

Information Systems

Code: 102113
ECTS Credits: 6

Degree	Type	Year	Semester
2501231 Accounting and Finances	OT	3	2
2501231 Accounting and Finances	OT	4	2

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: No
Some groups entirely in Spanish: No

Other comments on languages

There is a significant amount of materials in Spanish

Teachers

Albert Robert Ribot
Joan Caballero Chacon

Prerequisites

None

Objectives and Contextualisation

- Understand why information systems are essential in business and how they have transformed them.
Appreciate the business benefits derived from the digital processing of the information.
Be interested in how the Internet and the extensive use of ICT enable reconfiguration of traditional business models
- Differentiate applications or functionalities according to the basic types of information systems and determine the value they bring to management.
- Identify and prove how business processes are carried out through corporate management systems.
- Recognize the risks and dangers arising from digital dependence. In particular, why a critical spirit and an ethical commitment are necessary
- Be aware of ethical aspects and organizational efficiency derived from gender policies applied to the design, management and governance of information systems
- Learn to use specific tools in the fields of data analysis and the execution of business processes.

Competences

Accounting and Finances

- Efficiently searching information, discriminating irrelevant information.
- Organising the work, regarding order and planning.
- Searching for innovative and imaginative solutions.
- Students must be able to adapt to changing environments.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.

Learning Outcomes

1. Efficiently searching information, discriminating irrelevant information.
2. Organising the work, regarding order and planning.
3. Students must be able to adapt to changing environments.
4. Students must demonstrate they have an innovative and entrepreneur spirit.
5. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.

Content

Topic 1: Information systems in the current global business

1. Data, information and knowledge. The value chain of information.
2. Typologies of Information Systems.
3. ICT Infrastructure Data centres and cloud.

Topic 2: Business processes and corporate management systems.

1. The business processes.
2. The Corporate Management Systems: ERP, CRM, SCM and PLM.
3. Systems integration.

Topic 3: Data analysis and support for control and decision making.

1. Business Intelligence.
2. Big data and data analytics.
3. Limits of Big Data in Social Sciences. Ethical considerations

Topic 4: Digital transformation.

1. Digital disruption. Business in Internet.
2. Sharing economy. Internet of things, smart cities and industry 4.0.
3. The new role of the CIO.

Topic 5: Security and ethical aspects related to information systems.

1. Integrity, availability and confidentiality.
2. Threats, Cybercrime, Hacktivists and APTs
3. Perimeter defence. Information security management systems.
4. Privacy, transparency and intellectual property

Topic 6: Personal Productivity Tools.

1. Analysis and exploitation of data using spreadsheets.
2. Information processing and analysis: Relational databases.

Methodology

Teacher-pupils relationship

The general and relevant information about the subject that details the contents of the teaching guide, such as the dates of continuous assessment and dates and conditions of the work assignments, will be published on the virtual campus (or equivalent site) and may be subject to changes of programming for reasons of adaptation to possible incidents; the virtual campus will always be informed about these changes as it is understood that the virtual campus is the usual mechanism for exchanging information between teacher and student.

Languages

The classes will be done mostly in Catalan or Spanish, although the appearance of terms in English is very common. The written material or support for the subject (notes, bibliography, references or even statements of practices, exercises or cases) can be provided either in Catalan or Spanish or in English and in this case the use of the English language It can be not exceptional but usual. All tests and exams will be written in Catalan or Spanish. The answers to the tests and the exercises can be delivered (and if applicable) indistinctly in Catalan, Spanish or English.

Lectures, cases, seminars, and sessions for solving exercises

It is in these sessions that present the basic contents that students need to enter into the topics that make up the program. At the same time, they will indicate the possible ways to complete or deepen the information received in these sessions.

During the sessions, the case method can also be used as a teaching tool, depending on the degree of participation of the students. These sessions can be complemented with seminars, workshops and conferences conducted or supervised by the teaching team

Laboratory practices(SAP and others):

The sessions of laboratory practices will be used essentially SAP although the use of other tools is not discarded. Both the material of the practices and the software will probably be in English. These practices will be partially carried out in a computer-aided classroom led by a teacher, and partially simply supervised through tutorials.

During the course, teamwork and the collaborative exchange of information and tools for solving problems will be encouraged. However, the final learning process must be individual, highlighted by the autonomous activity of each student, who will have to complement and enrich the work initiated in the course's directed sessions. The supervised activity, around regular tutorials and sporadic consultations carried out during the course, is also an indispensable tool in the acquisition of the knowledge that the subject provides.

