240IEN33 - Extended Thermal Machines

Coordinating unit: 240 - ETSEIB - Barcelona School of Industrial Engineering
Teaching unit: 724 - MMT - Department of Heat Engines
Academic year: 2017
Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2014). (Teaching unit Optional)
MASTER'S DEGREE IN AUTOMOTIVE ENGINEERING (Syllabus 2012). (Teaching unit Optional)
ECTS credits: 4,5
Teaching languages: Spanish

Teaching staff
Coordinator: ERNESTO GUTIERREZ GONZALEZ

Degree competences to which the subject contributes

Specific:
CEMEI06. Knowledge and abilities which allow to understand, analyse, operate and manage the different sources of energy.
CEEEENE5. The student will acquire the capacity to operate a power plant, regarding to the thermal machines which integrate it, considering the elements or parts making it up, its specific functions and its optimal conditions of operation.
CEMEI05. Knowledge and ability for the design and analysis of thermal machines and engines, hydraulic machines and heating and cooling plants.
CEAU12. The student will be able to analyze the economic viability of a project in automotive engineering.

Transversal:
CT3. TEAMWORK: Being able to work in an interdisciplinary team, whether as a member or as a leader, with the aim of contributing to projects pragmatically and responsibly and making commitments in view of the resources that are available.

Learning objectives of the subject

The objectives can be seen in Spanish description

Study load

<table>
<thead>
<tr>
<th>Total learning time: 112h 30m</th>
<th>Hours large group: 27h</th>
<th>24.00%</th>
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<tbody>
<tr>
<td>Hours small group: 13h 30m</td>
<td>12.00%</td>
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<tr>
<td>Guided activities: 0h</td>
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<tr>
<td>Self study: 72h</td>
<td>64.00%</td>
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Content

<table>
<thead>
<tr>
<th>title english</th>
<th>Learning time: 40h 30m</th>
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<tbody>
<tr>
<td></td>
<td>Practical classes: 40h 30m</td>
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| Description: content english |

Bibliography

Basic:

Complementary: