uc3m | Universidad Carlos III de Madrid
Vicerrectorado de Estudios
Apoyo a la docencia y gestión del grado

COURSE: Aerospace Design I (15348)		
DEGREE: Aerospace Engineering	YEAR: 2019-2020	TERM: 2

WEEKLY PLANNING

WEEK	SESSION	DESCRIPTION	TEACHING (mark X)		SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURES	SEMINARS		DESCRIPTION	CLASS HOURS (1,66=50+50 min)	HOMEWORK HOURS (Max. Estim. 6,5h)
1	1	Presentation of the course. Chapter 1: Introduction Systems and processes. Chapter 2: Forming and shaping processes I: Introduction and Presses.	X			Personal work of acquisition of the basic knowledge and understanding of fundamental aspects related to systems and processes.	1.66	6.5
	2	Chapter 2: Sheet Metal Forming processes II: Cutting and Punching Punching Exercises		X		Resolution of exercises and questions related to the content of session 1.	1.66	
2	3	Chapter 2: Sheet Metal Forming processes III: Bending & Deep drawing	X			Personal work of acquiring the basic knowledge and understanding of fundamental aspects related to cutting and punching processes.	1.66	6.5
	4	Sheet Metal Forming processes: Bending and deep drawing exercises		X		Resolution of exercises and questions related to the content of session 3.	1.66	
3	5	Sheet Metal Forming processes IV: Rolling, roll forming and forging Processes	X			Personal work of acquiring the basic knowledge and understanding of fundamental aspects related to bending and deep drawing processes.	1.66	6.5

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	6	Sheet Metal Forming processes: Bending and deep drawing exercises. Progressive die.		X		Resolution of exercises and questions related to the content of session 5.	1.66	
4	7	Chapter 3: Mass conserving processes: Casting	X			Personal work of acquiring the basic knowledge and understanding of fundamental aspects related to casting processes.	1.66	6.5
	8	Lab1: Sheet Metal forming		X	Lab	First lab session	1.66	
5	9	Chapter 3: Mass conserving processes: Molding	X			Personal work of acquiring the basic knowledge and understanding of fundamental aspects related to Molding processes.	1.66	6.5
	10	Mass conserving processes: Casting + Molding Questions and exercises		X		Resolution of exercises and questions related to the content of session 9.	1.66	
6	11	Chapters 4 & 5: Material removal processes: Fundamentals and tools	X			Personal work of acquiring the basic knowledge and understanding of fundamental aspects related to material removal processes.	1.66	6.5
	12	Forming and shaping Problems		X		Resolution of exercises and questions related to the content of session 11.	1.66	
7	13	Chapter 6: Material removal processes: Turning	X			Personal work of acquiring the basic knowledge and understanding of fundamental aspects related to Turning processes.	1.66	6.5
	14	Material removal processes: Turning Problems		X		Resolution of exercises and questions related to the content of session 13.	1.66	
8	15	Chapter 7: Material removal processes: Milling	X			Personal work to acquire basic knowledge and understanding of fundamental aspects related to milling processes.	1.66	6.5
	16	Material removal processes: Milling Problems		X		Resolution of exercises and questions related to the content of session 15.	1.66	

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9	17	Chapter 8: Material removal processes: Drilling + Tooling				Personal work to acquire basic knowledge and understanding of fundamental aspects related to drilling processes.	1.66	6.5
	18	Material removal processes: Exercises				Resolution of exercises and questions related to the content of session 17.	1.66	
10	19	Chapter 9: Composite Manufacturing Processes Part I	X			Personal work of acquiring the basic knowledge and understanding of fundamental aspects related to composite manufacturing processes.	1.66	6.5
	20	Lab2: CNC Turning process		X	Lab	Second lab session	1.66	
11	21	Chapter 9: Composite Manufacturing Processes Part II	X			Personal work of acquiring the basic knowledge and understanding of fundamental aspects related to composite manufacturing processes.	1.66	6.5
	22	Project Doubts + example industrial process plan		X		Resolution of exercises and questions related to the content of session 21.	1.66	
12	23	Chapter 10 & 11: Manufacturing cost estimation + Welding processes				Personal work of acquiring the basic knowledge and understanding of fundamental aspects related to cost estimation and welding processes.	1.66	6.5
	24	Cost Exercises				Resolution of exercises and questions related to the content of session 23.	1.66	
13	25	Chapter 12: Automated Manufacturing	X			Second evaluation exam. Personal work to acquire basic knowledge and understanding of fundamental aspects related to the Viscoplasticity.	1.66	6.5
	26	Gymkhana lab session		X		Third lab session	1.66	
14	27	Extra exercises.	X			Resolution of exercises and questions related to all chapters.	1.66	6.5
	28	Projects Presentation		X		Project presentation.	1.66	

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	29	Doubts	X			Personal work of acquiring the basic knowledge and understanding of fundamental aspects related to all chapters.	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**	
TOTAL (*Maximun 160 horas*)							**160**	