Goi Eskola Politeknikoa Escuela Politécnica

		GEN	ERAL IN	FORMATION					
Studies	MASTER DEGR CYBERSECURI	EE IN DATA ANALYSIS TY AND CLOUD COMPI	,	Subject Data	Analysis				
Semester	1	Course 1		Mention / Field of					
Character	COMPULSORY			specialisation					
Plan	2024	Modality Face	e-to-face	Language ENGL	ISH				
Credits	3	Hours/week 0		Total hours 32 cla hours		+ 43 nc	on-clas	ss hours =	<u>75 tota</u>
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IZAGIRRE	AIZPITARTE, UN	IAI	FROIL	550N3					
			PREVI	OUS KNOWLEDGE					
	Subj				Know	ledge			
(No specific previous subjects required)			(No pre	vious kno		requir	red)		
		LE	ARNING	RESULTS					
ARNING RESU						КС	SK	AB	ECTS
				I data modelling techniques the models created for the ex			x		2,4
knowledge	0	o 1							
		usions and the ultimate k nces in a clear and unam		and reasons behind them to av.)		x		0,6
			Siguede ii						
								Total:	3
Knowledge or Col	ntont / SK· Skills / AR·	Ahilitias							
	ntent / SK: Skills / AB:	SECONDA		NRNING RESULTS	ssing.				
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RA121 Recogn LEARNING AC Development a projects/work e	nizes and uses r CTIVITIES nd writing of reco xperience/challer	SECONDA	epts to ap	oly them in data preproces sual material, etc. on	-		ICH h.	<u>ТН</u> 5 h.	
RA121 Recognized Rec	nizes and uses r CTIVITIES nd writing of reco xperience/challer l/or in teams	SECONDA machine learning conce ords, reports, presentation nges/case studies/experin	epts to app ns, audiovi mental inve	oly them in data preproces sual material, etc. on	СН	3	-		
RA121 Recogn LEARNING AC Development a projects/work e individually and Conducting tes checkpoints Presentation by procedures ass	nizes and uses r CTIVITIES nd writing of reco xperience/challer l/or in teams ts, giving present y the teacher in the cociated with the s	SECONDA machine learning conce ords, reports, presentation nges/case studies/experin ations, presenting defend the classroom, in participa subjects	epts to ap ns, audiovi mental inve ces, taking tory classe	oly them in data preproces sual material, etc. on estigations carried out examinations and/or doing es, of concepts and	СН 2 h. 1 h. 4,5 h.	3	h.	5 h. 4 h. 4,5 h	
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LEARNING ACTIVITIES	СН	NCH	ТН
Development and writing of records, reports, presentations, audiovisual material, etc. on	6 h.	16 h.	22 h.

Mondragon Unibertsitatea Goi Eskola Politeknikoa Escuela Politécnica Superior

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Course: 2024 / 2025 - Course planning

projects/work experience/challenges/case studies/experin individually and/or in teams	mental inve	estigations carried out				
Conducting tests, giving presentations, presenting defences, taking examinations and/or do checkpoints				3 h.	4 h.	
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects					8,5 h.	
Carrying out exercises and solving problems individually	and/or in te	eams	6,5 h.	14 h.	20,5 h.	
EVALUATION SYSTEM	W	MAKE-UP MECHANIS	SMS			
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	15%	Individual written and/o coding/programming te		or individual		
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	25%					
Individual written and/or oral tests or individual coding/programming tests	60%					
CH - Class hours: 22 h. NCH - Non-class hours: 33 h. TH - Total hours: 55 h.						

CONTENTS

- 1. Data preprocessing
- 1.1 Cleaning
- 1.2. Transformations
- 1.3. Lost values and extraordinary values
- 1.4. Selection/extraction/discrediting of variables
- 2. Data analysis and training of traditional ML models
- 2.1. Types of problems: classification, regression, grouping
- 2.2. Families of models
- 2.3. Selection of models
- 2.4. Model valuation

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_ln
Technical articles	k.pl?grupo=MASTERDATUANALISIA11&ejecuta=10&
Presentations by external Lecturers	
Moodle Platform	
Computer practical training	
Class presentations	