

Information Systems

Code: 42107
ECTS Credits: 10

Degree	Type	Year	Semester
4312208 Archival and Records Management	OB	1	1

Contact

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Use of Languages

Principal working language: catalan (cat)

Teachers

Mérida Iglesias Lucía

Prerequisites

Subject: Information Systems

User level skills of a computer system and operating systems (Windows, Linux, MacOS or equivalent).

Subject: Organization and business administration

There are no prerequisites.

Objectives and Contextualisation

Subject: Information Systems

At the end of this subject the students will have knowledge, methods and skills to work, manage and deploy information systems with current technologies and technological platforms based both in local and cloud environments. These objectives will be possible through a methodology based on face-to-face sessions that will allow students to take contact with the fundamental concepts of the subject, carry out some activities based on use cases in the topics covered and apply these concepts to practical problems.

Subject: Organization and business administration

At the end of this subject, the students will have the knowledge, methods and skills needed to understand the functioning of organizations, the main information systems and the role that document management plays within organizations and companies.

Competences

- Adapt to new situations, showing leadership and initiative abilities.
- Analyse the structure and functioning of public and private organisations.
- Analyse, synthesise, organise and plan management environments and actions.
- Continue the learning process, to a large extent autonomously.

- Evaluate and select computerised document-management tools for archives according to their use and needs.
- Generate innovative and competitive proposals.
- Update and recycle knowledge through continuous training.
- Use information and knowledge management systems.
- Work independently, solving problems and making decisions.
- Work with the sources, methods, computer tools and scientific research techniques pertaining to archiving.

Learning Outcomes

1. Adapt to new situations, showing leadership and initiative abilities.
2. Analyse, synthesise, organise and plan management environments and actions.
3. Continue the learning process, to a large extent autonomously.
4. Describe the structure and design of database systems.
5. Distinguish the main operating systems.
6. Distinguish typologies of information systems and the use they have.
7. Evaluate the benefits of software for document management and archiving.
8. Generate innovative and competitive proposals.
9. Identify and analyse the internal structure of private organisations and their typology.
10. Identify and define software requirements for document management and archiving.
11. Identify the functioning of computer networks.
12. Manage information systems.
13. Recognise basic hardware components.
14. Recognise the functions of information systems.
15. Recognise the theory, foundations and historical development of organisations and of company administration.
16. Update and recycle knowledge through continuous training.
17. Use office automation tools.
18. Work independently, solving problems and making decisions.

Content

Subject: Information Systems

Unit 1. Introduction to information systems.

- Concepts and development of information systems (SI).
- Information Systems as an essential resource in modern societies and the new economy.
- The value of information and new trends: Open Data and Big Data.

Unit 2. SI Architecture.

- Hardware and communication networks
- Operating systems, software, applications and languages.
- Internet, virtual systems and Cloud.
- Security and visualization of information. Licenses.

Unit 3. Case studies.

Development and testing of use cases using the technologies previously explained on the following platforms:

- Collaborative environment on a private cloud: Alfresco (Nebula-UAB)
- Deployment and implementation of a personal information system in the cloud (Azure Webapps).
- Deployment of a SI on a local virtual machine with Ubuntu + Apache2, Wordpress, Omeka.

Subject: Organization and business administration

Unit 1.

- Types of organizations and companies. Legal scope and characteristics.

Unit 2.

- Structure, functions and responsibilities to organizations and companies.

Unit 3.

- Business information systems and support tools.

Unit 4.

- Documentary management in companies and organizations.

Methodology

The methodology of the subject is based on direct activities (concepts and discussion), supervised (labsl) and autonomous activities (study and development of the homework and participation in the discussion forums)

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Information Systems: Interactive Classroom	36	1.44	12, 4, 5, 6, 11, 10, 3, 13, 14, 17
Organization and business administration. Master class.	36	1.44	16, 1, 2, 6, 8, 9, 15, 18
Type: Supervised			
Information Systems: Use cases Labs.	40	1.6	16, 12, 7, 6, 8, 3, 13, 14, 18, 17
Organization and business administration. Debats, resolve practical cases and tutorials.	15	0.6	1, 2, 7, 6, 8, 9, 3, 15, 18
Type: Autonomous			
Information Systems: Cases analysis and study	19	0.76	16, 1, 8, 3, 18
Organization and business administration. Personal study and make jobs.	40	1.6	16, 1, 2, 6, 8, 9, 3, 15, 18

Assessment

Subject: Information Systems

Second-opportunity Grade: To participate in this process of some of the planned activities, the student must be previously evaluated and that the weighted average grade is 3.5 (about 10). In this case, a period of one week

will be allowed so that the student can recover activities with an individual grade of less than 5.0 with the objective of passing the subject. As it is obvious, participation in classes grade is not considered in this process.

Subject: Organization and business administration

The evaluation system is based on the "continuous assessment" model and includes the activities foreseen in this section.

Re-evaluation: Students who do not pass the continuous evaluation or who do not attend the same will undergo re-evaluation to pass the subject. The maximum score of this exam will be a 5.

The activities must be delivered within the indicated period and will be penalized the fact of delivering it after the deadline without justification and the accumulation of spelling or grammatical errors.

