

## C2.3 Programme Specification

### Master of Science (MSc) in Sustainable Maritime Operations

<b>Awarding Institution</b>	University of Gibraltar		
<b>Teaching Location</b>	Europa Point Campus, Gibraltar		
<b>Programme Title</b>	MSc Sustainable Maritime Operations		
<b>Final Award</b>	Master of Science in Sustainable Maritime Operations		
<b>Level of Qualification<sup>1</sup></b>	Level 7		
<b>Mode of Delivery</b>	FULL-TIME <input checked="" type="checkbox"/>	PART-TIME <input checked="" type="checkbox"/>	BLENDED <input checked="" type="checkbox"/>
<b>Minimum and Maximum Registration Period</b>		Minimum registration	Maximum registration
	Full-time	1 years	2 years
	Part-time	2 years	4 years
<b>Recognition by Professional, Statutory or Regulatory Body</b>	None		
<b>External reference points</b>	<p>The programme has been aligned with the UK QAA Master's Degree Characteristics.</p> <p><a href="https://www.qaa.ac.uk/docs/qaa/quality-code/master's-degree-characteristics-statement.pdf?sfvrsn=6ca2f981_10">https://www.qaa.ac.uk/docs/qaa/quality-code/master's-degree-characteristics-statement.pdf?sfvrsn=6ca2f981_10</a></p>		
<b>Entry Requirements</b>	<p>Typically, an applicant will be:</p> <ul style="list-style-type: none"> <li>• A person holding a second-class honours degree (or higher) in a relevant subject from a recognised institution, OR</li> <li>• An Officer in the Merchant Navy who holds a STCW Management Level COC, OR</li> <li>• An Officer in the Merchant Navy who holds a STCW Operational Level COC with 5 years of experience at this level OR</li> <li>• A person with a first degree and minimum of five (5) years middle management experience in a maritime-related company.</li> </ul> <p>AND</p> <ul style="list-style-type: none"> <li>• Have essential ICT skills, such as word-processing, email and use of internet.</li> </ul>		
<b>English Language Requirements</b>	<p>If English is not the student's first language, they must have one of the following qualifications as evidence of English language skills:</p> <ul style="list-style-type: none"> <li>• IELTS: 6.5 with 5.5 minimum in each skill</li> <li>• Cambridge Certificate of Proficiency in English (CPE): Grade C</li> <li>• Cambridge Certificate of Advanced English (CAE): Grade B</li> <li>• Pearson Test of English (Academic): 60 with 51 in each component</li> <li>• IBT TOEFL: 90 with no subtest less than 17</li> </ul>		
<b>Faculty/Department</b>	School of Maritime Science		

<sup>1</sup> UK Framework for Higher Education Qualifications

# Programme Specification

## MSc Sustainable Maritime Operations



<b>Date of Initial Approval</b>	<a href="#">Enter date of validation approval</a>
<b>Date last reviewed</b>	
<i>In the event of any inconsistency between the provisions of this Programme Specification and the provisions of the current University of Gibraltar Academic Regulations contained within the published Quality Handbook, the provisions of the current Academic Regulations shall prevail.</i>	

## 1. Programme Outline

This cutting-edge programme in maritime studies, offers a dynamic and comprehensive programme for individuals aspiring to deepen their knowledge and contribute to the sustainability of the maritime industry. The programme will also assist seafarers in making the transition from ship to shore and non-seafarers to understand the problems associated with the sea-going sector of the industry.

The programme provides a two year blended learning, postgraduate degree, comprising 180 credits at level 7. The programme is divided into three stages: Core modules, Elective modules, and Research project. The mix of faculty experience together with the programme content and peer participation will blend to give a complete knowledge and understanding of the maritime industry. The flexibility of electives allows students to select and study modules specific to their personal interests and/or professional needs.

