



# Teaching Plan of the course: Business Logistics

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## 1. Description data of the course

- Name of the course: **Business Logistics**
- Academic year : **2012-2013**                      Trimester: **second**
- Degree : **ADE, ECO, EMP\_MGT**                      Course code: **21958**
- Number of ECTS credits: **5**
- Student's working hours: **125 hours**
- Teaching Language: **English (Group 1), Spanish (Group 2)**
- Professor: **Helena Ramalhinho** and **M<sup>a</sup> Cristina De Stefano**

| Professor                          | Group of theory | Seminars          |
|------------------------------------|-----------------|-------------------|
| Helena Ramalhinho                  | 2               |                   |
| M <sup>a</sup> Cristina De Stefano | 1               |                   |
| M <sup>a</sup> Cristina De Stefano |                 | 101<br>102<br>103 |
| M <sup>a</sup> Cristina De Stefano |                 | 201<br>202<br>203 |

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## 2. Course Presentation

Business Logistics is currently one of the fastest growing areas of interest for the business sector. Logistics includes all activities necessary to move products and information flow among the members of a supply chain.

Supply chains are the system used by companies to provide goods, services and information to their customers and, in the most complex cases, they do become genuine networks.

The efficient management of a chain or logistics network is today a big challenge for most companies because of its importance for business competitiveness. For this reason, logistics has advanced the operational management of warehouse and transport to the strategic level of corporations.

The objective of this course is to provide:

- 1) Basic concepts;
- 2) Quantitative and qualitative models;
- 3) Solutions and cutting-edge techniques for strategic and operational logistics management.

In the course, it will be developed and discussed key issues about logistics, it will be seen its applications and methodologies in different areas, as well as it will be analysed the management of the supply chain using practical cases.

### 3. Competence to develop on the course

| General competence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Specific competence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b><i>Instrumental</i></b></p> <ul style="list-style-type: none"> <li>• Planning and arrangement capabilities.</li> <li>• Software Skills.</li> <li>• Problem solving.</li> <li>• Ability to find appropriate information from different sources.</li> </ul> <p><b><i>Interpersonal</i></b></p> <ul style="list-style-type: none"> <li>• Oral communication for public audience.</li> <li>• Team working.</li> <li>• Writing.</li> </ul> <p><b><i>Systematic</i></b></p> <ul style="list-style-type: none"> <li>• Critical reasoning in the reading, writing and oral communication activities.</li> <li>• Capacity to analyze and synthesize quantitative and qualitative information.</li> <li>• Fitting to new situations.</li> </ul> | <p><b><i>Academic and professional</i></b></p> <ul style="list-style-type: none"> <li>• To be able to identify the main functions of business logistics and supply chain.</li> <li>• To be able to link of business logistics with other business strategies and functional areas of the firm, such as marketing and operations.</li> <li>• To be able to identify and plan the basic logistics activities of a company, such as inventory, demand planning, warehouse management and transportation.</li> <li>• To be able to use tools and methodologies to plan and manage logistics.</li> <li>• To be able to identify the main information systems of logistics and their impact on an efficient management of logistics.</li> <li>• To be able to identify the main relevant areas of future logistics.</li> </ul> |

## 4. Contents

1. Introduction to Business Logistics
  - 1.1. Logistics and Supply Chain Management
  - 1.2. Logistics in the company
  - 1.3. Logistics 2020
2. Logistics Strategy
  - 2.1. Strategic decisions about transportation, warehousing and location
  - 2.2. Network Design of logistics
3. Demand planning in logistics
  - 3.1. Customer service
  - 3.2. Order management cycle
4. Procurement management
  - 4.1. Introduction to supply chain
  - 4.2. Types of purchases
  - 4.3. Suppliers
  - 4.4. e-procurement
5. Inventory management in supply chain
  - 5.1. Fixed period system
  - 5.2. DRP systems
  - 5.3. Multilevel control
  - 5.4. Beer Distribution Game
6. Warehouse management and coordination of supply
  - 6.1. What is a stock?
  - 6.2. Warehouse operations
  - 6.3. Storage and handling systems
  - 6.4. Just in time (JIT)
  - 6.5. Quick response and ECR
  - 6.6. Cross-Docking
7. Transportation management
  - 7.1. Transportation planning and management
  - 7.2. Transportation modes
  - 7.3. Transportation mode selection
  - 7.4. Programming vehicle routing
8. Information systems for logistics management
  - 8.1. Introduction to information systems for logistics management
  - 8.2. Computer systems for logistics
  - 8.3. ERP y SCM systems
  - 8.4. Logistics integration using information systems
9. Current issues in logistics
  - 9.1. e-logistics
  - 9.2. Management of global supply chains
  - 9.3. Outsourcing of logistics services
  - 9.4. Integration and collaboration
  - 9.5. Reverse logistics

