Module Handbook Quality management in maritime operations

Scheme & Programme	M.Sc. Shipping Management		
Module Title	Quality management in maritime operations		
Module Code			
Module Start Date/ Cohort	2018-19		
Module Level	Level 7	Credit Rating	[5 ECTS credits]
Total study time	10 hours academic directed time 3,5 hour lecture per week for nine weeks	Hours of independent Learning and time for assessments	125 hours of teaching and independent learning and time for assessments
Module Leader& Lecturer:	Associate Professor Angelos Pantouvakis Dr. Maria Karakasnaki Dr. Stavros Meidanis		
Email:	apan@unipi.gr mariakar@unipi.gr		
Room:			
Office Hours:	Please email me for any queries or see me in sessions.		
Seminar Tutor(s):			
Programme Director:	Dr. Angelos Pantouvakis		
Administrator contact:	Mrs. Irini Mantea, 2104142504		
Administrator e- mail:	nafadmin@unipi.gr		
Lecture day & time:	Weekdays 17.30-21.00		
Seminar day & time:			

1. Welcome Note

Welcome to the "Quality management in maritime operations" module of the M.Sc. in Shipping Management Program of the Department of Maritime Studies at University of Piraeus. This module helps students learn and understand the fundamentals of quality management in maritime operations.

2. Module aims

- To provide the necessary knowledge on the basic quality – related concepts in shipping
- To critically assess the significance of effective quality management in maritime operations and business decisions
- To assist students to understand the fundamentals of quality and safety standards applicable in the maritime industry and to examine their contribution towards increasing quality levels in shipping.

3. Learning Outcomes–what you will gain from taking the module:

By the end of this module, students should be able to:

- understand the concepts of quality and quality management in the context of the shipping
- describe the main quality and safety standards that characterize the operations of maritime companies
- critically evaluate the importance of effectively implementing quality management systems in shipping

4. Indicative Module Content:

This module will develop on theoretical and empirical topics in quality management that concern the operations of shipping companies. More specifically, the content of the module includes theoretical description of the quality and quality management concepts, analysis of the International Safety Management (ISM) Code, International Ship and Port Facility Security (ISPS) Code and Maritime Labor Convention, 2006, as well as investigation of Tanker Management Self Assessment and inspections issues.

5. How the module is taught, attendance and the teaching schedule:

The module will utilize flexible, responsive and interactive learning environments using a combination among lectures, seminars, workshops and independent self-assessment tasks, to encourage students' ability to think critically and creatively. Thus, critical thinking will be achieved through case studies and real quality management scenarios. Employability and educating the whole person process will be achieved through the application of knowledge and case studies.

a. Teaching Schedule per every one of the 9 weeks

Lecture Date	Topic
Week 1	**Introduction to the quality concept** • Introduction to the theoretical concept of quality • Quality gurus • Quality assurance standards ISO 9000 **Reading Material:** Chen, K. K., Chang, C. T., & Lai, C. S. (2009). Service quality gaps of business customers in the shipping industry. Transportation Research Part E: Logistics and Transportation Review, 45(1), 222-237. 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. 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. Powerpoint presentation slides
Week 2	**International Safety Management (ISM) Code** • Description of ISM Code • Objectives of the ISM Code • Part A of ISM Code • Part B of ISM Code **Reading Material:** Bhattacharya, S. (2012). The effectiveness of the ISM Code: A qualitative enquiry. Marine Policy, 36(2), 528-535. Celik, M. (2009). Designing of integrated quality and safety management system (IQSMS) for shipping operations. Safety Science, 47(5), 569-577. IMO (International Maritime Organization) (2010). ISM Code, International Safety Management Code and Guidelines on Implementation of the ISM Code. London: IMO Publishing. Powerpoint presentation slides

Week 3	**Risk management** • Hazards description • Risk assessment process • Determination of risk • Examples of risk assessment **Reading Material:** Karahalios, H. (2014). The contribution of risk management in ship management: the case of ship collision. Safety Science, 63, 104-114. Mazaheri, A., Montewka, J., & Kujala, P. (2014). Modeling the risk of ship grounding—a literature review from a risk management perspective. WMU Journal of Maritime Affairs, 13(2), 269-297. IMO (International Maritime Organization) (2010). ISM Code, International Safety Management Code and Guidelines on Implementation of the ISM Code. London: IMO Publishing. Powerpoint presentation slides
Week 4	**Safety management system: A case study** • Case study: The structure of a safety management system of a shipping company **Reading Material:** 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. IMO (International Maritime Organization) (2010). ISM Code, International Safety Management Code and Guidelines on Implementation of the ISM Code. London: IMO Publishing. Batalden, B. M., & Sydnes, 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.
Week 5	**International Ship and Port Facility Security (ISPS) Code** • Objectives of the ISPS Code • Content of the ISPS Code • Parts A and B of ISPS Code **Reading Material:**

