



Teaching Guide

Teaching Guide				
Identifying Data				2023/24
Subject (*)	Pollution Management		Code	631G01411
Study programme	Grao en Náutica e Transporte Marítimo			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	1st four-month period	Fourth	Optional	6
Language	SpanishGalician			
Teaching method	Face-to-face			
Prerequisites				
Department	Ciencias da Navegación e Enxeñaría Mariña			
Coordinador	Cao Feijóo, Genaro		E-mail	genaro.cao@udc.es
Lecturers	Cao Feijóo, Genaro		E-mail	genaro.cao@udc.es
Web				
General description	This subject will emphasize the legal framework knowledge to carry out adequate management of marine pollution without forgetting the prevention and protection of its environment. For that purpose: regulations that pertain to liability for spills, compensation funds, pollution damage, anti-pollution contingency plans, ports of refuge will be studied in detail. At the same time, criteria and techniques for cleaning up the coast will be applied, paying special attention to the protection of sensitive areas, and options to minimize damage will be evaluated.			

Study programme competences

Code	Study programme competences
A52	Conocimiento y aplicación de la normativa y técnicas en materia de gestión de la seguridad del transporte marítimo y la protección del medio marino.
A53	Capacidad para elaborar planes de contingencia de abordaje y de instalaciones portuarias.
B2	Resolver problemas de xeito efectivo.
B16	Organizar, planificar e resolver problemas.
B20	Desenvolverse para o exercicio dunha cidadanía aberta, culta, crítica, comprometida, democrática e solidaria, capaz de analizar a realidade, diagnosticar problemas, formular e implantar solucións baseadas no coñecemento e orientadas ao ben común.
C6	Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse.
C9	Posuír e comprender coñecementos que aporten unha base ou oportunidade de ser orixinais no desenvolvemento e/ou aplicación de ideas, a miúdo nun contexto de investigación
C13	Que os estudantes posúan as habilidades de aprendizaxe que lles permitan continuar estudando dun modo que haberá de ser en grande medida autodirixido ou autónomo.

Learning outcomes

Learning outcomes	Study programme competences		
Coñecer os diferentes equipos e sistemas da bordo para previr e reducir a contaminación mariña.	A52 A53	B20	C6 C9 C13
Coñecer os diferentes medios de loita contra os derramos de hidrocarburos e sustancias nocivas líquidas.	A52 A53	B20	C6 C9 C13
Detectar as descargas ilegais e outros actos delitivos contra o medio ambiente mariño.	A52 A53	B2 B16	C6

Contents

Topic	Sub-topic
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PREVENCIÓN DA CONTAMINACIÓN	EMSA, PAPEL NA LOITA CONTRA A CONTAMINACIÓN. PLANIFICACIÓN DE CONTINXENCIAS. LUGARES DE ABRIGADOIRO VIXILANCIA MARÍTIMA DA CONTAMINACIÓN. MODELOS DE DERIVA NA PREDICCIÓN DE VERTEDURAS, ANÁLISE DE TRAXECTORIAS. MAPAS DE SENSIBILIDADE. CENTROS DE NIVEL 3. PLANIFICACIÓN DE EJERCICIOS DE DERRAMES.
LOITA CONTRA A CONTAMINACIÓN	CONTAMINACIÓN DA COSTA: AVALIACIÓN, TÉCNICAS DE LIMPEZA, PROTECCIÓN DE ZONAS SENSÍBEIS. DISPERSIVOS. ELECCIÓN DE OPCIÓNS PARA MINIMIZAR OS DANOS. XESTIÓN DE RESIDUOS.
CONVENIOS INTERNACIONAIS	C.I. DE RESPONSABILIDADE CIVIL (CLC). C.I. DO FONDO DE INDEMNIZACIÓN (IOPC FOUND). C.I. DE DANOS POLO COMBUSTÍBEL DOS BUQUES. CLUBS DE PROTECCIÓN E INDEMNIZACIÓN (P&I).
O desenvolvemento e superación destes contidos, xunto cos correspondentes a outras materias que inclúan a adquisición de competencias específicas da titulación, garanten o coñecemento, comprensión e suficiencia das competencias recollidas no cadro AII/2, do Convenio STCW, relacionadas co nivel de xestión de Primeiro Oficial de Ponte da Mariña Mercante, sen limitación de arqueado bruto e Capitán da Mariña Mercante ata o máximo de 3.000 GT.	Cadro A-II/2 del Convenio STCW. Especificación de las normas mínimas de competencia aplicables a Capitanes y primeros oficiales de puente de buques de arqueado bruto igual o superior a 500 GT.

