

| DEREE COLLEGE SYLLABUS FOR: SH 3159 PORT MANAGEMENT AND OPERATIONS                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3/0/3                                       |            |  |                                                                                                                                    |     |                                                               |     |
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| (Previously: MG 3159 Port Management)<br>(Updated: FALL 2026)                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>UK LEVEL: 4</b><br><b>UK CREDITS: 15</b> |            |  |                                                                                                                                    |     |                                                               |     |
| <b>PREREQUISITES:</b>                                                                                                              | SH 2010 Introduction to Shipping                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |            |  |                                                                                                                                    |     |                                                               |     |
| <b>CATALOG DESCRIPTION:</b>                                                                                                        | Port organization, functions, planning, operations, and management. Port competition and pricing. Modern port management practices with an emphasis on the position of ports in the logistics and supply chains. Port sustainability and environmental impacts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |            |  |                                                                                                                                    |     |                                                               |     |
| <b>RATIONALE:</b>                                                                                                                  | Students specializing in shipping should understand the significance and challenges related to ports. Ports constitute an integral part of the logistics chain, their role goes beyond the traditional cargo-handling functions and they are faced with the challenge of having to provide value added services. The course analyzes how ports are organized, managed and planned, and how ports interface with the logistics chain. The course provides necessary knowledge and understanding of the principles and evolution of container terminal management, port indicators, and port competitiveness within complex supply chains.                                                                                                                                                                                                                                                        |                                             |            |  |                                                                                                                                    |     |                                                               |     |
| <b>LEARNING OUTCOMES:</b>                                                                                                          | <i>As a result of taking this course, the student should be able to:</i><br>1. Identify ports’ role in global trade, core components (infrastructure, superstructure, terminals), and interfaces with logistics/supply chains.<br>2. Describe port operations (vessel services, cargo handling, terminal management, hinterland links) with regard to efficiency, technology, and safety.<br>3. Explain port evolution, performance, and sustainability; stakeholder responsibilities in ethical, safe, secure management; and policy areas (planning, charges, competition, regulation).                                                                                                                                                                                                                                                                                                       |                                             |            |  |                                                                                                                                    |     |                                                               |     |
| <b>METHOD OF TEACHING AND LEARNING:</b>                                                                                            | In congruence with the teaching and learning strategy of the college, the following tools are used:<br><ul style="list-style-type: none"><li>○ Classes: Classes consist of lectures, discussions and case study analyses. Throughout the lectures students develop knowledge and understanding related to the subject content. Discussions reinforce students’ cognitive and key transferable skills, as well as communication skills.</li><li>○ Office hours: Students are encouraged to make full use of the office hours of their instructor in order to consult and discuss issues related to the course’s content. Also, students may contact the instructor via e-mail for any questions relevant to the lectures. Use of Blackboard: The instructor will post lecture notes, additional teaching material and readings, as well as assignments instructions and announcements.</li></ul> |                                             |            |  |                                                                                                                                    |     |                                                               |     |
| <b>ASSESSMENT:</b>                                                                                                                 | <table><tr><td colspan="2">Summative:</td></tr><tr><td>1<sup>st</sup> assessment: Team Project , Word limit: 4,000-5,000 (3-4 students per group, Written project:90%, Presentation 10%)</td><td>60%</td></tr><tr><td>2<sup>nd</sup> assessment: 2-hour in-class Final Examination</td><td>40%</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             | Summative: |  | 1 <sup>st</sup> assessment: Team Project , Word limit: 4,000-5,000 (3-4 students per group, Written project:90%, Presentation 10%) | 60% | 2 <sup>nd</sup> assessment: 2-hour in-class Final Examination | 40% |
| Summative:                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |            |  |                                                                                                                                    |     |                                                               |     |
| 1 <sup>st</sup> assessment: Team Project , Word limit: 4,000-5,000 (3-4 students per group, Written project:90%, Presentation 10%) | 60%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                             |            |  |                                                                                                                                    |     |                                                               |     |
| 2 <sup>nd</sup> assessment: 2-hour in-class Final Examination                                                                      | 40%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                             |            |  |                                                                                                                                    |     |                                                               |     |

