



## GENERAL INFORMATION

Data of the subject	
Subject name	Heating, Ventilation and Air Conditioning
Subject code	DIM-MII-631
Main program	<a href="#">Official Master's Degree in Industrial Engineering</a>
Involved programs	Máster Universitario en Ingeniería Industrial [Second year]
Credits	3,0 ECTS
Type	Compulsory
Department	Department of Mechanical Engineering
Coordinator	Luis Mochón Castro

Teacher Information	
Teacher	
Name	José Nieto Fuentes
Department	Department of Mechanical Engineering
E-mail	jnfuentes@icai.comillas.edu

## DESCRIPTION OF THE SUBJECT

Contextualization of the subject
Prerequisites
Basic knowledge of thermodynamics, fluid mechanics and heat transfer.

## Course contents

Contents
<p>THEORY:</p> <ol style="list-style-type: none"><li>1. Psychrometrics</li><li>2. Air-conditioning processes</li><li>3. Thermal comfort</li><li>4. Load calculations</li><li>5. Air-conditioning systems (all-air, all-water, others)</li><li>6. Energy conservation measures</li><li>7. Duct and pipe design</li><li>8. Air diffusion</li><li>9. Refrigerants and refrigeration cycles</li></ol>



LABORATORY:

1. Psychrometric processes
2. Cooling tower

## EVALUATION AND CRITERIA

Evaluation activities	Evaluation criteria	Weight
Test on theory	60%	60 %
Problems, labs, individual and team works, class participation	40%	40 %

## BIBLIOGRAPHY AND RESOURCES

### Basic References

- ASHRAE HANDBOOK: FUNDAMENTALS
- FUNDAMENTOS DE CLIMATIZACIÓN (ATECYR, Asociación Técnica Española de Climatización y Refrigeración)

In compliance with current regulations on the **protection of personal data**, we would like to inform you that you may consult the aspects related to privacy and data [that you have accepted on your registration form](#) by entering this website and clicking on "download"

<https://servicios.upcomillas.es/sedelectronica/inicio.aspx?csv=02E4557CAA66F4A81663AD10CED66792>