



Teaching Guide				
Identifying Data				2022/23
Subject (*)	Maritime accidents Investigation	Code	631G01512	
Study programme	Grao en Náutica e Transporte Marítimo			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	1st four-month period	Fourth	Optional	6
Language	Spanish			
Teaching method	Face-to-face			
Prerequisites				
Department	Ciencias da Navegación e Enxeñaría Mariña			
Coordinador	Pacheco Martínez, Eliseo Antonio	E-mail	eliseo.pacheco@udc.es	
Lecturers	Pacheco Martínez, Eliseo Antonio	E-mail	eliseo.pacheco@udc.es	
Web				
General description	The objective of this subject is to provide basic knowledge in the process of investigating accidents and maritime incidents, and to serve as an introductory scientific tool that allows professional activity to be oriented towards the technical study of accidents at sea.			

Study programme competences / results	
Code	Study programme competences / results
A10	Redactar e interpretar documentación técnica e publicacións náuticas.
A40	Capacidade para identificar danos e defectos en la estrutura del buque.
A41	Capacidade para identificar evidencias ante casos de accidentes y siniestros marítimos.
A42	Capacidade para recabar información objetiva en las entrevistas personales.
A44	Capacidade para redactar informes técnicos.
B2	Resolver problemas de xeito efectivo.
B3	Aplicar un pensamento crítico, lóxico e creativo.
B9	Capacidade para interpretar, seleccionar e valorar conceptos adquiridos noutras disciplinas do ámbito marítimo, mediante fundamentos físico-matemáticos.
B13	Comunicar por escrito e oralmente os coñecementos procedentes da linguaxe científica.
B14	Capacidade de análise e síntese.
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.
B24	Valorar a importancia que ten a investigación, a innovación e o desenvolvemento tecnolóxico no avance socioeconómico e cultural da sociedade.
C4	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.
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 / results	
Knowledge of national and international regulations applicable to maritime transport.	B20	C6 C11



Application of national and international regulations in the investigation of claims and maritime events.			C4 C6
Ability to identify damage to the structure of the ship.	A40		
Collection of evidence, personal interviews.	A41 A42	B9	
Write reports and compile statistics.	A10 A44	B2 B3 B13 B14 B24	C12

Contents	
Topic	Sub-topic
1. Need to investigate accidents.	Difference with Judicial, Police or Expert Investigations. Other regulatory investigations.
2. Regulations related to the Investigation of Claims and	Maritime Events. International regulations. European regulations. Spanish regulations.
3. A.849 (20) and A.884(21). Code for the Investigation of Marine Casualties and Incidents.	Code structure. Definitions. Most important aspects. Human Factor.
4. National Organizations in charge of Investigations.	Most important organisms. International Forum of Marine Accident Investigators (MAIIF). Commission of Investigation of Accidents and Maritime Incidents (CIAIM). Spain.
5. Methodologies for conducting the Research.	A.1075 (28): Guidelines to assist investigators in the implementation of the Casualty Investigation Code. MAIIF Investigation Manual. MAIIF Investigators ?In-the-field Job Aid MAIIF Fire Investigation Manual. Other methodologies.
6. Writing the Report.	Phases in writing. Items to cover. Terminology. A.918 (22). SMCP
7. IMO Reporting.	IMO Global Integrated Shipping Information System (GISIS)
8. Statistics.	Examples of statistical databases.
9. Examples of Investigations.	Comments on Research Reports

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours
Guest lecture / keynote speech	A10 B3 B9 B14 B20 B24 C6	30	30	60
Workshop	A10 A40 A41 A42 A44 B2 B3 B9 B13 B14 B20 B24 C4	14	28	42
Mixed objective/subjective test	B2 B9 B13 C12	6	0	6