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|                                                 | <p><b>Formative:</b></p> <table border="1" data-bbox="643 185 1441 259"> <tr> <td>In-class, 1-hour, “diagnostic test” - formative</td><td><b>0%</b></td></tr> <tr> <td></td><td></td></tr> </table> <p>The formative “diagnostic test” aims to prepare students for the examination.</p> <p>The First Assessment tests Learning Outcomes (1) and (2).<br/>The Final Assessment tests Learning Outcomes (2) and (3).</p> <p>Students are required to resit failed assessment in this module</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | In-class, 1-hour, “diagnostic test” - formative | <b>0%</b> |  |  |
| In-class, 1-hour, “diagnostic test” - formative | <b>0%</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                 |           |  |  |
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| <p><b>INDICATIVE READING:</b></p>               | <p><b>REQUIRED READING:</b><br/>Notteboom, T., Pallis, A. and Rodrigue, J.P., 2022. <i>Port economics, management and policy</i>. Routledge.</p> <p><b>RECOMMENDED READING:</b><br/><u>BOOKS</u></p> <ul style="list-style-type: none"> <li>• Alderton P. (2008). Port Management and Operations. Informa, ISBN: 978 1 84311 750.</li> <li>• Haralambides, H. ed., 2015. <i>Port management</i>. Springer.</li> <li>• Branch, A., 2012. <i>Elements of port operation and management</i>. Springer Science &amp; Business Media.</li> <li>• Notteboom, T., Pallis, A. and Rodrigue, J.P., 2022. <i>Port economics, management and policy</i>. Routledge.</li> <li>• Yap, W.Y., 2020. <i>Business and economics of port management: an Insider’s perspective</i>. Routledge.</li> </ul> <p><u>ARTICLES</u></p> <ul style="list-style-type: none"> <li>• Stavroulakis, P.J., Georgoulas, D., Gerakoudi-Ventouri, K., Iosifidi, G. and Papadimitriou, S., 2024. Sustainable maritime legislation: the case of the international ship and port facility security code. <i>WMU Journal of Maritime Affairs</i>, 23(4), pp.575-602.</li> <li>• Gerakoudi, K., Kokosalakis, G. and Stavroulakis, P.J., 2024. A machine learning approach towards reviewing the role of ‘Internet of Things’ in the shipping industry. <i>Journal of Shipping and Trade</i>, 9(1), p.19.</li> <li>• Gerakoudi-Ventouri, K., 2022. Review of studies of blockchain technology effects on the shipping industry. <i>Journal of Shipping and Trade</i>, 7(1), p.2.</li> <li>• Nur, F., Marufuzzaman, M., Puryear, S.M. (2020). Optimizing inland waterway port management decisions considering water level fluctuations. <i>Computers and Industrial Engineering</i>, 140, art. no. 106210.</li> <li>• O’Keeffe, J.M., Cummins, V., Devoy, R.J.N., Lyons, D., Gault, J. (2020). Stakeholder awareness of climate adaptation in the commercial seaport sector: A case study from Ireland. <i>Marine Policy</i>, 111, art. no. 102404.</li> <li>• Pallis, A.A., Arapi, K.P., Papachristou, A.A. (2019). Models of cruise ports governance. <i>Maritime Policy and Management</i>, 46 (5), 630-651.</li> <li>• Valente, S., Veloso-Gomes, F. (2020). Coastal climate adaptation in portcities: adaptation deficits, barriers, and challenges ahead. <i>Journal of Environmental Planning and Management</i>, 63 (3), 389-414.</li> </ul> |                                                 |           |  |  |

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|                                                                                  | <ul style="list-style-type: none"> <li>Wang, W., Huang, L., Gu, J., Jiang, L. (2019). Green port project scheduling with comprehensive efficiency consideration. Maritime Policy and Management, 46 (8), 967-981.</li> <li>Yang, X., Ni, L., Tong, F., Zhang, H. (2019). Optimal Management and Allocation of Superior Resources in Port Industries. Journal of Coastal Research, 94 (sp1), 500-504.</li> <li>Zahran, S. Z., Alam, J. B., Al-Zahrani, A. H., Smirlis, Y., Papadimitriou, S., &amp; Tsioumas, V. (2017). Analysis of port authority efficiency using data envelopment analysis. Maritime Economics &amp; Logistics, 19(3), 518-537.</li> </ul> |
| <b>INDICATIVE MATERIAL:</b><br><i>(e.g. audiovisual, digital material, etc.)</i> | <b>REQUIRED MATERIAL:</b><br><br><b>RECOMMENDED MATERIAL:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>COMMUNICATION REQUIREMENTS:</b>                                               | Use of appropriate academic conventions as applicable in oral and written communications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>SOFTWARE REQUIREMENTS:</b>                                                    | MS Office and Blackboard CMS<br>Excel, PowerPoint                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>WWW RESOURCES:</b>                                                            | <a href="http://www.iaphworldports.org">www.iaphworldports.org</a> (IAPH)<br><a href="http://espo.be">http://espo.be</a> (European Sea Port Organization)<br><a href="http://www.worldbank.org">www.worldbank.org</a> (see under Ports and Waterborne Transport)<br><a href="http://www.porteconomics.gr">www.porteconomics.gr</a><br><a href="http://www.marinetraffic.com/en/ais/index/ports/all">www.marinetraffic.com/en/ais/index/ports/all</a><br><a href="https://transportgeography.org/">https://transportgeography.org/</a>                                                                                                                         |
| <b>INDICATIVE CONTENT:</b>                                                       | <ol style="list-style-type: none"> <li>1. Ports</li> <li>2. Port &amp; Terminal Development</li> <li>3. Port Administration</li> <li>4. Port Policy</li> <li>5. Berths and Terminals Management</li> <li>6. Berths and Terminals Operations</li> <li>7. Cargo Handling Operations</li> <li>8. Port Labour</li> <li>9. Time in Port and Speed of Operations</li> <li>10. Port Costs</li> <li>11. Port Environmental matters</li> </ol>                                                                                                                                                                                                                         |