# Supply Chain Management

## Prof. valeria Belvedere; Prof. Herbert Kotzab

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

During this course, students will learn how companies should design, manage and improve their supply chain. Namely, the main supply chain strategies will be outlined and the key processes, peculiar to supply chain management, will be discussed. Such processes as sales & operations planning, inventory management, procurement management and physical distribution will be addressed. Furthermore, students will learn how supply chain partners can interact with each in other to remove (or at least reduce) the pathologies that a lack of cooperation can produce.

At the end of the course, students will be able to:

* identify and interpret the main concepts and theories concerning supply chain management, suitable for framing problems and supporting ethical and sustainable decision making (Knowledge);
* develop theoretical frameworks on the design supply chains on the basis of the competitive strategy of the firm and on the features of the product (Knowledge);
* analyze data and information concerning the supply chains of manufacturing companies, identify improvement opportunities and suggest appropriate improvement actions (Intellectual Skill);
* revise the main supply chain processes (procurement, production, physical distribution) based on the peculiarities of the company and of its industry (Practical skill);
* recognize different design and management options of supply chain processes, compare such options, and critically select the most suitable one based on the analysis of their outcomes in terms of efficiency, effectiveness, and sustainability (Transferable skill);
* operate effectively in an international team involved in the design and management of supply chain processes (Transferable skill).

***COURSE CONTENT***

The main topics addressed during this course are:

* Supply Chain Management: challenges and strategies
* Supply Chain Performance: an overview of the key service and cost metrics
* Demand Forecasting and Production Planning
* Inventory Management Techniques
* Distribution network design and management
* Procurement management: sourcing strategies and vendor selection
* Collaborative practices along the supply chain
* Sustainable Supply Chain Management

***READING LIST***

*Required readings*

Grando A., Belvedere V., Secchi R., Stabilini G. (2021), Production, Operations and Supply Chain Management, Bocconi University Press.

Case-studies, exercises and slide sets uploaded on Blackboard.

***TEACHING METHOD***

The teaching method will be highly interactive. Several case-studies and simulations will be used to boost class participation and discussion among students.

***ASSESSMENT METHOD AND CRITERIA***

Students can choose between a multiple assessment route and a single assessment route.

*Multiple assessment route*

Students will be assessed through a weighted average, as follows:

* 30% of the final grade will depend on group assignments; during the course two group assignments will be carried out (15% each).
* 70% of the final grade will depend on the final written exam, consisting of both multiple-choice and open questions. Multiple choice questions will be exclusively on theoretical topics and will account for 1/4 of the grade of the exam. Open questions will consist of mini-cases and exercises and will account for 3/4 of the final grade of the exam.

Both group assignments and the final exam must be passed in order to get a final grade.

The final written exam can be taken just once in the multiple assessment route. It can be taken in one of the two exams sessions after the end of the course. Attendance is not mandatory for passing the exam, but it is strongly reccommened.

*Single assessment route*

Students will be assessed through a written exam consisting of multiple choice and open questions, referred to the entire textbook. Multiple choice questions will be theoretical and will account for 20% of the final grade. Open questions will consist of mini-cases and exercises and will account for 80% of the final grade. Attendance is not mandatory for passing the exam, but it is strongly recommended.

*Assessment criteria*

The student's preparation is evaluated according to grading scales which are published in Blackboard.

***NOTES AND PREREQUISITES***

N. ECTS - 8

Enrollment requirements - Basic knowledge of competitive strategy, finance and organization is required. Students who do not have such knowledge are responsible for acquiring it to the extent necessary during the course.

Language of instruction - English

Attendance – Even though attendance is not mandatory for a PASS, it is strongly recommended.

Associated courses – Supply chain management, Business Communication, Performance Measurement, Brand Management

International dimension – International dimension is achieved through the discussion of case and examples from international companies. Guest speakers coming from organizations with an international footprint will also be invited.

Business connection - Company’s visits and speeches from managers will be organized in order to let students get in touch with real-life supply chain challenges.

Professional context - Supply chain management topics are strongly connected with the activities of a number of professionals and managers who work not only in manufacturing companies, but also in service ones. First, supply chain management deals with procurement processes, which involve the correct identification of purchasing needs, the development of the most appropriate sourcing strategy, the selection of the best suppliers and, finally, the ex-post control of the suppliers. These activities are carried out both in manufacturing and service companies. Second, manufacturing companies must design and manage their production activities, running such processes as sales and operations planning, production planning and control, inventory management. Third, ones the finished product is made, it has to be delivered to the customer. This calls for the correct design and management of the physical distribution process, which in turn requires (among the others) setting correct service level targets, choosing the most suitable distribution channels, designing the logistics network. All these activities are addressed by managers who need to be endowed with specific technical and managerial skills and knowledge.

Further information – Additional information regarding the course schedule and delivery, learning assessment, expectation and policies, general announcements, and additional course materials will be posted on Blackboard.