

COURSE: Thermal System Design		
DEGREE: Industrial Technologies Engineering	YEAR: 4th	TERM: 1st

WEEKLY PLANNING								
WEEK	SESSION	DESCRIPTION	TEACHING (mark X)		SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	WEEKLY PROGRAMMING FOR STUDENT		
			L E C T U R E S	S E M I N A R S		DESCRIPTION	CLASS HOURS (1,66=50+50 min)	HOMEWORK HOURS (Max. Estim. 6,5h)
1	1	Introduction. Heat and cold in buildings and industry	X				1.66	6.0
	2	Introduction to course project		X		Selection of case study	1.66	
2	3	Código Técnico de la Edificación, Ahorro de Energía (CTE HE)	X				1.66	6.5
	4	Computer lab 1		X	Computer room	Computer tool: energy demand and compliance with CTE HE1	1.66	
3	5	Heat transfer. Thermal envelope	X				1.66	6.5
	6	Exercises of application		X		Solving problems	1.66	
4	7	Energy in buildings	X				1.66	6.5
	8	Project follow-up		X		Project: 1st partial hand-in	1.66	
5	9	Thermal loads. Indoor and outdoor conditions	X				1.66	6.5
	10	Computer lab 2		X	Computer room	Computer tool: thermal loads and compliance with CTE HE2	1.66	
6	11	Thermal loads. Ventilation. Calculation procedures	X				1.66	6.5
	12	Exercises of application		X		Solving problems	1.66	
7	13	Mid-term exam	X				1.66	6.5
	14	Project follow-up		X		Project: 2nd partial hand-in	1.66	

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8	15	Vapor compression cycle. Refrigerants	X				1.66	6.5
	16	Exercises of application		X		Solving problems	1.66	
9	17	Boilers. Heat pumps	X				1.66	6.5
	18	Group assignment I. Exposition		X		Group assignment I	1.66	
10	19	Renewable energy systems	X				1.66	6.5
	20	Project follow-up		X		Project: 3rd partial hand-in	1.66	
11	21	HVAC systems and SHW	X				1.66	6.5
	22	Computer lab 3		X	Computer room	Computer tool: building energy label and CTE HE0	1.66	
12	23	Terminal elements. Schemes	X				1.66	6.5
	24	Group assignment II. Exposition		X		Group assignment II	1.66	
13	25	Transport and distribution of energy	X				1.66	6.5
	26	Exercises of application		X		Solving problems	1.66	
14	27	Air conditioning	X				1.66	6.5
	28	Project follow-up		X		Project: final hand-in	1.66	
	29	Lab 4	X		Visit	Visit (external time) to building with efficient energy systems	1.66	3.25

Subtotal 1

48

94

Total 1 (Hours of class plus student homework)

142

15		Tutorials, handing in, etc					3.6	-
16		Assessment					4	10
17								
18								

Subtotal 2

8

10

Total 2 (Hours of class plus student homework)

18

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TOTAL <i>(Maximum 160 horas)</i>						159		