

820328 - RSE - Energy Sector Regulation

Coordinating unit: 295 - EEBE - Barcelona East School of Engineering
 Teaching unit: 709 - EE - Department of Electrical Engineering
 Academic year: 2019
 Degree: BACHELOR'S DEGREE IN ENERGY ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
 BACHELOR'S DEGREE IN ENERGY ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
 ECTS credits: 6 Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: JORGE DE LA HOZ CASAS
 Others: Primer quadrimestre:
 JORGE DE LA HOZ CASAS - M11, M12

Degree competences to which the subject contributes

Specific:

CEENE-16. Formulate energy balances and identify losses.

CEENE-01. Knowledge of energy supply procurement systems.

Transversal:

1. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.

Teaching methodology

The teaching methodology used is a mixed methodology based on the application of PBL methodology together with a theoretical introduction. This structure allows students contextualizing the work to be developed.

Learning objectives of the subject

The aim of the subject is to provide the basic knowledge of how the Spanish energy sectors are structured and managed, as well as a perspective on the regulatory framework for major activities of the various energy sectors.

Study load

Total learning time: 150h	Hours large group:	30h	20.00%
	Hours medium group:	30h	20.00%
	Hours small group:	0h	0.00%
	Guided activities:	0h	0.00%
	Self study:	90h	60.00%

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Content

<p>(ENG) Introduction to Electricity Sector</p>	<p>Learning time: 4h Theory classes: 4h Self study : 0h</p>
<p>Description: * *</p> <p>Specific objectives: Energy targets Sector structure Economic framework Administrative control</p>	
<p>(ENG) Power generation I</p>	<p>Learning time: 4h Theory classes: 4h Self study : 0h</p>
<p>Description: * *</p> <p>Specific objectives: Power generation as liberalized activity SES operation and economic mechanisms Power generation characteristics and economic consequences</p>	
<p>(ENG) Power generation II</p>	<p>Learning time: 4h Theory classes: 4h Self study : 0h</p>
<p>Description: * *</p> <p>Specific objectives: Renewable energy policies and applied legal frameworks Control deficiencies and renewable energy promotion Renewable energy and retroactivity New renewable energy legal framework</p>	

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(ENG) Regulated activities	Learning time: 4h Theory classes: 4h Self study : 0h
<p>Description:</p> <ul style="list-style-type: none"> * * <p>Specific objectives:</p> <ul style="list-style-type: none"> Legal framework and objectives Transmission and distribution activities The system operator The operator and the technical management 	
(ENG) Electricity markets	Learning time: 4h Theory classes: 4h Self study : 0h
<p>Description:</p> <ul style="list-style-type: none"> * * <p>Specific objectives:</p> <ul style="list-style-type: none"> Legal framework and objectives Whole sale market Retail market 	
(ENG) Introduction to the Natural Gas Sector	Learning time: 4h Theory classes: 4h Self study : 0h
<p>Description:</p> <ul style="list-style-type: none"> * * <p>Specific objectives:</p> <ul style="list-style-type: none"> Legal framework Infrastructure and management of the system The regulatory body Economic framework 	

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PBL_I	Learning time: 63h 30m Theory classes: 11h Laboratory classes: 7h 30m Self study : 45h
Description: * *	
PBL_II	Learning time: 62h 30m Theory classes: 10h Laboratory classes: 7h 30m Self study : 45h
Description: * *	

Qualification system

The evaluation will be conducted by carrying out different projects (and / or tests) related to the contents of the subject. The subject does not possess a reassessment process.

Bibliography

Basic:

Pérez-Arriaga, Ignacio J. Regulation of the Power Sector [on line]. 2a. London: Springer London, 2013 Available on: <<http://dx.doi.org/10.1007/978-1-4471-5034-3>>. ISBN 9781447150343.