	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., & Grewal, D. (2007). The maritime security management system: Perceptions of the international shipping community. Maritime Economics & Logistics, 9(2), 119-137. 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. Powerpoint presentation slides
Week 6	**Tanker Management Self Assessment (TMSA)** • Description of Oil Major inspections • Topics covered under SIRE • Description of TMSA • Elements of TMSA • Benefits of TMSA **Reading Material:** Knapp, S., Bijwaard, G., & Heij, C. (2011). Estimated incident cost savings in shipping due to inspections. Accident Analysis & Prevention, 43(4), 1532-1539. 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. Powerpoint presentation slides
Week 7	**Safety inspections and audits** • Description of inspection and audit onboard • Presentation of safety management system problems **Reading Material:** 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. Knapp, S., & Franses, P. H. (2007). Econometric analysis on the effect of port state control inspections on the probability of casualty: Can targeting of substandard ships for inspections be improved?. Marine Policy, 31(4), 550-563. Powerpoint presentation slides
Week 8	**Total Quality Management (TQM)** • Description of the TQM concept • Presentation of TQM dimensions • Benefits of adopting the TQM philosophy

	Reading Material: 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. 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. Powerpoint presentation slides
Week 9	**Maritime Labor Convention (MLC), 2006** • Content of MLC, 2006 **Reading Material:** Seafarers' welfare: A critical review of the related legal issues under the Maritime Labour Convention 2006 Powerpoint presentation slides

6. Assessment

The module will be assessed on the basis of:

A) Written exams (100%): A 2-hour written exam test.

Assessment Title and Brief Description	Word count/ Hrs where applicable	Weight	Submission deadline	Submission method	Feedback date	How feedback is provided
Written exams	2hrs	100%	TBD	In class	TBD	Electronically

Note: Any changes to the assessment schedule will be communicated by e-mail and/ or announcement on the module's E-College pages.

Assessment Criteria	Weighting
• Theory Subject 1 Analysis of the topic (50%) Critical thinking (50%)	**30%**

• Theory Subject 2 Analysis of the topic (50%) Critical thinking (50%)	**30%**
• Theory Subject 3 Analysis of the topic (50%) Critical thinking (50%)	**40%**

Marks will be based on the content of the final submission assuming that all the milestones above have been met.

7. Recommended Reading

1. Main Material for the Course:

- Chen, K. K., Chang, C. T., & Lai, C. S. (2009). Service quality gaps of business customers in the shipping industry. Transportation Research Part E: Logistics and Transportation Review, 45(1), 222-237.
- Bhattacharya, S. (2012). The effectiveness of the ISM Code: A qualitative enquiry. Marine Policy, 36(2), 528-535.
- IMO (International Maritime Organization) (2010). ISM Code, International Safety Management Code and Guidelines on Implementation of the ISM Code. London: IMO Publishing.
- Karahalios, H. (2014). The contribution of risk management in ship management: the case of ship collision. Safety Science, 63, 104-114.
- 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., & Sydnes, 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.
- Knapp, S., Bijwaard, G., & Heij, C. (2011). Estimated incident cost savings in shipping due to inspections. Accident Analysis & Prevention, 43(4), 1532-1539.
- 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.
- Seafarers' welfare: A critical review of the related legal issues under the Maritime Labour Convention 2006

2. Support Material:

- 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.
- Knapp, S., & Franses, P. H. (2007). Econometric analysis on the effect of port state control inspections on the probability of casualty: Can targeting of substandard ships for inspections be improved?. Marine Policy, 31(4), 550-563.
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- 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.

Additional Course Material:

- Powerpoint presentation slides

Websites

International Maritime Organization - www.imo.org/

International Labor Organization - https://www.ilo.org/global/standards/maritime-labour-convention/lang--en/index.htm

International Chamber of shipping - http://www.ics-shipping.org/