Universidad Carlos III de Madrid

SUBJECT: Advanced Industrial Robotics		
POSTGRADE: MASTER IN ROBOTICS AND AUTOMATION COORDINATOR: Santiago Martínez de la Casa Díaz	YEAR: 1 ECTS: 3	TERM: 2

TIMETABLE OF THE SUBJECT (detailed version)

WEEK	SESSION	DESCRIPTION OF THE SESSIONS CONTENTS (Recovery classes, tutorial sessions, works delivery, etc)	GROUP (mark with X)		Room if different from the classroom (lab, audiovisual room, etc..)	STUDENT WORK DURING THE WEEK		
			1	2		DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
1	1	1. Introduction. 2. The industrial robot and the flexible production cell 3. Advanced applications	X					
2	2	1. Advanced programming of movements 2. Programming of advanced functions 3. Advanced concepts of security	X					
3	3	1. Design and simulation of advanced applications	X		Informatics Room			
3	4	1. Advanced methods for task control 2. Visual control 3. Force control	X					
4	5	1. Practical applications of advanced control methods	X		Robotics Laboratory			
5	6	1. Design of multi-robot systems 2. Communication technologies 3. Task synchronization	X					

6	7	1. Practical application of multi-robot systems	X		Robotics Laboratory			
7	8	1. The cooperative robot 2. Devices for cooperative robots 3. Study and specification of applications	X					

TOTAL HOURS	**76h:** *16h class hours (9h theory + 7h practical sessions) *60h max. homework hours