



**Teaching Guide**

Identifying Data					2023/24
<b>Subject (*)</b>	Energy Politics and Investments Analysis	<b>Code</b>	730547004		
<b>Study programme</b>	Máster Universitario en Eficiencia Enerxética e Sustentabilidade				
Descriptors					
<b>Cycle</b>	<b>Period</b>	<b>Year</b>	<b>Type</b>	<b>Credits</b>	
Official Master's Degree	1st four-month period	First	Obligatory	4.5	
<b>Language</b>	SpanishGalician				
<b>Teaching method</b>	Face-to-face				
<b>Prerequisites</b>					
<b>Department</b>	EconomíaEmpresa				
<b>Coordinador</b>	Iglesias Gomez, Guillermo	<b>E-mail</b>	guillermo.iglesias@udc.es		
<b>Lecturers</b>	Iglesias Gomez, Guillermo Llano Paz, Fernando de	<b>E-mail</b>	guillermo.iglesias@udc.es fernando.de.llano.paz@udc.es		
<b>Web</b>	<a href="http://campusvirtual.udc.gal/login/index.php">http://campusvirtual.udc.gal/login/index.php</a>				
<b>General description</b>	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	CE1 - Apply methodologies and regulations for efficient energy management
A2	CE2 - Analyze and implement energy saving and efficiency measures in the industrial, tertiary and residential sectors
A4	CE4 - Apply data analysis methods for the creation of efficient energy systems
A5	CE5 - Analyze energy consumption and its associated costs
B4	CB9 - That students know how to communicate their conclusions and the knowledge and ultimate reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way
B7	CG2 - Develop analysis and synthesis skills; encourage critical discussion, defending arguments, and drawing conclusions
B8	CG3 - Incorporate their own vocabulary to express themselves accurately in effective communication, both written and oral
B15	CG10 - Know the current legislation and regulations applicable to the renewable energy and energy efficiency sector
B16	CG11 - Evaluate the application of emerging technologies in the field of energy and the environment
C2	CT2 - Master the oral and written expression and comprehension of a foreign language
C5	CT5 - Understand the importance of entrepreneurial culture and know the means available to entrepreneurs
C6	CT6 - Gain life skills and healthy habits, routines, and lifestyles
C9	CT9 - Have the ability to manage time and resources: develop plans, prioritize activities, identify criticism, set deadlines and meet them

**Learning outcomes**

Learning outcomes	Study programme competences / results		
Analyze the different economic-financial conditions and associated risk scenarios in a renewable energy project	AC1 AC2 AC4 AC5	BC7 BC8 BC15	CC2 CC5 CC6 CC9
Understand the scope of a financial operation and the meaning of the three variables involved: capital, time and interest	AC1 AC4	BC4 BC7 BC8 BC16	CC5 CC9



Identify the fundamental aspects in an investment in order to find the optimal structure that allows the financing of a project	AC1	BC4	CC5
	AC4	BC7	CC9
		BC8	
		BC16	

Contents	
Topic	Sub-topic
Section 1: The general context of energy problem	Introduction: Energy Sector Energy policy Energy markets Energy and environment Renewable energy
Section 2: 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 Project Finance

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours
Guest lecture / keynote speech	A2 A4 A5 B8 B16 C5 C6	9	18	27
Case study	A1 A2 A4 A5 B4 B7 B8 B15 B16 C2 C5 C6 C9	21	52.5	73.5
Objective test	A1 A4 A5 B4 B7 B8 B15 B16	1	8	9
Personalized attention		3	0	3

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

Methodologies	
Methodologies	Description
Guest lecture / keynote speech	This resource is employed by the teachers in theory sessions in order to explain conceptual issues.
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 and exercises about basic topics of the subject.

Personalized attention	
Methodologies	Description
Case study	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 A5 B4 B7 B8 B15 B16 C2 C5 C6 C9	The continuous evaluation will be established through the analysis of cases presented by teaching staff to value the acquisition of the competencies.	60



Objective test	A1 A4 A5 B4 B7 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.	40
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### Assessment comments

The evaluation will follow the same criteria for the first opportunity, for the second opportunity and for the extraordinary opportunity.

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. If necessary, due to exceptional circumstances, the objective test at the second opportunity may be weighted 100% of the grade.

The documentary work to be carried out in this subject shall be requested virtually and/or in digital form.

Fraudulent performance of tests or assessment activities, such as plagiarism, will directly lead to a mark of '0' in the subject of the corresponding exam session, thus invalidating any marks obtained in the other assessment activities.

### Sources of information

<b>Basic</b>	<p>ECOFYS (2014). Design features of support schemes for renewable electricity. European Commission</p> <p>Energía y Sociedad (2016). Manual de la Energía.</p> <p>EWEA (2009). The Economics of Wind Energy. EWEA</p> <p>Figuroa, E. (2006). El comportamiento económico del mercado de petróleo. Ediciones Díaz de Santos. Madrid</p> <p>IRENA (2015). Renewable power generation costs in 2014. IRENA</p> <p>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</p> <p>Yescombé, E.R. (2014). Principles of Project Finance. Academic Press</p> <p>Localización en internete dalgunhas referencias:</p> <p>Energía y Sociedad (2016): Manual de la Energía, dispoñible en:  <a href="http://www.energiaysociedad.es/tipo/manual-de-la-energia">http://www.energiaysociedad.es/tipo/manual-de-la-energia</a></p> <p>ECOFYS (2014): Design features of support schemes for renewable electricity, dispoñible en:  <a href="https://ec.europa.eu/energy/sites/ener/files/documents/2014_design_features_of_support_schemes.pdf">https://ec.europa.eu/energy/sites/ener/files/documents/2014_design_features_of_support_schemes.pdf</a></p> <p>EWEA (2009): The Economics of Wind Energy, dispoñible en:  <a href="http://www.ewea.org/fileadmin/files/library/publications/reports/Economics_of_Wind_Energy.pdf">http://www.ewea.org/fileadmin/files/library/publications/reports/Economics_of_Wind_Energy.pdf</a></p> <p>IRENA (2015): Renewable power Generation Costs in 2014, dispoñible en:  <a href="http://www.irena.org/documentdownloads/publications/irena_re_power_costs_2014_report.pdf">http://www.irena.org/documentdownloads/publications/irena_re_power_costs_2014_report.pdf</a></p> <p>WEBS de institucións:</p> <p>Comisión Nacional de los Mercados y la Competencia (CNMC): Energía.  <a href="https://www.cnmc.es/es-es/energ%C3%ADa/sobreenerg%C3%ADa.aspx">https://www.cnmc.es/es-es/energ%C3%ADa/sobreenerg%C3%ADa.aspx</a></p> <p>Energía y sociedad.  <a href="http://www.energiaysociedad.es/">http://www.energiaysociedad.es/</a></p> <p>European Commission Energy. <a href="http://ec.europa.eu/energy/">http://ec.europa.eu/energy/</a></p> <p>European Union by topic: Energy. <a href="http://europa.eu/pol/ener/index_en.htm">http://europa.eu/pol/ener/index_en.htm</a></p> <p>Figuroa, E. (2006). El comportamiento económico del mercado de petróleo. Ediciones Díaz de Santos. Madrid</p> <p>Ministerio de Industria, Energía y Turismo: Energía.  <a href="http://www.minetur.gob.es/energia/es-ES/Paginas/index.aspx">http://www.minetur.gob.es/energia/es-ES/Paginas/index.aspx</a></p> <p>OMIE. <a href="http://www.omie.es/inicio">http://www.omie.es/inicio</a></p>
<b>Complementary</b>	

### 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.