



TECHNICAL SHEET OF THE SUBJECT

Data of the subject	
Full name	Security and Regulations
Code	DTC-GITT-413
Title	Bachelor's Degree in Engineering in Telecommunication Technologies
Taught In	Grado en Ingeniería en Tecnologías de Telecomunicación y Grado en ADE [Cuarto Curso] Grado en Ingeniería en Tecnologías de Telecomunicación [Cuarto Curso]
Credits	7,5
Character	Básico
Department	Departamento de Telemática y Computación
Responsible	Rafael Palacios
Schedule	Morning
Schedule Tutorials	Contact teacher to make an appointment

Teacher Information	
Teacher	
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SPECIFIC DATA OF THE SUBJECT

Contextualization of the subject
Prerequisites



Basic knowledge of networks, web services and http protocol.

Course contents

Contents - Thematic Blocks

1. TELECOMMUNICATIONS POLICIES AND REGULATIONS IN THE EU
 - How is and how is the EU (European Union) governed? EU regulations.
2. TELECOMMUNICATIONS REGULATIONS IN SPAIN
 - LOT (Telecommunications Regulation Law.
 - Liberalization RDL 6/1996 and Law Liberalization of Telecommunications (LLT) 2/1997.
 - General Telecommunications Law (LGT) 11/98, 32/2003 and 9/2014.
 - Technical regulations for telecommunications infrastructures and services.
3. INTRODUCTION TO SECURITY
 - Introduction and Basic Concepts
 - Risk analysis.
4. CRYPTOGRAPHY
 - Symmetric cryptography and public key
 - Irreversible encryption, summary functions and randomness
 - Digital Signature Algorithms
5. SECURE NETWORK ARCHITECTURE
 - Segregation of Traffic. Virtual Private Networks.
 - Tunnels and Firewalls.
 - Secure Protocols.
 - Remote access
 - Public Key Infrastructure (PKI)
 - Virus and Antivirus Systems.
6. SECURITY MANAGEMENT
 - Monitoring, IDS Systems, IPS and Detection of Anomalies.
 - Security Management Standards.
 - Security Scorecard, Metrics.
7. SECURITY REGULATIONS.
 - Regulation, SOX, LOPD, LSSI.
8. SECURITY COMPLIANCE)
 - Certification systems
 - Audit and Control

TEACHING METHODOLOGY

General methodological aspects of the subject

In-class Methodology: Activities



Lectures

Solving problems in class

Lab practices

Non-Presential Methodology: Activities

Preparation of Lab practices

Individual papers on regulation

EVALUATION AND CRITERIA

Evaluation activities	Evaluation criteria	Weight
Final Exam	<ul style="list-style-type: none">• General knowledge of the subject• Ability to solve problems• Critical analysis of the results	60 %
Test during the class Homework reports	Accuracy of the results and conclusions.	25 %
Lab reports	<ul style="list-style-type: none">• Fulfilment of all tasks requested• Accuracy of the answers to the questions proposed• Quality of the report	15 %

Grading

- 60% Final exam
- 25% Paper related to Regulation. Tests
- 15% Lab reports

BIBLIOGRAPHY AND RESOURCES

Basic References

Slides and material available in Moodle.



COMILLAS

UNIVERSIDAD PONTIFICIA

ICAI

ICADE

CIHS

TEACHING GUIDE 2018 - 2019

William Stallings, "Fundamentos de seguridad en redes: aplicaciones y estándares". Pearson Prentice Hall. ISBN: 8422052400221

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