



Teaching Guide

Teaching Guide				
Identifying Data				2023/24
Subject (*)	Maritime Safety		Code	631G01211
Study programme	Grao en Náutica e Transporte Marítimo			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	2nd four-month period	Second	Obligatory	6
Language	Spanish			
Teaching method	Face-to-face			
Prerequisites				
Department	Ciencias da Navegación e Enxeñaría Mariña			
Coordinador	Lama Carballo, Francisco Javier	E-mail	javier.lama@udc.es	
Lecturers	Lama Carballo, Francisco Javier Pacheco Martínez, Eliseo Antonio Pérez Canosa, José Manuel	E-mail	javier.lama@udc.es eliseo.pacheco@udc.es jose.pcanosa@udc.es	
Web				
General description	NORMATIVA. SEGURIDADE A bordo. PREVENCIÓN E LOITA CONTRAINCENDIOS. SUPERVIVENCIA NO MAR.			

Study programme competences

Code	Study programme competences
B41	RA28H?Transmitting and receiving information by visual signals
B43	RA35H?Operate life-saving appliances
B48	RA43H?Coordinate search and rescue operations
B64	RA65H?Conduct fire-fighting operations on tankers.
B70	RA71H?Carry out fire-fighting operations on liquefied gas tankers.
B73	RA74H?Survival at sea in the event of abandonment of the vessel.
B74	RA75H?Minimise fire risks, and maintain a state of readiness to respond to fire emergencies at all times.
B75	RA76H?Fighting and extinguishing fires.
B76	RA77H?Take immediate action in the event of an accident or other medical emergency.
B77	RA78H?Comply with emergency procedures.
B78	RA79H?Take precautions to prevent pollution of the marine environment.
B79	RA80H?Observe safe working practices.
B80	RA81H?Contribute to effective communications on board the ship.
B81	RA82H?Contribute to good human relations on board the ship.
B82	RA83H?Understand and take the necessary measures to manage fatigue.
B83	RA85H?Running the engine of a survival craft.
B84	RA87H?Use locating devices, including communication and signalling devices and pyrotechnic signals.
B85	RA88H?Providing first aid to survivors.
B86	RA89H?Control fire-fighting operations on board.
B87	RA90H?Organise and train fire-fighting crews.
B88	RA91H?Inspect and maintain fire detection and extinguishing systems and equipment.
B89	RA92H?Investigate and compile reports on fire incidents.
B101	RA104H?Assisting passengers on their way to assembly and embarkation stations
C21	RA26X?Responding to distress signals at sea
C26	RA34X?Preventing, controlling and fighting fires on board
C28	RA39X?Contributing to the safety of personnel and the vessel



C35	RA56X?Maintaining the safety and security of the ship, crew and passengers, and the proper functioning of life-saving, fire-fighting and other safety systems
C36	RA84X?Taking charge of a survival craft or rescue boat during and after launching.
C37	RA86X?Organise survivors and survival craft after abandoning ship.

Learning outcomes			
Learning outcomes		Study programme competences	
RA28H-Transmitting and receiving information by visual signals		B41	
RA35H-Operate life-saving appliances		B43	
RA43H-Coordinate search and rescue operations		B48	
RA65H-Conduct fire-fighting operations on tankers.		B64	
RA71H-Carry out fire-fighting operations on liquefied gas tankers.		B70	
RA74H-Survival at sea in the event of abandonment of the vessel.		B73	
RA75H-Minimise fire risks, and maintain a state of readiness to respond to fire emergencies at all times.		B74	
RA76H-Fighting and extinguishing fires.		B75	
RA77H-Take immediate action in the event of an accident or other medical emergency		B76	
RA78H-Comply with emergency procedures.		B77	
RA79H-Take precautions to prevent pollution of the marine environment.		B78	
RA80H-Observe safe working practices.		B79	
RA81H-Contribute to effective communications on board the ship.		B80	
RA82H-Contribute to good human relations on board the ship.		B81	
RA83H-Understand and take the necessary measures to manage fatigue.		B82	
RA85H-Running the engine of a survival craft.		B83	
RA87H-Use locating devices, including communication and signalling devices and pyrotechnic signals.		B84	
RA88H-Providing first aid to survivors.		B85	
RA89H-Control fire-fighting operations on board.		B86	
RA90H-Organise and train fire-fighting crews.		B87	
RA91H-Inspect and maintain fire detection and extinguishing systems and equipment.		B88	
RA92H-Investigate and compile reports on fire incidents.		B89	
RA104H-Assisting passengers on their way to assembly and embarkation stations		B101	
RA26X-Responding to distress signals at sea			C21
RA34X-Preventing, controlling and fighting fires on board			C26
RA39X-Contributing to the safety of personnel and the vessel			C28
RA56X-Maintaining the safety and security of the ship, crew and passengers, and the proper functioning of life-saving, fire-fighting and other safety systems			C35
RA84X-Taking charge of a survival craft or rescue boat during and after launching.			C36
RA86X-Organise survivors and survival craft after abandoning ship.			C37

Contents	
Topic	Sub-topic



BASIC TRAINING IN SAFETY

Types of emergency situations that can occur, such as collisions, fires, or sinking

Types of life-saving devices normally carried on ships.

