Teaching Guide				
Identifying Data				2021/22
Subject (*)	Collision Rules, Signals, Bouyage Systems and ISM Code		Code	631G01303
Study programme	Grao en Náutica e Transporte Marítimo			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	1st four-month period	Third	Obligatory	6
Language	English			
Teaching method	Face-to-face			
Prerequisites				
Department	Ciencias da Navegación e Enxeñaría Mariña			
Coordinador	Campa Portela, Rosa Mary de la	E-mail	rosa.mary.campa@udc.es	
Lecturers	Campa Portela, Rosa Mary de la López López, María Natividad	E-mail	rosa.mary.campa@udc.es natividad.lopezl@udc.es	
Web				
General description	The student will acquire the skills to perform a safe navigation watchkeeping in relation to knowledge and use of regulations to prevent collisions at sea, the different signaling and IALA systems.Likewise, it will acquire the competencies for the management of on-board operational safety through the knowledge of the ISM code as well as the management of human resources on board.			
Contingency plan	1. Modifications to the contents No changes are made 2. Methodologies *Teaching methodologies that are maintained Case study: Study of situations related to the navigational watch and the bridge resources management ICT Practicals: Solving problems and exercises to re-affirm what has been learned through the use of several apps. Solving problems: A series of activities will be proposed that students will have to complete in their self-learning time using ICT *Teaching methodologies that are modified Keynote Speech: Master class will be scheduled through TEAMS adapting to the requirements of the students and the subject. Objective test: The objective test will consist of a synchronous telematic test on the contents developed in the subject. 3. Mechanisms for personalized attention to students Moodle, TEAMS and email synchronously during class and tutorials. Asynchronously during school hours 4. Modifications in the evaluation Problem solving (20) The delivery of the activities proposed in this section will be evaluated Case study (10) The delivery of the activities proposed in this section will be evaluated ICT Practicals (20) The delivery of activities through FORMS proposed in this section will be evaluated Objective test (50) Completion of a synchronous telematic questionnaire. *Evaluation observations: Given that there are no restrictions or minimum results for passing the subject, and in anticipation of the unequal participation of students in monitoring it, mainly in the proposed continuous assessment activities, it is necessary to establish an objective test that allows All students must be evaluated on equal terms to pass the subject. 5. Modifications to the bibliography or webgraphy No modifications are made. All the necessary material to pass the course is available in Moodle, as well as links to web pages of interest, if any.			

Study programme competences	
Code	Study programme competences

A1	Controlar as boas prácticas de seguridade e saúde no traballo.
A11	Empregar o inglés, falado e escrito, aplicado á navegación e ao negocio marítimo.
A15	Realizar unha garda de navegación segura.
A16	Manter a seguridade da navegación utilizando o radar, a ARPA e os modernos sistemas de navegación para facilitar a toma de decisións.
A17	Adoptar as medidas axeitadas en casos de emerxencias.
A20	Transmitir e recibir información mediante todo tipo de sinais.
A29	Responder correctamente ás diferentes situacións de emerxencia.
A35	Organizar e dirixir a tripulación aplicando técnicas de liderazgo e de traballo en equipo.
B2	Resolver problemas de xeito efectivo.
B4	Comunicarse de xeito efectivo nun ámbito de traballo.
B6	Traballar de forma colaboradora.
B11	Capacidade de adaptación a novas situacións.
B14	Capacidade de análise e síntese.
B16	Organizar, planificar e resolver problemas.
B18	Dominar a expresión e a comprensión de forma oral e escrita dun idioma estranxeiro.
B19	Utilizar as ferramentas básicas das tecnoloxías da información e as comunicacións (TIC) necesarias para o exercicio da súa profesión e para a aprendizaxe ao longo da súa vida.
B22	Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse.
C6	Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse.
C11	Que os estudantes sexan capaces de integrar coñecementos e enfrontarse á complexidade de formular xuízos a partires dunha información que, sendo incompleta ou limitada, inclúa reflexións sobre as responsabilidades sociais e éticas vencelladas á aplicación dos seus coñecementos e xuízos
C12	Que os estudantes saiban comunicar as suas conclusións e os coñecementos e razóns últimas que as sustentan a públicos especializados e non especializados dun xeito claro e sin ambigüidades

Learning outcomes			
Learning outcomes	Study programme competences		
Realizar eficazmente las maniobras del buque en navegación. Ser capaz de analizar la información de los aparatos del puente para una mejor toma de decisiones	A11	B2 B4 B11 B14 B16 B18 B19 B22	C6 C11 C12
Conocer el Reglamento internacional para prevenir los abordajes en la mar, el sistema de Balizamiento IALA, el Codigo internacional de señales y el Codigo ISM.	A17 A29 A35	B11 B14 B19	C6
Evaluar situaciones de peligro, aplicar las reglas de navegación.	A11	B6 B14	C6
Mejorar la gestión de la seguridad del buque, elaborar las listas de comprobación del sistema de gestión, elaborar informes de seguridad, accidentes etc	A1 A17 A29 A35	B2 B4	C6
Realizar una guardia de navegación segura.	A15		
Mantener la seguridad de la navegación utilizando el radar, el ARPA y los modernos sistemas de navegación para facilitar la toma de decisiones.	A16		
Transmitir y recibir información mediante todo tipo de señales.	A20		

