

SUPPLY CHAIN MANAGEMENT INTRODUCTION

Number of sessions: 30

Length of each session: 1,5 h

Total length of the module: 45 hours

INTRODUCTION TO THE COURSE

The main objective of this course is to learn about supply chain management concepts and its applicability to the market today driven by the consumer. A short introduction of the logistic worries of companies that distribute products in a fast moving way and an introduction of solutions based in digital simulation technologies. Some real case-studies will be analyzed.

CONTENT

1. Introduction to the supply chain management
 - a. Definition of the supply chain
 - b. Decision phases and views of the supply chain
 - c. Coordination in the supply chain
2. Introduction to the logistics and distribution channels
 - a. Company strategies alignment with the supply chain
 - b. Measurements performance of the supply chain strategies
 - c. The role of forecasting in the supply chain
3. Introduction to the distribution flexible network
 - a. Manufacturer and distributor roles
 - b. Delivery and storage activities
 - c. Picking and cross docking activities
4. Introduction to the digital simulation technologies
 - a. Definitions and concepts
 - b. Discrete Event Models for Production Systems
 - c. Production Simulation Tools
5. Introduction to statistics for simulation
 - a. Stochastic versus Deterministic processes

- b. Statistics properties
 - c. Model validation
6. Introduction to logistics models design
- a. Optimization of Logistic Systems through Simulation
 - b. KPI's of Simulation Models
 - c. A Case Study: Outer Logistic of a production industry.

GRADING

The final grade of each student is determined considering the following weights:

Mid Term Exam (30%)

Papers (50%)

Final Exam (20%)

BIBLIOGRAPHY

D.M. Lambert and J.R. Stock: Strategic Logistics Management

Sunil Chopra and Peter Meindl: Supply Chain Management

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