COURSE DATA

DATA SUBJECT

Code: 46542
Name: Gestión de la calidad en la cadena de suministro
Cycle: Master's Degree
ECTS Credits: 4
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
2260 - Master's degree in Quality Management	Facultat d'Economia	1	Annual

SUBJECT-MATTER

Degree	Subject-matter	Character
2260 - Master's degree in Quality Management	Sistemas de gestión	COMPULSORY

COORDINATION

LACAL GUTIERREZ GERMAN

SUMMARY

Quality Management in the Supply Chain objective is to study the integration that takes place in today's organizations between the areas of quality management, supply management and logistics. This integration allows the development of international business models and models that explore information networks. The knowledge of different approaches to maturity in the management of supply chains will be emphasized, analysing the supply and logistics operations developed by companies. Likewise, the role played by factors such as collaboration management, information visibility management and knowledge management will be analysed.

Subject content is structured in two blocks. The first contains the fundamental theoretical contents such as the definition of an information system, its components and the different agents that participate in the organization, applying it to supply chain management systems. In addition, the different types of existing information systems will be analysed: the global management system (ERP), information systems for information management in general and systems that collect information for quality management, in particular. Second block focuses on warehouse management systems and purchasing management systems, two fundamental pillars in supply chain management, considering various control algorithms and information processing (warehouses with seasonal peaks of work, with constant demands, with variable demands, etc.). In addition, various dashboards will be analysed to control the different supply chain management ratios, analysing this information in order to establish corrective or preventive measures.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

They are not required

COMPETENCES / LEARNING OUTCOMES

2260 - Master's degree in Quality Management

Be able to communicate effectively both orally and in writing, adapting to the characteristics of the situation and the audience.

Collaborate effectively in work teams, assuming responsibilities and leadership roles and contributing to collective improvement and development.

Demonstrate critical and self-critical reasoning within the field of study, considering aspects such as professional ethics, moral values and the social implications of the different activities carried out.

Demonstrate knowledge and understanding of social inequalities based on sex and gender within this specific field of study; integrate the different needs and preferences based on sex and gender into the design of solutions and problem solving.

Know how to integrate quality systems with other complementary management systems.

Lead teams and empower them.

Learn autonomously, making informed decisions in different contexts, making judgements based on experimentation and analysis and transferring knowledge to new situations.

Make strategic, tactical or operational decisions in the field of quality management.

Plan and organise all activities related to quality management.

Promote commitment to quality in all departments and at all hierarchical levels of the organisation.

Propose creative and innovative solutions to complex situations or problems specific to the field of knowledge to respond to different professional and social needs.

DESCRIPTION OF CONTENTS

1. Quality Management in the Supply Chain. Presentation

Supply Chain definition, main actors and materials, information and Documentation flows.

2. Information System definition.

Descripction of Transaction Process Systems (TPS), Knowledge Work System (KWS), Office Automation Systems (OAS), Management Information System (MIS), Decision Support Systems (DSS), Executive Support System (ESS).
Organizational levels and Information Systems. Enterprise Resource Planning (ERP)
Intra-company and inter-company information and communication systems.

3. Warehouse Management Systems

Definition.
Identification systems for stored material (Type of coding used and grouped identification systems). Analysis of case study.
Inventory management and control systems (Classical inventory and continuous inventory) Practical application of the evolution of inventory systems.
Logistic location, coding and control systems. Case study analysis.
Purchasing Management Systems. Study of purchasing algorithms. Practical application.
Evolution of purchasing departments: purchasing groups.
Management of unforeseen events and human errors in logistics.
Reverse logistics. Definition and analysis of practical cases.

4. Distribution Networks

Distribution networks models study and logistics costs analysis.

5. Balance Scorecard. Vision from the Supply Chain.

Logistic Costs analysis. Traditional and ABC system.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	40,00
Total hours	**40,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	20,00
Independent study and work	20,00
Preparation of lessons	20,00
Preparation for assessment activities	20,00
Resolution of case studies	20,00
Total hours	**100,00**

TEACHING METHODOLOGY

The development of the subject is structured in 10 sessions of 4 hours, combining a theoretical expository part with a practical part. Given the eminent practical nature of the class, participation and discussion of the information provided will be encouraged to facilitate learning. Group or group discussion of the main issues will be stimulated in order to then provide the definitive solution. Practical cases that clarify and exemplify the theoretical information will be contributed to the discussion.

As for the practical sessions, their development will be based on the application of the concepts and tools provided by the teachers in the theoretical sessions, applying the information to proposed example cases, which will be discussed and treated in small groups first and then with the entire classroom, thus promoting the consolidation of the knowledge explained. Both group and individual practical exercises will be proposed where the theoretical concepts learned will be presented and used, so that the student is able to understand how to apply the different concepts and thus be prepared for their subsequent application in real cases.

For the processing of information through the use of Generative Artificial Intelligence (GAI) tools,
the following considerations must be taken into account:
¿ As a general rule, GAI tools may not be used to achieve the main objective
of assessment activities
¿ Teachers will explicitly indicate under what conditions and for what type of activities
the use of GAI is permitted or restricted.
¿ If the student uses any GAI tools, they must indicate this in the work submitted.
They will include a footnote or an appendix containing the prompt used,
its various modifications and a fragment of the most relevant text from the response.

EVALUATION

Regard to the evaluation of the learning of the subject, it will be carried out in 2 main sections: Continuous evaluation and evaluation of theoretical knowledge. The continuous assessment will be completed with marks of group work (30% of the weight of the total grade), individual work (30% of the weight of the total grade) and attendance and participation (10% of the weight of the total grade). The evaluation of theoretical knowledge will be carried out by means of a written exam that will have a weight of 30% of the total grade. Given the configuration and nature of the activities that make up continuous assessment, it will not be recoverable.

REFERENCES

- Laudon, K. C., Laudon, J. P., Vidal Romero Elizondo, A., & Solares Soto, P. F. (2016). Sistemas de información gerencial. Pearson Educación.

- Sorlózano González, M. J. (2018b). Optimización de la cadena logîstica : MF1005_3 (1st ed.). IC Editorial.

- Stadtler, H., Stadtler, H., Kilger, C., Kilger, C., Meyr, H., & Meyr, H. (2015). Supply chain management and advanced planning: concepts, models, software, and case studies. Springer.

- Guerras Martín, L. Á, García Muiña, F., López Sáez, P., Martín de Castro, G., & Navas López, J. E. (2016). La dirección estratégica de la empresa : teoría y aplicaciones. Civitas-Thomson Reuters.

- Iborra Juan, M., Dasí, À, Dolz Dolz, C., Ferrer, C., & Aldá, J. (2021). Fundamentos de dirección de empresas : conceptos y habilidades directivas (2nd ed.). Paraninfo.

- Johnson, G., Scholes, K., Whittington, R., Fuente Sabaté, J. M. d. l., Moreno López, Y., & Quevedo, E. d. (2005). Dirección estratégica (7th ed.). Prentice Hall.