## uc3m Universidad Carlos III de Madrid

Vicerrectorado de Estudios Apoyo a la docencia y gestión del grado

## COURSE: Engineering Graphics

DEGREE: Bachelor in Electrical Power Engineering

YEAR: 1º

TERM: 2º

WEEKLY PLANNING								
	S		TEACHING (mark X)		SPECIAL ROOM	WEEKLY PROGRAMMING FOR STUDENT		
W E K	E S I O N	DESCRIPTION	L E C 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. 6,5h)
1	1	INTRODUCTION TO TECHNICAL DRAWING AND REPRESENTATION SYSTEMS. NORMALIZATION	х		NO	Knowing different representation systems and their basic rules	1,66	5,0
	2	SOLID EDGE ENVIROMENT. FIRST OPERATIONS		х	YES	Starting to work with a CAD program	1,66	
2	3	ORTHOGRAPHIC PROJECTION (OP): BASICS	х		NO	Reviewing basic knowledge about Orthographic projection (OP)	1,66	5,0
	4	BASIC EXERCISES ABOUT ORTHOGRAPHIC PROJECTION (OP)		х	NO	Realizing basic exercises about Orthographic projection	1,66	5,0
3	5	OP: REVOLUTION METHOD, FOLD LINE METHOD AND CHANGE OF PROJECTION PLANES.	х		NO	Learning how and when doing apply revolution method, fold line method and change of projection planes.	1,66	5,0
	6	EXERCISES ABOUT OP: REVOLUTION METHOD, FOLD LINE METHOD AND CHANGE OF PROJECTION PLANES.		х	NO	Applying revolution method, fold line method and change of projection planes to solve geometric problems.	1,66	5,0
4	7	OP: DISTANCES AND ANGLES	х		NO	Learning to represent and measure distances and angles in OP	1,66	5,0
	8	EXERCISES ABOUT OP: DISTANCES AND ANGLES		х	NO	Solving geometric problems about distances and angles	1,66	3,0

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	9	EXAM ABOUT OP	Х		NO	Exam about OP concepts	1,66	
5	10	SOLID EDGE PART ENVIRONMENT		х	YES	Learning CAD operations to generate 3D parts	1,66	6,5
6	11	AXONOMETRIC SYSTEM	х		NO	Learning the bases of the axonometric system	1,66	6,5
o	12	AXONOMETRIC SYSTEM II		х	NO	Applying the axonometric system concepts to represent parts	1,66	
7	13	VIEWS	Х		NO	Applying the OP concepts to represent parts	1,66	6,5
'	14	EXERCISES ABOUT VIEWS		Х	NO	Realizing exercises about representing parts	1,66	
8	15	SECTIONS, CUTS AND BREAKS	Х		NO	Applying the OP concepts to represent parts	1,66	6,5
Ů	16	EXERCISES ABOUT SECTIONS, CUTS AND BREAKS		Х	NO	Realizing exercises about representing parts	1,66	0,5
9	17	DIMENSIONING AND REPRESENTATION I	х		NO	Learning the basic standards about dimensioning and representation	1,66	6,5
5	18	EXERCISES ABOUT DIMENSIONING I		х	NO	Applying the OP concepts to represent and dimension parts	1,66	0,0
10	19	DIMENSIONING AND REPRESENTATION II	х		NO	Learning the basic standards about dimensioning and representation	1,66	6,5
10	20	SOLID EDGE DRAFT ENVIROMENT. DIMENSIONING		х	YES	Learning to generate and dimension a draft with CAD	1,66	
11	21	STANDARD PARTS	х		NO	Learning to identify the most usual standard parts	1,66	6,5
	22	SOLID EDGE ASSEMBLY ENVIROMENT		Х	YES	Learning to assembly parts with CAD	1,66	
12	23	ASSEMBLIES	х		NO	Learning to realize and understand an assembly draft	1,66	
12	24	EXERCISES OF ASSEMBLIES		х	NO	Practising to realize and understand an assembly draft	1,66	6,5
	25	DETAIL DRAFT	Х		NO	Learning to realize a detail drawing	1,66	

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13	26	EXERCISES OF DETAIL DRAFTS		х	NO	Applying the theory to realice detail drawings	1,66	6,5	
14	27	GEOMETRIC AND DIMENSIONAL TOLERANCES	х		NO	Learning the tolerance concept and how to calculate them	1,66	6,5	
14	28	TOLERANCES APPLICATION. DESIGN ANALYSIS.		х	NO	Applying the concept and calculation of tolerances to design problems	1,66	0,5	
	29	CAD EXAM		Х	YES	Exam about the used CAD program	1,66	3,25	
Subtotal 1							48	88	
	Total 1 (Hours of class plus student homework)							36	

15	Tutorials, handing in, etc				Finishing a Project that summarizes all the acquired knowledge	3,6	-
16							
17	Assessment					4	10
18							
					Subtotal 2	8	10
	<b>Total 2</b> (Hours of class plus student homework)				1	8	

TOTAL (Maximun 160 horas )	154
	154