

## GENERAL INFORMATION

| Course information 1 |  |
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| <b>Name</b>          | Internship                                   |
| <b>Code</b>          | INT  |
| <b>Degree</b>        | Master in the Electric Power Industry (MEPI) |
| <b>Year</b>          | 1 <sup>st</sup>                              |
| <b>Semester</b>      | Annual                                       |
| <b>ECTS credits</b>  | 6 ECTS                                       |
| <b>Type</b>          | Elective                                     |
| <b>Department</b>    | Electrical Engineering                       |
| <b>Area</b>          | Power Systems                                |
| <b>Coordinator</b>   | Luis Olmos Camacho                           |

| Instructor          |   |
|---------------------|---|
| <b>Name</b>         | Luis Olmos Camacho                      |
| <b>Department</b>   | Electrical Engineering                  |
| <b>Area</b>         | Regulation and Economics of Energy      |
| <b>Office</b>       | D-103 – IIT, Santa Cruz de Marcenado 26 |
| <b>e-mail</b>       | olmos@comillas.edu                      |
| <b>Phone</b>        | (+34) 91 540 62 60                      |
| <b>Office hours</b> | Arrange an appointment through email.   |

## DETAILED INFORMATION

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| <b>Contextualization of the course</b> |
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| <b>Contribution to the professional profile of the degree</b> |
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The objective of the Internship is for the student to apply the skills acquired throughout the masters program to real tasks to be carried in an entity of the power sector, and to obtain some experience of working in a professional environment.

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| <b>Prerequisites</b> |
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None prerequisites apply.

## CONTENTS

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| <b>Contents</b> |
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| <b>Theory</b><br>(Laboratory sessions marked in red) |
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| <b>Chapter 1. Collection of proposals and allocation of internships to students</b> |
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- 1.1. Collection and refinement of proposals for internships
- 1.2. Allocation of internships to students

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| <b>Chapter 2. Monitoring of the progress with the internship work</b> |
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- 2.1. Interaction with internship supervisor

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| <b>Chapter 3. Reporting on the work carried out</b> |
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- 3.1. Report by student
- 3.2. Report by supervisor

## Competences and Learning Outcomes

### Competences

#### General Competences / Basic Competences

- CG1. Haber adquirido conocimientos avanzados y demostrado, en un contexto de investigación científica y tecnológica o altamente especializado, una comprensión detallada y fundamentada de los aspectos teóricos y prácticos y de la metodología de trabajo en uno o más campos de estudio.
- CG2. Saber aplicar e integrar sus conocimientos, la comprensión de estos, su fundamentación científica y sus capacidades de resolución de problemas en entornos nuevos y definidos de forma imprecisa, incluyendo contextos de carácter multidisciplinar tanto investigadores como profesionales altamente especializados.
- CG6. Haber desarrollado la autonomía suficiente para participar en proyectos de investigación y colaboraciones científicas o tecnológicas dentro de su ámbito temático, en contextos interdisciplinarios y, en su caso, con una alta componente de transferencia del conocimiento.
- CG7. Ser capaces de asumir la responsabilidad de su propio desarrollo profesional y de su especialización en uno o más campos de estudio.

#### Specific Competences

- INT1. Demostrar la capacidad de desarrollar una actividad profesional en el seno de alguna de las empresas colaboradoras con el Título bajo la supervisión de un profesional del sector.

### Learning outcomes

Upon the completion of the Master's Internship, the students will have to be able to:

- LO1. Become acquainted with work in a professional environment, acquiring and applying skills related to team work, personal accountability, and discipline of work in such an entity.
- LO2. Undertake projects in a professional environment.

## TEACHING METHODOLOGY

### General methodological aspects

The internship work is to be carried out without a company cooperating with the program and should be supervised by an experienced professional within the electricity sector.

Entities within the electricity sector shall offer some internships at the beginning of the academic year. These shall be allocated by the thesis coordinator within the University. The coordinator shall put students in contact with potential internship supervisors in companies according to their academic and professional preferences and profile. The coordinator shall monitor the quality of tasks performed by students within companies and shall be responsible for the final assessment of the internship work.

The individual work developed by the student is essential and it should cover the activities that follow.

| Internship (180 hours)  | Competences              |
|---|--------------------------|
| ▪ <b>Regular meetings with internship coordinator (4 hours)</b>   | CG1, CG6, CG7            |
| ▪ <b>Identification of a topic (8 hours)</b>  | CG6, CG7                 |
| ▪ <b>Work within a professional team (160 hours):</b> becoming part of a team undertaking some activities within a department of an entity in the electricity sector, while the student's work is monitored by the internship supervisor. | CG1, CG2, CG6, CG7, INT1 |
| ▪ <b>Drafting of report (8 hours)</b>   | CG1, CG2                 |

## ASSESSMENT AND GRADING CRITERIA

| Assessment activities                        | Grading criteria  | Weight |
|--|---|--------|
| Internship work (assessed by the supervisor) | <ul style="list-style-type: none"> <li>▪ Performance of the student as a member of the professional team</li> </ul>   | 60%    |
| Drafting the internship report               | <ul style="list-style-type: none"> <li>▪ Description on the company where he has undertaken the internship</li> <li>▪ Tasks accomplished</li> <li>▪ Conclusions of the work carried out</li> <li>▪ Personal thoughts and proposals for improvement</li> </ul> | 40%    |

## GRADING AND COURSE RULES

### Grading

The internship coordinator within Pontifical Comillas University shall be responsible of grading the internship work carried out by the student, acting as coordinator of the corresponding subject.

### Course rules

Students who commit an irregularity in any graded activity will receive a mark of zero in the activity and disciplinary procedure will follow (cf. Article 168 of the General Regulations (Reglamento General) of Comillas Pontifical University).

## WORK PLAN AND SCHEDULE<sup>1</sup>

| In and out-of-class activities                    | Date/Periodicity                                    | Deadline      |
|---|---|---------------|
| Presentation and discussion of planning and rules | Week 1  |               |
| Presentation of possible topics                   | From week 4 to week 15                              |               |
| Selection of topics                               |   | Until week 18 |
| Monitoring of work progress                       | Throughout the academic year                        |               |
| Internship work                                   | Throughout the academic year                        |               |
| Submission of reports                             | At the end of the academic year (beginning of June) |               |

## STUDENT WORK-TIME SUMMARY

<sup>1</sup> A detailed work plan of the subject can be found in the course summary sheet (see following page). Nevertheless, this schedule is tentative and may vary to accommodate the rhythm of the class.

| <b>IN-CLASS HOURS</b>                               |                                       |                           |
|---|---------------------------------------|---------------------------|
| <b>Regular meetings with internship coordinator</b> |                                       |                           |
| 4   |                                       |                           |
| <b>OUT-OF-CLASS HOURS</b>                           |                                       |                           |
| <b>Identification of topic</b>                      | <b>Development of internship work</b> | <b>Drafting of report</b> |
| 8   | 160                                   | 8                         |
| <b>ECTS credits:</b>                                |                                       | <b>6 (180 hours)</b>      |