| Teaching Guide | | | | |
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| Identifying Data | | | | 2020/21 |
| Subject (*) | Research Lab Internship | | Code | 730497242 |
| Study programme | Mestrado Universitario en Enxeñaría Industrial (plan 2018) | | | |
| Descriptors | | | | |
| Cycle | Period | Year | Type | Credits |
| Official Master's Degree | 1st four-month period | Second | Optional | 4.5 |
| Language | SpanishGalician | | | |
| Teaching method | Face-to-face | | | |
| Prerequisites | | | | |
| Department | Enxeñaría Naval e Industrial | | | |
| Coordinador | González Castro, Manuel Jesús | E-mail | manuel.gonzalez@udc.es | |
| Lecturers | González Castro, Manuel Jesús | E-mail | manuel.gonzalez@udc.es | |
| Web | https://moodle.udc.es/ | | | |
| General description | Realización de prácticas nun grupo de investigación universitario, colaborando o formándose en tarefas de investigación e desenvolvemento no ámbito da súa titulación. | | | |
| Contingency plan | 1. Modifications to the contents<br><br>2. Methodologies<br>*Teaching methodologies that are maintained<br><br>*Teaching methodologies that are modified<br><br>3. Mechanisms for personalized attention to students<br><br>4. Modifications in the evaluation<br><br>*Evaluation observations:<br><br>5. Modifications to the bibliography or webgraphy | | | |

| Study programme competences / results | |
|---|---|
| Code | Study programme competences / results |
| B1 | CB6 - Possess and understand knowledge that provides a basis or opportunity to be original in the development and / or application of ideas, often in a research context. |
| B2 | CB7 - That students know how to apply the knowledge acquired and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of ??study. |
| B3 | CB8 - That students are able to integrate knowledge and face the complexity of making judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments. |
| B4 | CB9 - That the students know how to communicate their conclusions -and the knowledge and ultimate reasons that sustain them- to specialized and non-specialized audiences in a clear and unambiguous way. |
| B5 | CB10 - That students have the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous. |
| B6 | G1 - Have adequate knowledge of the scientific and technological aspects in Industrial Engineering. |
| B13 | G8 - Apply the knowledge acquired and solve problems in new or unfamiliar environments within broader and multidisciplinary contexts. |
| B14 | G9 - Be able to integrate knowledge and face the complexity of making judgments based on information that, being incomplete or limited, includes reflections on social and ethical responsibilities linked to the application of their knowledge and judgments. |
| B15 | G10 - Knowing how to communicate the conclusions -and the knowledge and ultimate reasons that sustain them- to specialized and non-specialized publics in a clear and unambiguous way. |

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| B16 | G11 - Possess the learning skills that allow to continue studying in a self-directed or autonomous way. |
| C1 | ABET (a) - An ability to apply knowledge of mathematics, science, and engineering. |
| C3 | ABET (c) - An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. |
| C6 | ABET (f) - An understanding of professional and ethical responsibility. |
| C7 | ABET (g) - An ability to communicate effectively. |
| C8 | ABET (h) - The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context. |
| C9 | ABET (i) - A recognition of the need for, and an ability to engage in life-long learning. |
| C11 | ABET (k) - An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice. |

| Learning outcomes | | | |
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| Learning outcomes | Study programme competences / results | | |
| Coñecemento dun grupo de investigación real e capacidade para integrarse na estrutura do mesmo para desenvolver nela unha tarefa de investigación no ámbito da Enxeñería Industrial. | | BJ1<br>BJ2<br>BJ3<br>BJ4<br>BJ5<br>BJ6<br>BJ13<br>BJ14<br>BJ15<br>BJ16 | CJ1<br>CJ3<br>CJ6<br>CJ7<br>CJ8<br>CJ9<br>CJ11 |

| Contents | |
|---|---|
| Topic | Sub-topic |
| Introducción á investigación | Metodoloxía de investigación.<br>Fontes de información.<br>Producción científica.<br>Propiedade intelectual. |
| Traballo de investigación tutelado | Introducción.<br>Materiais e métodos.<br>Resultados.<br>Discusión.<br>Conclusións. |