Plagiarism: Without prejudice to other disciplinary measures considered appropriate, and in accordance with current academic regulations, irregularities committed by a student that may lead to a variation of the grade will be scored with a zero (0). For example, plagiarizing, copying, letting copy ..., an evaluation activity, will imply suspending this evaluation activity with a zero (0). The evaluation activities qualified in this way and by this procedure will not be recoverable.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Information Systems: Participation in discussion forums and classroom	30	20	0.8	16, 1, 2, 8, 10, 3, 18
Information Systems: Quiz	30	3	0.12	12, 2, 7, 5, 11, 13, 14, 18, 17
Information Systems: Use cases Labs reports	40	7	0.28	12, 7, 4, 5, 6, 11, 13, 14, 18, 17
Organization and business administration. Do and expose practical cases.	40	25	1	16, 1, 2, 7, 6, 8, 9, 3, 15, 18
Organization and business administration. Participation in class activities.	10	5	0.2	16, 1, 2, 7, 8, 9, 3, 15, 18
Organization and business administration. Theoretical test units 1 and 2.	25	2	0.08	2, 8, 9, 3, 15, 18
Organization and business administration. Theoretical test units 3 and 4.	25	2	0.08	2, 7, 6, 8, 3, 18

Bibliography

Subject: Information Systems (ebooks)

These ebook access must be done from UAB computers or using <http://xpv.uab.cat> with the NIU and the student's password from outside the UAB,

- Henderson, Harry. Encyclopedia of computer science and Technology. 2009.
<http://lib.mylibrary.com/Open.aspx?id=203886>

- Global E-Governance Series : E-Governance : A Global Perspective on a New Paradigm. Obi, T. 2007. <http://site.ebrary.com/lib/cbuc/detail.action?docID=10196614>
- La empresa en la Web 2.0. Celaya, Javier. 2000. <http://site.ebrary.com/lib/cbuc/detail.action?docID=10316848>
- Ethical and social issues in the information age. Kizza, Joseph. 2003. <https://link.springer.com/book/10.1007%2Fb98842>
- Building Social Web Applications. Bell, Gavin. 2009. <http://site.ebrary.com/lib/bibliotequesuab/detail.action?docID=10766869>
- Database Modeling and Design. Toby J. Teorey, Sam S. Lightstone, Tom Nadeau and H.V. Jagadish. 2011. <http://www.sciencedirect.com/science/book/9780123820204>
- The Illustrated Network. How TCP/IP Works in a Modern Network. Walter Goralski. 2011. <http://www.sciencedirect.com/science/book/9780123745415>
- Introducció a Internet: fonaments tecnològics i recursos per a usuaris. David Rincón Rivera, Lluís Casals Ibáñez. 2003. <http://upcommons.upc.edu/handle/2099.3/36781>
- Networking Explained. Michael A. Gallo and William M. Hancock. 2002. <http://www.sciencedirect.com/science/book/9781555582524>
- Virtual Machines. Versatile Platforms for Systems and Processes. James E. Smith and Ravi Nair. 2005. <http://www.sciencedirect.com/science/book/9781558609105>
- Sistemes operatius: teoria aplicada. Solsona, Francesc. 2015. <http://site.ebrary.com/lib/bibliotequesuab/detail.action?docID=11231188>
- A Librarian's Guide to Graphs, Data and the Semantic Web. James Powell. 2015. <http://www.sciencedirect.com/science/book/9781843347538>
- Data Simplification: Taming Information with Open Source Tools. Jules J. Berman. 2016. <http://www.sciencedirect.com/science/book/9780128037812>
- Perspectives on Data Science for Software Engineering. Tim Menzies, Laurie Williams and Thomas Zimmermann. 2016. <http://www.sciencedirect.com/science/book/9780128042069#ancsc0010>
- Social Network Sites for Scientists. A Quantitative Survey. José Luís Ortega. 2016. <http://www.sciencedirect.com/science/book/9780081005927>

Other books:

- Administració de sistemes GNU/Linux. Jorba i Esteve, Josep, Suppi Boldrito, Remo. 2016. <http://openaccess.uoc.edu/webapps/o2/handle/10609/60687>
- Administració avançada del sistema operatiu GNU/Linux, Jorba i Esteve, Josep, Suppi Boldrito, Remo. 2016. <http://openaccess.uoc.edu/webapps/o2/handle/10609/60685>

Books a les UAB Libraries:

- Sistemas operativos : un enfoque en espiral. Elmasri, Ramez. 2010. Biblioteca Ciència i Tecnologia.
- Big data : gestión y explotación de grandes volúmenes de datos. Alsina, Montserrat. 2017. Biblioteca C. Comunicació.

Subject: Organization and business administration

MINTZBERG, H. La estructura de las organizaciones. Ariel Economía. Barcelona, 1984

MINTZBERG, H. Diseño de organizaciones eficientes. Ariel Economía. Barcelona, 1992

NADAL, N. *Revolución Industrial*. Notas para el Master de Archivística y Gestión de Documentos. Barcelona, UAB - ESAGED, 2013.

GOLDRATT, E., COX, J. *La meta: un proceso de mejora continua*, Díaz de Santos, Madrid, 2005

BLANK, S., DORF, B., *El manual del emprendedor: la guía paso a paso para crear una gran empresa*. Gestión 2000, Barcelona, 2013