## 2. Programme Aim/s

The aim of this programme is to meet the current and upcoming industry needs by building the competence and critical mass needed to fuel the uptake of sustainable practices in the maritime industry and therefore support industry capacity building aimed at achieving global sustainable development goals.

The programme aims to deliver an academically stimulating and industry relevant content that will provide managers already in the shore-based industry the opportunity to gain a qualification that will assist their career progression. It will also provide a vehicle to allow seafaring officers in sea-going managerial positions the opportunity to obtain an additional qualification that will assist them to enter management in the shore-based side of the Maritime industry.

The aims of this programme are to:

1. Prepare students for leadership roles in sustainable shipping operations, including careers in shipping companies, logistics firms, regulatory agencies, and environmental organizations.
2. Provide understanding of the intricacies of global supply chains and how shipping plays a critical role in their resilience and efficiency.
3. Develop deep understanding of international and national regulations governing shipping operations, such as the International Maritime Organization (IMO) guidelines.
4. Equip students with sustainable strategies and practices for reducing the environmental footprint of shipping operations. This may include exploring alternative fuels, energy-efficient technologies, and waste reduction measures.
5. Allow students to leverage technology for better decision-making and operational efficiency specially with the advancement of digitalization and data analytics in the shipping industry.

## 3. Programme Learning Outcomes

On successful completion of the programme the student will be able to:

<p><b>A.</b> <b>Knowledge &amp; Understanding</b></p>	<ul style="list-style-type: none"> <li>• Demonstrate an advanced knowledge of the concepts, theories, principles and methodologies in sustainable maritime operations.</li> <li>• Apply contemporary relevant international maritime standards in the maritime industry.</li> <li>• Evaluate the concepts necessary for a critical appreciation of the diversity of stakeholder interests operating within the maritime sector and their role in development of sustainable shipping.</li> </ul>
<p><b>B.</b> <b>Intellectual Skills</b></p>	<ul style="list-style-type: none"> <li>• Critically analyse a range of sustainable maritime operations issues, drawing on evidence from theory, policy, research and practice.</li> <li>• Critically evaluate the relationship between theories and professional practice (where applicable).</li> <li>• Apply sustainable theories and concepts to a range of real-world contexts.</li> <li>• Synthesise and lucidly evaluate alternative views to commonly accepted perspectives.</li> <li>• Reflect on their skills, knowledge and understanding to support the development of critical thinking and understanding of personal and professional self.</li> </ul>
<p><b>C.</b> <b>Practical Skills</b></p>	<ul style="list-style-type: none"> <li>• Appraise the sustainability of the business environment in which shipping organisations operate and the interrelationships and integration between different maritime sectors.</li> <li>• Evaluate the factors which influence port and maritime economics and how these apply to different trades and the various sectors of the maritime industry.</li> <li>• Apply safety and risk management techniques within the specialized context of maritime operations.</li> <li>• Plan and carry out complex projects such as independent research projects.</li> <li>• Understand the significance and limitations of theory and research.</li> </ul>
<p><b>D.</b> <b>Transferable Skills</b></p>	<ul style="list-style-type: none"> <li>• Express, present and defend ideas clearly and unambiguously in writing and through the spoken word.</li> <li>• Actively cooperate and/or collaborate with relevant stakeholders understanding of the multidisciplinary nature of the maritime sector.</li> <li>• Take responsibility for their learning and continuous personal development.</li> <li>• Demonstrate a systematic and methodical approach to working on projects, problem-solving or when developing new processes/policies.</li> <li>• Rationalise ethical decisions in the maritime domain in the practice of business and entrepreneurship.</li> </ul>

#### **4. Learning, Teaching and Assessment Strategy**

The assessment's focus throughout at a level 7 standard. Assessment methods reflect the theoretical and practical approaches of the modules. Students will engage with independent and group study in a supportive framework of teaching and learning. The strategy is to use methods of teaching and learning that facilitate achievement of the aims of the programme. This is presented in a variety of formats, from in-class exercises, extended essays, seminar presentations, and project work, where appropriate to the

level of study and the content of each module in the programme. Participatory learning forms the common core of all teaching and learning activities.

