[MNC103] Continous Integration and Deployment

GENERAL INFORMATION

Studies	MASTER DEGREE IN DATA ANALYSIS, CYBERSECURITY AND CLOUD COMPUTING	**Subject**	Development and Operations
Semester	2	**Course**	1
Character	COMPULSORY	**Mention / Field of specialisation**	
Plan	2024	**Modality**	Face-to-face
Credits	6	**Hours/week**	0
Language	CASTELLANO		
Total hours	64 class hours + 86 non-class hours = **150 total hours**		

PROFESSORS

AGIRRE BASTEGIETA, JOSEBA ANDONI
MARKIEGI GONZALEZ, URTZI

REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
M2N111 - Designing and automating the test management processes, changes, deployment and updates of business solutions while optimising the software life cycle.		x		5
M2N206 - Having and understanding knowledge that provides a base or opportunity to be original in the development and/or application of ideas, often in an investigation context.		x		0,6
M2N208 - Demonstrate the ability to integrate knowledge and deal with the complexity of making judgements based on incomplete or limited information, including reflections on the SDGs, human rights and fundamental rights, social, health and safety, environmental, economic and industrial implications and responsibilities.		x		0,4
			Total:	6

KC: Knowledge or Content / SK: Skills / AB: Abilities

SECONDARY LEARNING RESULTS

RA322 **Recognizes, designs and automates the process of continuous deployment and delivery of software solutions**

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	4 h.	3 h.	7 h.
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning	6 h.	2 h.	8 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	6 h.	16 h.	22 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	6 h.	5 h.	11 h.
Carrying out exercises and solving problems individually and/or in teams	10 h.	17 h.	27 h.

EVALUATION SYSTEM	W
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	40%
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%

MAKE-UP MECHANISMS

Individual written and/or oral tests or individual coding/programming tests

CH - Class hours: 32 h.
NCH - Non-class hours: 43 h.
TH - Total hours: 75 h.

RA321 Recognizes, designs and automates the process of continuous integration of software solutions, if necessary justifying the decisions taken within working groups.

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	4 h.	3 h.	7 h.
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning	6 h.	2 h.	8 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	6 h.	15 h.	21 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	6 h.	6 h.	12 h.
Carrying out exercises and solving problems individually and/or in teams	10 h.	17 h.	27 h.

EVALUATION SYSTEM	W
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	40%
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%

MAKE-UP MECHANISMS
Individual written and/or oral tests or individual coding/programming tests

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CONTENTS

- Agile Development and devops Culture - Continuous integration- Configuration Management- Strategies for continuous delivery- Continuous Deployment - Automation of the deployment chain (Pipelines)

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes	https://labur.eus/BXvP5
Labs	
Specific Master Software	
Moodle Platform	