



## Teaching Guide

| Teaching Guide         |                                       |                    |          |           |
|------------------------|---------------------------------------|--------------------|----------|-----------|
| Identifying Data       |                                       |                    |          | 2019/20   |
| Subject (*)            | Hidroloxía Subterránea                |                    | Code     | 632011634 |
| Study programme        | Enxeñeiro de Camiños, Canais e Portos |                    |          |           |
| Descriptors            |                                       |                    |          |           |
| Cycle                  | Period                                | Year               | Type     | Credits   |
| First and Second Cycle | 1st four-month period                 | Third Fourth Fifth | Optional | 4         |
| Language               | Spanish                               |                    |          |           |
| Teaching method        | Face-to-face                          |                    |          |           |
| Prerequisites          |                                       |                    |          |           |
| Department             | Enxeñaría CivilMatemáticas            |                    |          |           |
| Coordinador            |                                       | E-mail             |          |           |
| Lecturers              |                                       | E-mail             |          |           |
| Web                    |                                       |                    |          |           |
| General description    |                                       |                    |          |           |

## Study programme competences

|      |                             |
|------|-----------------------------|
| Code | Study programme competences |
|------|-----------------------------|

## Learning outcomes

| Learning outcomes                                                                                                                                                                                       | Study programme competences |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--|--|
| Introducir os conceptos fundamentais sobre o sistema eléctrico de potencia: xeneración de enerxía, red de transporte, reparto e distribución, así como sobre os tipos de líneas e conductores.          |                             |  |  |
| Cofecer os distintos tipos de xeneración de enerxía eléctrica en España: a enerxía térmica convencional, a nuclear, a hidráulica e os distintos tipos de renovables.                                    |                             |  |  |
| Comparar os distintos tipos de enerxía dende o punto de vista do custo da construción, da operación e mantemento, do combustible necesario, dos residuos xenerados e das actividades de desmantelamento |                             |  |  |
| Cofecer a normativa sobre baixa e alta tensión.                                                                                                                                                         |                             |  |  |
| Realizar cálculos eléctricos e enerxéticos sinxelos.                                                                                                                                                    |                             |  |  |

## Contents

| Topic | Sub-topic |
|-------|-----------|
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## Planning

| Methodologies / tests  | Competencies | Ordinary class hours | Student?s personal work hours | Total hours |
|------------------------|--------------|----------------------|-------------------------------|-------------|
| Problem solving        |              | 1                    | 20                            | 21          |
| Field trip             |              | 1                    | 5                             | 6           |
| Collaborative learning |              | 59                   | 1                             | 60          |
| Supervised projects    |              | 2                    | 10                            | 12          |



|                                                                                                                                 |  |   |   |   |
|---------------------------------------------------------------------------------------------------------------------------------|--|---|---|---|
| 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 |
| Problem solving        |             |
| Field trip             |             |
| Collaborative learning |             |
| Supervised projects    |             |

| Personalized attention |             |
|------------------------|-------------|
| Methodologies          | Description |
| Supervised projects    |             |
| Problem solving        |             |
| Field trip             |             |
| Collaborative learning |             |

| Assessment             |              |             |               |
|------------------------|--------------|-------------|---------------|
| Methodologies          | Competencies | Description | Qualification |
| Supervised projects    |              |             | 40            |
| Problem solving        |              |             | 30            |
| Field trip             |              |             | 10            |
| Collaborative learning |              |             | 20            |
| Others                 |              |             |               |

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

| Sources of information |                                                                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Basic                  | - Fetter (1980). Applied Hydrogeology. Ch. E. Merrills Pub.<br>- de Marsily, Ghislain. (1987). Quantitative Hydrogeology. Academic Press. San Diego |
| Complementary          |                                                                                                                                                     |

| Recommendations                                                             |
|-----------------------------------------------------------------------------|
| Subjects that it is recommended to have taken before                        |
| Hidráulica e Hidroloxía I/632011204<br>Hidráulica e Hidroloxía II/632011308 |
| 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.