## 5. Evaluation

The evaluation of the course will be done in the following way:

- **Six activities and the participation in the seminars** (30%) (3 points on 10 points of the final score). Delivery dates for the reports of the activities are listed in the section 10 of this plan. These activities **CANNOT BE RECUPERATED**.
- **A final exam** consisting of multiple choice part and exercises (70%). In order to pass the exam, it is necessary to obtain as a minimum a score of 4 on 10 (otherwise, it will not proceed to compute the mean of final score taking into account the seminar score). The exam **CAN BE RECUPERATED** on **May 2013**.

The activities will be evaluated according to the following criteria (30%):

- 1) **Seminar Attendance**; Active **participation** in the class; **Reports or exercises** assigned, which have to be delivered.
- 2) **Ranking** of reports (for case studies or games); **Quality** of reports delivered (originality, drafting and content);
- 3) **Score** in the auto evaluation test (for exercises).

Observations:

- **Reports that are copied completely or partially from Internet without quoting the original work/s properly will be obtain a score equal to ZERO. Besides, depending on the severity of the fact, the student can fail the course.**
- Students have to bring resolved or worked activities in each seminar. In particular, in seminars dedicated to:
  - "case study" or "game", students have to prepare a report on the case/ game and discuss it by a suitable presentation.
  - "exercises", students have to bring resolved exercises in the class and ask and discuss for doubts to the professor.
- It cannot be delivered reports or any documents to be evaluated by email. Besides, it will be answer NO doubts by mail.
- Justification of missing seminars: students have to submit a formal doctor's note and they can recuperate the score of the seminar by taking an oral exam with the professor of the theoretical part of the course.

### **Attention: UPF students who are ERASMUS.**

The evaluation will be equal for all students including Erasmus students. There are no exceptions. Erasmus students must contact with the professor in order to decide how to deliver the activities and to obtain a continuous evaluation.

## 6. References and resources

### Recommended references:

- Ballou R.H., "Business Logistics/ Supply Chain Management", Prentice Hall, 2004.
- Bowersox D.J., D.J. Closs, M. B. Cooper "Supply Chain Logistics Management", McGraw-Hill, 2013.
- Chopra S. & Meindl P., "Supply Chain Management: strategy, planning, and operation", Pearson Education, 2004.

### Complementary references:

- Díez de Castro, E. (coordinador), Distribución Comercial, McGraw Hill, 2004.
- Serra, D., La logística empresarial en el nuevo milenio, Gestión 2000, 2005.
- Anaya Tejero, J. J., Innovación y mejora de Procesos Logísticos, ESIC Editorial, 2005.
- Anaya Tejero, J. J., Logística Integral; La gestión operativa de la empresa, ESIC Editorial, 2000.
- Casanovas A. y Cuatrecasas L., Logística empresarial, Gestión 2000, Barcelona, 2001.
- Díaz Fernández, B. A.; Álvarez, M. J. & Gonzalez, P., Logística Inversa y Medioambiente, McGraw Hill, 2004.
- Gil Gutiérrez Casas y Bernardo Prida Romero, Logística y Distribución Física, McGraw-Hill, 1998.
- Soret los Santos, I., Logística y Marketing para la Distribución Comercial, ESIC, 1999.
- Stern, L.W., El-Anasary, E.I., Loughlan, A.T. & Cruz, I., Canales de Distribución, 5ª ed., Prentice Hall, 1998.

## 7. Methodology

Teaching and learning activities will be the following:

- In the classroom of the whole group (85-100 students). A topic will be explained in each class (see section 4. contents). There will be 9 (or 10) classes using lecture methodology.
- In the classroom of subgroups - Seminars (15-20 students as a maximum). There will be one or more activities in each class, which can be: discussion of a case study, game or business simulation and the realization of quantitative exercises. There will be 6 classes dedicated to these activities that will be carried out by using interactive methodologies. These activities will require a preparation before and after the class (see dossier of the course).
- Run out of the classroom, individually. For each topic, students have to do the readings listed in the dossier of the course and to prepare the individual activities.
- Run out of the classroom, working group (3 to 5 students). Case studies that will be discussed in the class have to be prepared by group of 3 or 5 students. The working group have also to prepare the discussion and the report that will be presented in the class.
- Run out of the classroom, individually and in working group. The student can learn autonomously by checking other resources, such as consulting further bibliography.



