



Teaching Guide

| Identifying Data | | | | | 2015/16 |
|------------------------|---|--------------|--------------------|---------|---------|
| Subject (*) | Estruturas Oceanicas | Code | 730112616 | | |
| Study programme | Enxeñeiro Naval e Océanico | | | | |
| Descriptors | | | | | |
| Cycle | Period | Year | Type | Credits | |
| First and Second Cycle | 1st four-month period | Fourth-Fifth | Optativa | 4.5 | |
| Language | Spanish | | | | |
| Teaching method | Face-to-face | | | | |
| Prerequisites | | | | | |
| Department | Enxeñaría Naval e Océanica | | | | |
| Coordinador | Mendez Diaz, Abel | E-mail | abel.mendez@udc.es | | |
| Lecturers | Mendez Diaz, Abel | E-mail | abel.mendez@udc.es | | |
| Web | | | | | |
| General description | ESTUDO DAS OLAS, CORRENTES E VENTO, CONSIDERANDO A SUA HIDRODINAMICA E CARGAS IMPOSTAS EN BUQUES E ARTEFACTOS OCEANICOS, QUE SON MOTIVO DO COMPORTAMENTO E CARGAS DINAMICAS | | | | |

Study programme competences / results

| Code | Study programme competences / results |
|------|---------------------------------------|
| | |

Learning outcomes

| Learning outcomes | Study programme competences / results | | |
|--|---------------------------------------|----|--|
| ESTUDO DAS OLAS, CORRENTES E VENTO, CONSIDERANDO A SUA HIDRODINAMICA E CARGAS QUE EXERCEN SOBRE OS BUQUES E ARTEFACTOS OCEANICOS | A2 | B2 | |
| | A3 | B4 | |
| | A7 | B5 | |

Contents

| Topic | Sub-topic |
|---|-----------|
| <ul style="list-style-type: none"> - Oceanografía física - Os factores ambientais na concepción e deseño de instalacións oceánicas - Teoría de olas: Ecuacións matemáticas de parámetros de ola (Olas de Stokes e Cnoidales) - Modelización do estado de la mar: espectros matemáticos e estadísticos - Técnicas de predicción da altura de ola - Forzas producidas polas olas (Fórmula de Morrison, Froude-Krylov e Difracción tridimensional) - Forzas producidas polo vento e as correntes - Estudo dinámico das estruturas oceánicas. Modelos globais. Estructuras de gravidade. Elementos finitos. | N/A |

Planning

| Methodologies / tests | Competencies / Results | Teaching hours (in-person & virtual) | Student?s personal work hours | Total hours |
|--------------------------------|------------------------|--------------------------------------|-------------------------------|-------------|
| Objective test | A3 A7 | 4 | 20 | 24 |
| Guest lecture / keynote speech | A2 A3 A7 B2 B4 B5 | 20 | 20 | 40 |
| Problem solving | A7 | 18 | 16 | 34 |



| | | | | |
|---|--|---|---|---|
| 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 |
| Objective test | Proba escrita utilizada para a avaliación da aprendizaxe, cuxo trazo distintivo é a posibilidade de determinar se as respostas dadas son ou non correctas. A proba ten 2 partes: proba teórica e resolución de problemas |
| Guest lecture / keynote speech | Exposición oral complementada co uso de medios audiovisuais e a introdución de algunhas preguntas dirixidas aos estudantes, coa finalidade de transmitir coñecementos e facilitar a aprendizaxe |
| Problem solving | Proba escrita utilizada para a avaliación da aprendizaxe, cuxo trazo distintivo é a posibilidade de determinar se as respostas dadas son ou non correctas. A proba ten 2 partes: proba teórica e resolución de problemas |

| Personalized attention | |
|------------------------|---|
| Methodologies | Description |
| Problem solving | A resolución de problemas pode motivar o plantexamento de dúbidas polo alumno |

| Assessment | | | |
|----------------|------------------------|---|---------------|
| Methodologies | Competencies / Results | Description | Qualification |
| Objective test | A3 A7 | Exame escrito que cubre toda a asignatura. Parte teórica e parte problemas. E necesario superar ambas partes para aprobar | 100 |
| Others | | | |

| Assessment comments |
|---------------------|
| |

| Sources of information | |
|------------------------|--|
| Basic | <ul style="list-style-type: none"> - Myers, Holm and McAllister. (1969). Handbook for ocean and underwater engineering. SNAME - S.K. Chakrabarti (1987). Hydrodynamics of Offshore Structures. WIT Press (UK) - J.Harvey &&&&&&& J.Adamchak. (1969). Ocean Engineering Structures.. Massachusetts Institute of Technology. - Charles I. Bretschneider. (1969). Topics in Ocean Engineering.. Gulf - Various (). Principles of Naval Architecture.. EPS Ferrol - F.J.Del Moral (2000). Apuntes de Estructuras Oceánicas. EPS Ferrol - Abel Méndez (2002). Apuntes de Oceanografía física. EPS Ferrol |
| Complementary | |

| Recommendations |
|---|
| Subjects that it is recommended to have taken before |
| |
| Subjects that are recommended to be taken simultaneously |
| |
| Subjects that continue the syllabus |
| Dinámica de artefactos oceánicos/730496009 |
| 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.