



## Teaching Guide

| Teaching Guide           |                                                                                                                                                                                                                                                                                                                                                          |        |                           |           |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------------|-----------|
| Identifying Data         |                                                                                                                                                                                                                                                                                                                                                          |        |                           | 2021/22   |
| Subject (*)              | Optional Internship                                                                                                                                                                                                                                                                                                                                      |        | Code                      | 730497241 |
| 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               | Ciencias da Computación e Tecnoloxías da InformaciónEnxeñaría Naval e Industrial                                                                                                                                                                                                                                                                         |        |                           |           |
| Coordinador              | Díaz Casás, Vicente                                                                                                                                                                                                                                                                                                                                      | E-mail | vicente.diaz.casas@udc.es |           |
| Lecturers                | Bellas Bouza, Francisco Javier                                                                                                                                                                                                                                                                                                                           | E-mail | francisco.bellas@udc.es   |           |
|                          | Díaz Casás, Vicente                                                                                                                                                                                                                                                                                                                                      |        | vicente.diaz.casas@udc.es |           |
|                          | Díaz Díaz, Ana María                                                                                                                                                                                                                                                                                                                                     |        | ana.ddiaz@udc.es          |           |
|                          | González Castro, Manuel Jesús                                                                                                                                                                                                                                                                                                                            |        | manuel.gonzalez@udc.es    |           |
| Web                      | http://https://eps.udc.es/grados/documentacion-practicas-externas/                                                                                                                                                                                                                                                                                       |        |                           |           |
| General description      | O enlace do apartado anterior leva ó Manual de prácticas externas para estudos de grao e mestrado da Escola Politécnica Superior.                                                                                                                                                                                                                        |        |                           |           |
| 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                                                                                                                                                                                                                                               |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                                       |
| 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.                                                                                              |



|     |                                                                                                                                                                                                                                           |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. |
| C4  | ABET (d) - An ability to function on multidisciplinary teams.                                                                                                                                                                             |
| 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                                                                                                                                                                                                                                                       |                                                          |                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------|
| Learning outcomes                                                                                                                                                                                                                                                       | Study programme competences / results                    |                                                       |
| Coñecemento dunha empresa real e capacidade para integrarse na estrutura da mesma para desenrolar nela unha tarefa profesional do ámbito da enxeñería industrial. Ser capaz de realizar unha estancia nunha empresa realizando tarefas relacionadas coa súa titulación. | BJ2<br>BJ3<br>BJ4<br>BJ5<br>BJ13<br>BJ14<br>BJ15<br>BJ16 | CJ1<br>CJ3<br>CJ4<br>CJ6<br>CJ7<br>CJ8<br>CJ9<br>CJ11 |

| Contents   |                                                                                                                                                                                                                                                                   |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Topic      | Sub-topic                                                                                                                                                                                                                                                         |
| Tema único | Realización de prácticas en empresas, organizacións administrativas, económicas ou profesionais tanto dos sectores publicos coma privados, ou de calquer outra forma que se estableza, colaborando ou formándose en tarefas técnicas no ámbito da súa titulación. |

| Planning                                                                                                                        |                                                            |                                      |                               |             |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------|-------------------------------|-------------|
| Methodologies / tests                                                                                                           | Competencies / Results                                     | Teaching hours (in-person & virtual) | Student?s personal work hours | Total hours |
| Supervised projects                                                                                                             | B2 B3 B4 B5 B13 B15<br>B14 B16 C1 C3 C4<br>C6 C7 C8 C9 C11 | 111.5                                | 0                             | 111.5       |
| 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                                                                                                                                   |
| Supervised projects | O estudante realizará as prácticas nunha empresa ou institución na cal realizará un traballo relacionado coas competencias da súa titulación. |

| Personalized attention |             |
|------------------------|-------------|
| Methodologies          | Description |



|                     |                                                                                                                                               |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Supervised projects | As prácticas estarán tutorizadas por un titor profesional e por un titor académico, que serán os encargados de que se realicen correctamente. |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|

| Assessment          |                                                            |                                                                                                                                                                                             |               |
|---------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Methodologies       | Competencies / Results                                     | Description                                                                                                                                                                                 | Qualification |
| Supervised projects | B2 B3 B4 B5 B13 B15<br>B14 B16 C1 C3 C4<br>C6 C7 C8 C9 C11 | Unha vez rematadas as prácticas o/a estudante e o/a titor/a profesional deberán presentar os seus informes ó titor/a académico, sendo esta última persona a que porá a nota do/a estudante. | 100           |

| Assessment comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Atendendo ao indicado no manual de prácticas externas da EPS:Para ser avaliado/a, o/ a alumno/a deberá ter subido ao Moodle da materia de prácticas correspondente o proxecto formativo, o informe profesional e a memoria final de prácticas con anterioridade ao inicio do período de avaliación de dita oportunidade.Abrirase esta tarefa para subir dita documentación, en caso de dúbida o que exista algún problema contacte no correo do coordinador de prácticas externas:empresa.eps@udc.esNon se admite a dispensa académica. A avaliación en 2ª oportunidade e na convocatoria adiantada (decembro) será igual que en 1ª oportunidade.</p> <p>A entrega dos traballos documentais que se realicen nesta materia:</p> <ul style="list-style-type: none"><li>· Solicitase en formato virtual e/ou soporte informático.</li><li>· Realizase a través de Moodle, en formato dixital sen necesidade de imprimilos</li></ul> |

| Sources of information |  |
|------------------------|--|
| Basic                  |  |
| 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                                           |
|                                                          |

(\*)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.