

COURSE OUTLINE

(1) GENERAL

SCHOOL	Maritime and Industrial Studies		
ACADEMIC UNIT	Department of Maritime Studies		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	SM208	SEMESTER	B
COURSE TITLE	Quality Management in Maritime Operations		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
		3	5
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Special Background		
PREREQUISITE COURSES:	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	English		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)	https://maritime-unipi.com/program-structure/		

(2) LEARNING OUTCOMES

<p>Learning outcomes <i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i>
<p>Upon successful completion of the course, students will be able to:</p> <p>Knowledge</p> <ul style="list-style-type: none"> • Possess knowledge of the basic concepts related to quality in shipping • Have a critical understanding of the importance of effective quality management in maritime activities and business decisions • Demonstrate a critical awareness of fundamental concepts related to quality and safety standards applied in the maritime industry and assess their contribution to improving quality levels in shipping <p>Skills</p> <ul style="list-style-type: none"> • Understand quality management in the context of shipping • Apply theories and methodologies of quality and safety management in maritime activities • Apply knowledge to research and develop innovative solutions for improving quality and safety in shipping • Interpret and evaluate research findings related to quality and safety in shipping

Abilities

- Apply theories of quality and safety management in maritime operations
- Be willing to disseminate and develop knowledge regarding quality management in shipping
- Apply their knowledge and skills at a professional level to solve quality issues and make decisions in shipping
- Guide and train a team of people to address quality management issues in shipping.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Adapting to new situations

Decision-making

Working independently

Team work

Working in an international environment

Working in an interdisciplinary environment

Production of new research ideas

Project planning and management

Respect for difference and multiculturalism

Respect for the natural environment

Showing social, professional and ethical responsibility and sensitivity to gender issues

Criticism and self-criticism

Production of free, creative and inductive thinking

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Others...

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Adaptation to new situations

Decision-making

Independent work

Working in an international environment

Generating new research ideas

Critical thinking and self-criticism

Promotion of free, creative, and inductive thinking

(3) SYLLABUS

Lecture 1 – Quality and Quality Management

The general presentation of the course takes place, introducing the concepts of quality and quality management. A comparison is made between traditional and total quality perspectives. The key characteristics of total quality are outlined, and contributions from major quality gurus are discussed. An introduction to quality-safety in shipping is provided, offering students a broad understanding of basic concepts related to quality management and an overview of quality in shipping.

Lecture 2 – ISM Code

The lecture covers the concepts of quality and safety management systems, focusing on the International Safety Management (ISM) Code. Special attention is given to the objectives, background, structure/content, and main requirements of the Code. A case study analyzing the structure of a safe management system for a shipping company is presented. By the end of the lecture, students should be able to describe a safe management system and its structure, understand the ISM Code, and its requirements.

Lecture 3 – Human Element in Shipping

Emphasis is placed on seafarers and their working and living conditions on ships. The Maritime Labour Convention (MLC, 2006) is introduced, and its main purpose, goals, and advantages are discussed. An overview of the convention's content is provided, along with an analysis of research findings related to the well-being of seafarers. By the end of this lecture, students should be able to describe the Maritime Labour Convention (MLC, 2006) and understand its significance in improving conditions for seafarers on ships.

Lecture 4 – Safety vs. Security

Continuing the focus on the human element, an introduction to leadership and safety culture in shipping is presented. The concept of security in shipping is introduced, along with the International Ship and Port Facility Security (ISPS) Code. The objectives and main requirements of the ISPS Code are discussed, and examples of security threats and incidents in shipping are presented. Students should be able to differentiate between safety and security in shipping and understand the importance of the ISPS Code for ensuring safe maritime operations.

Lecture 5 – Tanker Management Safety Self-Assessment (TMSA) / Dry Bulk Management Standard (DBMS)

This section describes the requirements of Best Practices required by major wet and dry cargo charterers - Tankers Management Safety Self-Assessment (TMSA) and Dry Bulk Management Standard, respectively. The need to adopt and implement these best practices is explained, and the basic requirements at both the management company and ship levels are presented. Practical examples are discussed, allowing students to better understand the topic.

Lecture 6 – Risk Management & Risk Assessment

A general description of risk and risk assessment principles in the context of shipping is provided. The basic principles of assessing and managing this risk are explained, along with examples of risk assessment models. The ALARP methodology is introduced to discuss actions that must be taken to reduce risks to acceptable levels. Case studies are presented, providing practical application of the theory.

Lecture 7 – ISM Code and Management Systems

Building on Lecture 2, the basic principles of the International Safety Management (ISM) Code are briefly outlined, with a focus on practical application both at the management company and on the ship. The requirements of ISO 9001 Quality Management Standards and ISO 14001 Environmental Management Standards are presented, along with how these standards are combined with the ISM Code in an Integrated Management System (IMS).

