UAB
Universitat Autònoma de Barcelona

Basics of Logistics and Supply Chain Management

Code: 44756
ECTS Credits: 6

Degree	Type	Year	Semester
4318306 Logistics and Supply Chain Management	OB	1	1

Contact

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Teaching groups languages

You can check it through this link. To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Prerequisites

Being one of the initial courses in this master, no special prerequisites are needed (i.e., any student that has been accepted in this master is assumed to have the necessary technical and quantitative background to follow the course without many difficulties).

Objectives and Contextualisation

- To provide a practical introduction to the field of Logistics & Supply Chain Management (LSCM).
- To learn the strategic importance for any firm of good supply chain design, planning, and operation.
- To analyze how supply chain agents can be used during supply chain design, planning, and operation to improve performance.
- To provide a basic understanding of analytic methodologies for supply chain analysis.

Learning Outcomes

- CA01 (Competence) Compile basic analytical methodologies in order to analyse supply chains.
- KA01 (Knowledge) Identify basic LSCM terminology.
- KA02 (Knowledge) Understand LSCM as a specific field and recognise its basic strategies.
- KA03 (Knowledge) Understand the general LSCM framework.
- SA01 (Skill) Distinguish between specific problems in the field of LSCM.
- SA02 (Skill) Analyse and discuss cases, problems and challenges related to requirements and logistical options.
- SA03 (Skill) Assess the impact of logistics and SCM activities.
- SA04 (Skill) Analyse strengths and weaknesses by comparing them to best practices in LSCM.

Content

1. Overview and introduction to LSCM
2. SC Drivers and distribution network
3. Network design deterministic
4. Network design uncertainty
5. Transport
6. Warehousing and material handling
7. Basic forecasting methods
8. Advanced forecasting methods
9. Aggregate planning
10. Economies of scale and inventories
11. Review of concepts and current topics

Note: This course represents a first introduction to LSCM. In order to give a global picture of most LSCM topics, a lot of concepts are introduced in the course. Some of these concepts will appear again in other courses of the Master, where they will be analyzed in more detail.

Methodology

The course is organized through lectures.

The learning process will combine the following activities:

- Theoretical classes
- Problem sessions
- Practical sessions: computer room, teamwork and oral presentation
- Autonomous work

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			
Evaluation Activities	5	0.2	
Problem Sessions	5	0.2	CA01, SA01, SA02, SA03, CA01
Theory Lectures	20	0.8	CA01, KA01, KA02, KA03, SA01, SA04, CA01
Type: Supervised			
Practise Sessions	15	0.6	SA01, SA02, SA03, SA04, SA01
Type: Autonomous			
Activities	25	1	CA01, KA01, KA02, KA03, SA01, SA02, SA03, SA04, CA01

Personal Study	30	1.2	CA01, KA01, KA02, KA03, SA01, SA02, SA03, SA04, CA01
Report and Oral Presentation 1	25	1	CA01, KA01, KA02, KA03, SA01, SA02, SA03, SA04, CA01
Report and Oral Presentation 2	25	1	CA01, KA01, KA02, KA03, SA01, SA02, SA03, SA04, CA01

Assessment

The final grade will be calculated based on the evaluation of different activities:

- Exercises to be done in class
- 2 Reports and an oral presentation in groups of 2 or 3 students
- 2 Tests

All activities must be submitted within the deadlines indicated by the teacher.

To pass the subject it is necessary to meet the 3 requirements described below.

- The overall grade must be equal to or higher than 5
- The mark for each report must be no less than 4
- The mark of each test must be no less than 2.5

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Exercises to do in class	20%	0	0	SA01, SA02, SA03, SA04
Report and Oral Presentation 1	20%	0	0	KA01, KA02, KA03, SA01
Report and Oral Presentation 2	20%	0	0	SA01, SA02, SA03, SA04
Test 1	20%	0	0	CA01, KA01, KA02, KA03, SA01, SA02, SA03, SA04
Test 2	20%	0	0	CA01, KA01, KA02, KA03, SA01, SA02, SA03, SA04

Bibliography

During the course, the instructor will provide students with a complete set of slides in PDF format. These slides also contain references to scientific articles that will be accessible either in open access format or via the University library.

Some additional books that students can optionally check to extend their knowledge on the topics of this course are listed below:

- Bowersox, D.; Closs, D.; Cooper, M.; Bowersox, J. (2019): Supply Chain Logistics Management. McGraw Hill. Chopra, S.; Meindl, P. (2018): Supply Chain Management. Prentice Hall.
- Jonsson, P. (2008): Logistics and Supply Chain Management. McGraw Hill.
- Waters, D. (2009): Supply Chain Management: An Introduction to Logistics. Palgrave Macmillan.
- Wiston, W.; Albright, S. (2008): Spreadsheet Modeling and Risk Analysis. Cengage Learning.

Software

This course makes use of the following software: MS Excel, Open Solver for Excel, R, and Python.