



**SUBJECT: INDUSTRIAL PRODUCTION AND SERVICE TECHNOLOGIES**

**MASTER DEGREE: MASTER IN CONNECTED INDUSTRY 4.0**

**ECTS: 3**

**QUARTER: 1**

**TIMETABLE FOR THE SUBJECT**

WEEK	SESSION	DESCRIPTION OF EACH SESSION	GROUP (X mark)		Indicate if a different lecture room is needed (computer, audiovisual, etc.)	HOMEWORK PER WEEK		
			1	2		DESCRIPTION	ATTENDING HOURS	HOMEWORK Max. 7H/WEEK
1	1	Presentation of the course and introduction to industrial production and service technologies.	X		No	Review of the concepts of the session 1.	1,5	3,5
1	2	Control systems. Continuous systems. Sampled systems. Systems of discrete events. Process plants.	X		No	Review of the concepts of session 2.	1,5	3,5
2	3	Introduction to automated production and manufacturing systems. Automated machines. Robotic systems and flexible manufacturing cells.	X		No	Final work planning.	1,5	3,5
2	4	Material flows. Identification systems. Automated storage systems. Production planning and control.	X		No	Review of the concepts of the sessions 3, 4.	1,5	3,5
3	5	Industrial computer systems. Computer Integrated Manufacturing. Supervision: SCADA systems. Traceability. Simulation of plants and industrial processes.	X		No	Review of the concepts of session 5.	1,5	3,5
3	6	Practice I: Production Simulators.	X		Computer Lab with Arena	Reading and preparation of the practice.	1,5	3,5



4	7	Sensors and Actuators.	X		No	Review of the concepts of session 7.	1,5	3,5
4	8	Industrial Communications.	X		No	Review of the concepts of session 8.	1,5	3,5
5	9	Practice II: Production Simulators.	X		Computer Lab with Arena	Reading and preparation of practice exercises.	1,5	3,5
5	10	Sustainable development.	X		No	Review of the concepts of session 10.	1,5	3,5
6	11	Trends in manufacturing automation.	X		No	Review of the concepts of session 11.	1,5	3,5
6	12	Presentation of works.	X		No	Preparation of the presentation of the work.	1,5	3,5
7	13	Presentation of works.	X		No	Preparation of the presentation of the work.	1,5	3,5
7	14	Final Overview. Preparation for the final exam.	X		No	Preparation for the final exam.		
7	15	Final Exam.	X		No	Preparation for the final exam.	1,5	3,5
<b>TOTAL HOURS</b>							<b>22,5</b>	<b>52,5</b>
							<b>75</b>	