UAB
Universitat Autònoma de Barcelona

Introduction to Information Systems

Code: 102148
ECTS Credits: 6

2025/2026

Degree	Type	Year
Business and Information Technology	OB	2

Contact

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Teachers

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Teaching groups languages

You can view this information at the end of this document.

Prerequisites

It is not mandatory but it is recommended to have passed IRPDA, Computer Science Fundamentals and Databases before attending the course.

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.

Learning Outcomes

1. CM26 (Competence) Comply with ethical, legal and intellectual property principles in relation to the processing of private information in the business field.
2. KM21 (Knowledge) List the main characteristics of today's corporate management systems as value generators for companies and organisations.
3. KM22 (Knowledge) Identify data management and communication systems based on the needs of an organisation, as well as their governance.
4. KM26 (Knowledge) Identify the uses and requirements of the main corporate management systems.
5. SM15 (Skill) Interpret the impact and effects on the organisation of innovations and updates in integrated market management systems.

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. Internet and the paradigm shift in the business world
2. Disruptive technologies (Game Changers)
3. Digital disruption. Business on the Internet.

Topic 5: Security and ethical aspects related to Information Systems.

1. Integrity, availability and confidentiality.
2. Threats: Cybercrime, Hacktivists and APTs
3. Authentication, Encryption, Hash and Digital Signature.
4. Safeguards: Information security management systems.
5. Privacy, transparency and intellectual property
6. Compliance. Information Systems Audits

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Laboratory practices with SAP (and others)	10	0.4	
Master classes, case studies and seminars	29.5	1.18	

Practices and sessions of resolution of exercises	10	0.4
Type: Supervised		
Completion of Practices with SAP (and others)	6	0.24
Tutorship	15	0.6
Type: Autonomous		
Homework	28	1.12
Study	48.5	1.94

Teacher-students 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 andthe 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.

Use of Artificial Intelligence (AI):

In this subject, the use of Artificial Intelligence (AI) technologies is allowed and encouraged as an integral part of the development of the work, provided that the final result reflects a significant contribution by the student in

the analysis and personal reflection. In assignments, unless explicitly stated otherwise, the student must identify which parts have been generated with this technology, specify the tools used and include a critical reflection on how these have influenced the process and the final result of the activity. The lack of transparency in the use of AI will be considered a lack of academic honesty and may lead to a penalty in the grade of the activity, or greater sanctions in serious cases. The use of AI is not allowed in exams.

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.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Continuous Assesment 1: Practice (SAP and others)	35	0	0	KM21, KM26, SM15
Continuous Assessment 2: Participation, Exercises and Class work	25	0	0	CM26, KM21, KM22, KM26, SM15
Exams	40	3	0.12	CM26, KM21, KM22, KM26, SM15

This subject does not have a single assessment system.

The assessment of the subject takes into account the following elements:

- Continuous assessment (AC) 60%, two parts:
  AC1: Laboratory Practices (35%): 5 practices with SAP. The first is mandatory and passing it allows you to do the others and does not provide a grade. A minimum of 2.5/10 is required in three of the four remaining practices, if not achieved, this part (AC1) is assessed as zero
  AC2: Participation, Exercises and assignments (25%): Problem-based learning exercises, case discussion, individual or team work, presentation of results in class and other tests that are determined. Class participation will also be assessed.
- Exams (EX) 40%:
  Partial exams may be scheduled throughout the course.
  Final: Students who have not passed any of the tests or who want to raise their grade can retake them. The resulting grade will be the highest.
  The resulting grade for the exam part (EX) will be the weighted average of the parts.

Calculation of the final grade:

- If AC>=5 AND EX>=3.5 --> The final grade for the subject (N) will be: N=40%(EX)+60%(AC).
- If EX<3.5 OR AC<5 --> N= MIN(40%(EX)+60%(AC); 4).
- The student passes the subject if N>=5, and fails if N<3.5. In the intermediate case, they can use the recovery process detailed below.
- Anyone who has not presented any SAP (AC1) scoring practice, has participated in less than 20% of AC2 activities, and has not taken any exams will be considered non-evaluable.

Additional Points

A series of activities that carry additional points will be indicated on the virtual campus. The maximum number of additional points that can be obtained is 2/10.

These additional points will only be added to the final grade if the continuous assessment grade is equal to or greater than 7, and in the exams, the final grade is greater than 5.
It could be the case that the final grade exceeds 10. The full grade will be used to discern MH, but in the acts, the maximum grade will be 10

Calendar of assessment activities

The dates of the different assessment activities (exams not scheduled by the faculty, classroom exercises, submission of work, ...) will be announced sufficiently in advance during the semester.
The dates of the partial and final tests of the subject are scheduled in the Faculty's exam calendar.
According to the UAB Academic Regulations, the scheduling of assessment tests cannot be modified unless there is an exceptional and duly justified reason for which an assessment act cannot be carried out. In this case, the people responsible for the degrees, after consulting the teaching staff and the affected students, will propose a new schedule within the corresponding academic period.

Students of the Faculty of Economics and Business who, by the previous paragraph, need to change an assessment date must submit the request by filling out the document Request for rescheduling an exam: https://eformularis.uab.cat/group/deganat_feie/reprogramacio-proves

Grade review procedure

The day and means by which the final grades will be published will be announced coinciding with the final exam. Similarly, information will be provided on the procedure, place, date and time of the exam review by University regulations.

Recovery Process

According to the UAB Academic Regulations: To participate in the recovery process, students must have previously been evaluated in a set of activities that represent a minimum of two-thirds of the total grade for the subject or module. They must have obtained an average grade for the subject between 3.5 and 4.9.

The date of this test will be scheduled in the Faculty's exam calendar. The recoverable part is the exam part.

Theresulting grade will follow the same previous calculation. Whoever passes the retake, the resulting grade will be the maximum between 5 and 0.6*AC+0.4*3.5

Irregularities in the assessment acts

According to UAB academic regulations: Without prejudice to other disciplinary measures that may be deemed appropriate, and by current academic regulations, "if the student carries out any irregularity that may lead to a significant variation in the grade of an assessment act, this assessment act will be graded 0, regardless of the disciplinary process that may be instructed. If several irregularities occur in the assessment acts of the same subject, the final grade for this subject will be 0".

Bibliography

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Software

SAP ver. S4/HANA

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this link. To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(PAUL) Classroom practices	201	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	201	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	202	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	203	Catalan/Spanish	second semester	morning-mixed
(TE) Theory	20	Catalan/Spanish	second semester	morning-mixed