

DEREE COLLEGE SYLLABUS FOR: SH 2061 SHIP OPERATIONS AND TECHNICAL MANAGEMENT		3/0/3/								
(Formerly MG 2061 SHIP OPERATIONS AND TECHNICAL MANAGEMENT) (Updated: FALL 2026)		UK LEVEL: 4 UK CREDITS: 15								
PREREQUISITES:	None									
CATALOG DESCRIPTION:	The ship as the production unit of a shipping firm. Different types and categories of ships, different cargoes and their main characteristics, ship's equipment and machinery, ship and cargo operations, technical aspects of ship management.									
RATIONALE:	A variety of features and elements of ships and cargoes impact vessels’ operations and technical maintenance. This course examines the principal characteristics of ships and introduces the basic day-to-day operations and technical aspects of ship management. It also provides an understanding on how these operations affect the decision making of the shipping company.									
LEARNING OUTCOMES:	<i>As a result of taking this course, the student should be able to:</i> 1. Classify the different types of ships and cargoes and define their main characteristics. 2. Outline the technical management aspects of the vessel and discuss how they influence its operation. 3. Identify the critical factors associated with ship operations and discuss the challenges they pose to the management of maritime shipping companies in the context of recent sustainability trends									
METHOD OF TEACHING AND LEARNING:	In congruence with the teaching and learning strategy of the college, the following tools are used: • Lectures and class discussions. • Homework assignments. • Office hours held by the instructor to provide further assistance to students. • Use of library facilities for further study and preparation for the exams • Use of the Blackboard course management platform to further support communication, by posting lecture notes, assignment instruction, timely announcements, formative quizzes and online submission of assignments.									
ASSESSMENT:	Summative: <table><tr><td>1st assessment: Written Project - Individual (1.500-2.000 words)</td><td>40%</td></tr><tr><td>Final assessment: Final Examination (Essay-type questions)</td><td>60%</td></tr></table> Formative: <table><tr><td>Mock Exam</td><td>0</td></tr><tr><td>Teamwork presentations</td><td>0</td></tr></table> The formative Mock Exam aims to prepare students for Final Examination. The Written Project tests Learning Outcome 1 The Final Examination tests Learning Outcomes 2 and 3		1 st assessment: Written Project - Individual (1.500-2.000 words)	40%	Final assessment: Final Examination (Essay-type questions)	60%	Mock Exam	0	Teamwork presentations	0
1 st assessment: Written Project - Individual (1.500-2.000 words)	40%									
Final assessment: Final Examination (Essay-type questions)	60%									
Mock Exam	0									
Teamwork presentations	0									

	Students are required to resit failed assessments in this module.
INDICATIVE READING:	REQUIRED READING: Branch, A. & Robarts, M. (2014). <i>Branch's Elements of Shipping</i> (latest edition). London and New York: Routledge. RECOMMENDED READING: - Goksu, S., & Arslan, O. (2025). Evaluation of dynamic risk factors for ship operations. <i>Australian Journal of Maritime & Ocean Affairs</i>, 17(2), 300–326. https://doi.org/10.1080/18366503.2024.2340170. - House, D. J. (2024). <i>Cargo Work For Maritime Operations</i>, (9th ed.). Routledge. - House, D.J. (2018). <i>Seamanship Techniques: Shipboard and Marine Operations</i> (5th ed.). Routledge. - Institute of Chartered Shipbrokers. (2022 ed.). <i>Ship Operations and Management</i>, Witherby & Co. Ltd. - Olsen, A.A.(2023). <i>Maritime Cargo Operations</i>, Routledge. - Olsen, A.A.(2023). <i>Merchant Ship Types</i>, Routledge. - Olsen, A.A.(2022). <i>Core Principles of Maritime Navigation</i>, Routledge - Rowbotham, M. (2014). <i>Introduction to Marine Cargo Management</i>, Informa Law from Routledge - Theotokas, I. (2018). <i>Management of Shipping Companies</i>. London and New York: Routledge. - United Nations Conference on Trade and Development. (Annual editions). <i>Review of Maritime Transport</i>, UNCTAD. - Visvikis, I.D. & Panayides, P.M. (Eds.). (2017). <i>Shipping Operations Management</i>. Springer. - Wang, Y., & Iris, Ç. (2025). Transition to near-zero emission shipping fleet powered by alternative fuels under uncertainty. <i>Transportation Research Part D</i>, 142. https://doi.org/10.1016/j.trd.2025.104689 - Wijnolst, N. & Wergeland, T. (2009). <i>Shipping Innovation</i>. Amsterdam: IOS Press. - Xu, L., Wu, J., Yan, R., & Chen, J. (2025). Is international shipping in right direction towards carbon emissions control? <i>Transport Policy</i>, 166, 189–201. https://doi.org/10.1016/j.tranpol.2025.03.009 - Zhang, P. & Tang, L.(2021). <i>Ship Management: Theory and Practice</i>, Routledge. Other sources, including journal and newspapers’ articles, research papers etc. recommended by the instructor throughout the semester.
INDICATIVE MATERIAL: (e.g. audiovisual, digital material, etc.)	REQUIRED MATERIAL: RECOMMENDED MATERIAL:
COMMUNICATION REQUIREMENTS:	Use of appropriate academic conventions as applicable in oral and written communications.
SOFTWARE	MS Office and Blackboard CMS

REQUIREMENTS:	
WWW RESOURCES:	www.bimco.org www.cdim.org www.iacs.org.uk www.intercargo.org www.intertanko.com www.ics-shipping.org www.imo.org www.ipta.org.uk www.shipsupply.org www.ocimf.org www.rightship.com www.ship-technology.com www.sigtto.org www.hellenicshippingnews.com www.lloydslist.com www.maritimejournal.com www.nridigital.com/ship-technology-global/ https://splash247.com/ www.tradewindsnews.com
INDICATIVE CONTENT:	1. Ship types and cargoes 2. The Ship - Measurements - Design and evolution - Organization - Manning - Communication and digital systems - Propulsion - Handling Equipment - Safety 3. Ship Operations - Port Operations - Cargo Operations - Navigation - Voyage Planning - Bunkering 4. Ship Technical Management - Maintenance - Repair - Dry-docking - Shipbuilding - Efficiency / Performance / Sustainability - Surveys and Vetting 5. Maritime Companies - Types - Ship Management - Holding - Ship Owning - Functions / Duties - Departments / Organization - Brokerage (S&P – Chartering) - Agencies 6. Ship Expenses and Costs

