



Teaching Guide

| Identifying Data | | | | 2023/24 |
|---------------------|--|--------|--|---------|
| Subject (*) | Tanker and Passenger Ships | Code | 631G03020 | |
| Study programme | Grao en Máquinas Navais | | | |
| 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 | | | |
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| Lecturers | Baaliña Insua, Alvaro Bouzon Otero, Rebeca Prieto Cabo, Verónica Romero Gomez, Javier | E-mail | alvaro.baalina@udc.es rebeca.bouzon@udc.es v.prietoc@udc.es j.romero.gomez@udc.es | |
| Web | | | | |
| General description | It treats to give fulfillment to the formative requirements of the STCW Convention about professional courses of tanker ships (basic), and passenger ships | | | |

Study programme competences / results

| Code | Study programme competences / results |
|------|---|
| A1 | CE01 - Realizar unha garda de máquinas segura |
| A8 | CE08 - Vixiar o cumprimento das prescricións legislativas. |
| A10 | CE10 - Utilizar os sistemas de comunicación interna. |
| A12 | CE12 - Garantir o cumprimento das prescricións sobre prevención da contaminación. |
| A13 | CE13 - Prevención, control e loita contra incendios a bordo. |
| A16 | CE16 - Aplicar as calidades de liderado e de traballo en equipo. |
| A17 | CE17 - Contribuír á seguridade do persoal e do buque |
| A56 | CE56 - Contribuír á seguridade das operacións de carga en petroleiros e quimiqueros. |
| A57 | CE57 - Tomar precaucións para previr os riscos nas operacións dos buques tanque. |
| A58 | CE58 - Tomar precaucións e medidas de seguridade e saúde no traballo a bordo de buques tanque. |
| A59 | CE59 - Levar a cabo operacións de loita contra incendios en buques tanque |
| A60 | CE60 - Responder a emerxencias a bordo de buques tanque. |
| A61 | CE61 - Tomar precaucións para previr a contaminación del medio ambiente debida a la descarga de hidrocarburos o produtos químicos |
| A62 | CE62 - Contribuír al funcionamento seguro de los buques tanque para el transporte de gas licuado. |
| A63 | CE63 - Tomar precaucións para previr os riscos nas operacións dos buques tanque para o transporte de gas licuado. |
| A64 | CE64 - Tomar precaucións e medidas de seguridade e saúde no traballo a bordo de buques tanque para o transporte de gas licuado. |
| A65 | CE65 - Levar a cabo operacións de loita contra incendios en buques tanque para o transporte de gas licuado. |
| A66 | CE66 - Responder a emerxencias a bordo de buques tanque para o transporte de gas licuado. |
| A67 | CE67 - Tomar precaucións para previr a contaminación do medio ambiente debida ao desprendemento de gases licuados. |
| A68 | CE68 - Organizar os procedementos de emerxencia de a bordo. |
| A69 | CE69 - Optimizar a utilización dos recursos. |
| A70 | CE70 - Dirixir a intervención en caso de emerxencia. |
| A71 | CE71 - Dirixir aos pasaxeiros e aos demais membros do persoal en situacións de emerxencia. |
| A72 | CE72 - Establecer e manter comunicacións eficaces. |
| A86 | CE86 - Operar, reparar, manter e optimizar as instalacións auxiliares dos buques que transportan cargas especiais, tales como quimiqueros, LPG, LNG, petroleiros, cementeros, Ro- Ro, Pasaxe, botes rápidos, etc. |
| A99 | CE99 - Ter a capacidade para exercer como Oficial de Máquinas da Mariña Mercante, unha vez superados os requisitos esixidos pola Administración Marítima. |



