

**COURSE DATA****Data Subject**

Code	35905
Name	Global management of supply and production
Cycle	Grade
ECTS Credits	6.0
Academic year	2024 - 2025

Study (s)

Degree	Center	Acad. Period
1314 - Degree in International Business	Faculty of Economics	4 First term

Subject-matter

Degree	Subject-matter	Character
1314 - Degree in International Business	23 - Production and supply	Optional

Coordination

Name	Department
MONREAL GARRIDO, MANUEL	105 - Business Administration 'Juan José Renau Piqueras'

SUMMARY

Globalization is a phenomenon that involves both production and logistics operations, and consumption. Customers, suppliers and consumers in a country are different from those of other countries, as well as transportation, inventory, warehousing, distribution and communication systems, which differ to meet specific business environments.

The global context poses additional complexity in the form of extensive supply chains where, for example, a company develops a new product in the United States, inputs and production are located in Asia, and the distribution and marketing are performed in the United States , Asia and Europe.

Therefore, the creation and management of global supply chains means that the supply, production and distribution should consider the differences and similarities between different markets to set synergies in production, transportation, inventory, storage, and distribution systems communication.

Some of the central themes of this course are summarized in the following:



- INTRODUCTION TO overall management of the supply chain and production.
- supply chain concept from operations and strategy.
- Product design and logistics associated with the product.
- Processes, systems strategies and production planning.
- New models of production and supply of multinational corporations
- Overall management of logistics and warehouses.
- The overall planning and management of transportation and distribution.
- New challenges: global management of supply and production in relation to the R & D, and the Social Responsibility of the company.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

There are no specified enrollment restrictions with other subjects of the curriculum, although it would be advisable to have studied the subjects in this same area, "Cross Cultural Management" and "International Business Management".

COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

1314 - Degree in International Business

- Understand the structure and functioning of companies and organisations operating in an international context.
- Manage the design, coordination and control mechanisms of the company's international strategy.
- Manage relations between the parent companies of multinationals and their subsidiaries.
- Know and coordinate the different elements of the global value chain, from procurement to delivery.
- Be able to generate ideas and detect business opportunities in international markets.
- Dominar el concepto y las estrategias de abastecimiento global y sus diferencias respecto de otros sistemas de aprovisionamiento.
- Conocer los parámetros fundamentales para el diseño de los sistemas de producción.
- Dominar las herramientas y criterios para la selección de proveedores y de los países de aprovisionamiento para la empresa.
- Ser capaz de manejar el software de compra para un aprovisionamiento global.
- Conocer los distintos criterios para el outsourcing y / o la relocalización internacional de las actividades de producción.



- Conocer el funcionamiento de los sistemas de producción just in time y los problemas que plantea su aplicación.
- Conocer las diferencias entre los sistemas de producción europeos, norteamericano y asiático.
- Ser consciente del impacto de las actividades productivas sobre el medio ambiente y mantener una actitud de sostenibilidad.

LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)

The teaching-learning process of this course should achieve the following competencies:

- *Ability to define, solve and explain complex issues systemically*
- *Ability to apply and introduce procedures for continuous improvement in all areas of the organization.*
- *Ability to establish a system of corporate governance indicators*
- *Know how to approach objectives and strategies at different levels of the organization and to assess the implications and needs for achievement*
- *Ability to plan, organize, monitor and evaluate the implementation of business strategies in logistics and production in a globalized world*
- *Understand the purpose and operation of enterprises in the global economy as well as its systemic nature and implications and processes related to their development and growth*
- *Identify the key factors of business competitiveness and sustainability of economic activities*
- *Know the characteristics of different production systems or the provision of services and knowledge manage criteria of efficiency and effectiveness in close interrelation with other areas of the company and its environment*
- *Develop critical skills on the Spanish and international economic news*

DESCRIPTION OF CONTENTS

1. INTRODUCTION TO GLOBAL MANAGEMENT OF THE SUPPLY AND THE PRODUCTION

- 1.1. Introduction. Basic concepts associated with the global management of supply and production.
- 1.2. Types of Logistics. Evolution of logistics towards the Supply Chain.
- 1.3. Globalization of the operational activities of the value chain.

2. MANAGEMENT AND OBJECTIVES OF THE SUPPLY CHAIN

- 2.1. Global direction of the supply chain.
- 2.2. Activities of planning and relation with the rest of operative functions.
- 2.3. Process management in the supply chain.
- 2.4. Performance guidelines and metrics for logistics and the supply chain



3. SUPPLIER MANAGEMENT AND PROCUREMENT SUBSYSTEM

- 3.1. The function of purchases and supplies. Goals.
- 3.2. The purchasing department, basic activities and purchasing processes.
- 3.3. Evaluation of suppliers and supply strategies.
- 3.4. Segmentation of the sources of supply. Local and global supply of simple components and complex components.

4. STORAGE SUBSYSTEM AND INVENTORY MANAGEMENT

- 4.1. Inventories, concept and types. Factors that affect the creation of inventories.
- 4.2. Control and management of stocks. Inventory management systems with independent demand.
- 4.3. Design and organization of warehouses. Warehouse distribution (layout). Storage systems.
- 4.4. Maintenance and handling of goods. Picking and preparation of orders. Packing and expedition (Packing).
- 4.5. Decisions on storage and its relationship with logistics.