| Planning | | | | |
|---|---|---|---|---|
| Methodologies / tests | Competencies / Results | Teaching hours (in-person & virtual) | Student?s personal work hours | Total hours |
| Supervised projects | B1 B2 B3 B4 B5 B13 B15 B14 B16 B6 C1 C3 C6 C7 C8 C9 C11 | 27 | 75 | 102 |
| Oral presentation | B1 B2 B3 B4 B5 B13 B15 B14 B16 B6 C1 C3 C6 C7 C8 C9 C11 | 0.5 | 4 | 4.5 |
| Guest lecture / keynote speech | B1 B4 B5 B15 B16 | 3 | 3 | 6 |
| Personalized attention | | 0 | | 0 |
| (*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students. | | | | |

| Methodologies | |
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| **Methodologies** | **Description** |
| Supervised projects | Realización dun traballo de investigación nun grupo de investigación universitario no ámbito da Enxeñería Industrial.<br>Ao inicio do curso os grupos de investigación ofertarán temas de traballo, indicando o tutor responsable.<br>Os estudantes elixirán o tema de traballo de entre os propostos polos grupos de investigación.<br>O tutor preparará un proxecto formativo que asinarán tutor, estudante e coordinador da materia.<br>Ao final do curso o tutor entregará un informe valorando o traballo do estudante. |
| Oral presentation | Ao final do curso o estudante entregará unha memoria do traballo realizado e realizará unha presentación do mesmo ante un tribunal evaluador. |
| Guest lecture / keynote speech | Seminario impartido ao principio do curso para expoñer os contidos do tema "Introducción á investigación". |

| Personalized attention | |
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| **Methodologies** | **Description** |
| Supervised projects | Os tutores dos traballos de investigación realizarán un seguimento do progreso dos estudantes nos horarios de titoría semanais. Poderanse realizar titorías presenciais ou non presenciais por medios telemáticos (correo electrónico, teléfono, Teams). |

| Assessment | | | |
|---|---|---|---|
| **Methodologies** | **Competencies / Results** | **Description** | **Qualification** |
| Supervised projects | B1 B2 B3 B4 B5 B13 B15 B14 B16 B6 C1 C3 C6 C7 C8 C9 C11 | Ao final do período lectivo do cuatrimestre o tutor entregará un informe avaliando o traballo do estudante. Este informe conterá unha cualificación nunha escala de 0 a 10, que terá unha ponderación do 50% da nota final da materia. | 50 |
| Oral presentation | B1 B2 B3 B4 B5 B13 B15 B14 B16 B6 C1 C3 C6 C7 C8 C9 C11 | Ao final do período lectivo do cuatrimestre o estudante entregará unha memoria do traballo realizado. O día do exame o estudante realizará unha presentación do traballo ante un tribunal avaliador, que será nomeado polo coordinador da materia. O tribunal avaliador cualificará a memoria e a presentación nunha escala de 0 a 10, e esa cualificación terá unha ponderación do 50% da nota final da materia. | 50 |

| Assessment comments |
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| Para aprobar a materia será imprescindible que o estudante:<br>Entregue a memoria en tempo e forma.Realice a presentación do traballo ante o tribunal avaliador.Aprobe a avaliación polo tutor e a avaliación polo tribunal avaliador (cualificación maior o igual a 5 sobre 10 en ambas avaliacións).Non se admite a dispensa académica. A avaliación en 2ª oportunidade será igual que en 1ª oportunidade. |

| Sources of information | |
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| **Basic** | |
| **Complementary** | |

| Recommendations |
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| **Subjects that it is recommended to have taken before** |
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| **Subjects that are recommended to be taken simultaneously** |
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| **Subjects that continue the syllabus** |

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| Other comments |
| A entrega dos traballos documentais que se realicen nesta materia realizarase a través de Moodle, en formato dixital sen necesidade  de imprimilos. |

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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.** |