

320171 - ECC - Energy and Climate Change

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
 Teaching unit: 709 - EE - Department of Electrical Engineering
 Academic year: 2019
 Degree: BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
 ECTS credits: 6 Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: Juan Martínez Magaña

Degree competences to which the subject contributes

Transversal:

1. SELF-DIRECTED LEARNING - Level 2: Completing set tasks based on the guidelines set by lecturers. Devoting the time needed to complete each task, including personal contributions and expanding on the recommended information sources.
2. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 2. Applying sustainability criteria and professional codes of conduct in the design and assessment of technological solutions.
3. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.

Learning objectives of the subject

Study load

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|---------------------------|---------------------|-----|--------|
| 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

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| (ENG) TEMA 1 . BALANÇOS ENERGETICS | Learning time: 20h Theory classes: 4h Practical classes: 4h Self study : 12h |
| (ENG) TEMA 2 . PROSPECTIVA ENERGETICA | Learning time: 26h Theory classes: 8h Practical classes: 6h Self study : 12h |
| (ENG) TEMA 3 . CLIMA I CANVI CLIMÀTIC | Learning time: 132h Theory classes: 8h Practical classes: 4h Self study : 120h |
| (ENG) TEMA 4 . MITIGACIÓ DEL CC | Learning time: 35h Theory classes: 7h Practical classes: 7h Self study : 21h |
| (ENG) TEMA 5 . SOSTENIBILIDAD ENERGETICA | Learning time: 40h Theory classes: 6h Practical classes: 10h Self study : 24h |

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Bibliography

Basic:

Mackay, David J. C. Sustainable energy. Cambridge: UIT, 2008. ISBN 9781906860011.

El sistema eléctrico español: informe Madrid: Red Eléctrica de España, 2002-.

La energía en España [on line]. Madrid: Ministerio de Industria, Energía y Turismo, 2001- [Consultation: 17/09/2012]. Available on: <<http://www.minetur.gob.es/energia/balances/Balances/Paginas/Balances.aspx>>.

International energy outlook [on line]. Washington: U.S. Energy Information Administration, 1995- [Consultation: 17/09/2012]. Available on: <<http://www.eia.gov/forecasts/ieo/>>.

Key world energy statistics [on line]. Paris: International Energy Agency, 1997- [Consultation: 17/09/2012]. Available on: <<http://www.iea.org/publications/freepublications/publication/name,31287,en.html>>.

Statistical review of world energy [on line]. London: BP, 2012 Available on: <bp.com/statisticalreview>.

Others resources: