



## 1. General information

Course: NETWORK SECURITY  
Type: CORE COURSE  
Degree: 346 - DEGREE IN COMPUTER SCIENCE AND ENGINEERING  
Center: 604 - SCHOOL OF COMPUTER SCIENCE AND ENGINEERING (AB)  
Year: 4

Main language: Spanish

Use of additional languages:

Web site:

Code: 42340  
ECTS credits: 6  
Academic year: 2019-20  
Group(s): 16  
Duration: First semester  
Second language: English  
English Friendly: Y  
Bilingual: N

Lecturer: JOSE LUIS MARTINEZ MARTINEZ - Group(s): 16				
Building/Office	Department	Phone number	Email	Office hours
ESII-1.C.11	SISTEMAS INFORMÁTICOS	2294	jose.luis.martinez@uclm.es	Publicada en la página de la ESII. Se atenderá cualquier día y hora previa cita a través del mail

## 2. Pre-Requisites

Mandatory subject for the Specific Technology of Computer Engineering Subject, it is advisable to have completed the Basic Training modules and the Common module to the Computing Branch (Modules I and II). It is therefore recommended to have clear the basic

## 3. Justification in the curriculum, relation to other subjects and to the profession

This subject is part of the subject Specific Technology of Computer Engineering, within the intensification of Computer Engineering. It is a compulsory subject to obtain the mention corresponding to the aforementioned intensification.

Helps to reach one of the capacities that the graduates in Computer science of the UCLM must have, in particular, the capacity [IC6]: Ability to understand, apply and manage the guarantee and security of the computer systems.

The contents covered in this subject are closely related to those of other subjects taught in the plan, such as Computer Networks I, Computer Networks II, Network Design and Management, Wireless Devices and Networks, Cryptography, Information Systems Audit, (

## 4. Degree competences achieved in this course

## Course competences

Code	Description
IC6	Ability to understand, apply, and manage the reliability and safety of digital systems.
INS1	Analysis, synthesis, and assessment skills.
INS2	Organising and planning skills.
INS4	Problem solving skills by the application of engineering techniques.
PER2	Ability to work in multidisciplinary teams.
SIS1	Critical thinking.
SIS3	Autonomous learning.
SIS5	Creativity.

## 5. Objectives or Learning Outcomes

## Course learning outcomes

Description

## 6. Units / Contents

## Unit 1:

Unit 1.1

Unit 1.2

## Unit 2:

Unit 2.1

Unit 2.2

Unit 2.3

Unit 2.4

Unit 2.5

Unit 2.6

Unit 2.7

Unit 2.8

## Unit 3:

Unit 3.1

Unit 3.2

Unit 3.3

Unit 3.4

## 7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	R	Description
Class Attendance (theory) [ON-SITE]	Combination of methods	IC6 INS1 SIS1	1.04	26	Y	N	Y	
Class Attendance (practical) [ON-SITE]	Practical or hands-on activities	IC6 SIS1	1.2	30	Y	N	Y	
Project or Topic Presentations [ON-SITE]	Group Work	IC6 INS1 INS2 INS4 PER2 SIS1 SIS3 SIS5	0.12	3	Y	N	Y	
Final test [ON-SITE]	Problem solving and exercises	IC6 INS1 SIS1 SIS5	0.2	5	Y	Y	Y	
On-line Activities [OFF-SITE]	Assessment tests	IC6 SIS1 SIS5	0.16	4	Y	N	Y	
Writing of reports or projects [OFF-SITE]	Self-study	IC6 INS1 INS2 INS4 PER2 SIS1 SIS3 SIS5	0.8	20	Y	N	Y	
Study and Exam Preparation [OFF-SITE]	Self-study	INS1 INS2 INS4	2.48	62	Y	N	Y	
Total:			6	150				
Total credits of in-class work: 2.56			Total class time hours: 64					
Total credits of out of class work: 3.44			Total hours of out of class work: 86					

As: Assessable training activity

Com: Training activity of compulsory overcoming

R: Rescheduling training activity

## 8. Evaluation criteria and Grading System

Evaluation System	Grading System		Description
	Face-to-Face	Self-Study Student	
Final test	25.00%	0.00%	
Final test	25.00%	0.00%	
Progress Tests	50.00%	0.00%	
Total:	100.00%	0.00%	

## 9. Assignments, course calendar and important dates

## Not related to the syllabus/contents

Hours	hours
Project or Topic Presentations [PRESENCIAL][Group Work]	3
Final test [PRESENCIAL][Problem solving and exercises]	5
On-line Activities [AUTÓNOMA][Assessment tests]	4
Writing of reports or projects [AUTÓNOMA][Self-study]	20
Unit 1 (de 3):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Combination of methods]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	2
Unit 2 (de 3):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Combination of methods]	12
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	20
Writing of reports or projects [AUTÓNOMA][Self-study]	32

Study and Exam Preparation [AUTÓNOMA][Self-study]	8
<b>Unit 3 (de 3):</b>	
<b>Activities</b>	<b>Hours</b>
Class Attendance (theory) [PRESENCIAL][Combination of methods]	6
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	10
Writing of reports or projects [AUTÓNOMA][Self-study]	20
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
<b>Global activity</b>	
<b>Activities</b>	<b>hours</b>
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	30
Project or Topic Presentations [PRESENCIAL][Group Work]	3
Final test [PRESENCIAL][Problem solving and exercises]	5
On-line Activities [AUTÓNOMA][Assessment tests]	4
Writing of reports or projects [AUTÓNOMA][Self-study]	72
Study and Exam Preparation [AUTÓNOMA][Self-study]	14
Class Attendance (theory) [PRESENCIAL][Combination of methods]	22
<b>Total horas: 150</b>	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Catherine Paquet	Implementing Cisco IOS Network Security (IINS): (CCNA Security exam 640-553) (Authorized Self-Study Guide)	Cisco Press			2009	
Cisco Systems	Fundamentos de seguridad de redes : Especialista en Firewall Cisco / Cisco System ; traducción, José Manuel Díaz Madrid	Pearson Education			2008	
Michael Walkings, Kevin Wallace	CCNA Security Official Exam Certification Guide	Cisco Press			2008	
William Stallings	Fundamentos de seguridad en redes : aplicaciones y estándares	Prentice Hall			2003	
varios	Colección Pack Completa <a href="http://0xword.com/es/">http://0xword.com/es/</a>	0xword				Colección de varios ejemplares