

Information Systems

Code: 104728
ECTS Credits: 12

Degree	Type	Year	Semester
2503873 Interactive Communication	FB	1	A

Contact

Name: Juan Carlos Sebastián Pérez
Email: JuanCarlos.Sebastian@uab.cat

Use of Languages

Principal working language: spanish (spa)
Some groups entirely in English: No
Some groups entirely in Catalan: No
Some groups entirely in Spanish: Yes

Prerequisites

No pre-requisites are needed.

Objectives and Contextualisation

1. That students attain a knowledge about Information technology infrastructure
2. Knowledge about network infrastructure
3. Understand the Computer architecture
4. Understand the how the Operating System works
5. Knowledge about the different programming languages
6. Understand Internet as basic infrastructure for data transmission
7. Learn to value IT security infrastructure
8. Value virtual systems and cloud
9. Learn to value Big Data and Open Data

Competences

- Apply and integrate knowledge in the fields of social sciences, humanities and engineering to generate complex products and services tailored to citizens' needs.
- Determine and plan the technological infrastructure necessary for the creation, storage, analysis and distribution of interactive multimedia and social-networking products.
- Identify the characteristics of information systems from both a conceptual and a practical perspective.
- Manage time efficiently and plan for short-, medium- and long-term tasks.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.

Learning Outcomes

1. Adopt the internal logics of scientific thought when putting the theoretical and practical content of this subject area into practice.

2. Apply knowledge of the humanities and social sciences to the creation of technological products aimed at communication.
3. Differentiate between the capacities, architectures, applications and performance of information services, both conceptually and in practice.
4. Distinguish the services and storage systems of information systems, both conceptually and in practice.
5. Distinguish the theory of the network actor from that of social networks.
6. Explain the concepts of programming, transmission and protocols of information systems, both conceptually and in practice.
7. Explain the rules of social networks, their direct influence and the 6-degree rule.
8. Identify the features specific to information systems, both conceptually and in practice.
9. Plan and conduct academic studies in the field of information systems.
10. Plan projects in the field of information structure and transmission.
11. Study and analyse the theory of complex systems applied to society.
12. Submit course assignments on time, showing the individual and/or group planning involved.
13. Use technological knowledge of the subject area to create communication services for the general public.

Content

1. Hardware and Data Centers
2. Introduction to operating systems
3. Network fundamentals
4. Network security
5. Introduction to Big Data i Open Data
6. Programming languages

Methodology

The methodology used at class will be:

MD1: Master Class

MD4: Specific task designated

MD6: Oral presentations

MD9: Laboratories practices

MD10: Personal study

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Laboratory practices	36	1.44	1, 4, 6, 7, 10, 12, 13
Master class	42	1.68	2, 1, 3, 4, 5, 11, 6, 7, 8, 10, 9, 12, 13
Oral presentations	10	0.4	2, 1, 3, 4, 5, 11, 6, 7, 8, 10, 9, 12, 13
Specific task designated	18	0.72	2, 1, 3, 4, 5, 11, 6, 7, 8, 10, 9, 12, 13
Type: Autonomous			
Personal study	162	6.48	2, 8, 12, 13

Assessment

The objective is to establish a continuous evaluations mechanism. This subject has at least three evaluative activities. But none of these could represent up more 50% of the final mark.

Evaluative activities:

AE8: Theoretical exams	50%
AE1: Delivery of works	15%
AE3: Lab practices	25%
AE9: Class attendance	10%

To pass the subject its necessary to pass all parts (minimum pass mark is 5). Virtual campus is a main tool in this subject. There will be uploaded the main resources and works. The theoretical exams and lab practices can be retaken in a final retake exam. If anyone want to do this exam it's necessary to deliver unpass lab practices before.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Class Attendance	10%	2	0.08	9, 12
Delivery of works	15%	10	0.4	2, 1, 3, 4, 5, 11, 6, 7, 8, 10, 9, 12, 13
Lab practices	25%	10	0.4	3, 4, 5, 6, 13
Theoretical exams	50%	10	0.4	2, 1, 3, 4, 5, 11, 6, 7, 8, 10, 9, 12, 13

Bibliography

1. Python, Los fundamentos del lenguaje. Editorial Eni.
 1. Fecha de publicación: diciembre 2016
 2. ISBN: 978-2-409-00614-2
 3. EAN: 9782409006142
2. <https://www.python.org/>