The assessment methods comprise both formative and summative assessment. The formative assessment is designed to assess student's progress and to serve as feedback to both students and lecturers. The formative assessment methods include prompt feedback on course work, individual and group feedback on participatory exercises, student presentations and case studies, as well as reflective papers. This progresses students' learning and provides an opportunity to feed forward into future summative assessments. The aim of the summative assessment is to determine whether the student has met the relevant module learning outcomes, which in turn contribute to the overall programme learning outcomes. The standard to be attained via assessments requires the students to undertake independent research of given topics relevant to each course. The results of this research will need to be communicated in a manner appropriate to display comprehensive understanding, knowledge, and skills in each subject area. Where students are expected to incorporate an element of case study material into their assessed coursework, they are encouraged to draw upon their own experiences and interests. The variety of assessments incorporated within the modules has been designed to develop a broad range of defined skills, with a strong practical and employment focus.

The final assessment comprises a significant research project. The subject of this research project will be agreed by the student and the Programme coordinator together with advice from other module leaders involved in the delivery of the various modules.

Assessment can be a blend of diagnostic work to determine student needs, formative work submitted for assessment and feedback (but not necessarily for academic credit) or summative work submitted for academic credit. A range of assessment methods are used to assess the achievement of learning outcomes which may include:

- Continuous assessment
- Commentaries
- Discourse analysis
- Oral presentations
- Interpretation
- Discussion Questions
- Summative essays
- Dissertation

## **5. Programme content and structure**

This programme consists of 180 credits at Level 7. The programme comprises of six taught modules: three compulsory core modules and three elective modules to suit student needs and career aspirations. For the final award, students must complete a research project on a chosen subject providing evidence of managing an investigation and demonstrating independent thinking and professional expertise.

**Programme Specification**  
**MSc Sustainable Maritime Operations**

Programme Year	Module Code	Module Title	Credits	Semester	Compulsory / Elective
Year 1	MSMO72001	Maritime Operations and Safety Management	20	1	C
	MSMO72002	Maritime Law and Insurance	20	1	C
	MSMO72003	Sustainable Shipping	20	1	C
Year 1	MSMO72004	Maritime Spatial Planning and the Blue Economy	20	2	E
	MSMO72005	Innovation and Technology in Multimodal Supply Chains	20	2	E
	MSMO72006	Sustainable Finance and Maritime Operations	20	2	E
	MSMO72007	Port and Terminal Operations	20	2	E
	MSMO72008	Maritime Informatics	20	2	E
Year 2	MSMO71501	Research Methodology and Project Proposal	15	1	C
	MSMO74501	Research Project	45	2	C

*Programme mode of delivery for a typical student studying the MSc Sustainable Maritime Operations part-time over two-years.*

Mode of delivery		
Year / Semester	Modules	Delivery Mode
Year 1 Semester 1	Core Modules	Face to Face (on campus)
Year 1 Semester 2	Elective Modules	Blended online learning
Year 2 Semester 1 & 2	Research Methodology and Research project	Blended online learning

**6. Variation/s to the Academic Regulations: Taught Programmes**

None.

**7. Programme credits and intermediate Awards (exit points)**

Postgraduate Certificate	60 credits	7
Postgraduate Diploma	120 credits	7
Master's Degree	180 credits	7

## **8. Career and Study Opportunities**

Successful completion of this programme will equip students with the knowledge base and skills to be effective leaders in sustainable maritime operations, with specialisation of their choice. It is expected that the main areas for employment will be:

- Port operations
- Ship management business
- Sustainable shipping analytics
- Freight forwarding and associated maritime logistics
- Environmental protection of waterways and the coast
- Maritime risk and safety management

Although many possible career paths are not addressed directly in the programme, the research element of the programme may follow a student's specific interest that might be focused on a particular career.

