



| Teaching Guide      |   |        |                     |         |
|---------------------|---|--------|---------------------|---------|
| Identifying Data    |   |        |                     | 2021/22 |
| Subject (*)         | Marine drawing  | Code   | 730G05010           |         |
| Study programme     | Grao en Enxeñaría Naval e Oceánica  |        |                     |         |
| Descriptors         |   |        |                     |         |
| Cycle               | Period  | Year   | Type                | Credits |
| Graduate            | 1st four-month period   | Second | Obligatory          | 6       |
| Language            | Spanish   |        |                     |         |
| Teaching method     | Face-to-face  |        |                     |         |
| Prerequisites       |   |        |                     |         |
| Department          | Enxeñaría Naval e Industrial  |        |                     |         |
| Coordinador         | Álvarez García, Ana   | E-mail | ana.alvarez1@udc.es |         |
| Lecturers           | Álvarez García, Ana   | E-mail | ana.alvarez1@udc.es |         |
| Web                 | www.udc.es  |        |                     |         |
| General description | This course shows all the technologies needed to interpret ship design and construction drawings and make and develop blueprints and other technical draws using the lines plan of a vessel.  |        |                     |         |
| Contingency plan    | <p>1. Modifications to the contents<br/>No changes will be made</p> <p>2. Methodologies<br/>*Teaching methodologies that are maintained<br/>Practices through ICT (compute in the evaluation)<br/>Laboratory practices<br/>Problem solving<br/>Supervised work (compute in the evaluation).<br/>*Teaching methodologies that are modified<br/>Maxi session (will be done synchronously, through TEAMS )<br/>Mixed test (to be performed synchronously, in person or through TEAMS depending on the epidemiological situation related to the coronavirus)</p> <p>3. Mechanisms for personalized attention to students<br/>- E-mail: According to student needs and according to the published tutorial schedule.<br/>- Moodle: According to student needs and according to the published tutorial schedule.<br/>- Teams: According to students' needs and according to the published tutorial schedule.</p> <p>4. Modifications in the evaluation<br/>No changes will be made<br/>*Evaluation observations:<br/>Evaluation methodologies and their weighting are maintained, except for their presence only if the epidemiological situation related to the coronavirus requires it.</p> <p>5. Modifications to the bibliography or webgraphy<br/>No changes are made.</p> |        |                     |         |

| Study programme competences / results |   |
|---------------------------------------|---|
| Code                                  | Study programme competences / results   |
| B1                                    | That the students proved to have and to understand knowledge in an area of study what part of the base of the secondary education, and itself tends to find to a level that, although it leans in advanced text books, it includes also some aspects that knowledge implicates proceeding from the vanguard of its field of study |
| B5                                    | That the students developed those skills of learning necessary to start subsequent studies with a high degree of autonomy   |
| C3                                    | Understanding the importance of the enterprising culture and knowing the means within reach of the enterprising people.   |
| C4                                    | Recognizing critically the knowledge, the technology and the available information to solve the problems that they must face.   |
| C5                                    | Assuming the importance of the learning as professional and as citizen throughout the life.   |



|    |  |
|----|--|
| C6 | Recognizing the importance that has the research, the innovation and the technological development in the socioeconomic and cultural advance of the society. |
| C7 | Capacidade de traballar nun ámbito multilingüe e multidisciplinar.   |

| Learning outcomes   |                                       |                            |
|---|---------------------------------------|----------------------------|
| Learning outcomes   | Study programme competences / results |                            |
| Master the representation of the hull and components of the ship.   | B1<br>B5                              | C3<br>C4<br>C5<br>C6<br>C7 |
| Solve graphic tracings to represent the ship as well as acquire the capacity of abstraction to view it in units, spaces and / or independent parts or as a set from different positions of the space. | B1<br>B5                              | C3<br>C4<br>C5<br>C6<br>C7 |

| Contents  |  |
|---|--|
| Topic   | Sub-topic  |
| Graphic representation of naval terminology.                    | Graphical explanation of various concepts of naval terminology |
| Representation of the hull and layout of the ship's components. | Explanation of several draws lines plan based                  |
| Representation of general plans and details of the ship.        | Make multiple practical drawing exercises lines plan based     |

| Planning                       |                         |                                      |                               |             |
|--------------------------------|-------------------------|--------------------------------------|-------------------------------|-------------|
| Methodologies / tests          | Competencies / Results  | Teaching hours (in-person & virtual) | Student?s personal work hours | Total hours |
| Guest lecture / keynote speech | B5 B1 C3 C4 C5 C6<br>C7 | 15                                   | 15                            | 30          |
| ICT practicals                 | B1 B5 C3 C4 C5 C6<br>C7 | 15                                   | 15                            | 30          |
| Problem solving                | B1 B5 C3 C4 C5 C6<br>C7 | 10                                   | 10                            | 20          |
| Supervised projects            | B1 B5 C3 C4 C5 C6<br>C7 | 23                                   | 46                            | 69          |
| Personalized attention         |                         | 1                                    | 0                             | 1           |

(\*)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 | In this activity, the contents are worked on in a theoretical framework and reinforced with a practical framework, guided in the classroom, through ICT practices, problem solving and tutored work. |
| ICT practicals                 | It is included in the practical framework. It enables the solution of problems and the development of tutored work in a guided manner in the classroom and autonomously.                             |



|                     |   |
|---------------------|---|
| Problem solving     | It is included in the theoretical-practical framework. It enables the solution of problems applied to the naval sector in a guided classroom setting and with autonomous work.  |
| Supervised projects | A group work will be carried out that will include all the topics in the programme. The steps to be followed are: presentation of the topic, classroom sessions for guided follow-up, autonomous work and classroom presentation. |

### Personalized attention

| Methodologies   | Description  |
|---|--|
| ICT practicals<br>Guest lecture /<br>keynote speech<br>Problem solving<br>Supervised projects | <p>In the classroom, during the hours set aside for the subject, students' work will be monitored in a guided manner and any doubts will be resolved. This implies an obligatory participation of the students.</p> <p>PERSONALIZED CARE CONSULTATIONS TO MAKE THE STUDENT.</p> <p>Even though what is indicated below corresponds to the criteria of behavior and attitude towards the issues raised by the professors in charge of this teaching during all the years in which we have taught these courses, by legal imperative we are obliged to specify in particular the following agreement, with the Regulations that regulate the regime of dedication to the study and permanence and the progression of undergraduate and master's degree students in the UDC (articles 6.b) and 7.5), is included in the guide teacher WHAT IS accepted the dispensation in this matter and in this case the specific personalized attention measures (work dynamics) that will be developed with this student body for the study of the subject will be the same as those established for the rest of the students.</p> |

### Assessment

| Methodologies       | Competencies / Results  | Description   | Qualification |
|---------------------|-------------------------|---|---------------|
| Problem solving     | B1 B5 C3 C4 C5 C6<br>C7 | In order to pass the subject, students must have passed all the problems posed and must participate in the classroom in the guided monitoring of these problems. This implies an obligatory classroom participation for the students. | 30            |
| Supervised projects | B1 B5 C3 C4 C5 C6<br>C7 | In order to pass the subject, students must have passed the proposed work and must participate in the classroom in the guided monitoring of the same. This implies an obligatory classroom participation for the students.            | 70            |

### Assessment comments

1st Call: continuous assessment will be followed. In order to pass the subject, students must participate in the classroom in the guided monitoring of all the proposed activities. Students who do not follow the continuous assessment may opt for a mixed test that will have a grade of 100%.

2nd Call: the mixed test will have a 100% grade. Early call (December): the exam will be graded 100%.

Early call (December): the exam will have a grade of 100%.

For students with academic dispensation and part-time students, the tests will be the same as those established for the rest of the students. In the second opportunity and early call in December they will have to take a mixed test with a 100% grade.

"The fraudulent completion of the tests or assessment activities shall be governed by article 14.4. which reads as follows: "Na realización de traballos, o plaxio e a utilización de material non orixinal, incluído aquel obtido a través da internet, sen indicación expresa da súa procedencia e, se é o caso, o permiso do seu autor/a, poderá ser considerada causa de cualificación de suspenso na actividade. Todo iso sen prexuízo das responsabilidades disciplinarias ás que puidese haber lugar tras o correspondente procedemento "



## Sources of information

|                      |  |
|----------------------|--|
| <b>Basic</b>         | <ul style="list-style-type: none"><li>- AENOR (2000). Dibujo técnico. Normas básicas. Madrid:AENOR</li><li>- KLASS VAN DOKKUM (2010). SHIP KNOWLEDGE. DOKMAR THE NETHERLAND</li><li>- JUNCO-OCAMPO, F. (2002). Dibujo Naval. Ferrol : Escola Politécnica Superior</li><li>- CRUCELAEGUI CORVINOS, A. (1985). Geometría y representación de carenas: diseño de formas asistido por ordenador. Madrid: ETSIN</li></ul> |
| <b>Complementary</b> |  |

## Recommendations

### Subjects that it is recommended to have taken before

Engineering drawing/730G05003

Shipbuilding and ship propulsion/730G05009

### Subjects that are recommended to be taken simultaneously

### Subjects that continue the syllabus

## Other comments

Even though what is indicated below correspondsto the criteria of behaviour and attitude towards the issues raised by the professors in charge of this teaching during all the years in which we havetaught these courses, by legal imperative we are obliged to specify specifically, the following: "To help achieve a sustained immediate environment and meet the objective of action number 5:" Healthy and environmental and social teaching and research "of the" Green Campus Ferrol Action Plan ": The delivery of the documentary works that are made in this matter: ? It will be done through virtual campus, in digital format without the need to print them ? If it is necessary to make them on paper: - Plastics will not be used - Double-sided prints will be made. - Recycled paper will be used. - Printing of drafts will be avoided. Further: ? A sustainable use of resources and the prevention of negative impacts on the natural environment must be made. ? The importance of ethical principles related to the values ??of sustainability in personal and professional behaviours must be taken into account. ? Gender perspective is incorporated into the teaching of this subject (non-sexist language will be used, bibliography of authors of both sexes will be used, intervention in class of students will be encouraged ...). ? Work will be done to identify and modify prejudices and sexist attitudes, and the environment will be influenced to modify them and promote values ??of respect and equality. ? Discrimination situations must be detected and actions and measures will be proposed to correct them. ? The full integration of students who, for physical, sensory, psychological or socio-cultural reasons, have difficulties in gaining adequate, equal and beneficial access to university life will be facilitated.

(\* )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.