Lecture 8 – Safety Inspections & Audits

This section emphasizes the basic principles of inspection, explaining different types of inspections and their purposes. The methodology of conducting inspections is detailed, both at the management company and on the ship, delving into corrective and preventive actions. The section concludes with case studies presenting inspection findings. Students are encouraged to recognize and propose corrective and preventive actions to complete and restore these findings.

(4) TEACHING and LEARNING METHODS - EVALUATION

<p style="text-align: center;">DELIVERY <i>Face-to-face, Distance learning, etc.</i></p>	Face to face	
<p style="text-align: center;">USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	E-class	
<p style="text-align: center;">TEACHING METHODS <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i></p> <p><i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i></p>	Activity	Semester workload
	Lectures	24
	Self Study	101
	Course total	125
<p style="text-align: center;">STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i></p> <p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>Written Exam (100%): A written, two-hour exam that includes open-ended questions. Evaluation Language: English</p> <ul style="list-style-type: none"> • Question 1 Topic Analysis (50%) Critical Thinking (50%) 33.3% • Question 2 Topic Analysis (50%) Critical Thinking (50%) 33.3% • Question 3 Topic Analysis (50%) Critical Thinking (50%) 33.3% 	

(5) ATTACHED BIBLIOGRAPHY

<p>- Suggested bibliography:</p> <ul style="list-style-type: none"> • Chen, K. K., Chang, C. T., & Lai, C. S. (2009). Service quality gaps of business customers in the shipping industry. <i>Transportation Research Part E: Logistics and Transportation Review</i>, 45(1), 222-237. • Bhattacharya, S. (2012). The effectiveness of the ISM Code: A qualitative enquiry. <i>Marine Policy</i>, 36(2), 528-535. • IMO (International Maritime Organization) (2010). <i>ISM Code, International Safety Management Code and Guidelines on Implementation of the ISM Code</i>. London: IMO Publishing. • Karahalios, H. (2014). The contribution of risk management in ship management: the case of ship collision. <i>Safety Science</i>, 63, 104-114.
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- Pun, K. F., Yam, R. C., & Lewis, W. G. (2003). Safety management system registration in the shipping industry. *International Journal of Quality & Reliability Management*, 20(6), 704-721.
- Batalden, B. M., & Sydnese, A. K. (2014). Maritime safety and the ISM code: a study of investigated casualties and incidents. *WMU Journal of Maritime Affairs*, 13(1), 3-25.
- Thai, V. V., & Grewal, D. (2007). The maritime security management system: Perceptions of the international shipping community. *Maritime Economics & Logistics*, 9(2), 119-137.
- Heij, C., Bijwaard, G. E., & Knapp, S. (2011). Ship inspection strategies: Effects on maritime safety and environmental protection. *Transportation research part D: transport and environment*, 16(1), 42-48.
- Pantouvakis, A., & Psomas, E. (2016). Exploring total quality management applications under uncertainty: A research agenda for the shipping industry. *Maritime Economics & Logistics*, 18(4), 496-512.
- Exarchopoulos, G., Zhang, P., Pryce-Roberts, N., & Zhao, M. (2018). Seafarers' welfare: A critical review of the related legal issues under the Maritime Labour Convention 2006. *Marine Policy*, 93, 62-70.
- Yuen, K. F., & Thai, V. V. (2017). Corporate social responsibility and service quality provision in shipping firms: financial synergies or trade-offs?. *Maritime Policy & Management*, 44(1), 131-146.
- Celik, M. (2009). Designing of integrated quality and safety management system (IQSMS) for shipping operations. *Safety Science*, 47(5), 569-577.
- Cheng, T. C. E., & Choy, P. W. (2013). A study of the relationships between quality management practices and organizational performance in the shipping industry. *Maritime Economics & Logistics*, 15(1), 1-31.
- Degré, T. (2007). The use of risk concept to characterize and select high risk vessels for ship inspections. *WMU Journal of Maritime Affairs*, 6(1), 37-49.
- Thai, V. V. (2007). Impacts of security improvements on service quality in maritime transport: An empirical study of Vietnam. *Maritime Economics & Logistics*, 9(4), 335-356.
- Thai, V. V. (2008). Service quality in maritime transport: conceptual model and empirical evidence. *Asia Pacific Journal of Marketing and Logistics*, 20(4), 493-518.
- Sadovaya, E., & Thai, V. V. (2015). Impacts of implementation of the effective maritime security management model (EMSMM) on organizational performance of shipping companies. *The Asian Journal of Shipping and Logistics*, 31(2), 195-215.

- Related academic journals:

Maritime Policy and Management

Maritime Economics and Logistics

Safety Science

Marine Policy

International Journal of Quality and Reliability Sciences

Transportation Research Part A, B, C, D, E