



Teaching Guide				
Identifying Data				2018/19
Subject (*)	Energy Politics and Investments Analysis	Code	770523004	
Study programme	Mestrado Universitario en Eficiencia e Aproveitamento Enerxético			
Descriptors				
Cycle	Period	Year	Type	Credits
Official Master's Degree	1st four-month period	First	Obligatory	6
Language	SpanishGalician			
Teaching method	Face-to-face			
Prerequisites				
Department	EconomíaEmpresaEnxeñaría Naval e Industrial			
Coordinador	Iglesias Gomez, Guillermo	E-mail	guillermo.iglesias@udc.es	
Lecturers	Abeal Vazquez, Jose Pablo García Álvarez, María Teresa Iglesias Gomez, Guillermo Llano Paz, Fernando de	E-mail	j.abeal@udc.es teresa.galvarez@udc.es guillermo.iglesias@udc.es fernando.de.llano.paz@udc.es	
Web	moodle.udc.es/			
General description	The subject will begin giving a panoramic vision of the outline of the energy sector, making special emphasis in specific energy regulation and energy markets. In the second part, energy project evaluation will be exposed, both in terms of theoretical perspective and practical.			

Study programme competences / results	
Code	Study programme competences / results
A1	Análise e aplicación de metodoloxías e normativa para unha xestión eficiente da enerxía.
A2	Análisis e implantación de medidas de ahorro y eficiencia energética en los sectores industrial, terciario y residencial.
A4	Análisis de consumos energéticos y de su costes asociados.
B5	Que los estudiantes sepan comunicar sus conclusiones y los conocimientos y razones últimas que las sustentan a públicos especializados y no especializados de un modo claro y sin ambigüedades.
B7	Desarrollar las capacidades de análisis y síntesis; fomentar la discusión crítica, la defensa de argumentos y la toma de conclusiones.
B8	Incorporar el vocabulario propio para expresarse con precisión en una comunicación efectiva, tanto escrita como oral.
B15	Conocer la legislación vigente y reglamentación aplicable al sector de las energías renovables y de la eficiencia energética.
B16	Valorar la aplicación de tecnologías emergentes en el ámbito de la energía y el medio ambiente.
C2	Fomentar la sensibilidad hacia temas medioambientales.
C5	Adquirir la capacidad para elaborar un trabajo multidisciplinar
C6	Dominar la expresión y la comprensión de un idioma extranjero.

Learning outcomes			
Learning outcomes	Study programme competences / results		
To understand the energy sector context through the analysis of the energy policy, the relation with the environment and the role of renewable energy	AJ1 AJ2	BC5 BC7 BC8 BC15 BC16	CC2 CC5
To analyze the behavior and the operation of the main energy markets: natural gas, oil and electricity.	AJ4	BC5 BC7 BC8 BC16	



To deepen in the financial approach applied to the analysis and assessment of energy projects within the scope of renewable energy sources.	AJ4	BC5 BC7 BC8 BC15 BC16	CC5 CC6
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Contents	
Topic	Sub-topic
Section 1: The general context of energy problem	Introduction: Energy Sector Energy Policy Energy and Environment Renewable Energy
Section 2: Energy Markets	Introduction Oil and Gas Electricity
Section 3: Project evaluation in energy sector	Introduction to basic Financial concepts: Project evaluation Selection of energy assets for power generation: Portfolio theory and Scenarios. Project evaluation of Renewable Energy Sources Examples of project evaluation of Renewable Energy Sources Project Finance

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours
Case study	A1 A2 A4 B5 B7 B8 B15 B16 C5 C6	26	84	110
Objective test	A1 A4 B8 B15 B16	1	2	3
Guest lecture / keynote speech	B8 B15 B16 C2	16	16	32
Personalized attention		5	0	5

(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies	
Methodologies	Description
Case study	It will be proposed practical cases, that can involve the use of databases, additional bibliography or ICT, in each of the topics to improve the capacity of analysis and to value the development of the competencies which were pointed out.
Objective test	It will be a test-exam about basic topics of the subject.
Guest lecture / keynote speech	This resource is employed by the teachers in theory sessions in order to explain conceptual issues.

Personalized attention	
Methodologies	Description
Guest lecture / keynote speech Case study Objective test	Through individual, or group tutoring, special difficulty issues will be discussed. Also partial-registration cases or exemption of assistance will be dealt with a specific programming agreed with the coordinator.

Assessment			
Methodologies	Competencies / Results	Description	Qualification



Case study	A1 A2 A4 B5 B7 B8 B15 B16 C5 C6	The continuous evaluation will be established through the analysis of cases presented by teaching staff to value the acquisition of the competencies.	70
Objective test	A1 A4 B8 B15 B16	Final exam about basic conceptual issues of the subject. It shall include as a minimum a test-exam. It will be developed in the official period of examinations.	30

Assessment comments

The evaluation will follow the same criteria for the first opportunity as for the second. In the situations of partial-time registration or assistance exemption, it will be established a special program and a system of delivery with the coordinator for the activities which cannot be realized in the classroom.

Sources of information

Basic	<ul style="list-style-type: none"> - ECOFYS (2014). Design features of support schemes for renewable electricity. European Commission - Energía y Sociedad (2016). Manual de la Energía. - EWEA (2009). The Economics of Wind Energy. EWEA - Figueroa, E. (2006). El comportamiento económico del mercado de petróleo. Ediciones Díaz de Santos. Madrid - IRENA (2015). Renewable power generation costs in 2014. IRENA - Rendón, J. J. G.; Mesa, J. M. (2015). Precios y desempeño regulatorio en el pool eléctrico español. Documentos de Trabajo Economía y Finanzas-Centro de Investigación Económicas y Financieras, nº 15-1 - Yescombé, E.R. (2014). Principles of Project Finance. Academic Press <p>LOCALIZACIÓN EN INTERNET DALGUNHAS REFERENCIAS: Energía y Sociedad (2016): Manual de la Energía, disponible en: http://www.energiaysociedad.es/tipo/manual-de-la-energia</p> <p>ECOFYS (2014): Design features of support schemes for renewable electricity, disponible en: https://ec.europa.eu/energy/sites/ener/files/documents/2014_design_features_of_support_schemes.pdf</p> <p>EWEA (2009): The Economics of Wind Energy, disponible en: http://www.ewea.org/fileadmin/files/library/publications/reports/Economics_of_Wind_Energy.pdf</p> <p>IRENA (2015): Renewable power Generation Costs in 2014, disponible en: http://www.irena.org/documentdownloads/publications/irena_re_power_costs_2014_report.pdf</p> <p>WEBS de institucións: Comisión Nacional de los Mercados y la Competencia (CNMC): Energía. https://www.cnmc.es/es-es/energ%C3%ADa/sobreenerg%C3%ADa.aspx</p> <p>Energía y sociedad. http://www.energiaysociedad.es/European Commission Energy. http://ec.europa.eu/energy/European Union by topic: Energy. http://europa.eu/pol/ener/index_en.htm</p> <p>Figueroa, E. (2006). El comportamiento económico del mercado de petróleo. Ediciones Díaz de Santos. Madrid</p> <p>Ministerio de Industria, Energía y Turismo: Energía. http://www.minetur.gob.es/energia/es-ES/Paginas/index.aspx</p> <p>OMIE. http://www.omie.es/inicio</p>
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.