Goi Eskola Politeknikoa Escuela Politécnica Superior

O ( )	MACTED RECO				Outback :		
Studies		E IN DATA ANALYSIS		Subject	Cybersecurity		
Semester	1	Course 1		Mention / Field of			
Character	COMPULSORY			specialisation			
Plan	2019	Modality Ada Face	pted e-to-face	Language	ENGLISH		
Credits	6	Hours/week 0			64 class hours - <u>hours</u>	+ 86 non-class	hours = <u>150 t</u>
			PROFE	SSORS			
	) GARITANO, IÑAI	<i< td=""><td></td><td></td><td></td><td></td><td></td></i<>					
ITURBE U	RRETXA, MIKEL						
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Subjects (No specific previous subjects required)				Able to install and m	Knowl	-	al servers in a
(				network infrastructu	ire.		
				Able to install and m services on this ope		/Linux operati	ng system and
				Able to install and m	0,	k of both phys	ical and virtual
				computers.			
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## RA212 The student obtains a thorough understanding of existing security threats, as well as their impact on operations

LEARNING ACTIVITIES			СН	NCH	тн	
Development and writing of records, reports, presenta projects/work experience/challenges/case studies/exp ndividually and/or in teams			-	7 h.	7 h.	
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints			2 h.	3 h.	5 h.	
resentation by the teacher in the classroom, in partic rocedures associated with the subjects	cipatory classe	s, of concepts and	5 h.		5 h.	
Carrying out exercises and solving problems individua	ally and/or in te	ams		8 h.	8 h.	
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS				
ndividual written and/or oral tests or individual coding/programming tests	100%	Individual written and/or oral tests or individual coding/programming tests				

CH - Class hours: 7 h. NCH - Non-class hours: 18 h. TH - Total hours: 25 h.

RA213 The student is able to identify, design and implement security mechanisms, individually and in groups

Development and writing of records, reports, presentation projects/work experience/challenges/case studies/experin individually and/or in teams			16 h.	15 h.	31 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects			13 h.		13 h.
Carrying out exercises and solving problems individually	and/or in te	eams	7 h.	14 h.	21 h.
EVALUATION SYSTEM	W	MAKE-UP MECHAN	ISMS		
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	40%	Reports on the completion of exercises, case studies, compu exercises, simulation exercises, laboratory exercises, term projects, challenges and problems			
Presentation and defence of exercises, case studies, computer practical work, simulation practical work,	60%				

CH - Class hours: 36 h. NCH - Non-class hours: 29 h.

TH - Total hours: 65 h.

## CONTENTS

- 1. Introduction
- 2. Cryptography
- 3. Node Security
- 4. Network Security
  - 1. Network Protocol Security

2. Firewalls

- 3. VPNs
- 4. User identification
- 5. Attack detection
  - 1. Signature-based detection
  - 2. Anomaly detection systems
  - 3. Attack response



Course: 2023 / 2024 - Course planning

4. Intrusion/Anomaly detection in industrial environments

5. SIEM and log analysis

## LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

Subject notes Moodle Platform Bibliography

http://katalogoa.mondragon.edu/janium-bin/janium\_login\_opac\_re\_ln k.pl?grupo=MASTERDATUANALISIA11&ejecuta=20&