**9. Programme Map**

<b>MSc Sustainable Maritime Operations (Level 7)</b>			
<b>Year 1</b>		<b>Year 2</b>	
<b>Semester 1</b>	<b>Semester 2</b>	<b>Semester 1</b>	<b>Semester 2</b>
<b>Core Modules</b>	<b>Elective (any 3)</b>		
MSMO72001 Maritime Operations and Safety Management 20 Credits	MSMO72004 Maritime Spatial Planning and the Blue Economy 20 Credits	MSMO71501 Research Methodology and Project proposal 15 Credits	MSMO74501 Research project 45 Credits
MSMO72002 Maritime Law and Insurance 20 Credits	MSMO72005 Innovation and Technology in Multimodal Supply Chains 20 Credits		
MSMO72003 Sustainable Shipping 20 Credits	MSMO72006 Sustainable Finance and Maritime Operations 20 Credits		
	MSMO72007 Port and Terminal Operations 20 Credits		
	MSMO72008 Maritime Informatics 2 Credits		
Exit with Post graduate Certificate with 60 credits	Exit with Postgraduate Diploma with 120 credits		Final Award Master's with 180 credits



## 10. Assessment of Learning Outcomes

Assessment of learning outcomes will be as per each chosen module's "Knowledge and Understanding" and "Skills" learning outcomes as found within the module descriptors.

<b>MAPPING OF PROGRAMME LEARNING OUTCOMES TO THE MODULES</b>	MSMO72001	MSMO72002	MSMO72003	MSMO72004	MSMO72005	MSMO72006	MSMO72007	MSMO72008	MSMO71501	MSMO74501
<b>Knowledge and Understanding</b>										
Demonstrate an advanced knowledge of the concepts, theories, principles and methodologies in sustainable maritime operations.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Apply contemporary relevant international maritime standards in the maritime industry.	✓	✓	✓			✓				
Evaluate the concepts necessary for a critical appreciation of the diversity of stakeholder interests operating within the maritime sector and their role in development of sustainable shipping.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Intellectual Skills</b>										
Critically analyse a range of sustainable maritime operations issues drawing on evidence from theory, policy, research and practice.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Critically evaluate the relationship between theories and professional practice (where applicable).	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Apply sustainable theories and concepts to a range of real-world contexts.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Synthesise and lucidly evaluate alternative views to commonly accepted perspectives.	✓		✓			✓		✓	✓	✓
Reflect on their skills, knowledge and understanding to support the development of critical thinking and understanding of personal and professional self.	✓	✓	✓						✓	✓
<b>Practical Skills</b>										
Appraise the sustainability of the business environment in which shipping organisations operate and the interrelationships and integration between different maritime sectors.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Programme Specification**  
**MSc Sustainable Maritime Operations**



MAPPING OF PROGRAMME LEARNING OUTCOMES TO THE MODULES	MSMO72001	MSMO72002	MSMO72003	MSMO72004	MSMO72005	MSMO72006	MSMO72007	MSMO72008	MSMO71501	MSMO74501
Evaluate the factors which influence port and maritime economics and how these apply to different trades and the various sectors of the maritime industry.			✓			✓	✓		✓	✓
Apply safety and risk management techniques within the specialized context of maritime operations.	✓			✓			✓		✓	✓
Plan and carry out complex projects such as independent research projects.									✓	✓
Understand the significance and limitations of theory and research.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Transferable Skills</b>										
Express, present and defend ideas clearly and unambiguously in writing and through the spoken word.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Actively cooperate and/or collaborate with relevant stakeholders understanding of multidisciplinary nature of the maritime sector.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Take responsibility for their learning and continuous personal development.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Demonstrate a systematic and methodical approach to working on projects, problem-solving or when developing new processes/policies.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rationalise ethical decisions in the maritime domain in the practice of business and entrepreneurship.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