



## 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	Obligatoria
Department	Department of Mechanical Engineering
Coordinator	Luis Mochón Castro

Teacher Information	
Teacher	
Name	José Nieto Fuentes
Department	Department of Mechanical Engineering
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## 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>



# COMILLAS

UNIVERSIDAD PONTIFICIA

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CIHS

**Syllabus**  
**2024 - 2025**

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)

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