5. PRODUCTION SUBSYSTEM

- 5.1. Production systems Production capacity and distribution in plant
- 5.2. Production planning systems according to time frame. MRP
- 5.3. Production systems and their relationship with logistics and supply: Just in Time, Kanban and slender production.
- 5.4. Changes in the productive model with globalization. Outsourcing, Offshoring and Nearshoring

6. TRANSPORTATION AND DISTRIBUTION SUBSYSTEM

- 6.1. Fundamentals of transport. Types and modalities of transport, characteristics and costs.
- 6.2. The distribution process. Conventional commercial distribution systems.
- 6.3. Commercial distribution and electronic commerce
- 6.4. Planning systems for commercial distribution according to timeframe: DRP (Distribution Resource Planning) systems.

7. SYSTEMS AND INFORMATION TECHNOLOGIES IN LOGISTICS

- 7.1. Logistical information and its computer processing. Coding systems for products and materials. Radio Frequency Identification (RFID). Traceability.
- 7.2. Systems and technologies of logistics information and the supply chain. ERP (Enterprise Resource Planning) systems.
- 7.3. Specialized information technology and systems (Best of Breed systems) for logistics and supply chain.
- 7.4. Digitization and development in the cloud. Industry 4.0 and logistics 4.0.
- 7.5. Sustainable logistics and the sustainable development goals (O.D.S. 2030).



WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Classroom practices	30,00	100
Development of group work	15,00	0
Development of individual work	15,00	0
Study and independent work	30,00	0
Preparing lectures	15,00	0
Preparation of practical classes and problem	15,00	0
TOTAL	150,00	

TEACHING METHODOLOGY

Time **theory sessions** will be distributed in the following sections:

- A descriptive part by the teacher, who will develop the theoretical concepts contained in the course syllabus (80% time)
- A descriptive part by students who have investigated and expanded some relevant aspect within the agenda of theory, proposed by the teacher (10% time)
- Discussion and class participation on theory concepts seen in this session, both taught by the teacher and presented by the students (10% of the time).

In the **practical sessions** students will develop and present the analysis and resolution (individual and group as appropriate) of the exercises, cases, and readings that were proposed

Teaching and support materials: in the VIRTUAL CLASSROOM be published all necessary materials, both support transparency theoretical sessions and practical materials are accurate.

EVALUATION

- 70% of the total evaluation corresponds to the theory part, and the remaining 30% to the practical part.
- The theoretical part is evaluated by means of a written development exam with a series of theoretical-practical questions of limited extension
- The practical part is evaluated by the continuous evaluation system, considering attendance, participation and resolution of cases and exercises.

**Policy for the use of Artificial Intelligence (AI) in class**

Learning to use AI is an emerging skill, but certain limits of AI must be kept in mind, such as the following:

- If minimal effort prompts are provided, very low-quality results will be obtained. You will have to refine the prompts to get good results. Therefore, this requires work.
- Take responsibility for any errors or omissions provided by the tool, and always check the sources.
- AI is a tool, so think carefully about when it is useful. It should not be used if it is not appropriate to the case or circumstance.
- **A paragraph should be included at the end of any task that uses Artificial Intelligence, explaining what it has been used for and what instructions have been applied to obtain the results. Failure to do so will violate the academic honesty policy and will be considered plagiarism. In fact, according to article 11.g of Law 3/2022, of February 24th, on university coexistence, regarding ChatGPT, it shall be considered a very serious offense to fully or partially plagiarize a work, or engage in academic fraud in the preparation of any assignment or activity requested of the students. Academic fraud shall be understood as any deliberate behavior aimed at falsifying the results of an exam or assignment, whether it is one's own or someone else's (including the improper use of artificial intelligence such as ChatGPT), carried out as a requirement to pass a subject or demonstrate academic performance.**

REFERENCES**Basic**

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- Ballou, R. (2004) Logística. Administración de la cadena de suministro. Ed. Pearson-Prentice Hall. 5ª Edición.
- Chopra, S.; Meindl, P. (2008) Administración de la cadena de suministro. Estrategia, planeación y operación. Ed. Pearson-Prentice Hall. 3ª Edición.
- Urzelai, A. (2006) Manual básico de logística integral. Ed. Díaz de Santos
- Guinjoan, M.; Pellicer, P. (1990): Nuevas técnicas y sistemas organizativos para las Pyme. Ed. IMPI.
- Soret de los Santos, I. (2010): Logística y operaciones en la empresa. ESIC
- Anaya, J.J. (2015): Logística integral. La gestión operativa de la empresa. ESIC. 5ª Edición.

Additional

- Soret de los Santos, I. (2006) Logística y Marketing para la distribución comercial. ESIC.
- Ballou, R. (1991) Logística empresarial. Control y planificación. Ed. Díaz de Santos.



- Lasserre, P. (2003) Global strategic Management Ed. Palgrave.
- Skjott-Larsen, T. Schary, P.; Michola, J. Y Kotzab, H. (2006) Managing the global supply chain CBS Press.
- Ruiz, J.; Gaitán, J.; Morato, J.L. (2005) Logística Comercial. McGraw Hill
- Ferrín, A. (2007) Gestión de stocks en la logística de almacenes. FC Editorial
- Chase, R.B.; Jacobs, F.R. (2011) Administración de Operaciones. Producción y Cadena de Suministros (13ªed) McGraw Hill
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- Heizer, J.; Render, B. (2015): Dirección de la Producción y de Operaciones. Decisiones tácticas. Ed. Pearson. 11ª Edición
- Hult, T.; Closs, D.; Frayer, D. (2014): Global Suply Chain Management. Leveraging processes, meausurements, and tools for strategic corporate advantage. McGraw Hill.