

**Supply Chain Management (SCM)**

Code: 102167  
ECTS Credits: 6

| Degree                                      | Type | Year | Semester |
|---|------|------|----------|
| 2501232 Business and Information Technology | OT   | 4    | 1        |

**Contact**

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**Use of Languages**

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

**Teachers**

Ramon Bosch Dalmau

**Prerequisites**

There are no prerequisites. However, for a better comprehension of the subject it is recommended to have passed the following subjects:

102148-Introduction to information systems

102182-Operations Management

**Objectives and Contextualisation**

To offer a strategic overview of the interrelationships existing in business networks, considering from the case of an isolated business to the case of a unit/component of a globalized environment.

To learn about the management of a company with the use of a simulator,

**Competences**

- Analysing, diagnosing, supporting and taking decisions in terms of organisational structure and business management.
- Capacity for working in teams.
- Demonstrating a comprehension of the main applications of information systems in the management of operating activities of companies and organisations, using these applications to parametrize specific solutions.

**Learning Outcomes**

1. Analysing the most relevant characteristics in the operations management that must be assumed by the information system.

2. Applying the basic principles of information systems to the parametrisation of specific solutions to the organisation of any of their main modules.
3. Identifying the main characteristics of specific computing tools used in order to efficiently develop information systems that are adapted to the requirements of an organisation.
4. Managing and coordinating working teams, specially interdisciplinary teams, paying particular attention to the needs and conflicts they might endure.

## **Content**

1. Industrial corporations
  - 1.1. Added value of operations
  - 1.2. Corporate functions - Shared service centers
  - 1.3. SCM as an integrating element
2. Warehouse management
  - 2.1. Identification of articles and categorization. (BOM, Routes)
  - 2.2. Warehouse management models. (Beer game)
  - 2.3. Automation of inputs, outputs, and counts. (Information flows)
  - 2.4. Integrated elements in warehouse management. (Barcode, RFID, etc.)
3. Logistics
  - 3.1. Tickets, receptions, reception plan, etc.
  - 3.2. Outputs, height and detail picking, etc.
  - 3.3. Reverse logistics
4. Planning of integrated manufacturing / distribution resources
  - 4.1. Networks, warehouse regulators, and warehouse "lungs".
  - 4.2. Isolated and integrated manufacturing models
  - 4.3. Integrated requirements
  - 4.4. Relationship with capacity planning. CRP
5. Indicators of the management of operations
6. The integral management of a multinational industrial company through simulation
  - 6.1. Introduction to simulation
  - 6.2. Introduction to the company to be managed
  - 6.3. Preparation of a strategic plan
  - 6.4. Preparation of a final management report.

## **Methodology**

The teaching methodology of the subject is based on several complementary tools;

- Theory classes, in which the basic content of the subject is presented and possible additional ways to complete or deepen the information received in these sessions are indicated.
- Study sessions of cases and resolution of exercises, to complement and put in situation the theoretical elements exposed in the lectures.
- Simulation workshop, where the student will have to face decisions in all areas of the company to obtain the greatest possible benefit in terms of competition with the rest of the companies managed by their colleagues.

During the course, teamwork and the collaborative exchange of information and tools to solve problems will be encouraged. However, the final learning process must be individual, highlighted by the autonomous activity of each student, which should complement and enrich the work initiated in the sessions directed of the course. The supervised activity, around regulated tutoring and sporadic consultations carried out during the course, is also an essential tool in the acquisition of the knowledge provided by the subject.

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                                  |       |      |                   |
| Classes and cases                               | 30    | 1.2  | 1, 3              |
| Simulation workshop                             | 15    | 0.6  | 1, 4, 3           |
| Type: Supervised                                |       |      |                   |
| Preparation of reports, seminars, workshops ... | 40    | 1.6  | 1, 2, 3           |
| Type: Autonomous                                |       |      |                   |
| Individual study                                | 63    | 2.52 | 1, 3              |

## Assessment

The assessment of the subject considers the various following evaluation evidences:

- A written test, at the end of the semester, to evaluate the theoretical content of the subject (30% of the total),
- The submission and defense of teamwork on practical cases, to be proposed and developed during the semester (20% of the total), and
- Participation in the simulation (50% of the total). This note will be obtained in turn from several evidences, with different specific weights: (a) an initial knowledge test (10%), (b) a strategic team plan (15%), (c) the simulation note based on the team ranking at the end of the simulation (50%), and (d) the final management report (25%). The simulation grade can be altered depending on the student's dedication.

To pass the subject it is necessary to have obtained at least a mark of 3.5 (out of 10) in each of these parts, and that the weighted sum of the grades obtained reaches at least 5

This methodology of continuous evaluation aims to facilitate the student's achievement of the knowledge and competences of the subject. This option requires for both parties (teachers and students) an effort and a commitment that must be known and recognized. It must also be taken into account that:

- In teamwork, if it is considered that a student has not made the expected contributions to the group, he / she will receive a note differentiated from the rest of the team-mates, which can be zero if the rest of the so qualify it.
- Submissions after the deadline, in formats other than those required or delivered by channels other than those established, will not be accepted.

#### Calendar of evaluation activities

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

The dates 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 at

[https://eformularis.uab.cat/group/deganat\\_feie/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 been 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 achieves an average grade of the subject between 3.5 and 4.9.

The date of the retake exam is posted in the calendar of evaluation activities of the Faculty. Students taking this exam and passing will get a grade of 5 for the subject. The students having not passed the retake exam will be graded using his/her final exam grade, and hence, will fail the course.

#### Irregularities in evaluation activities

Despite other disciplinary measures deemed appropriate, and in accordance with current academic regulations, *"whenever a 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 occurrence of various irregularities 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).**

### Assessment Activities

| Title                    | Weighting | Hours | ECTS | Learning Outcomes |
|--------------------------|-----------|-------|------|-------------------|
| Final exam               | 30%       | 2     | 0.08 | 1, 3              |
| Simulation workshop      | 50%       | 0     | 0    | 1, 4, 3           |
| Teamwork on case studies | 20%       | 0     | 0    | 1, 2, 3           |

## **Bibliography**

It can be found at moodle of the course.

## **Software**

It's not exactly a software rather they are licenses of a simulator Global Challenge provided by CESIM.