Universidad Carlos III de Madrid
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COURSE: Automated Production Systems		
STUDY: Master in Industrial Engineering (Spanish version only)	Year: 1st	Semester: 2nd

WEEKLY PLANNING OF THE COURSE

WEEK	SESSION	DESCRIPTION OF THE CONTENT OF THE SESSION	GROUP (Cross with X)		Indicate if it is in a special room (computer room, audiovisual room, etc.)	Indicate if it is or not a session with 2 professors	WEEKLY EFFORT OF THE STUDENT		
			BIG	SMALL			DESCRIPTION	CLASS HOURS	INDIVIDUAL WORK (Max. 7h /week)
1	1	Presentation of the course. Introduction to production and manufacturing systems.		X		No	Lecture on the topic. Individual study of the topic.	1,66	2
2	2	Theme 1: Automated Machines. Robotic Systems and Felxible Manufacturing Cells. Process Plants.		X		No	Lecture on the topic. Individual study of the topic.	1,66	2
3	3	Theme 2: Resource Management: Material resources and information flow.		X		No	Lecture on the topic. Individual study of the topic.	1,66	2
4	4	Case Studies: Process Plants, machining and assembly plants.		X		No	Lecture on the topic. Individual study of the topic.	1,66	2
5	5	Theme 3: Programming languages I: Ladder language. Sequential Function Chart.		X		No	Lecture on the topic. Individual study of the topic.	1,66	2

6	6	Configuration management and programming environment. Proposal of work.		X	Comp.	No	Reading the previous class topics. Preparation of work proposal.	1,66	2
7	7	Theme 4: Programming languages II: Structured Text language. Analog variables. Blocks function.		X		No	Lecture on case II. Individual study of Case II.	1,66	2
8	8	Theme 5:Industrial Communications. Configuring robots in industrial networks.		X		No	Lecture on the topic. Individual study of the topic.	1,66	2
9	9	Theme 6: Introduction to industrial robotics. Morphology of robots.		X		No	Lecture on case III. Individual study of Case III.	1,66	2
10	10	Theme 7: Robot programming I.		X		No	Lecture on the topic. Individual study of the topic.	1,66	2
11	11	Robot programming II. Configuration programming environment. Proposal of work.		X	Comp.	No	Reading the previous class topics. Preparation of work proposal.	1,66	2
12	12	Theme 8: Criteria security implementation and industrial robots.		X		No	Lecture on the topic. Individual study of the topic.	1,66	2
5	13	Laboratory I			Lab.	No	Preparation of the lab exercises.	1,66	2
10	14	Laboratory II			Lab.	No	Preparation of the lab exercises.	1,66	4
							Subtotal 1	**23,33**	**30**
		Total 1 *(Hours of class and individual work from week 1 to 14)*						**53,33**	
15		Recovery classes, tutoring, home-work delivery, etc.						15	
16		Preparation of evaluation, and evaluation						1,66	20
17									
18									
							Subtotal 2	**1,66**	**20**
		Total 2 *((Hours of class and individual work from week 15 to 18)*						36,66	
TOTAL *(Total 1 + Total 2. Max 90 hours)*								**90**	