

## 29734 - Industrial Heat and Cold

### Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	434 - Bachelor's Degree in Mechanical Engineering
ECTS	6.0
Course	4
Period	First semester
Subject Type	Optional
Module	---

### 1. Basic info

#### 1.1. Recommendations to take this course

#### 1.2. Activities and key dates for the course

### 2. Initiation

#### 2.1. Learning outcomes that define the subject

#### 2.2. Introduction

### 3. Context and competences

#### 3.1. Goals

#### 3.2. Context and meaning of the subject in the degree

#### 3.3. Competences

#### 3.4. Importance of learning outcomes

### 4. Evaluation

### 5. Activities and resources

#### 5.1. General methodological presentation

#### 5.2. Learning activities

#### 5.3. Program

Part 1: Refrigeration

Refrigeration cycles and systems. Applications

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Refrigerants

Refrigeration equipment and installations

Principles of air conditioning

Part 2: Heat generation and transfer equipment

Heat generation systems. Boilers and burners

Heating and hot water installations in buildings

Solar thermal energy

Production and distribution of thermal energy

Part 3: Energy efficiency

Thermal process integration

Thermal energy recovery

### **5.4.Planning and scheduling**

### **5.5.Bibliography and recommended resources**