of those specific modular requirements such as to allow Engineering Cadets following this programme to qualify for those vessels that are newly in build, or in service, that are greater in size than 3000GT (classified as of unlimited tonnage >3000GT).

- To undertake an HNC programme of study offering opportunities for progression into employment and to further Higher levels of study within the maritime sectors.

The Falmouth Marine School Professional Superyacht Engineer Cadetship and this HNC programme are intended to run in parallel as a Cadetship programme. This will give learners the opportunity to progress to employment within the Super Yacht industry to 2nd Engineer Officer Status; however achievement of the HNC programme is not dependent upon the completion of the Cadetship.

If a Cadet should have to withdraw from the Cadetship programme, that Cadet could still complete the necessary academic modules of study (120 Credits at Level 4) to complete the HNC. There would then be opportunity for that learner to apply to progress to the Professional Superyacht Engineer Foundation Degree or to other identified progression routes through Plymouth University.

4. Programme Structure

College Cornwall College
Academic Year 2024-2025
Plymouth Programme Code 6606
Programme Title HNC Professional Super Yacht Engineer
Mode of Attendance Full Time
Course Duration 1 Years
Total Credits 120 credits

FHEQ level: 4 For: Full Time Level 4 (120 credits)				
F/T Route Year	When in Year? (i.e. Autumn, Spring etc)	Core or Option Module	Credits	Module
FT	AY	Core	20	CORF1004 Computer Aided Drawing for Marine Engineers
FT	AY	Core	20	CORF1005 Mathematics for Marine Engineers
FT	AY	Core	20	CORF1006 Applied Mechanics for Marine Engineers
FT	AY	Core	20	CORF1007 Electro-technology for Marine Engineers
FT	AY	Core	20	CORF1008 Marine Engineering
FT	AY	Core	20	CORF1010 Super Yacht Construction for Marine Engineers
FT	AY	Core	0	CORF1011 Work Experience for Marine Engineers

NB: There are no optional modules within this programme

5. Programme Aims

This Higher National Certificate (HNC) is a structured programme of learning designed to deliver the academic knowledge for learners looking for future employment within the maritime engineering sector and focuses on the skills required to become an Engineering Officer within the Small Commercial Vessel sector with particular emphasis on the Superyacht industry. The programme aims to combine the most relevant skills and knowledge required to equip graduates with a strong foundation of knowledge and understanding of the technologies appropriate to that industry.

Those learners completing this programme will have the academic knowledge and skills to continue their studies within a Cadetship programme with an aim of employment as a Marine Engineering Officer within the Superyacht industry. Once qualified, the Cadet will have the necessary skills and qualifications to develop responsibility for the maintenance and operation of a ship's main propulsion machinery, auxiliary equipment, deck machinery, and domestic, air conditioning, refrigeration and electrical services.

When combined with the Falmouth Marine School Professional Superyacht Cadetship programme this academic course forms the basis of a career path to Engineering Officer Certificate of Competency.

The programme has been designed in consultation with the Superyacht industry and the Maritime and Coast Guard Agency.

This programme will deliver:

1. A challenging learning experience that equips learners with the necessary knowledge, skills and behaviours to commence employment within their chosen engineering field of study.

2. A comprehensive curriculum, covering the fundamental principles of engineering, alongside a specialist marine pathway, aligned to the needs of the Superyacht industry.

3. A vocational study programme that extensively uses the solution of real marine engineering problems as the basis of the assessment tasks.

4. Graduates at HNC level with the capability to support other members of a Superyacht crew in solving problems and developing solutions for the issues facing employment as an engineer within the Superyacht industries.

5. A vehicle for delivering the higher level engineering skills needed by the commercial shipping industries, including the priority sectors identified by the Maritime Coast Guard Agency.

6. Programme Intended Learning Outcomes

For this programme the following learning outcomes have been informed by the QAA Foundation Degree Qualification Benchmark (2010), the QAA Subject Benchmark for Engineering (2015) The Accreditation of Higher Education Programmes and the UK Standard for Professional Engineering Competence (2010):

6.1 Knowledge and Understanding

On successful completion of this programme the learner will be able to:

i) Develop a broad understanding and knowledge of the facts, concepts, theories and principles of engineering disciplines and the underpinning science and mathematics and will have an appreciation of the engineering context and the underlying principles.

ii) Demonstrate a knowledge of the underlying design concepts, theories and principles as they apply to ship design and construction

iii) Demonstrate an understanding of the relevant legislation, regulation and standards that are required to comply with the operational requirements of the commercial shipping sector

6.2 Cognitive and intellectual skills

On successful completion of this programme the learner will have developed the ability to:

I) Evaluate the performance of marine engineering systems and components through the use of operational data, historical data and testing techniques

II) Apply engineering theory and knowledge to the solution of fault and failure within a range of marine engineering materials, systems, services and equipment, identify cause and achieve satisfactory solution

III) Select information from a range of maritime industry and engineering sources to inform the development of appropriate solutions to engineering problems

6.3 Key and transferable skills

On successful completion of this programme the learner will have developed the knowledge and ability to:

i) Manage time and resources in the analysis, assessment and interpretation of information to make sound judgement and management decisions

ii) Undertake projects, working in teams and with members of academic and support staff to investigate and resolve engineering problems
iii) Communicate and present informed decisions at an appropriate level for both technical and non-technical personnel

6.4 Employment related skills

On successful completion of this programme the learner will have developed the knowledge and skills needed to:

i) Contribute an appropriate level of knowledge, understanding and ability within the workplace in the safe operation of machinery, equipment and services working with others within the framework of the relevant legal requirements

ii) Support the safe operational capability of a vessel with a relevant level of knowledge and understanding of materials, construction and design to comply with maritime legislation

iii) Assess personal strengths and ability, acquire new competency and assume responsibility to develop the skills required for personal development and accreditation at a professional level within the maritime and engineering sectors.

6.5 Practical Skills

On successful completion of this programme the learner will have developed the ability to:

i) Utilise the knowledge and skills acquired to operate and maintain marine engineering equipment and services whilst complying with the appropriate codes of practice.

ii) Work effectively in the support of engineering design, manufacture and maintenance of components, systems and safe working practices

iii) Source and utilise industry relevant information, regulation, standards and legislation; develop an awareness of ethical issues as they relate to the maritime industry; develop a personal professional portfolio evidencing academic and professional qualifications, sea service undertaken; make use of social media and professional agencies to promote employment within the industry

5. Progression criteria for final and intermediate awards

Progression from the successful completion of the HNC Professional Super Yacht Engineer programme will be to the:

- FdSc Professional Superyacht Engineer

Alternatively, for those learners who find that employment within the Superyacht industry is not as they envisaged there will be the opportunity for progression to:

- FdSc Engineering – Cornwall College, Camborne
- Level 5 BSc. (Hons) – Mechanical Design & Manufacture (Plymouth)
- Level 5 BEng (Hons) – Marine & Composite Technology (Plymouth)

The contribution of marks from prior levels of study to the progression award is governed by University regulations.

6. Non Standard Regulations

None

7. Transitional Arrangement

None

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

Entry Criteria (Qualifications)	Details
Functional Skills GCSE (or equivalent)	L2 Literacy and L2 Numeracy Minimum of Grade C/grade 4 in Maths, English Language and Science (if science-based programme)
A/AS Levels	1. HNC/HND/Fd - 48 UCAS tariff points to include at least 32 points from A2 level in relevant subjects
BTEC National Diploma/Extended Diploma/L3 Diploma BTEC 90 Credit Diploma/Subsidiary Diploma*	1. HNC/HND/Fd – 48 UCAS tariff points – in a relevant subject 1. As above in a relevant subject and considered only with combination of other relevant level 3 qualifications
Access to HE Diploma	Successful completion of Access to HE Diploma with at least 45 credits at level 3 in a relevant subject
International Baccalaureate	24 points
Scottish/Irish	1. HNC/HND/Fd - 48 UCAS tariff points to include at least 32 points from Scottish Advanced Highers/Irish Highers
Other Level 3 qualifications	Will be taken into consideration and dependent upon subject area and number of units studied
Mature Applicants (over 21)	Mature applicants with relevant experience but without the stated entry qualifications will be considered individually at interview

Independent Safeguarding Agency (ISA)/Disclosure and Barring Service (DBS) clearance required	Not a requirement on this programme
Capability statement	It is important that all applicants are aware of the requirement that all personnel working on-board a commercial vessel are required to hold a Seafarer Medical Certificate ENG1. Prior to enrolment to this programme, the prospective learner will be advised to approach an MCA approved doctor for examination. An approved list of MCA approved doctors is available from the Maritime and Coastguard Agency (MCA), Students enrolling to this programme must have an awareness of working safely in a variety of marine settings, particularly within the yachting industry; the initial phase of the Professional Superyacht Engineer Cadetship programme will assist with this. Students considering employment on-board a Super Yacht should be aware that: There will be periods where they can expect to be “at sea” and not necessarily able to communicate through social media or other IT related systems “Sea time” can be of a prolonged period away from shore-side facilities Whilst on-board a vessel, they can be expected to work at any time during a 24 hour period and whilst at sea and in harbour, there will be the requirement to be employed within a watch-keeping routine as a part of normal ship evolutions.
APEL (Accreditation of Prior Experiential Learning)	Applicants may apply for the award of credit towards a University of Plymouth award in respect of knowledge and skills acquired through life, work experience, and/or study which are not formally attested through certification by a recognised professional or academic body. The application for experiential learning will be formally assessed by the Programme manager or other relevant member of the programme delivery team to determine that this learning has in fact occurred and that it is still current in relation to the module(s) concerned, and its

