



SUBJECT: Attitude Dynamics and GNC		
MASTER DEGREE: Master in Space Engineering	ECTS: 3	TERM: 2

WEEKLY PLANNING							
WEEK	SESSION	DESCRIPTION	TEACHING (MARK X)		SPECIAL ROOM FOR SESSION (Computer room, audiovisual 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 h = 50 min + 50 min)
1	1	Introduction. Modeling and Simulation	X				1.66
1	2	AOCS Requirements	X				1.66
2	3	Kinematics of 6 DOF motion	X				1.66
2	4	Case Study: Operation Hexapod		X			1.66
3	5	Dynamics of 6 DOF motion	X				1.66
3	6	Case Study: Simulation real world in simulink		X			1.66
4	7	Navigation. Star sight, inertial systems and radio systems	X				1.66
4	8	Case Study: Navigation elements		X			1.66
		Intertial Sensors.					
5	9	State Estimation, Probability, Stochasticity and the Kalman Filter	X				1.66
5	10	Case Study: Statistical Filter		X			1.66
6	11	Linear Control Theory	X				1.66
6	12	Case Study: Control PID		X			1.66
7	13	Non-linear Control and Optimal control	X				1.66
7	14	Case Study: Control LQR		X			1.66
15	15	Case Study: Review		X			1.66
Subtotal 1							25
Total 1 (Hours of class plus student homework)							74
8		Tutorials, handing in, etc.,					1.8
9							
10		Assessment					4
11							
Subtotal 2							6
Total 2 (Hours of class plus student homework)							10
Total (around 83 h)							83