Goi Eskola Politeknikoa Escuela Politécnica Superior

		GENE	KAL INI	FORMATION			
Studies	MASTER DEGRE	E IN DATA ANALYSIS, Y AND CLOUD COMPL	JTING	Subject	Development a	nd Operations	
Semester Character	1 COMPULSORY	Course 1		Mention / Field of specialisation			
Plan	2019	Modality Adap Face	ted -to-face	Language	ENGLISH		
Credits	6	Hours/week 0		Total hours	64 class hours - hours	+ 86 non-class	hours = <u>150</u>
			PROFES	SSORS			
LARRINAC	GA BARRENECHE	A, FELIX					
PEREZ RI	AÑO, ALAIN						
		REQUIRED	PREVIC		GE		
Subjects					Knowl	edge	
(N	o specific previous	subjects required)		(1	No previous know	vledge require	d)
			SKIL	LS			
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ECIFIC							
CE12 - Develo	pping scalable and f	flexible software using a	dvanced s	oftware architectures	5.		
	computer tools to d	levelon applications and	operation	s (DevOns), both at t	he local level an	d in the cloud	to solve com
blems and ca	rry out engineering	projects while consideri	ng the bus	iness and industrial	context.	a in the cloud,	to solve com
OSS							
ICTR1 - Ability	to work in multidisc	ciplinary teams and in a	multilingua	al environment (Basq	ue/Spanish/Engl	ish) and to cor	nmunicate, bo
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Course: 2023 / 2024 - Course planning

**RA332** The student designs and implements scalable and flexible applications that offer an architecture composed of heterogeneous and independently deployable services, responding to problems or projects individually or in groups

LEARNING ACTIVITIES	СН	NCH	тн			
Conducting tests, giving presentations, presenting defend checkpoints	12 h.	26 h.	38 h.			
Carrying out/resolving projects/challenges/cases, etc. to p interdisciplinary contexts, real and/or simulated, individua	2 h.	9 h.	11 h.			
Presentation by the teacher in the classroom, in participat procedures associated with the subjects	11 h.		11 h.			
Carrying out exercises and solving problems individually a	eams	17 h.	23 h.	40 h.		
EVALUATION SYSTEM		MAKE-UP MECHANISMS				
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	40%	Individual written and/or oral tests or individual coding/programming tests				
Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	20%					
Individual written and/or oral tests or individual coding/programming tests	40%					
CH - Class hours: 42 h. NCH - Non-class hours: 58 h. TH - Total hours: 100 h.						

## CONTENTS

- Connectivity and IOT Gateways
- Service-oriented architectures and microservices
- Service Discovery and API Gateways
- Service Resilience
- Data Management in Service-Based Architectures
- Event-driven architectures
- Observability/Monitoring of services

## LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Moodle Platform	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_ln
Cloud platforms	k.pl?grupo=MASTERDATUANALISIA11&ejecuta=30&