	equivalence in relation to University credit weightings and levels. It is the student's learning, not his or her experience, which is being assessed.
APCL (Accreditation of Prior Certificated Learning)	Applicants may apply for the award of credit towards this programme in respect of knowledge and skills acquired through certification by a recognised professional or academic body. Where the College is satisfied that an applicant has fulfilled the assessment requirements and met the learning outcomes of a particular module(s) by means other than attendance on the planned programme, exemption may be given from the specific module(s) and the appropriate credit awarded.
UNIVERSITY OF PLYMOUTH ACADEMIC REGULATIONS, 2024-25	UoP Academic Regulations 24-25

9. Appendix 1 – Programme Specification Mapping (UG)

Core Modules		Programme Intended Learning Outcomes contributed to (for more information see Section 6)																Compensation Y/N	Assessment Element(s) and weightings [use UNISTATs definition] E1- exam ICT- test A1 – Generic Assessment CW- coursework P1 - practical
		Knowledge & understanding				Cognitive & intellectual skills				Key & transferable skills				Employment related skills				Practical skills					
		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3			
Level 4	**CORF1004 Computer Aided Design for Marine Engineers**		✓			✓	✓	✓		✓									✓			Y	P 1 Pass/ Fail
	CORF1005 Mathematics for Marine Engineers	✓				✓		✓														Y	P1 40% ICT 60%
	CORF1006 Applied Mechanics for Marine Engineers	✓	✓			✓	✓	✓		✓	✓								✓			Y	E1 60% P1 40%
	CORF1007 Electro-technology for Marine Engineers	✓	✓			✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓		Y	CW 60% P1 40%
	CORF1008 Marine Engineering		✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓		Y	A1 Pass/ Fail P1 100%
	CORF1010 Superyacht Construction for Marine Engineers		✓	✓			✓			✓		✓			✓				✓	✓		Y	CW 40% P1 60%
	CORF1011 Work Experience for Marine Engineers			✓				✓		✓	✓	✓		✓	✓	✓		✓	✓	✓		N	EX Pass/ Fail CW Pass/ Fail
Level 4 LOs		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓			
Confirmed Award LOs		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓			

12. Appendix 2 – Work Based Learning Mapping (WBL)

FHEQ level: 4					
WBL/WRL Activity:	**Logistics**	**Programme Aim**	**Programme Intended Learning Outcome**	**Range of Assessments**	**Related Core Module(s)**
Develop and maintain a record of professional development	The learner will be required to record all relevant RYA and MCA examinations and qualifications undertaken and reflect on further professional development requirements to advance their career opportunities	1, 2, 3, 4, 5	1, 2, 3, 4, 5	Exam/ Log Book/ Reflective Journal	CORF1011 Work Experience for Marine Engineers
Develop practical skills and reflect upon personal development undertaken in the workshop and during the period of sea-service	The learner will develop marine engineering skills and understanding of the operation and maintenance requirements of marine engineering equipment and services, whilst developing knowledge of marine propulsion theories, shipboard systems, and environmental pollution legislation.	1, 2, 3, 4, 5	1, 2, 3, 4, 5	Practical assessment within FMS workshop Group presentation	CORF1008 Marine Engineering
Develop and reflect upon learning and skills developed in the workshop and apply those skills during the period of sea-service	The learner will develop marine engineering skills and understanding of the operation and maintenance requirements of marine electrical equipment and services	1, 2, 3, 4, 5	1, 2, 3, 4, 5	Formal report on the application of electrical theories relating to marine electrical applications and ship systems.	CORF1007 Electro-technology for marine engineers

				Group presentation	

FHEQ level: 4					
WBL/WRL Activity:	**Logistics**	**Programme Aim**	**Programme Intended Learning Outcome**	**Range of Assessments**	**Related Core Module(s)**
Develop practical design and manufacturing skills	The learner will develop design and manufacture skills through the use of SolidWorks and apply these to component manufacture (CAM) and the analysis of component design and engineering (CAE).	1, 2, 3	1, 2, 3, 4, 5	Timed assessment to demonstrate ability to use CAD as an analytical tool in the design of structure and components	CORF1004 Computer Aided Design for Marine Engineers
Develop the knowledge and understanding required to maintain a vessel in a sea worthy condition	The learner will develop knowledge and understanding of the materials and construction methods commonly in use within the Super Yacht build industry and develop an understanding of the properties and failure modes of such materials and the corresponding methods of construction	1, 2, 3, 4, 5	1, 2, 3, 4, 5	Examination on the resolution of static forces Group presentation on dynamic forces and marine mechanical systems	CORF1010 Superyacht Construction for Marine Engineers