

[MNC003] CONTINUOUS INTEGRATION AND DEPLOYMENT

GENERAL INFORMATION

Studies	MASTER DEGREE IN DATA ANALYSIS, CYBERSECURITY AND CLOUD COMPUTING		Subject	Development and Operations	
Semester	2	Course	1	Mention / Field of specialisation	
Character	COMPULSORY		Language	CASTELLANO	
Plan	2019	Modality	Adapted Face-to-face	Total hours	64 class hours + 86 non-class hours = 150 total hours
Credits	6	Hours/week	0		

PROFESSORS

AGIRRE BASTEGIETA, JOSEBA ANDONI

MARKIEGI GONZALEZ, URTZI

REQUIRED PREVIOUS KNOWLEDGE

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

SKILLS

VERIFICA SKILLS

SPECIFIC

MNCE11 - Designing and automating the test management processes, changes, deployment and updates of business solutions while optimising the software life cycle.

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_CB6 - To have and understand knowledge which provides a base or opportunity to be original in the development and/or application of ideas, often in an investigation context

M_CB8 - To be able to integrate different types of knowledge and make complex judgements based on information that, in spite of being partial or limited, includes ideas on the social and ethical responsibilities associated with the application of knowledge

LEARNING RESULTS

RA321 [!] *Reconoce, diseña y automatiza el proceso de integración continua de soluciones software, en caso necesario justificando las decisiones tomadas dentro de grupos de trabajo*

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	10 h.	18 h.	28 h.
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints	6 h.	2 h.	8 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

CH - Class hours: 32 h.

NCH - Non-class hours: 43 h.

TH - Total hours: 75 h.

RA322 [!] *Reconoce, diseña y automatiza el proceso de despliegue y entrega continua de soluciones software*

LEARNING ACTIVITIES

	<i>CH</i>	<i>NCH</i>	<i>TH</i>
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	10 h.	19 h.	29 h.
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints	6 h.	2 h.	8 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.

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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

Practices repository
 Subject notes
 Topic related web quires

Bibliography

http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_in_k.pl?grupo=MASTERDATUANALISIA12&ejecuta=30&