

GENERAL INFORMATION

Data of the subject		
Subject name	Security in Communications Systems	
Subject code	DTC-TEL-612	
Mainprogram	Official Master's Degree in Telecommunications Engineering	
Involved programs	Máster Universitario en Ingeniería de Telecomunicación [Segundo Curso]	
Credits	4,5 ECTS	
Туре	Obligatoria	
Department	Department of Telematics and Computer Sciencies	

Teacher Information			
Teacher			
Name	Ángel Prado Montes		
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DESCRIPTION OF THE SUBJECT

Contextualization of the subject

Prerequisites

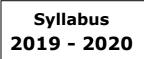
Previous knowledge is required on network communications, web applications, and introduction to cryptography.

Some programming skills are required for lab practices and exercises in class.

Course contents

Contents





Chapter 1: Introduction and course overview Chapter 2: Browser and HTTP/HTTPS fundamentals Chapter 3: Security Architecture and Security Analysis Methodologies Chapter 4: Attacks against the applications layer, and defenses Chapter 5: Common web vulnerabilities, and pentesting Chapter 6: Attacks against SSL/HTTPS and defenses Chapter 7: More advanced side-channel attacks Chapter 7: More advanced side-channel attacks Chapter 9: Security Management Systems Chapter 10: Security monitoring and computer forensics Chapter 11: Policies and security governance (Recovery and Resiliency) Chapter 12: Information trust and regulatory compliance (certification and standards) Chapter 13: Conclusion, Guest lecture and/or open research discussion

EVALUATION AND CRITERIA

Evaluation activities	Evaluation criteria	Weight
Final Exam: 50% Tests: 20%	Knowledge of the subject Capability to apply suitable tools to solve problems	70 %
Labs evaluation	Knowledge of the subject Capability to apply suitable tools to solve problems	30 %

Grading

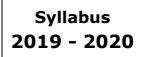
Exams 70%

- 50% Final exam
- 20% Tests

Labs evaluation 30%

- 20% Lab reports
- 10%Active participation in class





July Exam (retake)

- 80% Retake Exam
- 20% Labs

BIBLIOGRAPHY AND RESOURCES

Basic References

- John R. Vacca, Managing Information Security, Second Edition -http://www.amazon.com/Managing-Information-Security-Second-Edition/dp/0124166881
- Michal Zalewski ,The Tangled Web: A Guide to Securing Modern Web Applicationshttp://www.amazon.com/The-Tangled-Web-Securing-Applications/dp/1593273886

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