



DENOMINACIÓN ASIGNATURA: SOFTWARE FOR INTERNET OF THINGS

POSTGRADO: MÁSTER UNIVERSITARIO EN INGENIERÍA INFORMÁTICA  
Profesor/a: Antonio de Amescua

ECTS: 6

CUATRIMESTRE: 2

**CRONOGRAMA DE LA ASIGNATURA (versión detallada)**

WEEK	SESSION	DESCRIPTION OF THE CONTENT OF THE SESSION	GRUPO (marcar X)		Indicar espacio Necesario distinto aula(aula informática, audiovisual, etc..)	STUDENT WORK DURING THE WEEK		
			1	2		DESCRIPCIÓN	PRESENTIAL HOURS 100 M	WORKING HOURS Maximum Week 7 H
1	1	Presentation: Syllabus					1,67	2,0
1	2	T1 - Fundamentals and introduction to IoT Software					1,67	3,0
2	3	1.1.- Application Areas and practical Applications using IoT					1,67	2,0
2	4	1.2.- Principles of Software Systems Design for IoT					1,67	4,0
3	5	1.3.- Reference Architectures in IoT (1)					1,67	4,0



3	6	1.3.- Reference Architectures in IoT (y 2)					1,67	<b>4,0</b>
4	7	Practice - End-to-end IoT example					1,67	3,0
4	8	T2 – Internet of Things Devices, End to End (1)					1,67	4,0
5	9	2.1.- – Internet of Things Devices, End to End (2)					1,67	4,0
5	10	2.2.- Communications in IoT					1,67	4,0
6	11	2.2.- Communications in IoT					1,67	4,0
6	12	Practice - Registration and management of software on IoT device					1,67	3,0
7	13	2.3.- Securization in IoT					1,67	4,0
7	14	2.4.- Data Architecture for IoT (1)					1,67	4,0



8	15	2.4.- Data Architecture for IoT (2)					1,67	4,0
8	16	Practice - IoT Data Ingest Platform					1,67	3,0
9	17	2.5 - Machine Learning e IoT					1,67	4,0
9	18	Practice 2 - Development and deployment of an ML model on IoT device					1,67	4,0
10	19	3.1.-Development Frameworks					1,67	3,0
10	20	3.2.- Development process for IoT					1,67	3,0
11	21	Practice - Building a CI pipeline for IoT					1,67	4,0
11	22	3.3.- Deployment for IoT					1,67	3,0
12	23	3.4.- Integration and Continuous Delivery					1,67	4,0



12	24	Practice - Building a CD pipeline for IoT					1,67	4,0
13	25	Case Study - Talgo					1,67	3,0
14	26 + 27	Presentation and Defense Challenges					1,67 + 1,67	5,0
14	28	Presentation and Defense Challenges					1,67	2,0
<b>TOTAL HOURS</b>							<b>48,3</b>	<b>98</b>
		Exam Preparation						35
<b>TOTAL HOURS</b>								<b>178,3</b>