Course guide
270533 - ID - Digital Identity

Last modified: 25/07/2025

Unit in charge: Barcelona School of Informatics
Teaching unit: 749 - MAT - Department of Mathematics.

Degree: MASTER'S DEGREE IN INFORMATICS ENGINEERING (Syllabus 2012). (Optional subject).

Academic year: 2025 **ECTS Credits:** 3.0 **Languages:** Spanish

LECTURER

Coordinating lecturer: FERNANDO MARTÍNEZ SÁEZ

Others: Primer quadrimestre:
FERNANDO MARTÍNEZ SÁEZ - 10

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CDG1. Capability to integrate technologies, applications, services and systems of Informatics Engineering, in general and in broader and multicisciplinary contexts.
CTE4. Capability to design, develop, manage and evaluate mechanisms of certification and safety guarantee in the management and access to information in a local or distributed processing.

Generical:
CG8. Capability to apply the acquired knowledge and to solve problems in new or unfamiliar environments inside broad and multidisciplinary contexts, being able to integrate this knowledge.
CG9. Capacity to understand and apply ethical responsibility, law and professional deontology of the activity of the Informatics Engineering profession.

Transversal:
CTR2. SUSTAINABILITY AND SOCIAL COMMITMENT : Capability to know and understand the complexity of the typical economic and social phenomena of the welfare society. Capacity for being able to analyze and assess the social and environmental impact.
CTR6. REASONING: Capacity for critical, logical and mathematical reasoning. Capability to solve problems in their area of study. Capacity for abstraction: the capability to create and use models that reflect real situations. Capability to design and implement simple experiments, and analyze and interpret their results. Capacity for analysis, synthesis and evaluation.

Basic:
CB7. Ability to integrate knowledges and handle the complexity of making judgments based on information which, being incomplete or limited, includes considerations on social and ethical responsibilities linked to the application of their knowledge and judgments.
CB9. Possession of the learning skills that enable the students to continue studying in a way that will be mainly self-directed or autonomous.

TEACHING METHODOLOGY

Master classes in which the teacher will explain the different topics.
Conferences given by experts on different topics related to the subject.
Material will be provided so that the students can go deeply into the subjects of their interest.

LEARNING OBJECTIVES OF THE SUBJECT

1.Differentiate between Identity, Identification, Authentication, Authorization, Anonymous, Pseudonym and Privacy.
2.Learn about the most important applications of Digital Identity.
3.Know some of the technologies used in this field.
4.Knowing which are the most relevant standards in the field and their importance in interoperability.
5.Know what legal implications these technologies can or can have.

STUDY LOAD

Type	Hours	Percentage
Self study	48,0	64.00
Hours large group	27,0	36.00

Total learning time: 75 h

CONTENTS

Defining Digital Identity

Description:
Identity. Identification. Authentication. Authorization. Anonymi. Pseudonym. Privacy and Identity.

Uses

Description:
eAdministration. eHealth. eBusiness. Finances.

Interoperability Standars and Law.

Description:
Normatives nacionals i internacionals.

ACTIVITIES

Lecture

Specific objectives:
1, 2, 3, 4, 5

Related competencies :
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CTR2. SUSTAINABILITY AND SOCIAL COMMITMENT : Capability to know and understand the complexity of the typical economic and social phenomena of the welfare society. Capacity for being able to analyze and assess the social and environmental impact.

Full-or-part-time: 30h
Self study: 10h
Theory classes: 20h

Presentations

Description:
Presentation of subjects chosen by the students

Specific objectives:
1, 2, 3, 4, 5

Related competencies :
CB9. Possession of the learning skills that enable the students to continue studying in a way that will be mainly self-directed or autonomous.
CB7. Ability to integrate knowledges and handle the complexity of making judgments based on information which, being incomplete or limited, includes considerations on social and ethical responsibilities linked to the application of their knowledge and judgments.
CTE4. Capability to design, develop, manage and evaluate mechanisms of certification and safety guarantee in the management and access to information in a local or distributed processing.
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Full-or-part-time: 31h
Self study: 24h
Theory classes: 7h

Demonstrate in the digital world our identity

Description:
Obtain a recognized digital identity (eg eDNI) and use it to sign a document.

Full-or-part-time: 16h
Self study: 16h

GRADING SYSTEM

Participación en clase: 25%.
Presentación de un tema relacionado con la materia elegidos por los estudiantes según sus intereses: 75%

BIBLIOGRAPHY

Basic:
- Rosenberg, B. Handbook of financial cryptography and security. CRC Press, 2011. ISBN 9781420059816.
- Camenisch, J.; Leenes, R; Sommer, D. Digital privacy: PRIME - privacy and identity management for Europe. Springer-Verlag, 2011. ISBN 9783642190490.