Contents	
Topic	**Sub-topic**
WATCHKEEPING	Knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972, as amended Knowledge of the Principles to be observed in keeping a navigational watch The use of routeing in accordance with the General Provisions on Ships? Routeing The use of information from navigational equipment for maintaining a safe navigational watch - Knowledge of blind pilotage techniques - The use of reporting in accordance with the General Principles for Ship Reporting Systems and with VTS procedures
COLREGS I	Part A - General Part B - Steering and Sailing Section 1 - Conduct of vessels in any condition of visibility (Rules 4-10) Section II - Conduct of vessels in sight of one another (Rules 11-18) Section III - conduct of vessels in restricted visibility (Rule 19) Part C - Lights and Shapes Part D - Sound and Light signals Part E - Exemptions.
COLREGS II	Annex I - Positioning and technical details of lights and shapes. Annex II - Additional signals for fishing vessels fishing in close proximity. Annex III - Technical details of sounds signal appliances Annex IV - Distress signals, which lists the signals indicating distress and need of assistance.
International Code of Signals The Morse Code International Flags and Pennants Single letter signals	Visual signaling Ability to use the International Code of Signals - Ability to transmit and receive light signals in Morse, SOS distress signals as specified in Annex IV of the International Regulations to Prevent Collisions, 1972, as amended, and in Appendix 1 of the International Code of Signals, and one-letter visual cues, also specified in the International Code of Signals
IALA MARITIME BUOYAGE SYSTEM	Lateral Marks Region A Lateral Marks Region B Direction of Buoyage Cardinal Marks Isolated Danger Marks Safe Water Marks Special Marks Chart symbols and abbreviations

INTERNATIONAL SAFETY MANAGEMENT CODE	Unit 1: Introduction to IMO and ILO. Unit 2: Safety and security prevention and protection. ISM Code and ISPS Code. Unit 3: Ship safety responsibilities. Unit 4: ISM Code: definition, structure, safety policy, ship-owner communication, captain responsibilities. Master authority and leadership. Unit 5: ISM Resources and personnel, human factors- human error. Team work, communication, cultural awareness. Unit 6: ISM Code: Preventive maintenance Unit 7: ISM Code: Procedures (operation, emergency, non-conformities, accident report and accident investigation). Work organization. Unit 8: ISM Code: Company verification and certification.
The development and overcoming of these contents, together with those corresponding to other subjects that include the acquisition of specific competencies of the degree, guarantees the knowledge, comprehension and sufficiency of the competencies contained in Table AII / 2, of the STCW Convention, related to the level of management of chief mates of the Merchant Navy, on ships without gross tonnage limitation and Master up to a maximum of 3.000 GT.	Table A-II / 2 of the STCW Convention. Mandatory minimum requirements for certification of masters and chief mates on chief on ships of 500 gross tonnage or more.

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Case study	A29 B22	7	7	14
Directed discussion	B2 C12	6	6	12
Objective test	A1 B11	1	1	2
Collaborative learning	A11 A15 A17 A20 A35 B4 B6 B14 B16 B18 B19 C6 C11	8	8	16
ICT practicals	A16 B2 B19 C6	10	10	20
Guest lecture / keynote speech	A1 A11 A15 A17 A20 A29 A35 B4 B18	40	40	80
Personalized attention		6	0	6
(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.				

Methodologies	
Methodologies	Description
Case study	study of situations related to the navigation watchkeeping and the management of human resources
Directed discussion	Accident/incident reports review on class discussion
Objective test	Final exam
Collaborative learning	Use of different collaboratie learning methods in the classroom
ICT practicals	Problem solving and exercises to reaffirm what has been learned in the classroom through the use of various apps.
Guest lecture / keynote speech	Teachers classes

Personalized attention	
Methodologies	Description

Guest lecture / keynote speech ICT practicals Directed discussion Case study Objective test	As per teachers instructions

Assessment			
Methodologies	**Competencies**	**Description**	**Qualification**
Directed discussion	B2 C12	Realization and delivery of at least 80% of the activities in this section in the classroom	5
Case study	A29 B22	Realization and delivery of at least 80% of the activities in this section in the classroom	10
Objective test	A1 B11	Final written exam	80
Collaborative learning	A11 A15 A17 A20 A35 B4 B6 B14 B16 B18 B19 C6 C11	Realization and delivery of at least 80% of the activities in this section in the classroom	5

Assessment comments
The attendance at least 80% of the classes and delivery of at least 80% of the activities carried out in the classroom gives the student the right to take the pre-final exam.Students who do not attend class and / or do not turn in the corresponding activities must take the final exam to pass the subject. In this case the final exam will be evaluated out of 100. The ISM Code topic will have a weighting of 40% of the final grade. It is essential to pass both parts to pass the subject. Students with part-time enrollment and academic grant of attendance exemption, as established by the "NORMA QUE REGULA EL RÉGIMEN DE DEDICACIÓN AL ESTUDIO DE LOS ESTUDANTES DE GRADO Y MASTER EN LA UDC (Arts. 2.3; 3.b; 4.3 and 7.5) (05/04/2017) may take the mid-term exams, if any, without having to attend 80% of the face-to-face classes, as long as the professors are duly informed at the beginning of the course. Regardless of the foregoing, the professors may assign these students with different assignments/ problems throughout the course to be presented during tutorials, using the TEAMS system if appropriate in the teacher's opinion. The assessment critieria reflected on table A-II/1 of the STCW Code, and also reflected in the Quality System, are taken into account to design and perform the assessment.

Sources of information	
Basic	- IMO (). INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA. - IALA (). MARITIME BUOYAGE SYSTEM. IALA - IMO (). INTERNATIONAL CODE OF SIGNALS. - IMO (). ISM CODE.
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

(*)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.