Supervised projects	A10 A40 A41 A42 A44 B2 B3 B9 B13 B14 B20 B24 C4 C6 C11	10	30	40
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
Guest lecture / keynote speech	Oral presentation (using audiovisual material and student interaction) designed to transmit knowledge and encourage learning. Presentations of this type are variously referred to as "expository method", "guest lectures" or "keynote speeches". (The term "keynote" refers only to a type of speech delivered on special occasions, for which the lecture sets the tone or establishes the underlying theme; it is characterised by its distinctive content, structure and purpose, and relies almost exclusively on the spoken word to communicate its ideas.)
Workshop	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.
Mixed objective/subjective test	Mixed test consisting of essay-type and objective test questions. Essay section consists of open (extended answer) questions; objective test may contain multiple-choice, ordering and sequencing, short answer, binary, completion and/or multiple-matching questions.
Supervised projects	Methodology designed to promote students' autonomous learning, under the guidance of the teacher and in a variety of scenarios (academic and professional). It is primarily concerned with learning "how to do things". It is an option based on students taking responsibility for their own learning.  This teaching system is based on two basic elements: independent learning by students and monitoring of this learning by the teacher-tutor.

Personalized attention	
Methodologies	Description
Workshop	Face-to-face.
Mixed objective/subjective test	During tutorial hours, in accordance with current health regulations.
Guest lecture / keynote speech	Teams. Synchronous tutoring will only depend on the availability of the teacher.  Email. The teacher undertakes to respond as soon as possible to all questions sent asynchronously.  For "Students with recognition of part-time dedication and academic dispensation of exemption from attendance" the teacher may offer the possibility of online tutoring.

Assessment			
Methodologies	Competencies / Results	Description	Qualification
Mixed objective/subjective test	B2 B9 B13 C12	In order to be eligible for the Continuous Assessment, a minimum of 80% attendance must be justified.	60



Supervised projects	A10 A40 A41 A42 A44 B2 B3 B9 B13 B14 B20 B24 C4 C6 C11	<p>The supervised project may consist of the preparation of a draft of an investigation report on a claim proposed to the student or the study of a claim based on the official report.</p> <p>In relation to the supervised project, the following will be assessed:</p> <ul style="list-style-type: none"> <li>- The methodological adequacy with the requirements of the work.</li> <li>- The accuracy of the calculations used.</li> <li>- The depth of the content.</li> <li>- Mastery of the concepts used.</li> <li>- The correct use of terminology specific to the subject.</li> <li>- The use of complementary and current documentary sources.</li> <li>- The presentation and clarity of the exposition.</li> </ul>	40
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### Assessment comments

In order to be entitled to continuous assessment, a minimum of 80% of attendance to face-to-face classes will be required. The final grade of the Continuous Assessment will be 60% of Mixed Test and 40% of Tutored Work.

Students with recognition of part-time dedication and academic dispensation of exemption from attendance (according to the "Norma que Regula o Réxime de Dedicación ao Estudo dos Estudantes de Grao na UDC?"), will be able to take the Continuous Assessment without the need to attend 80% of the face-to-face classes. To this end, these students will duly inform the lecturers, at the beginning of the course, of this situation of academic dispensation and of their availability to attend classes. Apart from the Autonomous Work included in this Teaching Guide, the teachers will be able to give these students different assignments/problems throughout the course to be presented during tutorial hours.

Students who do not follow the course (attendance less than 80%), or who do not pass the Continuous Assessment, will be able to sit the final exams in January and July. The assessment of these exams will consist of a Mixed Test that may include essay-type questions, open questions, multiple-choice, multiple-choice, ordering, short-answer, discrimination, completion and/or association questions. The contents of these mixed tests may cover any content of the subject. Such a Mixed Test will account for 100% of the qualification of that call.

The evaluation criteria contemplated in Table A-II/1 of the STCW Code, and included in the Quality Assurance System, will be taken into account when designing and carrying out the evaluation.

### Sources of information

Basic	Resolución IMO A.849(20). Código para la Investigación de Siniestros y Sucesos Marítimos Resolución IMO A.884(21). Enmiendas al Código para la Investigación de Siniestros y Sucesos Marítimos A.1075(28). Directrices para Ayudar a los Investigadores en la Implantación del Código de Investigación de Siniestros MAIFF Investigation Manual. MAIFF Investigators "In-the-field Job Aid". MAIFF Fire Investigation Manual.
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.