The proposed teaching methodology may undergo some modifications according to the restrictions imposed by the health authorities on on-campus courses

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			
Case Studies and Exercises	10	0.4	1, 4, 2, 5, 3
Master classes and seminars	29.5	1.18	1, 4, 2, 5, 3
SAP practices	10	0.4	4, 2, 5, 3

Type: Supervised

Tutorship	19	0.76	1, 4, 2, 5, 3
Type: Autonomous			
Homework	28.5	1.14	4, 5
Study	49	1.96	1, 5, 3

Assessment

General Conditions to Approve

1. Continuous assessment (CA) 60% two parts:

CA1: Laboratory Practices (35%): 5 practices with SAP. The first one is obligatory and overcoming it allows you to do the others and does not add a note. A minimum of 2.5/10 is required in three of the remaining four practices, if this is not achieved, this part (CA1) is valued as zero

CA2: Participation, Exercises and work (25%): Problem-based learning exercises, case discussion, individual or teamwork, presentation in class of the results, and other tests that are determined. Class participation will also be valued.

2. Exams (EX) 40%:

Partial exams will be held throughout the course. The dates will be made public well in advance on the virtual campus.

Final exam is divided into two parts:

Students who have not passed any previous part or want to raise their grades can take the exam again. The resulting grade will be the highest of the two exams.

The resulting grade from the Exams part (EX) will be the weighted average of the parts.

4. Calculation of the final grade:

If $CA \geq 5$ AND $EX \geq 3.5$ --> the final grade of the subject (N) will be: $N = 40\%(EX) + 60\%(CA)$.

If $EX < 3.5$ OR $CA < 5$ --> $N = \text{MIN}(40\%(EX) + 60\%(CA); 4)$

The student passes the course if $N \geq 5$, and does not pass if $N < 3.5$. In the intermediate case, the student can do the recovery process detailed below.

Calendar of evaluation activities

The dates of the evaluation activities (midterm exams, exercises in the classroom, assignments, ...) will be announced well in advance during the semester.

The date of the final exam is scheduled in the assessment calendar of the Faculty.

"The dates of evaluation activities cannot be modified, unless there is an exceptional and duly justified reason why an evaluation activity cannot be carried out. In this case, the degree coordinator will contact both the teaching staff and the affected student, and a new date will be scheduled within the same academic period to make up for the missed evaluation activity." **Section 1 of Article 115. Calendar of evaluation activities (Academic Regulations UAB)**. Students of the Faculty of Economics and Business, who in accordance with the previous paragraph need to change an evaluation activity date must process the request by filling out an Application for exams' reschedule

https://eformularis.uab.cat/group/deganat_feie/application-for-exams-reschedule

Grade revision process

After all grading activities have ended, students will be informed of the date and way in which the course grades will be published. Students will be also be informed of the procedure, place, date and time of grade revision following University regulations.

Retake Process

"To be eligible to participate in the retake process, it is required for students to have been previously evaluated for at least two thirds of the total evaluation activities of the subject." Section 3 of Article 112 ter. The recovery (UAB Academic Regulations). Additionally, it is required that the student to have achieved an average grade of the subject between 3.5 and 4.9.

The date of the retake exam will be posted in the calendar of evaluation activities of the Faculty. Students who take this exam and pass, will get a grade of 5 for the subject. If the student does not pass the retake, the grade will remain unchanged, and hence, student will fail the course.

Irregularities in evaluation activities

In spite of other disciplinary measures deemed appropriate, and in accordance with current academic regulations, *"in the case that the student makes any irregularity that could lead to a significant variation in the grade of an evaluation activity, it will be graded with a 0, regardless of the disciplinary process that can be instructed. In case of various irregularities occur in the evaluation of the same subject, the final grade of this subject will be 0"*. **Section 10 of Article 116. Results of the evaluation. (UAB Academic Regulations).**

The proposed evaluation activities may undergo some changes according to the restrictions imposed by the health authorities on on-campus courses.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Continuous Assessment 1: Practice with ERP	40	0	0	4, 2, 5
Continuous Assessment 2: Participation, Exercises and Class work	20	0	0	1, 4, 2, 5, 3
Exams	40	4	0.16	1, 4, 5

Bibliography

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Software

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