



Teaching Guide				
Identifying Data				2017/18
Subject (*)	Marine drawing	Code	730G05010	
Study programme	Grao en Enxeñaría Naval e Oceánica			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	2nd four-month period	First	Obligatoria	6
Language	Spanish			
Teaching method	Face-to-face			
Prerequisites				
Department	Enxeñaría Naval e Industrial			
Coordinador	Junco Ocampo, Fernando	E-mail	fernando.junco@udc.es	
Lecturers	Álvarez García, Ana Junco Ocampo, Fernando	E-mail	ana.alvarez1@udc.es fernando.junco@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.			

Study programme competences	
Code	Study programme competences
A1	Skill for the resolution of the mathematical problems that can be formulated in the engineering. Aptitude for applying the knowledge on: linear algebra; geometry; differential geometry; differential and integral calculation; differential equations and in partial derivatives; numerical methods; algorithmic numerical; statistics and optimization
A5	Have a capacity for the space vision and knowledge of the techniques of graphic representation, so much for traditional methods of metric geometry and descriptive geometry, as through the applications of design assisted by computer
A29	Knowledge of the processes of ship building
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
B2	That the students know how to apply its knowledge to its work or vocation in a professional way and possess the competences that tend to prove itself by the elaboration and defense of arguments and the resolution of problems in its area of study
B3	That the students have the ability to bring together and to interpret relevant data (normally in its area of study) to emit judgments that include a reflection on relevant subjects of social, scientific or ethical kind
B4	That the students can transmit information, ideas, problems and solutions to a public as much specialized as not specialized
B5	That the students developed those skills of learning necessary to start subsequent studies with a high degree of autonomy
B6	Be able to carrying out a critical analysis, evaluation and synthesis of new and complex ideas.
C1	Using the basic tools of the technologies of the information and the communications (TIC) necessary for the exercise of its profession and for the learning throughout its life.
C2	Coming across for the exercise of a, cultivated open citizenship, awkward, democratic and supportive criticism, capable of analyzing the reality, diagnosing problems, formulating and implanting solutions based on the knowledge and orientated to the common good.
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



Graphical explanation of various concepts of naval terminology	A1 A5 A29	B1 B2 B3 B4 B5 B6	C1 C2 C3 C4 C5 C6 C7
Graphical explanation of various concepts of naval terminology	A1 A5 A29	B1 B2 B3 B4 B5 B6	C1 C2 C3 C4 C5 C6 C7
Explanation of several draws lines plan based	A1 A5 A29	B1 B2 B3 B4 B5 B6	C1 C2 C3 C4 C5 C6 C7
Explanation of several draws lines plan based	A1 A5 A29	B1 B2 B3 B4 B5 B6	C1 C2 C3 C4 C5 C6 C7
Make multiple practical drawing exercises lines plan based	A1 A5 A29	B1 B2 B3 B4 B5 B6	C1 C2 C3 C4 C5 C6 C7
Make multiple practical drawing exercises lines plan based	A1 A5 A29	B1 B2 B3 B4 B5 B6	C1 C2 C3 C4 C5 C6 C7

Contents	
Topic	Sub-topic
Os bloques ou temas seguintes desenvolven os contidos establecidos na ficha da Memoria de Verificación, que son:	Plano de formas, disposición xeral e planos estruturais. Planos de sistemas.



CONCEPTS OF NAVAL TERMINOLOGY THEORETICAL	Graphical explanation of various concepts of naval terminology
EXPLANATION OF DELINEATION OF LINES PLAN AND OTHER AUXILIARY DRAWS USED AT SHIP DESIGN	Explanation of several draws lines plan based
SHIP CONSTRUCTION OF ANY VESSEL	Make multiple practical drawing exercises lines plan based

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Introductory activities	A1 A5 A29 B1 B2 B3 B4 B5 B6 C1 C2 C3 C4 C5 C6 C7	2	2	4
Guest lecture / keynote speech	A1 A5 A29 B1 B2 B3 B4 B5 B6 C1 C2 C3 C4 C5 C6 C7	30	15	45
Supervised projects	A1 A5 A29 B1 B2 B3 B4 B5 B6 C1 C2 C3 C4 C5 C6 C7	10	18	28
Objective test	A1 A5 A29 B1 B2 B3 B4 B5 B6 C1 C2 C3 C4 C5 C6 C7	4	8	12
Problem solving	A1 A5 A29 B3 B4 B5 B6 C1 C2 C3 C4 C5 C6 C7	14	14	28
Case study	A1 A5 A29 B1 B2 B3 B4 B5 B6 C1 C2 C3 C4 C5 C6 C7	0	30	30
ICT practicals	A1 A5 A29 B1 B2 B3 B4 B5 B6 C1 C2 C3 C4 C5 C6 C7	0	0	0
Personalized attention		3	0	3

(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies	
Methodologies	Description
Introductory activities	LEARNING TERMINOLOGY AND IDENTIFICATION OF PLANS
Guest lecture / keynote speech	STRUCTURAL DEVELOPMENTS AND PLAN DRAWING BODY
Supervised projects	TRACES STRUCTURAL PRACTICES
Objective test	PRACTICAL EXERCISES
Problem solving	PRACTICAL EXERCISES
Case study	PRACTICAL EXERCISES
ICT practicals	Due to the redistribution of teaching groups approved by the UDC for the Degree of Naval and Oceanic Engineering in the course 2017/2018 this methodology will not be applied.

Personalized attention	
Methodologies	Description



Objective test Guest lecture / keynote speech Problem solving Introductory activities Supervised projects	PERSONALIZED CARE CONSULTATIONS TO MAKE THE STUDENT
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Assessment			
Methodologies	Competencies	Description	Qualification
Objective test	A1 A5 A29 B1 B2 B3 B4 B5 B6 C1 C2 C3 C4 C5 C6 C7	WILL EVALUATE THE SOLUTION OF THE EXAM. WILL BE CONSIDERED FOR THIS EVALUATION POSITIVE OR NEGATIVE PARTICIPATION IN STUDENT PRACTICES	100

Assessment comments
La evaluación se realizara sobre la prueba objetiva únicamente. Las prácticas solo se computarán durante el curso académico actual.

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

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
<p> Se recomienda la asistencia a las clases teóricas y prácticas.</p><p>La realización de las prácticas es obligatoria y no se evaluará la prueba objetiva sin la realización correcta de las mismas </p>

(*)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.