



| Teaching Guide | | | | | | |
|---------------------|---|--------|--|-----------|--|--|
| Identifying Data | | | | 2016/17 | | |
| Subject (*) | Proxecto de buques e artefactos mariños 2 | | Code | 730G05037 | | |
| Study programme | Grao en Enxeñaría Naval e Oceánica | | | | | |
| Descriptors | | | | | | |
| Cycle | Period | Year | Type | Credits | | |
| Graduate | 2nd four-month period | Fourth | Obligatoria | 6 | | |
| Language | Spanish | | | | | |
| Teaching method | Face-to-face | | | | | |
| Prerequisites | | | | | | |
| Department | Enxeñaría Naval e Oceánica | | | | | |
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| Web | | | | | | |
| General description | O contido do curso abrangue o desenvolvemento de coñecementos e técnicas para o proxecto dunha embarcación ou dispositivo mariño con base nos requisitos esperados de actividade. Así, o obxectivo do curso é desenvolver o conxunto de cadernos que componen o proxecto dun barco. | | | | | |

| Study programme competences | |
|-----------------------------|---|
| Code | Study programme competences |
| A36 | Knowledge of the methods of project of the systems of naval propulsion. |
| A37 | Knowledge of the methods of project of the auxiliary systems of the ships and artifacts. |
| 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 |



| | | | |
|--|------------|----------------------------------|--|
| Capacidade para o deseño de desenvolvemento completo de un barco. Capacidad de realizar cálculos aplicados para enviar deseño. | A36 A37 | B1 B2 B3 B4 B5 B6 | C1 C2 C3 C4 C5 C6 C7 |
| Capacidade de describir e calcular os sistemas, equipos e construcción do barco e os seus compoñentes. | | | |

Contents

| Topic | Sub-topic |
|--|--|
| Situacións de carga e resistencia lonxitudinal | Cálculo de condicións de carga normativas. Valores aplicables de estabilidade e criterios de estabilidade. Curva de forzas de cisallamento e momentos de flectores |
| Previsión de potencia e deseño de hélices e timón. | Estimando potencia de propulsión. Métodos e resultados do cálculo do motor. Cálculo do timón. Esbozo do perfil do codaste, skeg e timón. |
| Disposición xeral. | Justificación da disposición xeral. |
| Caderna mestra | Xustificación de escantillóns e cálculos de resistencia lonxitudinal. Plano de cuaderna maestra. |
| Francobordo e arqueo | Cálculo de francobordo Cálculo de arqueo |
| Definición da planta propulsora e seus auxiliares | Xustificación do equipamento de propulsión. Definición de servizos e equipos de propulsión auxiliar. Estimación de consumo e verificación de autonomía. Equilibrio térmico. Esquema preliminar da cámara de máquinas |
| Definición da planta eléctrica | Elección das características de distribución de enerxía eléctrica. Justificación do balance eléctrico. Diagrama xeral da instalación eléctrica. |
| Equipos e servizos | Descripción dos servicios e equipos do buque Xustificación das características de servizos e equipamentos. |
| Orzamento | Orzamento de servizos, materiais, equipos e man de obra. |

Planning

| Methodologies / tests | Competencies | Ordinary class hours | Student's personal work hours | Total hours |
|--------------------------------|--|----------------------|-------------------------------|-------------|
| Supervised projects | A37 A36 B1 B2 B3 B4 B5 B6 C1 C2 C3 C4 C5 C6 C7 | 5 | 80 | 85 |
| Guest lecture / keynote speech | A36 A37 B3 C1 C6 C7 | 40 | 0 | 40 |
| Case study | A37 A36 B1 B2 B3 B4 | 15 | 5 | 20 |
| Personalized attention | | 5 | 0 | 5 |

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

| Methodologies | |
|---------------------|--|
| Methodologies | Description |
| Supervised projects | Elaboración do anteproyecto dun buque ou artefacto |



| | |
|--------------------------------|---|
| Guest lecture / keynote speech | Explicación dos coñecementos e técnicas da asignatura |
| Case study | Estudio de casos particulares e principales dificultades no desenvolvimeto no proxecto do buque |

| Personalized attention | |
|--------------------------------|--|
| Methodologies | Description |
| Supervised projects | Seguimento continuo do avance do proxecto. |
| Guest lecture / keynote speech | Tutorías individualizadas o de grupos reducidos para resolver as incidencias o dificultades detectadas na elaboración no proxecto. |
| Case study | |

| Assessment | | | |
|---------------------|--|--|---------------|
| Methodologies | Competencies | Description | Qualification |
| Supervised projects | A37 A36 B1 B2 B3 B4 B5 B6 C1 C2 C3 C4 C5 C6 C7 | Desenvolvemento completo do proxecto co alcance definido no moodle da materia. | 100 |
| Others | | | |

| Assessment comments | |
|---|--|
| Posto que a evaluación dos traballos tutelados realizaráse nas clases presenciais será necesario asistir a lo menos a un 75% das mesmas para que sexan evaluadas. En casos debidamente xustificados poderase dispensar ao alumno deste requerimiento. | |

| Sources of information | |
|------------------------|---|
| Basic | <ul style="list-style-type: none">- Alvariño y Otros (2000). Proyecto básico del buque mercante.- Watson (1998). Practical ship design.- Fernando Junco (2003). Proyectos de buques y artefactos.- Schneekluth (1987). Ship Design for Efficiency & Economy.- (). SOLAS. |
| 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 |

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| (*)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. |
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