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student's personal work hours	Total hours
Objective test	A52 A53 B2 B16 B20 C6 C9 C13	2	0	2
Supervised projects	A52 A53 B2 B16 B20 C6 C9 C13	5	30	35
Guest lecture / keynote speech	A52 A53 B2 B16 B20 C6 C9 C13	30	60	90
Oral presentation	A52 A53 B2 B16 B20 C6 C9 C13	3	18	21
Personalized attention		2	0	2
(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.				

Methodologies	
Methodologies	Description
Objective test	Final exam



Supervised projects	Projects carried out by students (individuals and/or in groups) regarding two contents of the subject. Throughout the four-month period, one or several assignments will be provided around two contents of the agenda that must be based on the basic and complementary bibliography of the guide and with another selected by the teaching staff and/or student pole. Its realization will begin in the classroom and be completed through the autonomous work of the students, attending more indications provided through the differentiation of teachers. Through the exhibition in the classroom, the work done will be shared.
Guest lecture / keynote speech	In the activity of the lecture guest, the contents that make up the theoretical framework will be worked on through oral presentation, guided by the use of presentations, audiovisual media and with the introduction of directed questions to the students with the purpose of favouring learning and the construction of knowledge. There will be an introductory general exposition of each one of the two different themes of which the program consists, indicating the aspects that the students should expand with their personal work, with the appropriate orientations bibliographic.
Oral presentation	On the supervised projects

Personalized attention	
Methodologies	Description
Guest lecture / keynote speech	The personalized differentiation described in relation to these methodologies is conceived as moments of work with the subject teachers.
Supervised projects	The way and the moment in which it will be developed will be indicated in each activity throughout the course according to the plan of matter work.
Oral presentation	Students with recognition of part-time dedication as established by the "RULE THAT REGULATES THE REGIME OF DEDICATION TO THE STUDY OF UNDERGRADUATE STUDENTS AT UDC (Articles 2.3; 3.b and 4.5)(05/29/2012). These students will develop their activity with the assistance and participation in the dynamics collected in Step 4 "Planning" and in the one that concerns us "Personalized attention" described for the " Supervised projects", through the workgroups that are formed in the subject. The activity will be carried out according to the observations of the evaluation regarding the flexibility of attendance participation and the requirements for overcoming the subject.
Objective test	

Assessment			
Methodologies	Competencies	Description	Qualification
Guest lecture / keynote speech	A52 A53 B2 B16 B20 C6 C9 C13	To evaluate the presentation, it will be evaluate: - Relevance and organization of the exposed contents. - Coordination of the presentation (reflecting collaborative work, not a sum of parts). - Level of understanding of the basic contents. - Clear explanation	10
Supervised projects	A52 A53 B2 B16 B20 C6 C9 C13	To evaluate the projects it will be taken into account: - Structure: presentation, content organization, clear explanation and grammar. - Content: Understanding of basic ideas, conceptual mastery, use of the sources worked on in the treatment of content throughout the semester and relationships between them.	20
Oral presentation	A52 A53 B2 B16 B20 C6 C9 C13	The evaluation criteria referred to in Table A-II/1 of the STCW Code, and collected in the Quality Assurance System, will be taken into account when designing and carrying out the evaluation.	10
Objective test	A52 A53 B2 B16 B20 C6 C9 C13	The evaluation criteria referred to in Table A-II/1 of the STCW Code, and collected in the Quality Assurance System, will be taken into account when designing and carrying out the evaluation.	60



