

Course Title	Environmental Management & Safety in Shipping				
Course Code	SOM 003				
Course Type	Lectures				
Level	Postgraduate				
Year / Semester	1 st / 1 st				
Teacher's Name	Dr. Theo Panayotou				
ECTS	10	Lecture hours (total)	10 hours	Laboratory hours (total)	6 hours
Course Purpose and Objectives	<ul style="list-style-type: none"> • To provide a good understanding of the relevant issues regarding environmental and safety regulations and the implications for shipowners and ship operators. • Have a good understanding of the relevant provisions of IMO Conventions for safety and environmental protection. • Appreciate the options open to shipowners in the context of the environmental and safety regulations and the implications thereof. • Know how to use KPIs to monitor and control environmental and safety performance in shipping. • Know the value of a safety management system for safe shipping operations • Know what might be included in a safety management systems and its aims and scope • Know the various marine accidents and its effects to the natural environment and the importance of preventing events • Understand the aims, structure and content of the TMSA • Understand the role of IMO in developing international regulation in shipping • Understand the concept of the various maritime safety conventions, such as SOLAS, MARPOL, STCW • Know the importance of operational safety management • Understand the important role of safety management and a safety culture 				
Learning Outcomes	Upon completion of this course, students should be able to:				

	<ul style="list-style-type: none"> • Describe the major issues concerning environmental pollution and environmental protection in the shipping industry • Have a good understanding of the relevant issues regarding the new environmental regulations and the implications for shipowners and ship operators. • Differentiate the relevant provisions of relevant IMO Conventions and the requirements indicated by IMO's MEPC (Marine Environment Protection Committee). • Appreciate the options open to shipowners in the context of the environmental regulations. • Describe the processes and thinking for environmental protection • Describe the role of IMO in developing international safety regulation in shipping • Know the key concepts outlined in such provisions as IMO's SOLAS and the International Safety Management Code • Know the key provisions and scope of the TMSA • Explain how management may use key performance indicators to monitor safety and environmental protection • Identify appropriate KPIs for marine environment monitoring and protection and for safety in ship operations. 			
Prerequisites	<table border="1"> <tr> <td data-bbox="403 1408 767 1498"></td> <td data-bbox="767 1408 1051 1498">Required</td> <td data-bbox="1051 1408 1428 1498">None</td> </tr> </table>		Required	None
	Required	None		
Course Content	<ul style="list-style-type: none"> • Environmental management in shipping • Environmental management in shipping: IMO's Marine Environment Protection Committee • Environmental management in shipping: KPIs and monitoring • Safety management in shipping • Shipping safety management: SOLAS, the ISM Code and TMSA • Safety management in shipping: KPIs and monitoring 			

Teaching Methodology	<ul style="list-style-type: none"> • Audiovisual lectures • Exercises • Assignments • Extensive readings of the international literature • Live sessions
Bibliography	<p>IMO (2009) Second IMO GHG Study 2009, IMO: London.</p> <p>IMO (2012) Resolution MEPC.63/23, 2012 Guidelines for the development of a ship energy efficiency management plan (SEEMP) International Maritime Organization (IMO), London, UK.</p> <p>IMO (2014) Third IMO GHG study 2014, International Maritime Organization (IMO), London, UK.</p> <p>IMO (2009) Second IMO GHG Study 2009, IMO: London.</p> <p>Lun YHV, Lai KH, Wong W.Y.C., and Cheng T.C.E. (2014) Green shipping practices and firm performance, <i>Maritime Policy Management</i>, 41(2), 134-148.</p> <p>Lun, Y.H.V., Lai, K-h., Wong, C.W.Y. and Chen, T.C.E. (2015) <i>Green Shipping Management</i>, Springer: Switzerland.</p>
Assessment	<p>2 Assignments: 30%</p> <p>Final Examination: 70%</p>
Language	English