UAB
Universitat Autònoma de Barcelona

2022/2023

Information Systems

Code: 42107
ECTS Credits: 10

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

Contact

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Teachers

Mèrida Iglesias Lucia

Use of Languages

Principal working language: catalan (cat)

Prerequisites

Subject: Information Systems

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

Subject: Organization and business administration

There are no prerequisites.

Objectives and Contextualisation

Subject: Information Systems

At the end of this subjectthe 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 this 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.
- Information storage: Databases and information management
- 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:

- Deployment and implementation of a personal information system in the cloud (OpenNebula) for data management.
- Deployment of a IS on a virtual machine with Wordpress & Omeka platforms.

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). Considering the exceptional situation and in accordance with the instructions of the Sudies Coordination, the teaching of this subject will be part-time.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Information Systems: Interactive Classroom	12	0.48	12, 4, 5, 6, 11, 10, 3, 13, 14, 17
Organization and business administration. Master class.	12	0.48	16, 1, 2, 6, 8, 9, 15, 18
Type: Supervised			
Information Systems: On-line sessions	24	0.96	12, 4, 5, 6, 11, 10, 3, 13, 14, 17
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
Organization and business administration. On-line sessions	24	0.96	16, 1, 2, 6, 8, 9, 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,

Assessment

To pass the module it is necessary to pass each subject separately.

Subject: Information Systems

The evaluation system is based on the "continuous assessment" model and includes the activities foreseen in this section (tasks, quizzes, participation). The activities must be delivered within the indicated period and will be penalized the fact of delivering it after the deadline without justification.

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.

Second-opportunity Grade: Students who do not pass the continuous evaluation or who do not attend the same will undergo re-evaluation to pass the subject.

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 willbe 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 and in the case of two (o more activities) in this status the grade of the module will be zero (0).

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 rerports	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

Line: Information Systems (ebooks)

In order to access from external UAB computers please use http://xpv.uab.cat with the NIU and the student's password. (BR = selected books)

(BR) Encyclopedia of computer science and Technology. Henderson, Harry. 2009. http://lib.myilibrary.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

(BR) 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

(BR) 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 electronic 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

UAB library:

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.

Line: Administration of Organizations and companies

Archivos de empresa. Mastropierro, M. del Carmen y Casanovas,Inés. 2011. Alfagrama

Archivos de empresa: Necesidad y oportunidad de negocio. Andreu i Daufí, Jordi. 2017. Revista Canaria de Patrimonio Documental.

Diseño de organizaciones eficientes. Mintzberg, H.Ariel Economia. Barcelona, 1992

Manual de Derecho mercantil. Broseta Pont, M. 2020.

El acceso a los archivos de empresa, aportaciones a la Historia Económica. Villar Chamorro, Fernando. 2020. Tst: Transportes, Servicios y telecomunicaciones.

La meta: un proceso de mejora continua, Goldart, E., Cox, J. Díaz de Santos, Madrid, 2005

Software

Line: Information Systems.

Students will use a Cloud system (based on the OpenNebula environment) with virtual machines and free software (open-source) for each section in the subject.