

[MNC002] ADVANCED SOFTWARE ARCHITECTURES

GENERAL INFORMATION

Studies	MASTER DEGREE IN DATA ANALYSIS, CYBERSECURITY AND CLOUD COMPUTING		Subject	Development and Operations
Semester	1	Course	1	Mention / Field of specialisation
Character	COMPULSORY		Language	ENGLISH
Plan	2019	Modality	Adapted Face-to-face	
Credits	6	Hours/week	0	Total hours 64 class hours + 86 non-class hours = 150 total hours

PROFESSORS

LARRINAGA BARRENECHEA, FELIX
PEREZ RIAÑO, ALAIN

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
(No specific previous subjects required)	(No previous knowledge required)

SKILLS

VERIFICA SKILLS

SPECIFIC

MNCE12 - Developing scalable and flexible software using advanced software architectures.

GENERAL

MNCG03 - Using computer tools to develop applications and operations (DevOps), both at the local level and in the cloud, to solve complex problems and carry out engineering projects while considering the business and industrial context.

CROSS

MNCTR1 - Ability to work in multidisciplinary teams and in a multilingual environment (Basque/Spanish/English) and to communicate, both orally and in writing, knowledge, procedures, results and ideas related to the life cycle of the data, cybersecurity, and development and operations.

BASIC

M_CB10 - To have learning skills and the capacity for self-guided or independent subsequent learning.

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_in
Cloud platforms	k.pl?grupo=MASTERDATUANALISIA11&ejecuta=30&