DEREE COLLEGE SYLLABUS FOR:		US CREDITS: 3/0/3
EC 3227 MARITIME ECONOMICS - UK LEVEL: L5		III ODEDITO 45
(Updated Fall 2021)		UK CREDITS: 15
PREREQUISITES:	EC 1000 Principles of Microeconomics MA 1008 College Algebra	
CATALOG DESCRIPTION:	The economics of sea transport and related markets. Shipping & ship demand & supply, economies of scale, shipping cycles, ship & shipyard productivity, shipyard subsidisation, return on shipping investment, evolution of fleet costs as more ships are activated, shipping risk & FFAs, bulk carriers vs. specialised ships, marginal cost pricing, fast vs. slow steaming.	
RATIONALE:	The course aims at helping students understand the application of economic principles & concepts on the transportation of goods by sea, the determination of freight rates, and the interaction of shipping markets (including shipbuilding). As such, it constitutes an important course in the shipping management programme, providing the necessary groundwork for other courses in shipping, enhancing the employability of programme (as well as economics) graduates in the field.	
LEARNING OUTCOMES:	As a result of taking this course students should be able to:	
	<ol> <li>Analyse and explain shipping markets and cycles; freight rate indices; ship productivity; economies of scale in shipping; marginal cost pricing in shipping.</li> <li>Define and analyse sea transport demand &amp; supply and the distribution of shipping risk between shipowner &amp; cargo owner.</li> <li>Explain the trade-off between fast &amp; slow steaming, and apply this on shipowner's profit-maximisation problem.</li> <li>Calculate and analyse the Return on Shipping Investment.</li> <li>Define, discuss and explain shipbuilding demand &amp; supply and shipyard productivity.</li> </ol>	
METHOD OF TEACHING AND LEARNING:	In congruence with the learning and teaching strategy of the college, the following tools are used:	
	<ul> <li>Classes consist of lectures and class discussions of recent articles in economic journals assigned by the instructor.</li> <li>Office hours: students are encouraged to make full use of the office hours of their instructor, where they can ask questions and go over lecture material.</li> <li>Use of blackboard, where instructors post lecture notes, assignment instructions, timely announcements, as well as additional resources.</li> </ul>	
ASSESSMENT:	Summative:  1st assessment: In-class examination (Or hour, closed book, problems/essays/multiple choice/true-fals combination)	

2 <sup>nd</sup> assessment: In-class examination (Two-	60%
hour, closed book,	
problems/essays/multiple choice/true-false	
combination)	

## Formative:

Formative assignments	0%
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The formative assignments prepare students for summative assignments and ensure that students are actively engaged during the term.

The 1<sup>st</sup> assessment tests Learning Outcomes 1, 2, 3. The 2<sup>nd</sup> assessment tests Learning Outcomes 4, 5.

## **INDICATIVE READING:**

## **REQUIRED READING:**

Stopford, M. (2008): *Maritime Economics*. Routledge, latest edition. ISBN-10: 041527558X ISBN-13: 978-0415275583

Journal articles, accessible through the Library, as assigned by the instructor.

## RECOMMENDED READING:

<u>The Economist (2018): "Sulphur-emissions rules for shipping will worsen global warming - The IMO's rules could also wipe 3% off America's GDP", Oct. 27<sup>th</sup>. <a href="https://www.economist.com/business/2018/10/27/sulphur-emissions-rules-for-shipping-will-worsen-global-warming">https://www.economist.com/business/2018/10/27/sulphur-emissions-rules-for-shipping-will-worsen-global-warming</a></u>

EY (2017): Repositioning Greece as a global maritime capital. https://www.ey.com/Publication/vwLUAssets/ey-shipping-survey-en-short/\$FILE/Shipping Survey en short.pdf

Friedman, D. (1990): Price Theory: An intermediate text, pp. 402-8, South-Western Publishing Co.

