



## Guía Docente

Datos Identificativos					2023/24
Asignatura (*)	Economía do Transporte		Código	730542014	
Titulación	Master Universitario Erasmus Mundus en Sostibilidade e Industria 4.0 aplicada ao Sector Marítimo				
Descritores					
Ciclo	Período	Curso	Tipo	Créditos	
Mestrado Oficial	2º cuatrimestre	Primeiro	Obrigatoria	3	
Idioma	Inglés				
Modalidade docente	Presencial				
Prerrequisitos					
Departamento	Enxeñaría Naval e Industrial				
Coordinación	Munín Doce, Alicia	Correo electrónico	a.munin@udc.es		
Profesorado	Munín Doce, Alicia	Correo electrónico	a.munin@udc.es		
Web	<a href="http://www.master-seas40.unina.it">http://www.master-seas40.unina.it</a>				
Descrición xeral	The objective of this course is to provide the students the insights of how ships are used to earn money. In order to do so, the functioning of the maritime markets needs to be understood. Also, it is the aim to explain that ships are part of a larger logistics chain and that the interaction in the port and with the other transport modes is vital. Next to that, also the working principals of a port are explained even as hinterland transport. Finally, the current developments regarding emission reductions in the total transport chain are dealt with.				

## Competencias / Resultados do título

Código	Competencias / Resultados do título
A6	CE6 - Demonstrate knowledge, understanding and competences in fulfilling safety, economic and sustainability requirements in ship operation and management (SO).
B2	CB6 - Acquire and understand knowledge that provides a basis or opportunity to be original in the development and / or application of ideas, usually in a research context.
B3	CB7 - That students know how to apply the acquired knowledge and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of study.
B4	CB8 - That students are able to integrate knowledge and face the complexity of making judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
B5	CB9 ? That students are able to communicate their conclusions -and the knowledge and ultimate reasons that sustain them- to specialized and non-specialized publics in a clear and unambiguous way.
B6	CB10 - That students have the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.
B7	CG1 ? To display the adequate intercultural competence to successfully navigating within multicultural learning environments and to implement basic management principles suitable for a multicultural working environment.
B8	CG2 ? To express an attitude of intellectual inquisitiveness and open-mindedness.
B12	CG6 ? To appreciate the impact of sustainable development goals in maritime transport.
C2	CT2 - Mastering oral and written expression in a foreign language.
C4	CT4 - Acting as a respectful citizen according to democratic cultures and human rights and with a gender perspective.
C5	CT5 - Understanding the importance of entrepreneurial culture and the useful means for enterprising people.
C6	CT6 - Acquiring skills for healthy lifestyles, and healthy habits and routines.
C7	CT7 -Developing the ability to work in interdisciplinary or transdisciplinary teams in order to offer proposals that can contribute to a sustainable environmental, economic, political and social development.
C8	CT8 -Valuing the importance of research, innovation and technological development for the socioeconomic and cultural progress of society.

## Resultados da aprendizaxe

Resultados de aprendizaxe	Competencias / Resultados do título



Capability to understand how the maritime sector is structured, how it is part of a more complex logistic system and how ships and ports are integrated within it.	AM6	BM1 BM2 BM3 BM4 BM5 BM6 BM7 BM11	CM2 CM4 CM5 CM6 CM7 CM8
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Contidos	
Temas	Subtemas
Lesson 1	Main introduction lesson where the global maritime transport chain is explained. This chain will include, maritime part of the transport, ports and the hinterland transport. The main objective here is to show that a ship is part of a bigger transport chain. A model (which has been developed by me) can also be offered to the students to make some calculations. This could be part of the paper/ assignment.
Lesson 2	Maritime lecture part 1: Economic organization of the shipping market. This will be a based on Stopford (2006)
Lesson 3	Maritime lecture part 2: Sub-markets & cash flow in shipping. Also this lecture will be based on Stopford (2006)
Lesson 4	Port lecture part 1: The organization of ports. What are ports, how do they function
Lesson 5	Port lecture part 2: The organization of ports. What are ports, how do they function, and what is the interaction with ships (bunkerings and provision of alternative fuels).
Lesson 6	Hinterland lecture part 1: Port hinterland transport. In this lecture is explained how cargo being shipped from ports to the hinterland and which transport modes can be used (road, rail, IWT).
Lesson 7	Hinterland lecture part 2: Modal choice, intermodal transport and hinterland infrastructure.
Lesson 8	Emission mitigation in maritime transport chains and the impact it has on both shippers and vessel owners.  This course can include: A short introduction in the propulsion system of a vessel, Investments in new (retrofitable) technologies in deepsea vessels due to legislation, Impact of the Environmental Efficiency Design Index (EEDI) of deepsea vessels on CO2 emissions, Impact of the Emission Control Area at the North Sea on port competition, Impact of the internalization of external cost on port competition.

