Course guide
220281 - 220281 - Refrigeration and Air Conditioning

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 724 - MMT - Department of Heat Engines.

Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2013). (Optional subject).

Academic year: 2022 ECTS Credits: 5.0 Languages: Catalan

LECTURER

Coordinating lecturer: MANUEL QUERA MIRO

Others: OSCAR RIBE TORIJANO

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. Knowledge and ability to analyze the processes of heat transfer that allows the design and calculation of equipment and thermal applications.
2. Knowledge and capability to design and calculate equipment and refrigeration facilities (refrigeration and air conditioning).
3. Knowledge and ability to analyze, design, calculation and application of power cycles and alternative heat engines.
4. Knowledge about technology and applications of unconventional alternatives energy (geothermal energy, solar energy and fuel cells).

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

1

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours small group</td>
<td>15.0</td>
<td>12.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>30.0</td>
<td>24.00</td>
</tr>
<tr>
<td>Self study</td>
<td>80.0</td>
<td>64.00</td>
</tr>
</tbody>
</table>

Total learning time: 125 h
## CONTENTS

### Item 1: Refrigeration

**Description:**

1. -

**Full-or-part-time:** 62h 30m  
Theory classes: 15h  
Laboratory classes: 7h 30m  
Self study: 40h

### Item 2: Air Conditioning

**Description:**

1. -

**Full-or-part-time:** 62h 30m  
Theory classes: 15h  
Laboratory classes: 7h 30m  
Self study: 40h

## GRADING SYSTEM

## BIBLIOGRAPHY

**Basic:**