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| A100 | CE100 - Ter a capacidade para exercer como oficial ETO da Mariña Mercante, unha vez superados os requisitos esixidos pola Administración Marítima. |
| B2 | CB2 - Aplicar os coñecementos no seu traballo ou vocación dunha forma profesional e posuír competencias demostrables por medio da elaboración e defensa de argumentos e resolución de problemas dentro da área dos seus estudos |
| B7 | CG02 - Resolver problemas de forma efectiva. |
| B8 | CG03 - Comunicarse de maneira efectiva nunha contorna de traballo. |
| B9 | CG04 - Traballar de forma autónoma con iniciativa. |
| B10 | CG05 - Traballar de forma colaborativa. |
| B11 | CG06 - Comportarse con ética e responsabilidade social como cidadán e como profesional. |
| B12 | CG07 - Capacidade para interpretar, seleccionar e valorar conceptos adquiridos noutras disciplinas do ámbito mariño, mediante fundamentos físico-matemáticos. |
| B13 | CG08 - Capacidade para a aprendizaxe de novos métodos e teorías, que lle doten dunha gran versatilidade para adaptarse a novas situacións. |
| B14 | CG09 - Comunicar por escrito e oralmente os coñecementos procedentes da linguaxe científica. |
| B15 | CG10 - Capacidade para resolver problemas con iniciativa, toma de decisións, creatividade, razoamento crítico e de comunicar e transmitir coñecementos habilidades e destrezas. |
| B16 | CG11 - Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse. |
| B17 | CG12 - Asumir como profesional e cidadán a importancia da aprendizaxe ao longo da vida. |
| C1 | CT01 - Expresarse correctamente, tanto de forma oral como escrita, nas linguas oficiais da comunidade autónoma. |
| C3 | CT03 - 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. |
| C4 | CT04 - Desenvolverse para o exercicio dunha cidadanía respectuosa coa cultura democrática, os dereitos humanos e a perspectiva de xénero. |
| C5 | CT05 - Entender a importancia da cultura emprendedora e coñecer os medios ao alcance das persoas emprendedoras. |
| C7 | CT07 - Desenvolver a capacidade de traballar en equipos interdisciplinares ou transdisciplinares, para ofrecer propostas que contribúan a un desenvolvemento sostible ambiental, económico, político e social. |
| C9 | CT09 - Ter a capacidade de xestionar tempos e recursos: desenvolver plans, priorizar actividades, identificar as críticas, establecer prazos e cumprilos. |

Learning outcomes

| Learning outcomes | Study programme competences / results |
|-------------------|---------------------------------------|
|-------------------|---------------------------------------|



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|---|---|--|----------------------------------|
| Sailing, with safety and respect to the environment protection, in tanker ships | A1 A8 A10 A12 A13 A16 A17 A56 A57 A58 A59 A60 A61 A62 A63 A64 A65 A66 A67 A68 A69 A86 A99 A100 | B2 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 | C1 C3 C4 C5 C7 C9 |
| The result of the learning: Sailing with safety and respect to the environment protection on tanker ships, fulfils with the obtaining of the competitions established in the Column 1 of the Tables STCW: A-V/1-1-1; A-V/1-2-1; | A1 A8 A10 A12 A13 A16 A17 A56 A57 A58 A59 A60 A61 A62 A63 A64 A65 A66 A67 A68 A69 A86 A99 A100 | B2 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 | C1 C3 C4 C5 C7 C9 |



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| <p>Knowledge and skills in managing crowds, covering the mandatory competences and the required knowledge, understanding and proficiencies specified in paragraph 3 of section A-V/2 and table A-V/2-1 of the STCW code.</p> <p>Training in crisis management during emergency situations on board passenger ships as specified in paragraph 4 of section A-V/2 and table A-V/2-2 of STCW Code.</p> | A8 | B2 | C1 |
| | A10 | B7 | C3 |
| | A16 | B8 | C4 |
| | A17 | B9 | C5 |
| | A69 | B10 | C7 |
| | A70 | B11 | C9 |
| | A71 | B12 | |
| | A72 | B13 | |
| | A86 | B14 | |
| | A99 | B15 | |
| | A100 | B16 | |
| | | B17 | |

| Contents | |
|---|--|
| Topic | Sub-topic |
| <p>Basic Training for Oil and Chemical Tanker Cargo Operations.</p> <p>Table A-V/1-1-1, STCW.</p> <p>IMO Model Course 1.01.</p> | <p>FOR OIL, GAS AND CHEMICAL PRODUCTS:</p> <p>1.- Regulations and Codes of practices</p> <p>2.- Tankers ships equipment and Project</p> <p>3.- Cargo properties.</p> <p>4.- Ship's operations</p> <p>5.- Risks prevention.</p> |
| <p>Basic Training for Liquefied Gas Tanker Cargo Operations.</p> <p>Table A-V/1-2-1, STCW.</p> <p>IMO Model course 1.04.</p> | <p>6.- Occupational Safety and Health</p> <p>7.- Closed spaces</p> <p>8.- Measures Equipments</p> <p>9.-a Emergency operations</p> <p>10.- Fire prevention and fire fighting</p> <p>11.- Pollution prevention.</p> |



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| <p>Buques de pasaxe e ro-ro. Capítulo V, sección A-V/2.</p> <p>Cursos modelo OMI 1.29 (ed. 2000), actualización 1.41 e 1.42 (ed 2018),</p> | <p>The development of these sub-topics (1) fulfils with the column 2, Knowledge, Understanding and Proficiency, of the STCW Convention, modified by Manila 2010, of the following Tables:</p> <p>Table A-V/1-1-1. Specification of minimum standard of competence in basic training for oil and chemical tanker cargo operations</p> <p>Table A-V/1-2-1. Specification of minimum standard of competence in basic training for liquefied gas tanker cargo operations</p> <p>Table A-V/2.- Mandatory minimum requirements for the training and qualification of masters, officers, ratings and other personnel on passenger ships.</p> <p>(1): The obtaining of the competences established in the Column 1 of the respective Tables STCW, complete with overcoming of the contents related in the complementary matters to this:</p> <p>? Naval hygiene and Risks at work.</p> <p>? Chemistry.</p> <p>? Maritime Safety</p> <p>? Thermodynamics and Engineering Thermodynamics.</p> |
| <p>Passenger ships and ro-ro. Chapter V, section A-V/2</p> <p>IMO model courses 1.29 (ed. 2000), 1.41 y 1.42 (ed 2018),</p> | <p>-Proficiency in crisis management and human behaviour training including passenger safety, cargo safety and hull integrity training. Communication with passengers (standard maritime communication phrases-SMCP). Abandonment and emergency exits.</p> <p>- Emergency plans and procedures. Shipboard emergency drills. Procedures for lowering and hoisting ramps, setting up and stowing retractable vehicle decks. Individual safety equipment, emergency signals. Evacuation. Function table.</p> |

| Planning | | | | |
|--------------------------------|---|--------------------------------------|-------------------------------|-------------|
| Methodologies / tests | Competencies / Results | Teaching hours (in-person & virtual) | Student?s personal work hours | Total hours |
| Guest lecture / keynote speech | A1 A8 A10 A12 A13 A16 A17 A56 A57 A58 A59 A60 A61 A62 A63 A64 A65 A66 A67 A68 A69 A70 A71 A72 A86 A99 A100 B2 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 C1 C3 | 30 | 60 | 90 |



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|---------------------------------|---|----|----|----|
| Laboratory practice | A1 A8 A10 A12 A13 A16 A17 A56 A57 A58 A59 A60 A61 A62 A63 A64 A65 A66 A67 A68 A69 A70 A71 A72 A86 A99 A100 B2 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 C1 C3 C4 C5 C7 C9 | 16 | 12 | 28 |
| Simulation | A1 A10 A12 A16 A17 A56 A57 A58 A60 A61 A62 A63 A66 A67 A99 A100 B2 B7 B8 B9 B10 B12 B15 B16 B17 | 8 | 8 | 16 |
| Mixed objective/subjective test | A100 A99 A86 A72 A71 A70 A69 A68 A67 A66 A65 A64 A63 A62 A61 A60 A59 A58 A57 A56 A17 A16 A13 A12 A10 A8 A1 B2 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 | 6 | 0 | 6 |
| Objective test | A100 A99 A86 A72 A71 A70 A69 A68 A67 A66 A65 A64 A63 A62 A61 A60 A59 A58 A57 A56 A17 A16 A13 A12 A10 A8 A1 B2 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 | 8 | 0 | 8 |
| 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 | They will realise guest lecture / keynote speech., including professionals of recognised prestige. A1, A10, A12, A17, A22, A23, A25, A27, A29, A33, A35, B1, B7, B8, B11, B12, C1 and C2. |
| Laboratory practice | They will realise practices with safety and rescue equipments used in this type of tanker ships. Likewise, they will realise operational practices in the simulator. A1, A10, A12, A23, A25, A27, B1, B6, B8, B11, B12, C1 and C2. |
| Simulation | Operational practice shall be carried out on the liquid cargo simulator. A1 A10 A12 A16 A17 A56 A57 A58 A60 A61 A62 A63 A66 A67 A99 A100 B2 B7 B8 B9 B10 B12 B15 B16 B17 |
| Mixed objective/subjective test | There will be a partial test on the subject Familiarisation of oil and chemical tankers . Both ordinary and extraordinary exams will be held in the same format. B2, B3, B5, B7, B13, B14, B15, B16, C1 and C2. In this context, the specific competences of the degree acquired in laboratory practicals and lectures will be applied. |



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| Objective test | Objective tests will be carried out at each official convocation corresponding to the part of gas tankers and passenger ships respectively, therefore no partial examinations will be carried out in these parts of the subject. The specific competences of the qualification acquired in laboratory practices and master classes will be applied. |
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Personalized attention

| Methodologies | Description |
|--------------------------------|---|
| Guest lecture / keynote speech | In addition to the hours of tutorials established for all the students of the matter, establish 2 hours for students with needs. |
| Laboratory practice | 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. |

Assessment

| Methodologies | Competencies / Results | Description | Qualification |
|---------------------------------|---|---|---------------|
| Guest lecture / keynote speech | A1 A8 A10 A12 A13 A16 A17 A56 A57 A58 A59 A60 A61 A62 A63 A64 A65 A66 A67 A68 A69 A70 A71 A72 A86 A99 A100 B2 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 C1 C3 | It will value the assistance to guest lectura / Keynote speech | 5 |
| Mixed objective/subjective test | A100 A99 A86 A72 A71 A70 A69 A68 A67 A66 A65 A64 A63 A62 A61 A60 A59 A58 A57 A56 A17 A16 A13 A12 A10 A8 A1 B2 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 | Both the mixed test and the objective test will be assessed with a maximum of 90% in the written exam. See Observations on evaluation. | 90 |
| Laboratory practice | A1 A8 A10 A12 A13 A16 A17 A56 A57 A58 A59 A60 A61 A62 A63 A64 A65 A66 A67 A68 A69 A70 A71 A72 A86 A99 A100 B2 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 C1 C3 C4 C5 C7 C9 | It will value the assistance to guest lectura / Keynote speech | 5 |



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| Simulation | A1 A10 A12 A16 A17 A56 A57 A58 A60 A61 A62 A63 A66 A67 A99 A100 B2 B7 B8 B9 B10 B12 B15 B16 B17 | STCW-related practices are mandatory in their entirety. | 0 |
| Others | | | |

Assessment comments

The system of evaluation fulfils with the assessment criteria of the competence collected in the Column 4 of the following Tables of the STCW Convention, modified by Manila 2010:

- Table A-V/1-1-1. Specification of minimum standard of competence in basic training for oil and chemical tanker cargo operations

- Table A-V/1-1-2. Specification of minimum standard of competence in advanced training for oil tanker cargo operations

The assessment criteria contemplated in the Tables A-III/1 of the STCW Code, and collected in the System of Guarantee of Quality, will take into account to design and realise the evaluation.

The partial exams form part of the continuous evaluation, therefore to be able to take part of them, the assistance to the guest lectura / Keynote speech must be of 90%.

STCW-related practices, corresponding to the simulation methodology, are mandatory in their entirety.

Practices includes, whenever it was possible, the visit in the sailboats to tanker ships berthed at terminal: oil, gas and chemicals tankers or vessels berthed.

In order to obtain the Certificate of basic training for cargo operations on tankers and chemical tankers, a partial mixed test will be carried out at the end of this part of the subject, with 90% attendance being necessary during the course. In order to obtain the Certificate of basic training for cargo operations on liquefied gas tankers and for the Passenger Ship Certificate, both certificates being completely independent, an objective test will be carried out at the official 1st and 2nd opportunity, with 90% attendance required during the course. The fraudulent accomplishment of the tests or activities of evaluation, once verified, will imply directly the loss of the right to the opportunity in which the fault is committed and respect of the subject in which it had been committed. The student will be graded with a "fail" (numerical grade 0) in the corresponding call of the academic year, whether the offence is committed on the first or second opportunity. To this end, the grade will be modified in the first opportunity report, if necessary. Students with part-time enrollment and academic grant of attendance exemption, the 10% of attendance will be distributed proportionally among the rest of the criteria.

The student not admitted to continuous evaluation will be evaluated in face-to-face test with a value of 100%.

Sources of information