Planificación				
Metodoloxías / probas	Competencias / Resultados	Horas lectivas (presenciais e virtuais)	Horas traballo autónomo	Horas totais
Sesión maxistral	A6 B4 B6 B7 B12 C4 C5 C6	18	18	36
Traballos tutelados	B3 B5 B8 C2 C7 C8	4	26	30
Proba mixta	B2	2	2	4
Atención personalizada		5	0	5

\*Os datos que aparecen na táboa de planificación son de carácter orientativo, considerando a heteroxeneidade do alumnado

Metodoloxías	
Metodoloxías	Descrición



Sesión maxistral	Oral presentation complemented with the use of audiovisual media and the introduction of some questions aimed at students, in order to transmit knowledge and facilitate learning
Traballos tutelados	Supervised learning process aimed at helping students to work independently in a range of contexts (academic and professional). Focused primarily on learning ?how to do things? and on encouraging students to become responsible for their own learning.
Proba mixta	Written test used for the assessment of learning, whose distinctive feature is the ability to determine whether or not the answers given are correct. It is a rigorously developed measuring instrument that allows to assess knowledge, abilities, skills, performance, aptitudes, attitudes, etc.

## Atención personalizada

Metodoloxías	Descrición
Sesión maxistral Traballos tutelados	Students will be able to solve their doubts through personalized tutorials. To contact the teaching staff, they may use email or Teams.

## Avaliación

Metodoloxías	Competencias / Resultados	Descrición	Cualificación
Traballos tutelados	B3 B5 B8 C2 C7 C8	Group coursework: a research paper on a given topic for which a model can be given to the students to make use of	40
Proba mixta	B2	The evaluation of the subject will be carried out through an exam where the knowledge acquired by the student during the course will be assessed.	60

## Observacións avaliación

General EMJMD Sustainable Ship and Shipping SEAS 4.0 evaluation rules: - Students will have only two opportunities to pass a course. If failing to do so, they may be forced to leave the degree. - No part time or lecture attendance exemption are allowed in this degree.
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## Fontes de información



<b>Bibliografía básica</b>	<ul style="list-style-type: none"> <li>- Stopford (2006). Maritime economics 3 edition.</li> <li>- Aronietis Raimonds, Sys Christa, van Hassel Edwin, Vanelslander Thierry (2017). Investigating the bunkering choice determinants: the case of the port of Antwerp. Journal of shipping and trade</li> <li>- Aronietis Raimonds, Sys Christa, van Hassel Edwin, Vanelslander Thierry (2016). Forecasting port-level demand for LNG as a ship fuel : the case of the port of Antwerp . Journal of shipping and trade</li> <li>- van Hassel Edwin, Meersman Hilde, Van de Voorde Eddy, Vanelslander Thierry (2016). Impact of scale increase of container ships on the generalised chain cost. Maritime policy and management</li> <li>- van Hassel Edwin, Meersman Hilde, Van de Voorde Eddy, Vanelslander Thierry (2016). North-South container port competition in Europe : the effect of changing environmental policy. Research in transportation business &amp; management</li> <li>- Stevens Laurence, Sys Christa, Vanelslander Thierry, van Hassel Edwin (2015). Research in transportation business &amp; management.</li> <li>- van Hassel Edwin (2017). The implementation and evaluation of the energy efficiency design index (EEDI) : the future emission mitigation of three main shipping segments: C/WP6(2017)9. Paris. Organisation for Economic Co-operation and Development</li> <li>- van Hassel Edwin, Vanelslander Thierry, Neyens Kris, Vandeborre Hans, Kindt Dominique, Kellens Stefa (2021). Reconsidering nearshoring to avoid global crisis impacts : application and calculation of the total cost of ownership for specific scenarios. Research in transportation economics</li> <li>- van Hassel Edwin, Meersman Hilde, Van de Voorde Eddy, Vanelslander Thierry (2020). Impact of investing in new port capacity from a shipper and a shipowner perspective : the case of maasvlakte II. In Case studies on transport policy</li> <li>- Oganessian Virzhiniia, van Hassel Edwin, Sys Christa, Vanelslander Thierry (2020). Container barge (un)reliability in seaports : a company case study at the port of Antwerp. International journal of shipping and transport logistics</li> <li>- Meersman Hilde, Sutalo Nicolas, Van de Voorde Eddy, van Hassel Edwin, Vanelslander Thierry ( 2020). Belt and road : more competition between sea and rail? A generalized cost approach in Freight transport modeling in emerging countries. Kourounioti, Ioanna</li> <li>- Mohseni Seyed Abolfazl, van Hassel Edwin, Sys Christa, Vanelslander Thierry (2019). Economic evaluation of alternative technologies to mitigate sulphur emissions in maritime container transport from both the vessel owner and shipper perspective. In Journal of Shipping and Trade</li> </ul>
<b>Bibliografía complementaria</b>	

### Recomendacións

**Materias que se recomenda ter cursado previamente**

**Materias que se recomenda cursar simultaneamente**

**Materias que continúan o temario**

### Observacións

To help in achieving a sustainable environment and to get the objective of number 5 action of the "Ferrol Green Campus Action Plan" (Healthy and environmentally and socially sustainable research and teaching):The assignments to be done in this course:- Will be required in digital format.- Will be delivered using Moodle, with no need to print them.In case it is necessary to print them:- Plastics won't be used.- Two side printing will be used.- Recycled paper will be used.- Printing drafts will be avoided.A sustainable use of the resources should be done, together with the prevention of negative impacts on the environment.&nbsp;In this course, an effort will be pursued towards the incorporation of gender inclusion aspects: no sexist language will be allowed, bibliography from authors of both genders will be used, and the participation of students of both gender in class will be promoted.The situations of gender discrimination will be detected, and actions will be implemented to correct them.The full integration of students who for physical, sensorial, psychic, or socio-cultural reasons may have difficulties in their academic life will be promoted.



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