Fuentes, P. & Couvillion, W. (2004): "The Economics of Increasing Speed in Sea Transportation: The Case for the Southern US, Mexico, Central America and the Caribbean".

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.607.604&rep=rep 1&type=pdf

Jansson, J.O. & Shneerson, D. (1982): "The optimal ship size", Journal of Transport Economics and Policy, v. 16, n. 3, pp. 217-38.

Kasimati, E. & Veraros, N. (2017): "Is there accuracy of forward freight agreements in forecasting future freight rates? An empirical investigation", Bank of Greece working paper 230, June 3.

	Meyer, J., Stahlbock, R., Voß, S. (2012): "Slow steaming in Container Shipping", 45 <sup>th</sup> Hawaii Int'l Conference on System Sciences. <a href="https://www.researchgate.net/publication/254051395">https://www.researchgate.net/publication/254051395</a> Slow Steaming in Container Shipping  Psaraftis, H.N. & Kontovas, C.A. (2014): "Ship speed optimization: Concepts, models and combined speed-routing scenarios", Transportation Research. PartC: Emerging Technologies, 44, 52-69. <a href="https://doi.org/10.1016/j.trc.2014.03.001">https://doi.org/10.1016/j.trc.2014.03.001</a>	
	Rodrigue, J.P. (2015): "The Disadvantages of Scale in Maritime Shipping". <a href="https://www.porteconomics.eu/2015/06/11/1065/">https://www.porteconomics.eu/2015/06/11/1065/</a> Ronen, D. (2011): "The effect of oil price on containership speed and fleet	
	size", Journal of the Operational Research Society 2, 211-6.  Smith, H. (2012): "Greece's super-rich maintain lavish lifestyles and low profiles", The Guardian, 13 June. <a href="http://www.theguardian.com/world/greek-election-blog-2012/2012/jun/13/greeces-super-rich-low-profiles">http://www.theguardian.com/world/greek-election-blog-2012/2012/jun/13/greeces-super-rich-low-profiles</a> <a href="http://www.olympicvessels.com/derivatives.php">Qlympic Vessels (2019): "Freight Derivatives Explained", 15 Oct.</a> <a href="http://www.olympicvessels.com/derivatives.php">http://www.olympicvessels.com/derivatives.php</a>	
	Theotokas, I. (2007): "On top of world shipping: Greek shipping companies' organization and management", Research in Transportation Economics, v. 21, pp. 63-93.	
INDICATIVE MATERIAL: (e.g. audiovisual, digital material, etc.)	REQUIRED MATERIAL: N/A RECOMMENDED MATERIAL: N/A	
COMMUNICATION REQUIREMENTS:	Use of appropriate academic conventions as applicable in oral and written communications.	
SOFTWARE REQUIREMENTS:	Word, Excel	
WWW RESOURCES:	http://www.ship.gr/ https://www.ics.org.uk/ http://www.imo.org/en/Pages/Default.aspx https://www.ugs.gr/en/ https://www.clarksons.com/services/research/ https://www.balticexchange.com/	
INDICATIVE CONTENT:	<ol> <li>Introduction to shipping</li> <li>Revolutionary changes in the international shipping industry since 1850</li> </ol>	

- 3. Shipping market cycles
- 4. The 4 shipping markets
- 5. Kinds of shipping contracts
- 6. Unit-costs, ship productivity, quantity of sea transport supplied
- 7. The parcel size distribution function
- 8. Economies of scale in shipping
- 9. Supply, demand and freight rates
- 10. Distribution of shipping risk between cargo owner and ship owner, and FFAs
- 11. Trade-off the shipowner faces between fast & slow steaming, and the effect of ship speed on profit
- 12. Return on shipping investment
- 13. Evolution of fleet costs (MC, AC) as more ships are activated
- 14. Bulk ship vs specialised ship
- 15. Shipyard supply & demand, and shipyard productivity. Incidence of a subsidy
- 16. Marginal cost pricing and competition in the shipping industry