## 8. Dossier of the course

The support material of the course is available in the Aula Global - Moodle and concerns with:

- Slides of each topic for the theoretical classes in pdf format.
- Detailed references for each topic.
- Cases of study, exercises and game rules for seminars.
- Table with delivery dates of reports and deadlines for auto evaluation tests.

The description of each activity is detailed in the dossier of the course that is available in the Aula Global - Moodle, indicating the work that students have to be done before, during and after the seminar.

## 9. Time table

| TR / OB ADE 3r CURS |              |     |              |     |           |     |             |     |        |     |             | TR / OB ECO 3r CURS |  | TR / OB ADE 4t CURS |  | TR / OB ECO 4t CURS |  |
|---------------------|--------------|-----|--------------|-----|-----------|-----|-------------|-----|--------|-----|-------------|---------------------|--|---------------------|--|---------------------|--|
| Time                | Monday       | Gr. | Tuesday      | Gr. | Wednesday | Gr. | Thursdays   | Gr. | Friday | Gr. | Horario     |                     |  |                     |  |                     |  |
| 9.00-10.00          |              |     |              |     |           |     |             |     | N201   |     | 9.00-10.00  |                     |  |                     |  |                     |  |
| 10.00-11.00         |              |     |              |     |           |     |             |     |        |     | 10.00-11.00 |                     |  |                     |  |                     |  |
| 11.00-12.00         | Logistics N2 |     | Logistics N2 |     |           |     |             |     | N202   |     | 11.00-12.00 |                     |  |                     |  |                     |  |
| 12.00-13.00         |              |     |              |     |           |     |             |     |        |     | 12.00-13.00 |                     |  |                     |  |                     |  |
| 13.00-14.00         |              |     |              |     |           |     |             |     | N203   |     | 13.00-14.00 |                     |  |                     |  |                     |  |
| 14.00-15.00         |              |     |              |     |           |     |             |     |        |     | 14.00-15.00 |                     |  |                     |  |                     |  |
| 15.00-16.00         |              |     |              |     |           |     |             |     |        |     | 15.00-16.00 |                     |  |                     |  |                     |  |
| 16.00-17.00         | Logistics N1 |     |              |     |           |     | N101        |     |        |     | 16.00-17.00 |                     |  |                     |  |                     |  |
| 17.00-18.00         |              |     |              |     |           |     | 17.00-18.00 |     |        |     |             |                     |  |                     |  |                     |  |
| 18.00-19.00         |              |     |              |     |           |     | N102        |     |        |     | 18.00-19.00 |                     |  |                     |  |                     |  |
| 19.00-20.00         |              |     |              |     |           |     | N103        |     |        |     | 19.00-20.00 |                     |  |                     |  |                     |  |
| 19.00-20.00         |              |     |              |     |           |     |             |     |        |     | 19.00-20.00 |                     |  |                     |  |                     |  |

## 10. Planning of activities

| Date    | Topics                                                              | Seminars               | Cases-Exercises-games                                                   | Delivery and evaluation reports                                                                         |
|---------|---------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Week 1  | 1. Introduction to Business Logistics                               |                        |                                                                         |                                                                                                         |
| Week 2  | 2. Logistics Strategy                                               |                        |                                                                         |                                                                                                         |
| Week 3  | 3. Demand planning in logistics                                     |                        |                                                                         |                                                                                                         |
| Week 4  | 4. Procurement management (Video Zara)                              | Seminar 1 – Exercises  | Exercises of logistics strategies                                       | Multiple Question test – auto evaluation available in Aula Global-Moodle from 30.01.2013 to 06.02.2013. |
| Week 5  | 5. Inventory management in supply chain (introduction to Beer Game) | Seminar 2 – Case study | Usemore soap company case.                                              | Submission of case study report.                                                                        |
| Week 6  | Beer Game (Play Beergame with and without sharing information)      | Seminar 3 – Case study | Case: logistics in a real firm...                                       | Submission of case study report.                                                                        |
| Week 7  | 6. Warehouse management and coordination of supply                  | Seminar 4 – Beer Game  | Game: student's presentation and discussion about their game strategy.* | Submission of the report on Beer Distribution Game.                                                     |
| Week 8  | 7. Transportation management                                        | Seminar 5 – Exercises  | Exercises on vehicles routes.                                           | Auto evaluation test available in Aula Global-Moodle from 27.02.2013 to 06.03.2013.                     |
| Week 9  | 8. Information systems for logistics management                     | Seminar 6 – Game       | Risk Pooling game                                                       | Submission of the report on game.                                                                       |
| Week 10 | 9. Current issues                                                   |                        |                                                                         |                                                                                                         |

\* Only students who have played to the game in the week 6 can submit the report.