

SUBJECT:	Analysis of Composite Structures		
MASTER DEGREE	: Industrial Mechanics	ECTS: 4	QUARTER: 2

TIMETABLE FOR THE SUBJECT								
WEEK	SESSION	DESCRIPTION OF EACH SESSION	GROUP (X mark)		Indicate if a different lecture room is needed (computer,	HOMEWORK PER WEEK		
			1	2	audiovisual, etc.)	DESCRIPTION	ATTENDING HOURS	HOMEWORK Max. 7H/WEEK
	1	Introduction to composite structures (I) Definitions, typologies, aplications			NO	Previous reading of proposed themes Personal work about lesson	1.5	5
	2	Introduction to composite structures (II) Definitions, typologies, aplications			NO	Personal work about chapter 1 Proposed exercises. Discussion	1.5	5
	3	Analysis and calculus (I) Anisotropic Elasticity, Stifness matrix of a lamina			NO	Previous reading of proposed themes Personal work about lesson	1.5	5
	4	Analysis and calculus (II) Resolution of proposed exercises			NO	Personal work about chapter 2 Proposed exercises. Discussion	1.5	5
	5	Analysis and calculus (III) Failure modes in composites, failure criteria			NO	Previous reading of proposed themes Personal work about lesson	1.5	5
	6	Analysis and calculus (IV) Resolution of proposed exercises			NO	Personal work about chapter 2 Proposed exercises. Discussion	1.5	5



7	Tutorials	SI	Personal work about chapter 2 Proposed exercises. Discussion	2	5
8	Analysis and calculus (V) Laminate theory, First order theory, laminate failure criteria, design recommendations	NO	Previous reading of proposed themes Personal work about lesson	1.5	5
9	Analysis and calculus (VI) Resolution of proposed exercises	NO	Personal work about chapter 2 Proposed exercises. Discussion	1.5	5
10	Design of structural elements (I) Laminate and thin-walled Beams	NO	Previous reading of proposed themes Personal work about lesson	1.5	5
11	Design of structural elements (II) Resolution of proposed exercises	NO	Personal work about chapter 3 Proposed exercises. Discussion	1.5	5
12	Tutorials	NO	Personal work about chapter 2 Proposed exercises. Discussion	2	5
13	Design of structural elements (III) Sandwich beams	NO	Previous reading of proposed themes Personal work about lesson	1.5	5
14	Design of structural elements (III) Resolution of proposed exercises	NO	Personal work about chapter 3 Proposed exercises. Discussion	1.5	5
15	Design of structural elements (IV) Shell theory	NO	Previous reading of proposed themes Personal work about lesson	1.5	2



	16	Design of structural elements (VI) Resolution of proposed exercises		NO	Personal work about chapter 3 Proposed exercises. Discussion	1.5	
	17	Tutorials		SI	Personal work about chapter 2 Proposed exercises. Discussion	3	
TOTAL HOURS 28						72	
						100	