



Universitat de Lleida

DEGREE CURRICULUM
**COMPUTER SYSTEMS
SECURITY**

Academic year 2014-15

Subject's general information

Subject name	Computer Systems Security
Code	103061
Semester	2n Quadrimestre 2N Cicle Informàtica i Màster
Typology	Obligatòria
ECTS credits	6
Theoretical credits	0
Practical credits	0
Office and hour of attention	Send an email to the teachers to get an appointment
Department	Informàtica i Enginyeria Industrial
Modality	Presencial
Important information on data processing	Consult this link for more information.
Degree	Master's Degree in Informatics Engineering
Distribution of credits	Carles Mateu Piñol 3 Ramon Bejar Torres 3
Office and hour of attention	Send an email to the teachers to get an appointment
E-mail addresses	carlesm@diei.udl.cat ramon@diei.udl.cat

Carles Mateu Piñol
Ramón Béjar Torres

Learning objectives

Strategic competences of the UdL:

Mastering of a foreign language.

Objectives:

- To know how to prepare a short oral presentation in English on a topic related to ISS.
- To work with different information sources written in English

Mastering of information and communication technologies.

Objectives:

- To know how to prepare documents with different tools for preparing digital documents

Cross-disciplinary Competences:

Capacity to conceive, design and implement projects and/or contribute to new solutions, using engineering tools.

Objectives:

- To design a proposal for a complete security model for a scenario of network / servers.

Specific Competences:

Capacity to design, develop, manage and evaluate mechanisms to certificate and guarantee the security in the treatment and access to the information in a processing or distributed local system.

Objectives:

- To design a proposal for a complete security model for a scenario of network / servers.

Competences

University of Lleida strategic competences

- **UdL2.** Mastering of a foreign language.
- **UdL3.** Mastering of Information and Communication Technologies.

Degree-transversal competences

- **EPS4.** Capacity to conceive, design and implement projects and/or contribute to new solutions, using engineering tools.

Degree-specific competences

- **MI17.** Capacity to design, develop, manage and evaluate mechanisms to certificate and guarantee the security in the treatment and access to the information in a processing or distributed local system.

Subject contents

1. Security in networks.
2. Security in Servers
3. Forensic analysis and audits
4. Design of policies and security plans
5. Risk Analysis.
6. Legal aspects of information systems security

Methodology

There will be three types of activities:

- 1) Lectures.
- 2) Laboratory classes.
- 3) Independent work outside the classroom.

Development plan

Week	Contents
1	Introduction
2	Security in servers
3	Security in servers
4	Security in networks
5	Security in networks
6	Audits and forensic analysis
7	Audits and forensic analysis
8	Wifi Security
9	Security management through security plans
10	Security management with ISO27001
11	ISO27001 y ISO27002
12	Risk Analysis - Asset modelization and valuation
13	Risk Analysis - Threat modelization and valuation
14	Risk Analysis - legal aspects

Evaluation

Three individual assignments:
(35% A1, A2 35%, 30% A3)

A1: Discussion of a paper on the Virtual Campus.

A2: Security Analysis on servers.

A3: Risk analysis

Bibliography

All learning material for this part will be provided during the course in the form of slides, notes and manuals of the different programs to be used.