



COURSE: Control of Aerospace Systems		
DEGREE: Bachelor in Aerospace Engineering	YEAR: 3	TERM: 2

*La asignatura tiene 29 sesiones que se distribuyen a lo largo de 14 semanas. Los laboratorios pueden situarse en cualquiera de ellas.
Semanalmente el alumnos tendrá dos sesiones, excepto en un caso que serán tres*

WEEKLY PLANNING									
WEEK	SESSION	DESCRIPTION	GROUPS (mark X)		SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	Indicate YES/NO If the session needs 2 teachers	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURES	SEMINARS			DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
1	1	Subject introduction	X			NO		1,6	4
1	2	Why control?: Brainstorming session		X		NO		1,6	
2	3	Laplace transforms	X			NO		1,6	4
2	4			X		NO		1,6	

		Exercises on Laplace transforms							
3	5	System modeling: transfer function	X			NO		1,6	4
3	6	Exercises on System modeling: transfer function		X		NO		1,6	
4	7	System modeling: state space	X			NO		1,6	4
4	8	Exercises on System modeling: state space		X		NO		1,6	
5	9	Stability and feedback: systems characterization	X			NO		1,6	4
5	10	Exercises on Stability and feedback: systems characterization		X		NO		1,6	
6	11	Stability and feedback analysis in time domain	X			NO		1,6	4
6	12	Exercises on Stability and feedback analysis in time domain		X		NO		1,6	
7	13	Stability and feedback analysis in frequency domains	X			NO		1,6	4
7	14	Exercises on Stability and feedback analysis in frequency domain		X		NO		1,6	
7	15	1st Practical Session: System modeling in Matlab			Computer classroom	NO		1,6	4

8	16	Aircraft systems fundamentals: a practical view	X			NO		1,6	6
8	17	Aircraft dynamics (I)		X		NO		1,6	
9	18	Aircraft dynamics (II)	X			NO		1,6	
9	19	Exercises on Aircraft dynamics		X		NO		1,6	
10	20	First partial examination	X					1,6	4
10	21	PID controllers: design methods	X			NO		1,6	4
11	22	Exercises on PID controllers: design methods		X		NO		1,6	
11	23	2nd Practical Session: PID control and stability in Matlab			Computer classroom	NO		1,6	4
12	24	Nonlinear systems: describing function	X			NO		1,6	4
12	25	Exercises on Nonlinear systems: describing function		X		NO		1,6	
13	26	Nonlinear systems: stability analysis	X			NO		1,6	

13	27	Exercises on Nonlinear systems: stability analysis		x		NO		1,6	4
14	28	3rd Practical Session: Nonlinear systems analysis in Matlab			Computer classroom	NO		1,6	4
14	29	Extra class: practical session or subject review			Computer classroom	NO		1,6	2
15	30	Second partial examination	x			NO		1,6	4

Subtotal 1 **48** **68**

Total 1 (<i>Hours of class plus student homework hours between weeks 1-14</i>)	116
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15		Tutorials, handing in, etc							
16		Assessment						3	15
17									
18									

Subtotal 2 **3** **15**

Total 2 (<i>Hours of class plus student homework hours between weeks 15-18</i>)	18
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TOTAL (<i>Total 1 + Total 2. Maximum 180 hours</i>)	134
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