Assessment comments

- STCW Convention 2010: The evaluation criteria referred to in Table A-II/1 of the STCW Code, and collected in the Quality Assurance System, will be taken into account when designing and carrying out the evaluation.
 - To pass the subject following the continuous evaluation it is necessary to pass each methodology. in-session lecture, at the same time as class attendance (minimum of 80%), the student participation will be valued too.
- Students who do not follow the continuous assessment will always have the option of taking the objective test. Consequently, under this circumstance, this will have a value in the evaluation of 100%.
- Students with recognition of part-time dedication and the corresponding academic waiver that provide the assistance exemption, as established in the "RULE THAT REGULATES THE DEDICATION REGIME TO THE STUDY OF UNDERGRADUATE STUDENTS AT UDC (Articles 2.3; 3.b; 4.3; 6.b and 7.5) (05/04/2017) may carry out the partial tests, if any, without the need to attend 80% of the face-to-face classes, as long as the teacher is duly informed at the beginning of the course. Notwithstanding the foregoing, the professor can entrust these students with different works (individual and/or in groups) throughout the course to be presented in the tutorial schedule in order to score in the continuous evaluation the proportional part of the value of the master session.
 - About the sanctions applicable for de commission of serious offenses, article 11 of the Disciplinary Regulations of de student body of the University of A Coruña, approved by the Governing Council on 27/02/2023, point b) was amende in june 2023, to read:
b) Qualification of suspense in the call in wich the fault it was committed, the student will be graded with ?fail? (numerical grade 0) in the corresponding call of the academic year, wheter the commission of the fault occurs at the first opportunity or at the second. For this, we will proceed to modify his qualification in the minutes of the first opportunity, if necessary.

Sources of information

Basic	- IMO (). MARPOL 73/78. LONDON - IMO (2011). Directrices para la elaboración de planes de emergencia de a bordo contra la contaminación del mar . LONDRES - IMO (2011). Manual sobre la contaminación ocasionada por hidrocarburos. . LONDRES - IMO (2009). Manual sobre contaminación química. . LONDRES - Silos Rodríguez, José María (2008). Manual de lucha contra la contaminación por hidrocarburos . Cádiz : Servicio de Publicaciones de la Universidad de Cádiz - IMO (2007). Directrices relativas al Convenio sobre la prevención de la contaminación del mar por vertimiento de desechos y otras materias, 1972. . LONDRES - IMO (2007). Equipo de prevención de la contaminación conforme al MARPOL . LONDRES - Acinas García, Juan R (2003). Puertos de refugio y contaminación accidental en el mar . UDC - IMO (1997). Manual sobre contaminación química . LONDRES - (1996). La contaminación del mar fuentes, toxicidad, degradación y eliminación de contaminantes . Oviedo : Universidad, Servicio de Publicaciones - Boat Books Australia (2010). Response to marine oil spills . Livingston : Witherby Seamanship International Ltd. Australia - IMO (2010). Manual on oil spill risk evaluation and assessment of response preparedness . London
Complementary	

Recommendations

Subjects that it is recommended to have taken before

Subjects that are recommended to be taken simultaneously

Subjects that continue the syllabus

Other comments



?As stated in the different regulations of application for university teaching, the gender perspective must be incorporated in this matter (Non-sexist language will be used, bibliography of authors of both sexes will be used, te intervention in class of students will be encouraged. Work will be done to identify and modify prejudices and sexist attitudes and will influence the environment to modify them and promote values of respect and equality. Situations of discrimination based on gender should be detected and actions and measures proposed to correct them?.

(*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.