Survival Craft Equipment

Location of personal lifesaving devices

Principles related to survival, including:

- .1 usefulness of training and exercises
- .2 personal protective clothing and equipment
- .3 need to be prepared for any emergency
- .4 steps to take when called to survival craft stations
- .5 actions to be taken when requested to abandon ship
- .6 actions to take when in the water
- .7 actions to be taken on board the craft

survival

- .8 main dangers for survivors

Organization of fire fighting on board

Location of fire-fighting devices and

escape routes in case of emergency

Elements of fire and explosion (the fire triangle)

Types and sources of ignition

Flammable materials, risk of a fire being produced and spread
fire

Need for constant vigilance

Measures to be taken on board ships

Fire and smoke detection, and automatic alarm systems

Classification of fires and extinguishing agents that
can be used

Fire fighting equipment and its location on board

Instruction in:

- .1 fixed installations
- .2 fire fighting equipment
- .3 personal equipment
- .4 fire fighting devices and equipment
- .5 fire fighting methods
- .6 fire fighting officers
- .7 fire fighting procedures
- .8 use of respiratory equipment for fire fighting and rescue operations

Comply with emergency procedures

Take precautions to prevent pollution of the marine environment.

Observe safe work practices

Contribute to communications on board the ship being
effective and good

Take immediate action in the event of an accident or other type of medical emergency



Understand and adopt the necessary measures to control the fatigue



SURVIVAL CRAFT AND RESCUE BOATS (NOT FAST)	1.- TAKE CHARGE OF A SURVIVAL VESSEL OR RESCUE BOAT, DURING AND AFTER LAUNCHING 2.- HANDLING THE ENGINE OF A SURVIVAL BOAT 3.- ORGANIZE THE SURVIVORS AND THE SURVIVAL VESSEL AFTER LEAVING THE SHIP. 4.- USE LOCATION DEVICES: COMMUNICATIONS EQUIPMENT, SIGNALING AND PYROTECHNICAL SIGNALS 5.- PROVIDE FIRST AID TO SURVIVORS.
ADVANCED TRAINING IN FIRE FIGHTING. (For students who opt for this Certificate)	1.- CONTROL OF FIGHTING OPERATIONS C.I. ORGANIZATION OF THE FIGHT C.I. 2.- INSPECTION AND MAINTENANCE OF THE FIRE DETECTION AND EXTINGUISHING SYSTEMS AND EQUIPMENT 3.- INVESTIGATION AND COLLECTION OF REPORTS ON INCIDENTS IN WHICH THEY OCCUR
The development and improvement of these contents, together with those corresponding to other subjects that include the acquisition of specific competences of the degree, guarantee the knowledge, understanding and sufficiency of the competences included in table A-II/2, of the STCW Agreement, related to the management level of First Deck Officer of the Merchant Navy, without limitation of gross tonnage and Captain of the Merchant Navy up to a maximum of 3000 GT.	Table A-II/2 of the STCW Agreement. Specification of the minimum competency standards applicable to Captains and first deck officers of ships with a gross tonnage equal to or greater than 500 GT.

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student's personal work hours	Total hours
Guest lecture / keynote speech	B48 B74 B76 B77 B78 B79 B80 B81 B82 B85 B86 B87 B88 B89 B101 C21 C26 C28 C35	30	65	95
Field trip	B41 B43 B64 B70 B73 B75 B80 B83 B84 B85 B86 B88 B89 B101 C36 C37	30	10	40
Objective test	B41 B64 B70 B73 B74 B75 B77 B79 B86 B87 C26 C28 C35	9	0	9
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



Guest lecture / keynote speech	<p>Oral presentation complemented by the use of audiovisual media and the introduction of some questions addressed to students, in order to transmit knowledge and facilitate learning.</p> <p>The master class is also known as a conference, "expository method" or "master lesson". This last modality seems to be reserved for a special type of lesson given by a teacher on special occasions, with a content that supposes an original elaboration and based on the almost exclusive use of the word as a means of transmitting information to the audience.</p>
Field trip	Practices in the UDC nautical installations, practices in boats and C.I. Activities developed in an external context to the university academic environment
Objective test	<p>Written test used for the evaluation of learning, whose distinctive feature is the possibility of determining if the answers given are correct or not. It constitutes a measurement instrument, rigorously elaborated, that allows to evaluate knowledge, capacities, skills, performance, etc.</p> <p>The objective test can combine different types of questions: multiple-choice, short-answer, and/or development questions. It can also be built with a single type of any of these questions.</p>

Personalized attention

Methodologies	Description
Field trip Guest lecture / keynote speech Objective test	Tutorials at the established time.

Assessment

Methodologies	Competencies	Description	Qualification
Field trip	B41 B43 B64 B70 B73 B75 B80 B83 B84 B85 B86 B88 B89 B101 C36 C37	Mandatory to pass them to do average	0
Guest lecture / keynote speech	B48 B74 B76 B77 B78 B79 B80 B81 B82 B85 B86 B87 B88 B89 B101 C21 C26 C28 C35	Class attendance	0
Objective test	B41 B64 B70 B73 B74 B75 B77 B79 B86 B87 C26 C28 C35	Final exam (it is necessary to pass it to take into account the other methodologies)	100

Assessment comments



To pass the subject by continuous assessment, the minimum attendance at the master sessions will be 80%.

