

DOI-GITI-441 Logistics

SEMESTER: Spring
CREDITS: 6 ECTS (4 hrs. per week)
LANGUAGE: English
DEGREES: GITI/GITT+ADE

Course overview

In this subject the student will acquire knowledge about supply chains, their operation, purpose and strategic alignment with the company. Likewise, the student will be able to design chains of supply by sizing its resources and deciding locations and modes of operation in globalized environments. Under real environments of uncertain behavior of the demand, the student will internalize the importance of the coordination and sustainable management of logistics operations. Student will use decision-making and mathematical programming tools.

Prerequisites

Knowledge of Statistics and Probability (check contents of DOI-GITI-311 or DOI-GITT-222)

Mathematical Programming Modelling and Decision Trees (check contents of DOI-GITI-412)

Course contents

Theory:

1. **Supply Chains:** Description, performance and objectives
2. **Logistic Network Design:** Stages, Decision models and Risk Management
3. **Logistic Planning:** Demand forecasting, Aggregated Planning, S&OP
4. **Sustainable Management of Logistic operations:** Logistic coordination, inventory management, Safety Stock, Transportation modes and Outsourcing

Laboratory:

There will be several sessions of Practices: Bullwhip effect, Optimal Locations and Network Designs.

Textbook

- Chopra, S. and Meindl P., "Supply Chain Management. Strategy, Planning and Operation". Sixth Edition. Global Edition. 2016. ISBN 10: 1292093560

Grading

Regular take:

The following conditions must be accomplished to pass the course:

- A minimum overall grade of at least 5 over 10.
- A minimum exam grade of 4 over 10 (weighting the final exam 2/3 and mid-term exam 1/3).

The overall grade is obtained as follows:

- Final exam 40%.
- Mid-term exam 20%.
- Report and presentation of a global project management case 30%.
- Class Participation : 10%

Retake:

The following conditions must be accomplished to pass the course:

- A minimum overall grade of at least 5 over 10.
- A minimum final exam grade of 4 over 10.

The overall grade is obtained as follows:

- Final exam 60%.
- Report and presentation of a global project management case 30%.
- Class Participation: 10%