

<b>COURSE: Structures dynamics</b>		
<b>DEGREE: Bachelor in Mechanical Engineering</b>	<b>YEAR: 4</b>	<b>TERM: 2</b>

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. 3,25h)
1	1	TOPIC 1: Presentation of the dynamic phenomenon and its application to the dynamic calculation of structures (I)	X		No	Study of basics concepts on the dynamic phenomenon and comprehension of the event, resolution of examples and problems	1,66	3,25
2	2	TOPIC 1: Presentation of the dynamic phenomenon and its application to the dynamic calculation of structures (II)	X		No	Study of basics concepts on the dynamic phenomenon and comprehension of the event, resolution of examples and problems	1,66	3,25
3	3	TOPIC 2: Free and forced oscillation in systems 1 DOF (I)	X		No	Study of systems of 1 DOF under free and forced oscillations, resolution of examples and problems	1,66	3,25
4	4	TOPIC 2: Free and forced oscillation in systems 1 DOF (II)	X		No	Study of systems of 1 DOF under free and forced oscillations, resolution of examples and problems	1,66	3,25
5	5	LAB 1: Analysis of structures under vibrations	X		INF / LAB	Analysis of structures under vibrations	1,66	3,25
6	6	TOPIC 3: Free and forced oscillation in N DOF systems (I)	X		No	Study of systems of N DOF under free and forced oscillations, resolution of examples and problems. Modal analysis	1,66	3,25
7	7	TOPIC 3: Free and forced oscillation in N DOF systems (II)	X		No	Study of systems of N DOF under free and forced oscillations, resolution of examples and	1,66	3,25

**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. 3,25h)
8	8	TOPIC 3: Free and forced oscillation in N DOF systems (III)	X		No	Study of continuous systems under free and forced oscillations, resolution of examples and problems. Modal analysis by superposition method	1,66	3,25
9	9	Partial Exam	X		No		1,66	3,25
10	10	TOPIC 4: Dynamics of continuous systems (I)	X		No	Study of continuous systems under free and forced oscillations, resolution of examples and problems. System of governing Differential equation	1,66	3,25
11	11	TOPIC 4: Dynamics of continuous systems (II)	X		No	Study of continuous systems under free and forced oscillations, resolution of examples and problems	1,66	3,25
12	12	TOPIC 5: Structures subjected to moving loads	X		No	Study of structures under moving loads, resolution of examples and problems	1,66	3,25
13	13	Lab 2: Tests of structures and analysis	X		LAB	Testing in labs of designed structures and evaluation	1,66	3,25
14	14	Partial Exam	X		No		1,66	3,25
	15	Additional session: Discussion on the course works	X		No		1,66	

**Subtotal 1**

**25      46**

**Total 1 (Hours of class plus student homework)**

**70**

15		Tutorials, handing in, etc					1,8	-
16		Assessment					4	4
17								
18								

**Subtotal 2**

**6      4**

**WEEKLY PLANNING**

W E E K	S E S S I O N	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 <i>(1,66=50+50 min)</i>	HOMEWORK HOURS <i>(Max. Estim. 3,25h)</i>
<b>TOTAL ( <i>Maximun 83 horas</i> )</b>						<b>80</b>		