## uc3m Universidad Carlos III de Madrid

Vicerrectorado de Estudios Apoyo a la docencia y gestión del grado

## COURSE: RENEWABLE ENERGY PLANTS

DEGREE: MECHANICAL ENGINEERING

YEAR: 4

TERM: 2

	WEEKLY PLANNING								
W E K	s		TEACHING (mark X)		SPECIAL ROOM	WEEKLY PROGRAMMING FOR STUDENT			
	E S I O N	DESCRIPTION	L E T U R E S	S E M I N A R S	FOR SESSION (Computer class room, audio-visual class room)	DESCRIPTION	CLASS HOURS (1,66=50+50 min)	HOMEWORK HOURS (Max. Estim. 3,25h)	
1	1	Solar energy: Available solar radiation. Measurement of solar radiation	х		no		1.66	3.25	
2	2	Solar radiation on surfaces of fixed orientation	х		no		1.66	3.25	
3	3	Technologies of solar thermal collectors	х		no		1.66	3.25	
4	4	Desing of solar facilities to produce domestic hot water, heating and cooling.	x		no		1.66	3.25	
5	5	Solar radiation on surfaces with solar tracking	x		no		1.66	3.25	
6		Lab 1: Visit to the solar thermal facility of the department. Meterological station and data acquisition. Measurements of diffuse and global solar radiation along a day.			yes	Lab department	1.66	3.25	
7	7	Technologies of solar collectors to produce electricity. Solar thermal plants.	x		no		1.66	3.25	
8	8	Partial exam: Solar energy	х		no		1.66	3.25	
9		Hydroelectric energy, facilities and applications	х		no		1.66	3.25	
10		Wind energy, evaluation of the energy available in the wind and their possible uses	x		no		1.66	3.25	

WEEKLY PLANNING								
	s	DESCRIPTION		CHING Irk X)	SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	WEEKLY PROGRAMMING FOR STUDENT		
W E K	E S I O N		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. 3,25h)
11	11	Lab 2: Performance of a Pelton microturbine			yes		1.66	3.25
12	12	Wind energy, technologies in use.	х		no	Lab department	1.66	3.25
13	13	Geothermal energy. Potential and applications	х		no		1.66	3.25
14	14	Bioenergy, biomass and biofuels. Types and applications	х		no		1.66	3.25
	15						1.66	3.25
	Subtotal 1							49
	<b>Total 1</b> (Hours of class plus student homework)						74	

15	Tutorials, handing in, etc					1.8	-	
16								
17	Assessment					4	4	
18								
	Subtotal 2							
	Total 2 (Hours of class plus student homework)						10	

TOTAL ( <u>Maximun 83 horas</u> )	83