To pass the subject by continuous assessment, the minimum attendance at the compulsory practices will be 100%.

The obligatory practices of the subject, along with passing the rest of the methodologies, are associated with obtaining the following certificates: Basic Training in Safety and Survival Craft and Non-Fast Rescue Boats. In order to obtain said certificates, it will also be mandatory to carry out 100% of these practices.

The mandatory practices consist of 30 contact hours, 40 hours in total, as can be seen in step 4. Of these 30 contact hours, 8 hours correspond to Basic Fire Fighting.

The Advanced Fire Fighting Course is presented as an elective for students and consists of 33 H. Students who wish to obtain this Certificate must complete the remaining 25 H of the course and that are out of planning.

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.

Students with recognition of part-time dedication and academic exemption from attendance exemption, second establishes the "RULE THAT REGULATES THE REGIME OF DEDICATION TO THE STUDY OF UNDERGRADUATE STUDENTS AT UDC (Articles 2.3; 3. b; 4.3 and 7.5) (05/04/2017) may take the partial tests, if necessary, without having to attend 80% of the face-to-face classes, as long as the teachers are duly informed at the beginning of the course. These students may be asked to do different jobs/problems throughout the course to be exposed during lecture hours. Due to the very nature of the practices, which are not recoverable, no academic waiver is contemplated for their evaluation.

The fraudulent performance of the tests or evaluation activities will imply the qualification of fail in the call in which the offense is committed and the student will be graded with "suspense" (numerical grade 0) in the corresponding call of the academic year, both if the commission of the foul occurs in the first how in the second opportunity. To do this, its qualification will be modified in the first opportunity certificate if necessary.

Sources of information

Basic	SOLAS consolidated edition 2020. Consolidated text of the International Convention for the Safety of Life at Sea, 1974. International Maritime Organization. London. 2020Código internacional de dispositivos de salvamento (Código IDS). Edición 2017. Organización Marítima Internacional. Londres. 2017Código Internacional de Sistemas de Seguridad Contra Incendios (Código SSCI). Edición 2015. Organización Marítima Internacional. Londres. 2016Manual IAMSAR. Vol III. Manual internacional de los servicios aeronáuticos y marítimos de búsqueda y salvamento. Edición 2019. OMI/OACI. Londres/ Montreal. 2019MSC.1/Circ.1182/Rev.1. Guía sobre las Técnicas de Rescate. IMO. 2014MSC.1/Circ.1185/Rev.1. Guía para la Supervivencia en Aguas Frías. IMO. 2012A.918(22) IMO Standard Marine Communication Phrases. Model course 1.19. Proficiency in personal survival techniques. 2019 Edition. International Maritime Organization. London. 2019Model Course 1.20. Fire Prevention and Basic Fire Fighting. 2000 Edition. International Maritime Organization. London. 2001Model Course 1.21. Personal safety and social responsibilities. 2016 Edition. International Maritime Organization. London. 2016 Model course 1.23. Proficiency in survival craft and rescue boats other than fast rescue boats. 2000 Edition. International Maritime Organization. London. 2016Model Course 2.03. Advanced training in fire fighting. 2000 Edition. International Maritime Organization. London. 2001
Complementary	Model course 3.05. Survey of fire appliances and provisions. 2004 Edition. International Maritime Organization. London. 2004Model course 3.06. Survey of life-saving appliances and arrangements. 2004 Edition. International Maritime Organization. London. 2004Model course 3.11. Safety investigation into marine casualties and marine incidents. 2014 Edition. International Maritime Organization. London. 2014Model course 1.39. Leadership and teamwork. 2014 Edition. International Maritime Organization. London. 2004 Manual de Formación SOLAS. Dispositivos de salvamento y Técnicas de supervivencia. I.C. Brindle & Co. 2003Manual de Formación Contra Incendios. I.C. Brindle & Co. 2ª Edición. 2011Supervivencia en la mar. Ricard Marí Sagarra, Enrique González Pino. Instituto Social de la Marina. Madrid. 1990Técnicas, sistemas y organización de la prevención, protección y lucha contra incendios en los buques. Ricard Marí Sagarra, Enrique González Pino. Instituto Social de la Marina. Madrid. 1989The Naval Handbook for Ship Fire Fighters. 8th Ed. The Nautical Institute. London. 2006Marine Survival. D.J. House. 3rd Ed. Witherby. Edinburgh. 2011



Recommendations

Subjects that it is recommended to have taken before

Naval Hygiene and Risks at Work/631G01104

Naval Construction/631G01105

Chemistry/631G01107

English I/631G01108

Subjects that are recommended to be taken simultaneously

English II/631G01205

Subjects that continue the syllabus

Collision Rules, Signals, Bouyage Systems and ISM Code/631G01303

Maritime Radiocommunications/631G01307

Tankers/631G01308

BRM & ISM & ISPS/631G01376

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.