

Syllabus 2024 - 2025

GENERAL INFORMATION

Data of the subject		
Subject name	Application Security	
Subject code	DTC-MCS-525	
Mainprogram	Official Master's Degree in Telecommunications Engineering	
Involved programs	Máster Universitario en Ingeniería de Telecomunicación [Second year]	
Credits	4,5 ECTS	
Туре	Obligatoria	
Department	Department of Telematics and Computer Sciencies	

Teacher Information			
Teacher			
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DESCRIPTION OF THE SUBJECT

Contextualization of the subject

Course contents

Contents

Theory Block:

TOPIC 1: Introduction to Application Security and S-SDLC.

TOPIC 2: Secure Development Framework – OWASP SAMM Model and MS DSL for Agile.

TOPIC 3: Secure Development Framework – Standard Model I.

TOPIC 4: Secure Development Framework – Standard Model II.

TOPIC 5: DevSecOps and Container Security.

TOPIC 6: Methodology and Software Life Cycles.

TOPIC 7: Case Studies.



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Practical Block:

TOPIC 1: Security Controls.

TOPIC 2: Secure Development.

TOPIC 3: Source Code Auditing.

TOPIC 4: Introduction to Reverse Engineering.

EVALUATION AND CRITERIA

Evaluation activities	Evaluation criteria	Weight
Final practice consisting of the completion of a series of short exercises and a security audit on an application, which must be submitted along with the corresponding report.	This task is mandatory to pass the course and must be completed individually.	40 %
This assessment will be the final exam, where the student's knowledge of both the theoretical and practical parts will be evaluated.	This final exam is mandatory and individual. To pass the course, both the final practice and the final exam must be passed individually. If one of these assessments is not passed, the course will not be passed.	60 %

BIBLIOGRAPHY AND RESOURCES

Basic References

• Software Security for Developers. Adib Saikali. ISBN: 978-16-1729-858-5.

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