



SUBJECT NAME: INDUSTRIAL FACILITIES I		
POSTGRADUATE: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING	ECTS: 3	CUATRIMESTRE: 2º
Profesor/a:		

CHRONOGRAM OF THE COURSE (detailed version)								
WEEK	SESION	DESCRIPTION OF THE CONTENT OF THE SESSION (If applicable, include recoveries, tutorials, delivery of work, etc.)	GROUP		Indicate different space necessary ((computer room, audiovisual, etc.)	STUDENT'S WORK DURING THE WEEK		
						DESCRIPTION	ATTENDANCE HOURS	WORK HOURS Week 7H MAX
1	1	Fluid transport systems. Fluid distribution networks for hygiene and sanitation. Ambient ventilation system.				Description of the main fluid-transport systems.	1.66	5
2	2	Fire protection system. Regulation.				Characterization of industrial installation based on fire safety.	1.66	5
3	3	Basic concepts: energy release in a fire, adiabatic temperature, reaction heat. Problems.				Conservation equations and thermochemical analysis.	1.66	5
4	4	Fire description. Evolution in highly confined environments, flashover and maximum temperature. Problems.				Fire description based on the evolution phase.	1.66	5
5	5	Mitigation and extinction systems. Problems.				Ways to mitigate and extinguish fires in closed environments.	1.66	5
6	6	Intermediate test.					1.66	5
7	7	Air Conditioning and Ventilation: Introduction. Applicable regulations.				General study of the different configurations of the air conditioning and	1.66	5



					ventilation systems and the associated regulations.		
8	8	Air treatment. Psycrometry			Study of psychrometric processes and refrigeration cycles.	1.66	5
9	9	Air treatment. Devices.			Study of devices used in air treatment processes.	1.66	5
10	10	HVAC systems: Design and specifications.			Detailed study of the different HVAC technologies , their components and their operation conditions.	1.66	5
11	11	HVAC: Problems.			Resolution of HVAC complete system.	1.66	5
12	12	Visit to facilities				1.66	
13	13	Energy efficiency and saving in HVAC systems			Resolution of HVAC systems with energy saving systems.	1.66	5
14	14	Energy audits. Acoustics in Installations.			Procedures and techniques for Energy Audits. Fundamental concepts of Acoustics applied to air conditioning and ventilation installations.	1.66	5
TOTAL HOURS						23,2	65